Nova Law Review

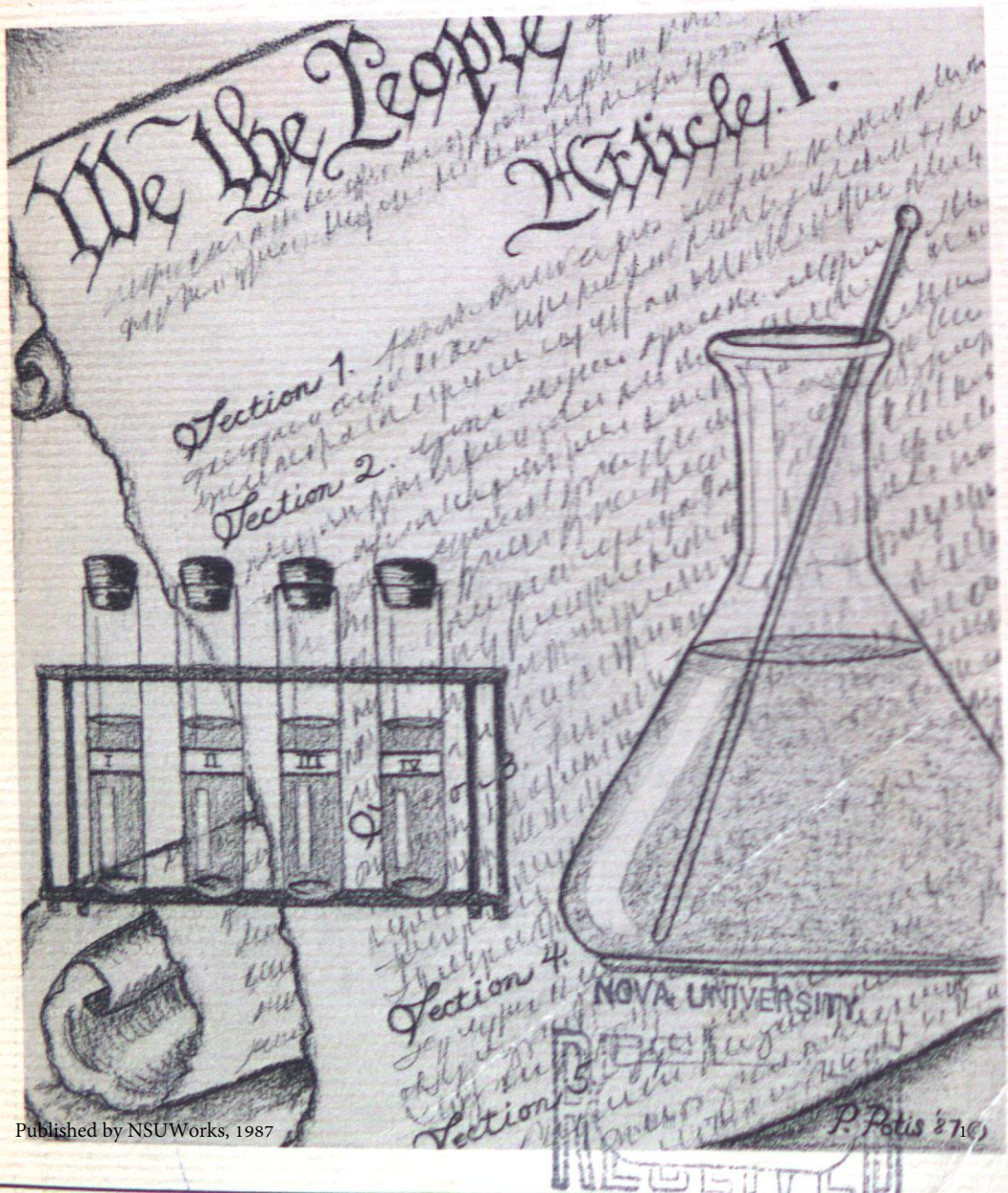
Volume 11, *Issue* 2 1987 *Article* 23

Nova Law Review Full Issue

Copyright ©1987 by the authors. *Nova Law Review* is produced by The Berkeley Electronic Press (bepress). https://nsuworks.nova.edu/nlr

NOVA LAW REVIEW

TESTING FOR DRUG USE IN THE AMERICAN WORKPLACE
A SYMPOSIUM



IN OUR NEXT ISSUE . . . .

The *Nova Law Review* will publish a symposium on "The War on Drugs: In Search of a Breakthrough." The Symposium will contain an article by each contributor, as well as a roundtable discussion with the authors.

Contributing to the Symposium are:

Steven J. Wisotsky
Professor
Nova Law Center

Mark A.R. Kleiman
John F. Kennedy School of Government, Harvard

Norman E. Zinberg
Professor, Harvard Medical School

Lester Grinspoon, M.D.
Professor, Harvard Medical School

David A.J. Richards
Professor, New York University School of Law

John Kaplan
Professor, Stanford Law School

Thomas Szasz, M.D.
Professor, State University of New York at Buffalo, Upstate Medical Center at Syracuse

Leon Kellner
United States Attorney, Southern District of Florida

The Symposium will also contain a coda by Peter Reuter (*Rand Corporation*).

The issue also includes articles by Judge Frank M. Coffin (*United States Court of Appeals for the First Circuit*) on law school and the legal profession, Judge Juan M. Bracete (*Immigration*) on the five-year residence requirement for naturalization, Professor William P. LaPiana (*University of Pittsburgh*) on the founding of the American Law Institute, and a student author on judicial immunity for employment decisions.

Single copies of the War on Drugs Symposium are $10.00. Single copies of the Drug-Testing Symposium are $15.00.

NOVA LAW REVIEW

3100 S.W. 9th Ave., Ft. Lauderdale, Florida 33315, (305) 467-0309

NOVA LAW REVIEW

VOLUME 11 WINTER 1987 NUMBER 2

EDITORIAL BOARD

DALE ALAN BRUSCHI
Editor-in-Chief

ROBERT S. GLAZIER
Executive Editor

KENNETH JAMES POTIS
Lead Articles Editor

MARY AMANDA EBELHARE
Survey Editor

JAMES PATRICK ANDERSON
Notes & Comments Editor

DAVID C. HAWKINS
Notes & Comments Editor

MARSHA HERBERT
Notes & Comments Editor

ARNA CORTAZZO
Notes & Comments Editor

ANNA MAE BURKE
Business Editor

SENIOR STAFF

DOUG BATES
LAURA BROGAN
LORI DENISE COFFMAN
MARIA DEL CARMEN DANTES
SUSAN S. FAERBER
HEDY FEDER
MAUREEN GALLEN
JILL LEEMAN
MICHELE LENOFF
WENDY PRESS
MORGAN ROGER ROOD
GUY B. RUBIN
ROBERT GEORGE SCHRADER
PHILLIP H. SNAITH
CARRIE C. SODEN
NOREEN T. WALSH
DOREEN WELLS

JUNIOR STAFF

BARBARA ALTERMAN
JILL BENNETT
RENEE BRAEUNIG
LINDA CALDWELL
RENEE DADOWSKI
LOUIS D'AGOSTINO
DONNA D'AMICO
DOUG EDE
PATRICE EICHEN
WILLIAM ELFO
ROBIN FARNSWORTH
DOROTHY FERRARO
BRADLEY FISCHER
SUSAN FISHER
GARY GAFFNEY
BETH GOLLER
LAURIE GREEN
STEPHANIE ARMA KRAFT
ELAINE LIVA
GERRY MARINO
KENNETH MAZLIN
MICHAEL MITTELMARK
ANNE NOVICK
PAUL NUGENT
DAVID B. PAKULA
CHRIS SALAMONE
MINDY SCHLOSBERG
DIRAN SEROPIAN
ROGER SHAFFER
JANA RANIERI SHARPE
FANNY SHEIMAN
JOSEPH SINGER
JON STAGE
PAMELA TERRANOVA
KAREN VAN DEN HEUVAL
STEPHANIE WERNER
BONNIE WILLIS

FACULTY ADVISORS

JOHNNY C. BURRIS
MARILYN BLUMBERG CANE
ANTHONY CHASE
MARK DOBSON
JOSEPH GROHMAN
PAUL R. JOSEPH
LAWRENCE KALEVITCH
GAIL LEVIN RICHMOND
DONNA LITMAN SEIDEN

NOVA LAW REVIEW

THE *Nova Law Review* is published three times a year. Listed in the *Index to Legal Periodicals* and the *Current Law Index*, the *Nova Law Review* is a reliable reference source for practitioners and judges, as well as a widely read forum for the airing of fresh ideas by legal scholars.

The Board of Editors welcomes the submission of manuscripts by members of the legal community. However, all manuscripts, both text and footnotes, must be typed and double or triple spaced. The Nova Law Review will contact all contributors within two weeks of receipt of the manuscript, but does not assume responsibility for the return of any material.

Subscriptions are available at $20.00 for one year. Individual issues may be purchased for $10.00. Special issues, such as volume 11:2, *Testing for Drug Use in the American Workplace*, are $15.00. If a subscription is to be discontinued, or address changed, notice to that effect should be sent one month in advance; otherwise, the *Review* will be mailed as usual. Foreign mailings are an additional $6.00 per issue.

To cancel, notice must be received by the Review prior to publication of the first issue of the volume.

Address all correspondence to:

Nova Law Review
Nova University
Center for the Study of Law
3100 S.W. Ninth Avenue
Fort Lauderdale, Florida 33315

Past editions of the Nova Law Review are now available through William S. Hein & Company, Inc.

1285 Main Street, Buffalo, New York 14209

Issues contained in the current volume may be obtained through the Review.

The Nova Law Review is a member of the National Conference of Law Reviews, and generally follows the rules of citation found in *A Uniform System of Citation*, published by the Harvard Law Review Association.

Copyright 1987 by the Nova Law Review.

NOVA UNIVERSITY
CENTER FOR THE STUDY OF LAW

ADMINISTRATION

Roger I. Abrams, B.A., J.D., *Dean and Professor*
Gail Levin Richmond, A.B., M.B.A., J.D., *Associate Dean and Professor*
Nancy Nevius, B.A., J.D., LL.M., *Assistant Dean*
Valencia B. Price, B.A., *Assistant Dean*
Rex J. Ford, B.S., J.D., *Assistant Dean*
Grant Reynolds, A.B., B.D., LL.B., *Director of Minority Affairs*
Judy Hoch, *Coordinator of Administrative Services*
Paula A. Sabino-Habib, *Business Manager*
Nancy Sanguigni, *Director of Admissions*
Linda Church, *Director of Placement*
Stephanie Brown, *Registrar*
Gerri Castora, *Director of Financial Aid*
Karen Dondey, *Coordinator of Student Services*

FACULTY

Joel Berman, B.A., J.D., *Associate Professor* (on leave 1986-'87)
Randolph Braccialarghe, A.B., J.D., *Associate Professor*
Ronald B. Brown, B.S.M.E., J.D., LL.M., *Professor*
Michael Burns, B.A., J.D., *Associate Professor*
Johnny C. Burris, B.G.S., J.D., LL.M., *Assistant Professor*
Marilyn Blumberg Cane, B.A., J.D., *Associate Professor*
Anthony Chase, B.A., J.D., LL.M., *Professor*
Phyllis Coleman, B.S., M.Ed., J.D., *Professor*
Michael Dale, B.A., J.D., *Assistant Professor*
Mark Dobson, A.B., J.D., LL.M., *Professor*
Susan L. Dolin, B.A., J.D., LL.M., *Assistant Professor*
Jane Fishman, B.A., J.D., *Legal Writing Instructor*
Steven I. Friedland, B.A., J.D., *Assistant Professor*
Joseph Grohman, B.A., M.A., J.D., *Associate Professor*
Carol E. Henderson, B.A., J.D., *Visiting Assistant Professor*
Laurene M. Heybach, B.A., J.D., *Visiting Assistant Professor*
Laurance M. Hyde, A.B., J.D., *Professor* (on leave 1986-'87)
Paul R. Joseph, B.A., J.D., LL.M., *Associate Professor*
Lawrence Kalevitch, B.A., J.D., LL.M., *Professor*
Maria Kayanan, B.A., J.D., *Legal Writing Instructor*
Dennis Koson, B.S., M.D., *Associate Professor*
Karl Krastin, A.B., LL.B., J.S.D., *Visiting Professor*
Helen Frazer Leskovac, B.A., M.A., J.D., *Legal Writing Instructor*

Ovid C. Lewis, A.B., J.D., LL.M., J.S.D., *University Vice President and Professor* (on leave 1986-'87)
Michael R. Masinter, B.A., J.D., *Associate Professor*
Jani E. Maurer, B.A., J.D., *Legal Writing Instructor*
Howard R. Messing, A.B., J.D., *Associate Professor*
Joel A. Mintz, B.A., J.D., LL.M., *Associate Professor*
Michael L. Richmond, A.B., M.S.L.S., J.D., *Associate Professor*
Bruce S. Rogow, B.B.A., J.D., *Professor*
Marc Rohr, B.A., J.D., *Professor*
Donna Litman Seiden, A.B., J.D., *Associate Professor*
Joseph F. Smith, Jr., B.A., J.D., *Professor*
Steven J. Wisotsky, B.A., J.D., LL.M., *Professor*

ADJUNCT FACULTY

William Berger, J.D.
Linda Chambliss, J.D., LL.M.
Cheryl Ryon Eisen, J.D.
Jeffrey Harris, J.D.
Mitchell Horwich, J.D.
Anthony Karrat, J.D.
Kevin Kennedy, J.D.
William B. King, J.D.
Ira Kurzban, J.D.
Alan Methelis, J.D.
Charles Morton, J.D.
Marc Nurik, J.D.
Michael Paris, J.D.
Michael Pasano, J.D.
Gary A. Poliakoff, J.D.
John Thabes, J.D.
Theresa Van Vliet, J.D.
Morris Wolff, J.D.
Bruce Zimet, J.D.

LIBRARY STAFF

Carol A. Roehrenbeck, B.A., M.L.S., J.D., *Director of Law Library and Associate Professor*
Iris Caldwell, B.S., M.A.L.S., *Reference Librarian*
Greg Dorr, B.A., J.D., *Computer Specialist*
Lia Hemphill, B.A., M.L.S., *Cataloger*
Ronald D. Stroud, B.A., M.Ln., *Head of Technical Services*
Daniel Taysom, B.S., M.L.S., J.D., *Acquisitions & Serials Librarian*

NOVA LAW REVIEW

VOLUME 11 WINTER 1987 NUMBER 2

TABLE OF CONTENTS

ARTICLES

Wishful Thinking and Public Policy ..... *Roger I. Abrams* 291

Governmental Drug-Testing and the Sense of Community ..... *George Anastaplo* 295

Behind Open Doors: Constitutional Implications of Government Employee Drug Testing ..... *Phyllis T. Bookspan* 307

Drug Testing From the Arbitrator's Perspective ..... *Tia Schneider Denenberg and Richard V. Denenberg* 371

Drug-Use Testing: Scientific Perspectives ..... *Dr. Kurt M. Dubowski* 415

Urine Testing for Drugs ..... *Karen Hudner* 553

Some Preliminary Thoughts on the Wisdom of Governmental Prohibition or Regulation of Employee Urinalysis Testing ..... *Edward J. Imwinkelried* 563

Fourth Amendment Implications of Public Sector Workplace Drug Testing ..... *Paul R Joseph* 605

Efficient Drug Testing: Addressing the Basic Issues ..... *Dr. Arthur J. McBay* 647

Implementation of Drug and Alcohol Testing in the Unionized Workplace ..... *Dennis J. Morikawa, Peter J. Hurtgen, Terence G. Connor, and Joseph J. Costello* 653

Corporate Vice Precedents: The California Constitution and San Francisco's Worker Privacy Ordinance ..... *Cliff Palefsky* 669

Drug Testing in the Federal Government ..... *Representative Patricia Schroeder and Andrea L. Nelson* 685

Drug Testing as an Element of the Everlasting Drug War ..... *Representative E. Clay Shaw and Roger T. Fleming* 693

Toward a New Federal Right to Privacy ..... *Loren Siegel* 703

Employee Assistance and Drug Testing: Fairness and Injustice in the Workplace ..... *William J. Sonnenstuhl, Harrison M. Trice, William J. Staudenmeir, Jr., and Paul Steele* 709

Mass Round-up Urinalysis and Original Intent ..... *Robert L. Stone* 733

Drug Tests: Issues Raised in the Defense of a "Positive" Result ..... *Mark L. Waple* 751

The Ideology of Drug Testing ..... *Steven J. Wisotsky* 763

Major League Baseball and Drugs: Fight the Problem or the Player? ..... *Glenn M. Wong and Richard J. Ensor* 779

Drug Hysteria Causing Use of Useless Urine Tests ..... *Kevin B. Zeese* 815

NOTES

Real Estate Broker Liability in Florida: Is Mandatory Housing Inspection in Florida's Future? 825

Products Liability Statute of Repose—A Florida Perspective 849

A Practitioner's Guide to Dismissals for Failure to Prosecute under Florida Rule of Civil Procedure 1.420(e) 873

EDITOR'S NOTE

One of the most controversial issues of the day is drug-use testing in the American workplace. The topic has evoked heated debate, and seems likely to reach the Supreme Court.* In an attempt to provide policymakers and others with information and opinions on this subject, the *Nova Law Review* presents this symposium.†

Contributing to this special project are a variety of experts—labor law attorneys, forensic scientists, legislators, arbitrators, civil libertarians, and other legal scholars—with varying views. We are grateful to each of the authors for making this issue possible.

The lead articles editor of this symposium was Kenneth James Potis.** His remarkable persistence in obtaining diverse and thought-provoking manuscripts is apparent; so are his editing skills.

The entire law review staff contributed to the preparation of this issue. Of special assistance were the following staff members: Maria Del Carmen Dantes, Susan Faerber, Wendy Press, Phillip Snaith, Linda Caldwell, Louis D'Agostino, Gary Gaffney, Laurie Green, Stephanie Arma Kraft, Michael Mittelmark, Diran Seropian, Jon K. Stage, and Karen Van Den Heuval.

The Review is indebted to Patrice Elaine Potis, who created this issue's cover illustration. Her imaginative work lends a special character to the issue.

The Editors thank Jesse Monteagudo and Susan Dorr, the word-processors at Nova Law Center who were instrumental in producing this issue. The Editors are also grateful to Paula Sabino-Habib, the law school's Business

---

* *Cf.* O'Connor v. Ortega, 107 S. Ct. 1492, 1504 n.* (1987) (plurality) ("Nor do we address the proper Fourth Amendment analysis for drug and alcohol testing of employees."). Dissenting in this case, Justice Blackmun wrote that "the question of public employers' searches of their employees' workplaces, like any relatively unexplored area of Fourth Amendment law, demands careful analysis. These searches appear in various factual settings, some of which courts are only now beginning to face, and present different problems." *Id.* at 1514. In a footnote, Justice Blackmun said that "[o]ne example is the Fourth Amendment problem associated with drug and alcohol testing of employees." *Id.* at n.15.

† The articles in this symposium are current as of late April, 1987. At press-time, however, one of the United States district court decisions discussed by many of our authors was reversed. National Treasury Employees Union v. Von Raab, 649 F. Supp. 380 (E.D. La. 1986), *rev'd*, No. 86-3833 (5th Cir. Apr. 22, 1987) (Westlaw, Allfeds library). The court of appeals held that the drug-use testing of Customs Service employees did not violate the Constitution: "[B]ecause of the strong governmental interest in employing individuals for key positions in drug enforcement who themselves are not drug users and the limited intrusiveness of this particular program, [the search] is reasonable and, therefore, is not unconstitutional."

** Ken dedicates his efforts on this special project to his loving parents, Kenneth A. and Iris Potis of Freehold, New Jersey.

Ken also offers his heartfelt thanks to his friends and co-editors: Molly Ebelhare, Robert Glazier, and Dale Bruschi. Their encouragement and assistance were invaluable.

Manager, for her assistance. Finally, the Editors wish to thank the Law Review faculty advisors, especially Johnny Burris, for their help and assistance with this isssue.

Wishful Thinking and Public Policy

Roger I. Abrams, Dean, Nova Law Center

Wouldn't it be nice if we could eliminate illegal drug use by American workers? American industry suffers from the same chemical plague that has corroded other institutions in our society. Freeing employees from the debilitating effects of drugs would enhance the productivity of American industry and return our economy to its preeminent place in world markets. It is a very attractive goal. Regretfully, it may all be wishful thinking.

There is nothing wrong with wishful thinking, of course. Without it very little good would get done. Goals always start with aspirations. A productive economy, staffed by dedicated men and women physically and psychologically ready to perform their assigned functions, seems a worthy goal by any measure. At some point, however, the focus must turn from the ends to be achieved to how they are to be accomplished. How do we achieve a drug-free workplace? Some have suggested we should conduct mandatory drug tests.

A perfect public policy has yet to be devised, and universal employee drug testing is no exception. Mandatory drug testing does have superficial appeal, much like passing a constitutional amendment prohibiting the sale of intoxicating liquor.[1] Who could be opposed other than a scoundrel or a dope fiend? Some say that such a policy invades our civil liberties,[2] but is mandatory drug testing any more intrusive than other societal obligations, such as mandatory innoculation of school children[3] or selective service induction for young adult males?[4] The concern

1. U.S. CONST. amend. XVIII.
2. *See generally* Stille, *Drug Testing*, NAT'L L.J., Apr. 7, 1986, at 1., col. 1.
3. Zucht v. King, 260 U.S. 174 (1922); Jacobson v. Massachusetts, 197 U.S. 11 (1905) (vaccination of adult). *Cf.* Buck v. Bell, 274 U.S. 200 (1927) (sterilization). *But see* Roe v. Wade, 410 U.S. 113 (1973) (abortion).
4. U.S. v. O'Brien, 391 U.S. 367 (1968); Selective Draft Law Case, 245 U.S. 366 (1918). *See generally* Gerety, *Redefining Privacy*, 12 HARV. C.R.-C.L. L. REV. 233 (1977); Henkin, *Privacy and Autonomy*, 74 COLUM. L. REV. 1410 (1974).

expressed for privacy is legitimate, but like all civil liberties, this freedom is not without limits.[5]

There is a serious question whether a mandatory and universal drug-testing policy is advisable. The success of the strategy turns on two assumptions: the risk of discovery will deter drug use and use of the tests will rid the workplace only of dangerous or non-productive workers. Both assumptions are questionable. Some non-users may be deterred from experimenting, but if they have not tried the stuff yet it is because of the strength of existing deterrents, such as the criminal law or the fear of self-destruction. Those truly addicted really have little choice but to risk the odds of detection. They may be caught, but non-users may be ensnared as well.

Those who propose mandatory drug testing assume that drug tests will tell us who are drug users with a precision rivaling that of the ancient sages. The problem is that the technology has not progressed that far.[6] Anyone who has been falsely accused by a computer of not paying a bill should appreciate the dangers of misidentification. To lose a job as a falsely accused drug user may stigmatize an unfortunate worker for life. Without confidence in the drug tests, the strategy becomes one of roulette, where the innocent have as much to fear from the process as the guilty.

What then do we do about this societal scourge of drugs? In particular, how can we salvage the productivity of American Industry if drug-crazed employees report to work? Perhaps traditional time-tested strategies are best. Employers have always addressed the problem of non-productive employees by exercising their managerial right to discharge. A worker may be separated

---

5. *Cf.* Wisconsin v. Yoder, 406 U.S. 205, 215-16 (1972) ("[T]he very concept of ordered liberty precludes allowing every person to make his own standards on matters of conduct in which society as a whole has important interests.").

6. STAFF OF HOUSE SUBCOMM. ON CIVIL SERVICE OF THE COMM. ON POST OFFICE AND CIVIL SERVICE, 93RD CONG., 2ND SESS., DRUG TESTING IN THE FEDERAL GOVERNMENT at 16-17 (Comm. Print 1986). *See also* BUREAU OF NAT'L AFFAIRS, ALCOHOL & DRUGS IN THE WORKPLACE: COST, CONTROLS AND CONTROVERSIES 29-32 (1986).

from her job if she is unable to perform it.[7] That inability may be the result of a variety of causes, including chemical intoxication.[8] Employers need not wait to catch someone under the influence. Employees can be discharged for possession of illegal drugs, whether used or not.[9]

This approach, of course, might not be sufficient when it comes to those few employment situations where a single mistake might prove tragic. We would all want to know that certain employees — those who monitor nuclear reactors and airport landings, for example — are free from even the potential of mistakes. In those areas we might be willing to accept the risk of false positive identifications to insure the true positives are removed from the scene. The drug testing strategy, however, is woefully underinclusive. Drug habits are only one of many personal characteristics that might impact on the job performance of these persons. In most other areas of employment, the drug testing strategy risks being overinclusive. To lump *all* employees in a single undifferentiated mass in a crusade for productivity ill-serves our national interest. Universal drug testing is not the panacea that some suggest.

We need to address the important issue of worker productivity in a more comprehensive manner. Piecemeal approaches focusing alone on drugs, or decaying technology or union work rules, at best solve only a part of the problem and at worst distract our attention from its full dimension. American ingenuity must be put to work to develop better methods of motivating our workers. In the process of moving towards a more productive employment environment, we will find a better answer than the urinalysis kit.

---

7. *See generally*, Abrams and Nolan, *Towards a Theory of Just Cause in Employment Discipline Cases*, 1985 DUKE L. J. 594.

8. *See, e.g.*, St. Joe Minerals Corp., 70 Lab. Arb. (BNA) 1110 (1978) (Roberts, Arb.) (discharge upheld for use of marijuana while at work); Combustion Engineering, Inc. 70 Lab. Arb. (BNA) 318 (1978) (Jewett, Arb.) (same).

9. *See, e.g.*, Detroit Stoker Co., 75 Lab. Arb. (BNA) 816 (1980) (Daniel, Arb.) (discharge upheld for possession of marijuana on the plant premises). *See generally* T. DENENBERG AND R. DENENBERG, ALCOHOL AND DRUGS: ISSUES IN THE WORKPLACE (1983); J. REDEKER, DISCIPLINE: POLITICS AND PROCEDURES 146-57 (1983).

This important Symposium addresses in more detail the difficult issue of drug testing in the workplace from a variety of perspectives. It demonstrates that reaching a policy on drug testing involves a balancing of conflicting rights, and there is no agreement yet on how the balance should be struck. Although we should certainly try to work towards consensus on what to do about this important problem, that too may be wishful thinking.

Governmental Drug-Testing and the Sense of Community

George Anastaplo*

> Liberal education is education in culture or toward culture. The finished product of a liberal education is a cultured human being. "Culture" *(cultura)* means primarily agriculture; the cultivation of the soil and its products, taking care of the soil, improving the soil in accordance with its nature. "Culture" means derivatively and today chiefly the cultivation of the mind, the taking care and improving of the native faculties of the mind in accordance with the nature of the mind. Just as the soil needs cultivators of the soil, the mind needs teachers. But teachers are not as easy to come by as farmers. The teachers themselves are pupils and must be pupils. But there cannot be an infinite regress: ultimately there must be teachers who are not in turn pupils. Those teachers who are not in turn pupils are the great minds or, in order to avoid any ambiguity in a matter of such importance, the greatest of minds. Such men are extremely rare.
>
> —Leo Strauss, *Liberalism Ancient and Modern* (1968).

I.

A wise teacher of mine once had occasion to make these classroom observations about the then-pressing problem of "juvenile delinquency":

> People think about it and try to do something about it, but it could very well be that all their thinking and all their devices are absolutely useless. It could be that juvenile delinquency is connected with the deep crisis of our society as a whole. It could be true that this phenomenon is due to a loss of hope in the younger generation, or to the absence of great public tasks which arouse public spirit. Now, if this is so, it is obvious that juvenile delinquency cannot be

* A.B., 1948, J.D. 1951, Ph. D., 1964, The University of Chicago. Professor of Law, Loyola University of Chicago; Professor Emeritus of Political Science and of Philosophy, Rosary College; and Lecturer in the Liberal Arts, The University of Chicago.

> treated in isolation and a regeneration of society as a whole would be necessary. Whether the palliatives are gentle or tough is a secondary question compared to the question of society as a whole.

That was Leo Strauss speaking at the University of Chicago in 1959. Similar observations can, perhaps should, be made about a problem of considerable concern today, that widespread use of drugs which has led to the current "crusade" to secure a "drug-free workplace."

Our responses to recent developments can take two principal forms. The first addresses that "deep crisis of our society as a whole" which the widespread recourse to and dependence upon drugs may represent. The second addresses the practical (including the constitutional and political) issues raised by the measures resorted to in 1986 by the United States Government to deal with the immediate problems of drug abuse. I will say something, if only in outline, both about the practical issues and about the "deep crisis of our society."

II.

The more one studies recent governmental initiatives with respect to routine drug-testing in the workplace, the more dubious they can seem. (I do not attempt to assess the drug-testing program initiated for the military several years ago. Nor do I attempt to assess what should be done about such particularly sensitive positions as those of Intelligence Officers and airline pilots.)

The constitutional issues here are easier to discuss in public than they might have been a few months ago. The recent invocations (before Congressional committees) of the fifth amendment plea against self-incrimination by patriotic Americans (including a Marine Corps officer praised by the President himself as a "hero") have been much publicized. One of the salutary consequences of the current Iranian-arms and contra-aid revelations is that they have obliged "conservatives" to recognize the propriety of recourses to the fifth amendment.

Constitutional privileges with respect to fourth amendment search-and-seizure problems, with respect to fifth amendment due-process problems, and with respect to sixth amendment jury-trial problems have been made much of by those challenging governmental drug-testing in the workplace. We can see here, as well, something resembling the demand that people subscribe to loyalty oaths. The interests of government-as-employer are invoked in defense of such mandatory drug-testing programs, as is the damage inflicted upon the country by drug abuse.

Of course, there are ways of getting around the fifth amendment self-incrimination barrier confronting Congressional committees. Similarly, there are ways of satisfying due-process, search-and-seizure, and jury-trial standards invoked by those challenging drug-testing proposals today. The means for satisfying such constitutional standards require, however, much more restraint than tends to be called for by the popular demand for information (whether the information be about the drugs one has improperly consumed or about the arms and funds one has improperly dispersed).

III.

The restraint upon government which the fourth, fifth and sixth amendments promote is something we have traditionally associated with constitutionalism and the rule of law. The privileges invoked here have a long and, by and large, honorable history; they have not been invented for this occcasion or to satisfy modern tastes.

Such privileges may seem to stand in the way of governmental efficiency and hence of public safety and the common good. But the law-abidingness which officials are obliged to exhibit may itself be critical to the law-abidingness which the community at large needs to practice. After all, it is salutary for us to believe that it is usually a sufficient reason for doing something one way rather than another that the law prescribes one action or forbids another.

The significance of law-abidingness among us may be seen in the "no previous restraint" standard which is so critical a part of the first amendment protection of freedom of the press. Although we need not go as far as those who insist that to reaffirm this standard was the principal purpose of the latter half of the first amendment, we should certainly recognize that this standard is vital both to the development and to the perpetuation of a free press. This standard has meant, in effect, that printing should be subject only to the rule of law, that no system of licensing or censorship (an early form of "testing in the workplace"?) can be permitted.

Our entire constitutional system rests upon a general respect for the rule of law. The fourth, fifth, and sixth amendments dramatize that general respect when suspected drug users come to view.

But, one might ask, what of governmental efficiency? Is not the public safety jeopardized, or at least the gross national product markedly reduced, by extending fourth, fifth, and sixth amendment privileges to those who resist drug-testing in the workplace?

Such privileges, it should at once be noticed, are not concerned "only" for the rights of citizens. Rather, such privileges reflect considerable experience (at least among the English-speaking peoples) with what truly works.

An obvious discipline is imposed upon officials. They cannot do what first comes to mind; they have to think things through; they have to restrain themselves. That is likely to be good, not least because it can help sensible people stand firm against surges of questionable enthusiasm.

Thus, for example, if "probable cause" must be shown, it is more likely that a hard look will be taken at the problem being confronted and at the evidence available. Among the useful lessons taught here is that the end does not justify every means —or, perhaps a better way of putting this, that there are ends beyond the immediate end which often seems so demanding.

Impulsiveness in these matters must be resisted. Impulsiveness is the mode of the immature and the self-centered, to say nothing of the criminal. The current "crusade against drugs" has itself exhibited a considerable impulsiveness in both the Executive and the Legislative branches of the United States Government. In such circumstances, constitutional privileges can be cavalierly brushed aside, natural sensibilities can be wantonly offended, and vast sums of money can be simply wasted. This is what enthusiasm can lead to.

IV.

Some of these objections may be moderated by technological developments. Concern about constitutional privileges may itself encourage innovations which could save money as well as reduce offensiveness.

Consider, for example, how a reliable breath or saliva test would be received. Expensive laboratory tests might thereby be dispensed with as well as troublesome delays and opportunities for mistaken identifications.

The current tests are evidently unreliable enough to make many people uncomfortable — and the more complicated the testing program, the more chance for error. There can (and should) be re-testing of those initially identified as offenders — but the more efficient tests are considerably more expensive, and budget-conscious supervisors may be reluctant to order them.

Technological developments could also serve to assure employees

that the condition being tested for is rigorously specific, that nothing else will be revealed about other conditions or activities of the subject tested. One can be reminded here of the emphasis upon specificity in the fourth amendment. Certainly, we do not want someone's entire way of life exposed in a test tube to anyone who might happen to have access to the sample.

Furthermore, technological developments could (and should) shift our collective attention away from one kind of sample to others. I suspect that the routine urinalysis approach in these situations will eventually be repudiated as people generally come to appreciate what precisely must be done by officials in order to make certain that the sample provided is in fact produced by the person to be tested.

But technology can take us only so far. No matter how sophisticated our technology becomes, the question remains whether we really want to penalize the *use* of drugs, which is what we seem to be moving toward.

The recent emphasis upon elimination of drugs from the workplace can mean two things: that the use of drugs on the job should be curtailed; that the effects on job performance of one's use of drugs anywhere should be curtailed.

The use of drugs on the job does not seem to be the critical concern. Presumably, such an activity in the workplace can be supervised, just as might be eating on the job or doing on the job other things not in themselves improper. So it must be the effects on job performance of drug use elsewhere with which large-scale testing must be primarily concerned.

We would have quite different problems from those now facing us if observed effects on job performance were depended upon to justify the recourse to drug-testing (or to any other testing) in specific instances. "Observed effects" sounds something like "probable cause." Drug-related effects on job performance may indeed be observable — if one takes the work force as a whole or the economy as a whole. But whether this person or that is observed to be affected by drugs on a particular occasion, and how, is quite a different issue.

It may be true that if off-job drug use is controlled, then on-job costs and consequences are apt to be favorably affected. But do we want our lives thus subjected to comprehensive governmental supervision? The current Administration in Washington came to power with the supposed mandate to moderate the intrusion of "big government" into our lives. Has this mandate gone the way of another supposed mandate, to balance the budget?

We are obliged to wonder, in any event, how much interference by government we should permit in our everyday affairs and to what ends.

V.

The President of the United States has insisted that the current crusade mounted against drugs in the workplace is not rhetoric.

But is not rhetoric, in the old-fashioned sense, very much needed here? For it is a certain kind of rhetoric that can contribute to that "regeneration of society" upon which an effective campaign against drugs, juvenile delinquency and other desperate manifestations of a general demoralization depends. The teacher from whom I have quoted spoke of "a loss of hope" and "the absence of great public tasks which arouse public spirit." An elevated public teaching — a noble rhetoric — can help restore the required sense of community.

The widespread recourse to drugs is itself in large part a pervasive abandonment of the community. Is this a perverse form of that self-reliance which we have heard so much made of in recent years? Just as the poor can more easily be regarded as not the community's proper concern these days, so can individual efforts to please oneself be celebrated in the name of liberty. An indulgence in drugs may be, then, but another form of the selfishness which has become all too fashionable.

How lives are to be made more meaningful is a vital question for us today. Appearance cannot be safely divorced from reality here: lives are not apt to be meaningful if they do not seem to be. A sense of dignity is critical to such appearances: our leaders must speak and act with a becoming gravity; the measures we resort to in governing each other must not be intrinsically demeaning. At the heart of any regenerating rhetoric is a common awareness of the best way of life.

The opinions of the community have to be addressed even more than its conduct. Unfortunately, television, the principal means these days of addressing the country at large, is itself intrinsically incapable of sustained elevation. It tends to bring out the worst in us and in our leaders, inducing a breakdown of the sense of community as we retreat (as spectators) into the pursuit of private "fulfillment." The very depreciation of the term "rhetoric" recognizes that much of our public discourse now consists of one form or another of "selling."[1]

---

1. What the best way of life truly is, and how to secure it, can be no more than touched upon here. I have developed heretofore many of the points alluded to in this article. Consider, e.g., these publications by me: (1) THE CONSTITUTIONALIST: NOTES

VI.

We have seen in the current "crusade against drugs" a lower form

---

ON THE FIRST AMENDMENT (1971) (this book includes, in Appendix C, *Due Process and the World of Commerce*, a response to a proposal that lie detectors be used in the marketplace); (2) HUMAN BEING AND CITIZEN: ESSAY ON VIRTUE, FREEDOM, & THE COMMON GOOD (1970) (this book includes essays on natural right, on obscenity, and on death and dying); (3) *Self-Government and the Mass Media: A Practical Man's Guide*, in THE MASS MEDIA AND MODERN DEMOCRACY, 161 (H. Clor ed. 1974) (this article includes an extended argument for the aboliton of broadcast television in the United States; at page 232, line 7, "audiences" should read, "spectators"); (4) *The Public Interest in Privacy: On Becoming and Being Human*, 26 DEPAUL L. REV. 767 (1977); (5) *Human Nature and the First Amendment*, 40 U. PITT. L. REV. 661 (1979) (this article includes a discussion of human nature and the criminal law); (6) *The Religion Clauses of the First Amendment*, 11 MEM. ST. L. REV. 151 (1981) (at page 225, note 154, "a sin of community" should read, "a sense of community"); (7) "*Notes toward an 'Apologia pro vita sua,'* " 10 INTERPRETATION 319 (1983); (8) *Psychiatry and the Law: An Old-Fashioned Approach*, in BY REASON OF INSANITY: ESSAYS ON PSYCHIATRY AND THE LAW 167 (L. Freedman 1983); (9) *Aristotle on Law and Morality*, 3 WINDSOR YEARBOOK OF ACCESS TO JUSTICE 458 (1983); (10) *Freedom of Speech and the Silence of the Law*, 64 TEX. L. REV. 443 (1985); (11) *How to Read the Constitution of the United States*, 17 LOY. U. CHI. L. J. 1 (1985) (this article includes a discussion of "commercial free speech"); (12) *Law, Lawyers, and Property: The Open Society and Its Limitations*, in ORDER, FREEDOM AND THE POLITY: CRITICAL ESSAYS ON THE OPEN SOCIETY (G. Carey ed. 1986) (an unedited version of this article, with extensive notes, may be found in 20 WILLIAMETTE L. REV. 615 (1984); in the law review version, at page 631, line 20, "reluctance" should be "inclination", and at page 641, line 7, "common" should be "common good"); (13) *Political Philosophy of the Constitution*, in ENCYCLOPEDIA OF THE AMERICAN CONSTITUTION (L. Levy, K. Karst & D. Mahoney ed. 1986).

Additional references to my work on these topics may be found in the Bibliography appended to my booklength commentary on the United States Constitution of 1781 published in 18 LOY. U. CHI. L.J. 15 (1986). I provide, in my book, G. ANASTAPLO, THE ARTIST AS THINKER: FROM SHAKESPEARE TO JOYCE (1983), introductions to a dozen artists who offer us guidance as to the best way of life. The epilogue of the book is devoted to Leo Strauss.

Consider, also, on the best way of life, the epigraph to this article. Consider, as well, the series of long introductions to ancient non-Western texts I have been preparing in recent years for the annual volumes of THE GREAT IDEAS TODAY (an ENCYCLOPEDIA BRITANNICA publication). These introductions are to the *Analects* of Confucius (1984), to the *Bhagavad Gita* (1985), and to the *Gilgamesh* (1986). It can be of help, in considering what is truly the best way of life, to see what other great peoples have tried to do.

In any event, vital to our virtue as a self-governing people is the need to combine classical thought with the principles of the American polity. *See* L. Berns, *Aristotle and the Moderns on Freedom and Equity*, in THE CRISIS OF DEMOCRACY: A STRAUS-

of rhetoric, beginning perhaps with the very use of the term "crusade." Slogans abound; posturing by both legislators and administrators is all too evident. Even the recently-promulgated executive order and the recently-enacted statute are very much sloganeering.

The intimate relation between these developments and the 1986 Congressional elections has been noticed. It is widely accepted by sophisticated observers that the drug issue was deliberately seized upon as something that could be safely used for political advantage by incumbents in the 1986 campaign, so much so that brave talk was heard of a willingness to "break the budget" in order to achieve the much-heralded goal.

But what precisely the goal is (aside from consequences at the polls) has yet to be made clear. Much is made of a "drug-free America" — but how seriously is this to be taken, especially when the vending of potions remains a big business? The challenges in the courts, on the basis of the fourth, fifth, and sixth amendments, may at least have the merit of forcing government to be far more clear about what it is doing, and what it is after, than it had been able to be during the rush to launch the current attack upon drugs in the workplace.

It seems to be generally recognized among those who have studied these matters that the known effects of illegal drugs in the workplace (and on the highways and elsewhere) are still far less destructive than the known effects of alcohol and tobacco. And yet no politician is advocating — or would dare advocate — that there be routine on-the-job testing of government employees for alcohol and tobacco abuse.

On the contrary, the President could even remind a Georgia audience during the 1986 campaign that he had successfully opposed Japanese tariffs on American tobacco imports. The subsidies for tobacco production in this country remain notorious, even though the Surgeon-General of the United States continues to denounce the effects of smoking upon both non-smokers and smokers. The President *has* cautioned young drivers against drinking as well as against drugs, but his administration does not seem to be supporting efforts to curtail the advertising of alcohol.

Do we not see in all this, too, a considerable deference to private life and self-gratification, with government (or the informed will of the community) to be kept to a minimum? This bears upon how seriously the current crusade for a drug-free workplace is to be taken.

SIAN PERSPECTIVE (K.L. Deutsch & W. Soffer ed. 1987).

VII.

What, then, is apt to happen now? The current enthusiasm to curtail drug use, at least by means of routine measures in the workplace, is apt to die out. Both the immediate impetus for making much of this (that is, an impending election) will be absent and the recognition that this approach does not work will become widespread.

This recognition will be encouraged by a growing awareness of what the various costs truly are of the testing programs which have been ordered — and of how uncertain the results are bound to be. Adverse effects upon morale will become evident — as well as the fact that government employees are citizens who are capable of organizing themselves effectively to protect their interests. It is even possible that bad experience with governmental drug-testing programs can help advance efforts to place legislative restrictions upon the programs already established by non-governmental employers.

It will be said, as one poorly-conceived governmental plan after another is junked, that liberal judges have once again thwarted the public purpose. But that is silly talk. The judges are merely facing up to the assumptions and consequences that I have sketched out on this occasion. The invocations of constitutional privileges help make us all face up to what we are doing and why.

Few things are so good for public servants as the obligation to explain and to justify what they believe they are up to. We, as their masters, can listen and learn (as can they) from what they can, and cannot, say.

VIII.

Perhaps the primary lesson to be learned from all this now is that there should be a reconsideration of our overall approach to drugs.

I have already suggested that basic to any enduring curtailment of recourse to drugs in this country is a revival of the public spirit, a "regeneration of society." Short of that, however, there should be at least a thoroughgoing assessment of the effects of our having made the production, sale and possession of various popular drugs illegal.

"Decriminalization" might make sense *not* because the community cannot distinguish right from wrong, *not* because the community has no right to deal with moral evils, *not* because the community does not have a legitimate interest in the harmful effects of drugs, and certainly *not* because drug offenses are victimless crimes. Rather, "decriminalization" might make sense because the present approaches are becom-

ing more and more expensive, do not seem to do much good, and may even make matters much worse than they would otherwise be.

The present general approach seems to add appreciably to the number of victims, since large-scale criminality is promoted by the fortunes to be made in drug-dealing, leading to corruption of officials, flouting of the law, and a wide-spread deterioration in law-abidingness. It is said that more than one-fourth of our people has used illegal drugs at one time or another. This suggests that the problem we face is primarily educational and hence political.

What we seem to have here is a serious public health problem, not a problem that the criminal law is apt to be able to address effectively, however despicable (and even worthy of summary execution) the professional dealer in drugs may be as matters now stand. Since drug abuse looks very much like alcohol abuse and tobacco abuse in its overall bad effects, it has long been wondered why drugs, alcohol and tobacco should not be treated substantially alike. Government-sponsored educational programs seem called for in all three cases, supported by such measures as strict prohibitions upon advertising and perhaps upon unlicensed distribution. The mandatory warnings on cigarette packages are only a beginning in what may properly be done to discourage consumption.

In addition, taxes and damage suits should permit victims, (including the community) to recover, from producers and distributors (and hence from all users), the catastrophic costs that can be incurred by routine use of drugs, alcohol and tobacco.

IX.

I began with the observations of an old teacher of mine. I conclude with the observations of an even older teacher of us all, a great teacher of all our teachers today. The lesson which very much needs to be taught a consumption-minded society, in which self-indulgence is not only permitted but encouraged, is a lesson offered by Homer in his *Odyssey*.

The longstanding warning in the West against self-indulgence (and hence against something such as drug abuse) may well be summed up in the opening lines of the epic:

> Tell me, O Muse, of that ingenious hero who traveled far and wide, after he had sacked the famous town of Troy. Many cities did he visit, and many were the nations with whose manners and customs he was acquainted; moreover he suffered much by sea while trying

> to save his own life and bring his men safely home; but do what he might he could not save his men, for they perished through their own sheer folly in eating the cattle of the Sun-god Hyperion; so the god prevented them from ever reaching home.

Critical to Odysseus' ingenuity, and hence to his ability to prevail, was that sense of community reflected in his determination to get safely home.

Behind Open Doors: Constitutional Implications of Government Employee Drug Testing

Phyllis T. Bookspan*

By the summer of 1986 as many as 25% of America's largest companies instituted some form of employee screening for drug use.[1] At the same time a number of public and quasi-public organizations began testing programs, as well.[2] The concerns raised by such testing programs are the subject of expanding litigation.[3]

The President and Mrs. Reagan made a priority of combating drug use in America. A President's Commission on Organized Crime was formed to study "America's habit," and offer suggestions to remedy it.[4] The Commission proposed that to reduce the demand for drugs, "[t]he President should direct the heads of all Federal agencies to formulate immediately clear policy statements, with implementing guidelines, including suitable drug testing programs. . . ."[5] State and local governments were urged to support such programs, and all government

* Assistant Professor of Law, Delaware Law School at Widener University. A.B., Lehman College, City University of New York, 1976; J.D., Georgetown University, 1983; LL.M., Georgetown University, 1987. The author wishes to thank Teresa Fariss and Chuck Kimmel for their excellent research assistance.

1. Abramowitz & Hamilton, *Drug Testing on Rise: Corporate Concern Up But Abuse is Down*, Washington Post, Sept. 21, 1986, at D1, col. 1; *see also* Chapman, *The Ruckus Over Medical Testing*, FORTUNE, Aug. 19, 1985 at 57.

2. Among this group are police and fire departments throughout the country: Turner v. Fraternal Order of Police, 500 A.2d 1005 (D.C. 1985); City of Palm Bay v. Bauman, 475 So. 2d 1322 (Fla. 5th Dist. Ct. App. 1985); Caruso v. Ward, 133 Misc. 2d 544, 506 N.Y.S.2d 789 (1986); public schools: Odenheim v. Carlstadt-East Rutherford Regional School District, 211 N.J. Super. 54 (1985) (including urinalysis in yearly physicals for school children); Patchogue-Medford Congress of Teachers v. Board of Educ., 119 A.D.2d 35, 505 N.Y.S.2d 888 (App. Div. 1986) (requiring probationary teachers to submit to urinalysis before promotion); *see also* King v. McMickens, 120 A.D.2d 351, 501 N.Y.S.2d 679 (App. Div. 1986) (corrections officers driving prison vans); Shoemaker v. Handel, 795 F.2d 1136 (3d Cir. 1986), *cert. denied*, 107 S. Ct. 577 (1986) (race horse jockeys must submit to post race urinalysis on a random basis).

3. *See, e.g.*, cases cited *supra* note 2.

4. PRESIDENT'S COMMISSION ON ORGANIZED CRIME, AMERICA'S HABIT: DRUG ABUSE, DRUG TRAFFICKING, AND ORGANIZED CRIME 1-3 (1986).

5. *Id.* at 483.

agencies were told not to award government contracts to "companies that fail to implement drug programs, including suitable drug testing."[6] In response to this recommendation, the President on September 15, 1986 issued an Executive Order for a "Drug-Free Federal Workplace."[7] The order authorizes and directs federal agencies to establish and implement drug testing programs to screen federal employees who currently occupy or apply for new federal positions, for the use of illegal drugs. The order further directs agencies[8] to remove and/or discipline employees who fail a drug test.[9]

This program of federal drug testing, and the proliferation of similar tests by the state and local governments and private industry,[10] forces society to reconsider its recognition of and respect for the individual's right to be let alone.

This article will focus on public sector employee drug testing. The ultimate issue that must be resolved is whether drug testing of public employees violates constitutional guarantees of individual rights and liberties. The article begins with an historical analysis of privacy rights.

---

6. *Id.*

7. Exec. Order No. 12,564, 51 Fed. Reg. 32,889 (1986). *See also* New York Times, Oct. 16, 1986, at A1, Col. 5.

8. Exec. Order No. 12,564, 51 Fed. Reg. at 32,891 (1986). Section 5(d) states: "Agencies shall initiate action to remove from the service anyone who is found to use illegal drugs and: (1) Refuses to obtain counseling or rehabilitation through an Employee Assistance Program or (2) Does not thereafter refrain from using illegal drugs."

9. The Executive Order directs agency heads to establish a drug testing program covering all employees in sensitive positions. While agency heads have discretion to determine the extent of testing that will be done, they must test employees in "sensitive" positions. *Id.* The Order's delineation of "sensitive" is broad and includes a very substantial portion of the federal work force, including professional and non-professional staff, secretarial and clerical positions. *Id.* § 7(d). Further, any current employee, regardless of position, may be ordered to submit to testing upon less than probable cause. *Id.* § 3(c). Employees who seek promotions or transfers may be required to undergo drug tests as a pre-condition for application and selection for those positions. *Id.* § 3(d). At the time of this writing, the National Treasury Employees Union (NTEU), which represents approximately 120,000 federal employees, filed at least two separate actions for declaratory and injunctive relief. *See* National Treasury Employees Union v. Von Raab, 649 F. Supp. 380 (E.D. La. 1986); National Treasury Employees Union v. Reagan, 651 F. Supp. 1199 (E.D. La. 1987); *Reagan* was consolidated with *Von Raab* on Nov. 25, 1986.

10. This article will address solely issues of constitutionality when a public employer initiates a drug testing scheme. The concern for private industry is just as great; however, the mechanisms for protecting privacy are quite different and beyond the scope of the present writing.

History then forms the backdrop for a discussion of present constitutional interpretation, focussing on the fourth amendment, but also the fifth and ninth amendments. The questions addressed are whether drug testing violates the warrant clause and unreasonable search and seizure clauses of the fourth amendment, whether it abrogates due process rights to liberty and property of the fifth and fourteenth amendments, and whether it impacts upon general constitutional privacy as developed in the ninth amendment and penumbras.

I. Background

Society has long recognized the need to maintain a zone of privacy to protect the individual from the roving eye of government and fellow citizens. The enactment of the Bill of Rights in 1789 secured for the American colonists individual rights against the powers of the state. Some early statesmen believed that there was no need for a separate Bill of Rights because the Constitution represented the power of the people, executed through their representatives.[11] Others zealously defended the need for a separate document that would temper the power of Congress to pass laws "necessary and proper"[12] and protect the preeminence of what James Madison called "certain great rights."[13]

---

11. THE FEDERALIST No. 84, at 510-15 (A. Hamilton) (Rossiter ed. 1961). A separate Bill of Rights was first proposed by George Mason during debate on the Constitutional Convention of 1787. The question for a committee to prepare a Bill of Rights was voted down 11-0. J. MADISON, DEBATES IN THE FEDERAL CONVENTION OF 1787 at 556-57 (1920). *See generally* I. BRANT, THE BILL OF RIGHTS 48 (1965); *but see* James Wilson's argument that "[a] bill of rights annexed to a constitution is an enumeration of the powers reserved. If we attempt an enumeration, everything not enumerated is presumed to be given." A. MCLAUGHLIN, A CONSTITUTIONAL HISTORY OF THE UNITED STATES 201 (1935).

12. "The Congress shall have power . . . [t]o make all laws which shall be necessary and proper for carrying into execution the foregoing powers vested by this Constitution in the Government of the United States, or in any Department or Office thereof." U.S. CONST. art. I, § 8, cl. 18.

13. I. BRANT, *supra* note 11, at 47-48. Brant writes that one of the things Madison hoped to eliminate was the broad power granted to Congress to carry the enumerated powers into effect. In 1789 Madison warned Congress:

> The Federal Government has a right to pass all laws which shall be necessary to collect its revenue; the means of enforcing the collection are within the direction of the Legislature: may not general warrants be considered necessary for this purpose? For analogous reasons general warrants were prohibited in state constitutions and there was like reason for restraining the Federal Government.

Among the "great rights" is protection from general warrants, and freedom from unreasonable search and seizure.[14] The theme underlying these rights was to protect the people in certain areas where the government should not act, or at least ought to act only in a particular manner. Although the word privacy does not appear in the fourth amendment, that meaning is found to be implicit.[15] General rights of privacy emanate from the other amendments as well, emphasizing the concern with this fundamental right.[16]

Id. at 48. Madison was even more concerned with an abuse of powers by the majority of the community:

> The prescriptions in favor of liberty ought to be leveled against that quarter where the greatest danger lies, namely that which possesses the highest prerogative of power. But this is not found in either the Executive or legislative departments of government, but in the body of the people, operating by the majority against the minority.

Id. Although the Bill of Rights does not apply directly to the people, Madison hoped that the enumeration of these "great rights" might "be one means to control the majority from those acts to which they might be otherwise inclined." *Id.*

14. *Id.* at 47. Madison already identified certain untouchable rights such as freedom of religion, freedom of press, and trials by jury for criminal matters.

15. Katz v. United States, 389 U.S. 347, 360-61 (1967) (Harlan, J., concurring); Warden v. Hayden, 387 U.S. 294, 312 (1967) (Douglas, J., dissenting); Silverman v. United States, 365 U.S. 505 (1961); Wolf v. Colorado, 388 U.S. 25 (1949); Harris v. United States, 331 U.S. 145, 195 (1947) (Jackson, J., dissenting); Olmstead v. United States, 277 U.S. 438, 471 (Brandeis, J., dissenting); Boyd v. United States, 116 U.S. 616, 630 (1885).

16. "[S]pecific guarantees in the Bill of Rights have penumbras, formed by emanations from those guarantees that help give them life and substance. . . . Various guarantees create zones of privacy." Griswold v. Connecticut, 381 U.S. 479 (1965). "[T]he decision in *Griswold* is the source of a new constitutional right of privacy. . . ." J. SHATTUCK, RIGHTS OF PRIVACY 109 (1977). In addition to the finding in *Griswold* of a right to marital privacy, the right of privacy of unmarried couples, Eisenstadt v. Baird, 405 U.S. 438 (1972), and the absolute right of a woman to choose whether to have an abortion in the first trimester, Roe v. Wade, 410 U.S. 113 (1973), also have been found to emanate from the penumbra of rights. It is perhaps because privacy is a nebulous concept subject to disparate meanings that this right did not find its way explicitly into the Bill of Rights, but rather lies in the interstices of many of the amendments. Although a broad reading of the Constitution as a flexible, living document—*see, e.g.*, Lochner v. New York, 198 U.S. 45, 75-76 (1905) (Holmes, J., dissenting)—permits the finding of privacy in the Constitution, this same leniency of interpretation makes it susceptible of exclusion. The Supreme Court may have cut back on the penumbra of rights concept with its recent ruling, over a vigorous dissent of four justices, that a statute which bans sodomy between two consenting adults in a private home does not violate the Constitution. Bowers v. Hardwick, 106 S. Ct. 2841 (1986). *See infra* notes 284-96 and accompanying text.

Long before the United States Constitution, British common law recognized a right in tort protecting against invasion of one's property,[17] slander to one's reputation,[18] and intrusion upon one's family.[19] Such cases were the forerunners of a defined right of personal privacy.[20] In 1890, Samuel Warren and his young law partner, and later Supreme Court Justice, Louis B. Brandeis, stirred a revolution in legal thought with their conclusion that the common law provided for all persons a right to be let alone in their private places, thoughts, emo-

---

17. *See* Warren & Brandeis, *The Right to Privacy*, 4 HARV. L. REV. 193, 194 (1890) "These nuisances are technically injuries to property; but the recognition of the right to have property free from interference by such nuisances involves also a recognition of the value of human sensations." *Id.* at 194 n.2. As early as the thirteenth century, a criminal writ, the assize of trespass was available "to cover invasions of the plaintiff's land due to conduct wholly on the land of the defendant." Eventually, an action on the case for nuisance was recognized. This action allowed direct recovery of damages for nuisance, instead of the mere "incidental civil relief" afforded by the assize of nuisance. Because of its convenience, it became the sole common law action for invasion of one's property. W. KEETON, D. DOBBS, R. KEETON & D. OWEN, PROSSER AND KEETON ON TORTS § 86 (5th ed. 1984) [hereinafter PROSSER].

18. By the sixteenth century, common law courts took jurisdiction over slander actions so long as "temporal" damage could be proved. If only "spiritual" damage was inflicted upon the plaintiff, relief could be had only in the ecclesiastical courts. With the decline of the ecclesiastical courts, the common law courts attained jurisdiction for all slander actions. In the seventeenth century, the Court of the Star Chamber took jurisdiction over seditious libel cases. Civil damages were awarded to victims of non-political libel as an alternative to dueling. With the abolition of the Court of the Star Chamber, the common law courts attained jurisdiction over libel actions. *Id.* § 111.

19. The action for intrusion upon one's family began as an extension of the action for "enticing away a servant and depriving the master of the quasi-proprietary interest in his services." Since the common law regarded the wife and minor children as the property of the husband-father, the deprivation of their services was actionable by the husband-father. *Id.* § 124. *See also* 8 W. HOLDSWORTH, A HISTORY OF ENGLISH LAW 427-30 (2d ed. 1937).

20. That the individual shall have full protection in person and in property is a principle as old as the common law; but it has been found necessary from time to time to define anew the exact nature and extent of such protection. Political, social, and economic changes entail the recognition of new rights, and the common law, in its eternal youth, grows to meet the demands of society. Thus, in very early times, the law gave a remedy only for physical interference with life and property, for trespasses *vi et armis*. Then the "*right to life*" served only to protect the subject from battery in its various forms; liberty meant freedom from actual restraint; and the right to property secured to the individual his lands and his cattle. Later there came a recognition of man's spiritual nature, of his feelings and his intellect. Gradually the scope of these legal rights broadened; and now the right to life has come to mean the right to enjoy life, — the right to be let alone. Warren & Brandeis, *supra* note 17, at 195.

tions, and sensations.[21] As this postulate became widely accepted, legal scholars and jurists have struggled to give concrete meaning to what is still a vague notion of privacy.[22] As society and technology advance, the concept of privacy has become more ephemeral and the right of privacy more evanescent. As parameters and notions are drawn, technology develops new means of intrusion that challenge previously comfortable balances.

In his prophetic dissent in *Olmstead v. United States*,[23] Justice Brandeis wrote of the dangers to individual privacy that will result as society becomes more sophisticated in its technology.[24]

> The progress of science in furnishing the government with means of espionage is not likely to stop with wire-tapping. Ways may some day be developed by which the government, without removing papers from secret drawers can reproduce them in court, and by which it will be enabled to expose to a jury the most intimate occurrences of the home. Advances in the psychic and related sciences may bring means of exploring unexpressed beliefs, thoughts and emotions.[25]

Justice Brandeis urged a broad, non-literal reading of the fourth amendment to protect what he called the constitutional "right to be let alone."[26] In 1968, Professor Westin wrote of the threats to privacy emanating from society's new tools for listening, watching, collecting, and disseminating data.[27] Other jurists and scholars also have tackled the

---

21. *Id.* at 206.

22. *See* Bloustein, *Privacy as an Aspect of Human Dignity: An Answer to Dean Prosser*, 39 N.Y.U. L. REV. 962 (1964); Clark, *Ninth Amendment and Constitutional Privacy*, 5 U. TOL. L. REV. 83 (1973); Glancey, *Invention of the Right of Privacy*, 21 ARIZ. L. REV. 1 (1979); Goldstein, *Constitutional Rights of Privacy — "A Sizable Hunk of Liberty,"* 26 MD. L. REV. 249 (1966); Ringold, *History of the Enactment of the Ninth Amendment and Its Recent Development*, 8 TULSA L.J. 1 (1972); Westin, *Science, Privacy and Freedom: Issues and Proposals for the 1970s*, 66 COLUM. L. REV. 1003 (1966).

23. 277 U.S. 438 (1928).

24. "But 'time works changes, brings into existence new conditions and purposes.' Subtler and more far-reaching means of invading privacy have become available to the Government. Discovery and invention have made it possible for the Government, by means far more effective than stretching upon the rack to obtain disclosure in court of what is whispered in the closet." *Id.* at 473.

25. *Id.* at 474.

26. *Id.* at 478.

27. A. WESTIN, PRIVACY AND FREEDOM 3 (1967). *See also, e.g.*, California v.

problem of privacy in the technological society.[28] Employee drug testing presents the latest challenge.

II. Constitutional Analysis

A. *History*

The history of political life and times surrounding the drafting and adoption of the fourth amendment helps illuminate the intent of the framers of the Bill of Rights. The extent to which the framers went beyond the limited concepts that preceded the American Revolution illustrates their notions of freedom.[29]

The English subjects who crossed the Atlantic in the 1600's came to their new world with well defined ideas of personal rights.[30] They brought with them strong beliefs in personal freedom, embodied in the Magna Carta and the common law.[31] Among those ideals were the

---

Ciraolo, 106 S. Ct. 1809 (1986) (warrantless observation from airplane of fenced-in area within curtilage of home not unreasonable under the fourth amendment); Dow Chem. Co. v. United States, 106 S. Ct. 1819 (1986) (aerial surveillance and photography of industrial complex not a search for fourth amendment purposes).

28. *See, e.g.*, Dowling, "*Bumper Beepers" and the Fourth Amendment*, 13 CRIM. L. BULL. 266 (1977); King, *Electronic Surveillance and Constitutional Rights: Some Recent Developments and Observations*, 33 GEO. WASH. L. REV. 240 (1964); Meldman, *Centralized Information Systems and the Legal Right to Privacy*, 52 MARQ. L. REV. 335 (1969); Miller, *Personal Privacy in the Computer Age: The Challenge of a New Technology in an Information Oriented Society*, 67 MICH. L. REV. 1091 (1969). *See also* United States v. Karo, 468 U.S. 705 (1984) (warrantless monitoring of a beeper inside a private house violates the fourth amendment); United States v. New York Tel. Co., 434 U.S. 159 (1977) (no reasonable expectation of privacy in the numbers dialed on a telephone and discovered with a pen register).

29. "[I]f it is true that freedom is a growing thing, it cannot have a lesser meaning today or tomorrow than it had at the birth of our nation. For more reasons than one, it is vitally important to know what the framers . . . thought they were doing." I. BRANT, *supra* note 11, at 79.

30. R. RUTLAND, THE BIRTH OF THE BILL OF RIGHTS 1776-1791 at 1 (1962).

31. *Id.* at 14. Every English freeholder was guaranteed the sacred English right of protection of life, liberty, and property from arbitrary action. "Foremost among these safeguards stood the writ of habeas corpus and trial by jury." Both had roots that predated even the Magna Carta (1215). Trial by jury in criminal matters is first mentioned in the Constitution of Clarendon. "In periods of crisis Englishmen were assured that 'this great Jewel of Liberty, Trials by Juries [has] no less than fifty-eight several times since the Norman Conquest, been established and confirmed by the legislative Power . . . .'" Writs of habeas corpus were used by early judges of King's Bench and Common Pleas to assert their supremacy over rival courts. In the late 1600s the writ

right to life, liberty, and property, protected by trials by jury, writs of habeas corpus, a right to counsel,[32] the right against self-incrimination,[33] and prohibitions on excessive bails or fines.[34] The colonists set these guarantees of personal liberty down in writing as notice to the royal governors that their freeborn rights as Englishmen crossed the ocean with them and were just as applicable in America.[35]

Indeed, it was an atmosphere of religious intolerance by the Stuart rulers of the late 1600s, Charles I and then his brother James II, that drove many English Protestants to leave their homeland in the first place.[36] Long before the colonies were settled, the English were placing restrictions on religious freedom. Since practically all early books were religious works, without freedom of religion there could be no freedom of press.[37] A proclamation during the reign of Henry VIII made the publishers and professors of certain religious works with "divers here-

---

was clearly established by Parliament as a means of releasing a person unlawfully imprisoned. This was in reaction to practices of sheriffs and other officials under the reign of Charles I to engage in practices of delay and evasion common to earlier regimes. *Id.* at 14-15.

32. As early as the reign of Henry I (1068-1135), an accused was granted the right to have aid of counsel, usually friends or relatives, assist in the trial. In 1236 the Statute of Merton granted the right to every freeman to be represented by an attorney except in cases of felony of treason. RUTLAND, *supra* note 30, at 15. *See* Rackow, *The Right to Counsel: English and American Precedents*, 11 WM. & MARY Q. 1, 3-5 (1954).

33. Self-incrimination was a part of the English legal system for 450 years after the Magna Carta. The oath *ex officio*, initiated in 1236, "bound the person under examination to make a true answer to all questions that might be asked." The oath *ex officio* was used by the High Commission and the Court of the Star Chamber until the abolition of those two bodies in 1641. Compulsory self-incrimination died out thereafter, with Parliament finally abolishing the oath *ex officio* in 1662. I. BRANT, *supra* note 11, at 381-82.

34. In 1275 officers were warned about extortion from prisoners. In 1444 sheriffs were ordered to release prisoners on bail unless the crime was of an extremely serious nature. R. RUTLAND, *supra* note 30, at 15-16.

35. *Id.* When called upon, the English court made clear that "all laws in force in England are in force [in America]." Chief Justice Holt wrote an opinion stating that the common law of England was carried to the colonists unless there was a private Act to the contrary. *Id.* at 14. "Royal instructions to the mother colony of Virginia as early as 1606 specified that all laws should be 'as neer to the common lawes of England, and the equity thereof as may be.' " *Id.* In Massachusetts, the Code of 1636 "declared that all proceedings should be according to 'the presidents [sic] of the law of England as neer us may be.' " L. LEVY, ORIGINS OF THE FIFTH AMENDMENT 337 (1968).

36. R. RUTLAND, *supra* note 30, at 16.

37. *Id.*

sies and erroneous opinions" subject to punishment.[38] Such censorship soon spread to printed materials other than religious pieces, as well.

The most notorious crime that grew out of the development of the printing industry was seditious libel. The crime, created by the Court of Star Chamber, became an insidious means of stifling criticism of the government and freedom of political opinion.[39] In 1606, in the earliest known description of seditious libel, Sir Edward Coke stated that it "could be prosecuted either by indictment in the Court of King's Bench (common law) or by bill in the Star Chamber."[40] In fact, only two very early cases of libel, dated 1136 and 1344, were prosecuted in King's Bench, leaving Star Chamber a virtual monopoly on seditious libel trials.[41]

The Licensing Act of 1662 furthered the seditious libel laws by placing the English press under a strict code of control. Parliament created licensing schemes for all printers. Then the Stationers' Company, a private guild with a state granted monopoly on printing rights, was formed and given broad power by the Court of Star Chamber to enforce the laws. Thus spread the practice of "searching in all places, where books were printing, in order to see if the printer had a license; and if upon such search he found any books which he suspected to be libelous against the church or state, he was to seize them, and carry them before the proper magistrate."[42] Under the powerful instrument of the general warrant, proceedings for seditious libel against printers

---

38. *Id.* at 17. *See also* SOURCES OF ENGLISH CONSTITUTIONAL HISTORY 387 (C. Stephenson & F. Marcham ed. 1937); F. SIEBERT, FREEDOM OF THE PRESS IN ENGLAND 1476-1776 at 48 (1952).

39. I. BRANT, *supra* note 11, at 92-93. R. RUTLAND, *supra* note 30, at 17. The Court of Star Chamber was formed by an act of Parliament in 1487 as a means for the king and council to bypass the processes and safeguards of the common law. It was made up of the Lord Chancellor, two common law judges, a high prelate and an indefinite number of the king's councillors. Under the rationalization of speed and certainty, the Court did away with procedures such as grand jury indictments (first initiated in 1166), resorting to "information *ex officio*." This meant the Star Chamber could hold people to trial simply by virtue of its office. Persons suspected of crime were forced to take an "oath *ex officio*" binding them to appear and answer questions asked of them. Thus, the common-law privilege against compulsory self-incrimination was abandoned. Juries of one's peers also were abolished. The Court tried the case, decided the verdict, and sentenced. *See* I. BRANT, *supra* note 11, at 87. *See also* LEVY, *supra* note 35, at 33-38.

40. I. BRANT, *supra* note 11, at 93.

41. *Id.*

42. Entick v. Carrington, 19 Howell's St. Tr. 1029, 1069 (1765).

became commonplace.[43] Just as limits on freedom of religion restricted freedom of the press, so censorship of the press eroded rights of privacy, sanctity of the home, and freedom from unreasonable searches and seizures. These developments did not go unnoticed by those who left England for America.

While battling free expression at home, England simultaneously was waging war with France.[44] In an effort to raise funds and replenish her depleted war coffers, England began enforcing in the colonies previously neglected tariffs and customs duties.[45] Writs of assistance were issued by colonial justices to permit customs officials to search any "shop, house, cellar, warehouse, or other place, and if resisted to break open any door, trunk, chest, or other parcel in order to seize and secure contraband."[46]

In 1760, King George II died, and all writs automatically expired six months after his death.[47] Before new writs could issue, sixty-three Boston merchants presented a challenge to the legality of such general

---

43. *See, e.g.*, J. HALL, SEARCH AND SEIZURE § 1.11 (1982); S. SALZBURG, AMERICAN CRIMINAL PROCEDURE 47-48 (1984).

44. England and Prussia were allied against France and Austria in the Seven Years' War (1756-1763). As a result of this war, France surrendered Canada to England in 1760 and further renounced all claims to territory east of the Mississippi River, except for New Orleans. The European phase of the war ended with the Treaty of Paris, February 10, 1763. Faced with a huge post-war debt, Prime Minister George Grenville decided that the colonies should bear an increased burden. It cost more to maintain the American customs service than it brought in in revenues. Grenville ordered stricter enforcement of existing laws, and Parliament passed the Sugar Act (1764) and the Stamp Act (1765). A new court to hear cases of customs violations was established at Halifax, and the right of an accused to sue for illegal seizure was annulled. American customs officials were required to live in America, ending the practice of these officials living in England and entrusting their duties to a deputy. Customs officials went about their duties with renewed vigor and had at their disposal the writ of assistance and the general warrant. ENCYCLOPEDIA OF AMERICAN HISTORY 67-73 (R. Morris ed. 1965). *See also* 1 GREAT EVENTS FROM HISTORY, AMERICAN SERIES 200-02, 219-21 (F. Magill ed. 1975).

45. Under the Navigation laws crown agents were empowered with the right to use writs of assistance and general warrants in an effort to stop smuggling. Such writs essentially gave royal officers a *carte blanche* to search and seize anywhere and anything. *See* R. RUTLAND, *supra* note 30, at 20.

46. *See* J. HALL, *supra* note 43, § 1.12.

47. One of the odious features of a writ of assistance was its character as a permanent search warrant, which could be used with unlimited discretion during the life of the king. Expiration of writs within six months of the death of the sovereign apparently was simply a matter of legal practice, rather than legal requirement. J. LANDYNKSI, SEARCH AND SEIZURE AND THE SUPREME COURT 31, 33 (1966).

writs. Two lawyers, Oxenbridge Thatcher and James Otis, were hired to argue Paxton's case to the Massachusetts Superior Court.[48] Thatcher argued that the Massachusetts court was not authorized by Parliament to issue writs of assistance.[49] Otis argued more broadly that writs were repugnant to the Magna Carta, and fundamental principles of law which recognized the sanctity of the home.[50] Otis argued for independent judicial review of the statute, pronouncing the writs "the worst instrument of arbitrary power, the most destructive of English liberty, and the fundamental principles of law, that ever was found in an English law book," since they placed "the liberty of every man in the hands of every petty officer."[51] Otis' eloquent argument against the injustice of the writs inspired John Adams to report, "[T]hen and there the child Independence was born."[52]

But, in fact, Otis' argument was rejected by the Supreme Court of Massachusetts which, based on the British practice of commonly issuing such writs, ruled they were legal.[53] Thus, new writs, lacking any specificity of information or particularity of description of the place to be searched or goods to be seized, were issued. Although Chief Justice Hutchinson of the Massachusetts Supreme Court was satisfied that the writs were legal, other American judges in the other colonies were more skeptical.[54]

Two years after Paxton's case, John Wilkes was tried in England for seditious libel.[55] In Wilkes' case, Secretary of State Lord Halifax authorized a warrant to search for and seize the author(s) of an article critical of King George III's cider excise tax. Under this general war-

---

48. Paxton's Case (1761), 1 Quincy, Massachusetts Reports 1761-1772 at 51.

49. *Id.* at 54. The full text of argument in Paxton's Case is not reproduced because the case was reargued in November of the same year (1761) and the court reporter, Josiah Quincy, made only partial notes. Historians, therefore, rely upon notes taken by John Adams, a "youthful spectator" in the courtroom. *See generally* J. LANDYNSKI *supra* note 47, at 33-36, & n.64.

50. *Id. See also* J. HALL, *supra* note 43, § 1.12.

51. *Boyd*, 116 U.S. at 625 (quoting W. CARRINGTON, COOLEY'S CONSTITUTIONAL LIMITATIONS 338-39 (5th ed. 1917).

52. 2 LEGAL PAPERS OF JOHN ADAMS 106-47 (Wroth & Zobel ed. 1965).

53. J. LANDYNSKI, *supra* note 47, at 35.

54. *Id.* at 36-37. The courts of Pennsylvania, Delaware, Virginia, Connecticut, Rhode Island, Georgia and Maryland all either refused to grant, or ignored application for writs of assistance.

55. Wilkes v. Wood, Lofft 1, 98 Eng. Rep. 489 (1763). *See also* Wilkes v. Halifax, XIX Howell St. Tr. 1401 (1763). For a lively and complete discussion of the prosecution and persecution of John Wilkes, *see* I. BRANT, *supra* note 11, at 189-93.

rant, no less than forty-nine persons were arrested over a three-day period. One of those persons arrested was a printer who identified the author of the "seditious" article as John Wilkes, a member of Parliament.[56] Wilkes refused to submit to the warrant, and was thrown into the Tower of London for a week.[57] Wilkes then sued civilly for damages for trespass. Chief Justice Pratt (later to become Lord Camden) held the warrant illegal as a subversion of the liberty and property of every Englishman.[58] The judgment was affirmed, but on the narrower ground that since it failed to name the person sought, the warrant was invalid.[59]

Two years later Lord Halifax issued another warrant for the arrest and seizure of the papers of John Entick, on suspicion of seditious libel. Entick sued the messenger who executed the warrant for trespass.[60] Lord Camden held the warrant was void. Moreover, he found that in the absence of a statute,[61] the authority to issue warrants is not derived from the common law. Further, he found that since the warrant failed to name the specific papers sought and no oath of probable cause had been required, the warrant was defective even if Lord Halifax had the authority to issue it.[62] Soon after the decision in *Entick*, Blackstone wrote that "a general warrant to apprehend all persons suspected, without naming or particularly describing any person in special, is illegal and void for its uncertainty."[63] Lawyers and statesmen in America followed Wilkes' and Entick's cases closely and with great interest.

It was against this background that the seeds for both the Ameri-

---

56. J. HALL, *supra* note 43, § 1.13.

57. R. RUTLAND, *supra* note 30, at 21.

58. *Id.*

59. S. SALZBURG, *supra* note 43, at 47. As one scholar states, "A glimpse of the judicial courage and integrity involved in upholding the individual's right to freedom from unreasonable search and seizure against encroachment from a powerful executive supposedly justified by situational exigencies is contained in the words of Chief Justice Pratt in *Wilkes*: 'If higher jurisdictions should declare my opinion erroneous I submit as will become me, and kiss the rod; but . . . I shall always consider it as a rod of iron for the chastisement of the people of Great Britain.' " W. Greenhalgh, Roots, Rights and Remedies of the Fourth Amendment 4 (1986) (unpublished manuscript).

60. Entick v. Carrington, 19 Howell's St. Tr. 1024 (1765).

61. Lord Halifax was issuing warrants to enforce the Printing Act. The act, however, had expired in 1644. Lord Halifax claimed that his authority to issue such warrants was a recognized part of the common law. Lord Camden disagreed. *Id.* at 1064.

62. *Id.* at 1065-70.

63. *Boyd*, 116 U.S. at 626-27; W. BLACKSTONE, COMMENTARIES ON THE LAWS OF ENGLAND 291 (1790).

can Revolution and the federal Bill of Rights were sown. After the Revolution one of the first things the individual states did was to draft declarations of rights.[64] In 1776, Virginia was the first state to ratify a declaration of rights.[65] Among the list of rights in the Virginia Declaration was the prohibition against general warrants. General warrants of search and seizure were held "grievous and oppressive," hence not to be granted.[66] By 1780 all the states with the exception of New Hampshire had ratified declarations of rights.[67] Since the underlying ideas came from the English Bill of Rights,[68] and notions of common law, it

---

64. R. RUTLAND, *supra* note 30, at 49. Virginia's Declaration of Rights, adopted in 1776, contained provisions for "human equality," the "right of revolution," majority rule, separation of powers, and provided that "people are the source of all power." Bills of Rights in Pennsylvania, Delaware, Maryland, New Hampshire, Vermont, Massachusetts, and North Carolina contained provisions similar to or listed verbatim from the Virginia Declaration. *Id.* at 46, 52.

65. The Virginia Bill of Rights was the first American precedent of a constitutional character for the fourth amendment. It was adopted on June 12, 1776 at the Williamsburg convention. N. LASSON, THE HISTORY AND DEVELOPMENT OF THE FOURTH AMENDMENT TO THE UNITED STATES CONSTITUTION 79 (1937).

66. Virginia Declaration of Rights, Article X, *reprinted in* 2 B. SCHWARTZ, THE ROOTS OF THE BILL OF RIGHTS (1980). The full text of Article X is:

> That general warrants, whereby an officer or messenger may be commanded to search suspected places without evidence of a fact committed, or to seize any person or persons not named, or whose offense is not particularly described and supported by evidence, are grievous and oppressive, and ought not to be granted.

Id. at 235.

67. In 1784, when New Hampshire ratified its Declaration of Rights, it was a duplication of the Massachusetts Declaration of 1780 in which the phrase "unreasonable searches" appeared in a constitution for the first time:

> Every subject hath a right to be secure from all unreasonable searches and seizures of his person, his houses, his papers, and all his possessions. All warrants, therefore, are contrary to this right if the cause or foundation of them be not previously supported by oath, or affirmation; and if the order in the warrant to a civil officer, to make search in suspected places, or to arrest one or more suspected persons, or to seize their property be not accompanied with a special designation of the persons or objects of search, arrest, or seizure; and no warrant ought to be issued but in cases, and with the formalities prescribed by laws.

Massachusetts Declaration of Rights Article XIV, *reprinted in* B. SCHWARTZ, *supra* note 66, at 342.

68. *Id.* at 40. The English Bill of Rights was adopted the year after the "glorious revolution" of 1688. It reasserted the supremacy of Parliament over the sovereign and declared unconstitutional the suspension of the acts of Parliament. The Bill of Rights also declared unconstitutional

was not unusual that the language in most cases closely tracked that of the Virginia Declaration. All states imposed restrictions on the issuance of general warrants.[69]

James Madison, the primary drafter of the federal Bill of Rights, used the individual state declarations as his models.[70] Consequently, the original language of the fourth amendment was directed only toward regulating the form of warrants.[71] The original language was amended, and in addition to regulating the form of warrants, the ratified text includes a general prohibition against unreasonable searches and seizures.

The fourth amendment provides:

> The right of the people to be secure in their persons, houses, papers, and effects against unreasonable searches and seizures shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be

---

> the levying of taxes without the consent of Parliament, the maintenance of a standing army in time of peace, the interference with free elections, the infliction of cruel and unusual punishment, the exaction of excessive bails, and the denial of the right of petition. Protestants were assured of their right to bear arms.

Id. at 42. The American colonists borrowed heavily from this document when they drew up their own declarations. *Id.*

69. Pennsylvania's 1776 Declaration of Rights required oath or affirmation before a warrant would issue. Vermont's 1777 Declaration of Rights forbade any search and seizure without a warrant based on oath or affirmation based on sufficient foundation. North Carolina's declaration held that general warrants "are dangerous to liberty, and ought not to be granted." *See* 2 B. SCHWARTZ, *supra* note 66, at 287; R. RUTLAND, *supra* note 30, at 47.

70. J. LANDYNSKI, *supra* note 47, at 41. *See generally* N. LASSON, *supra* note 65, at 79-105.

71. The fourth amendment, as originally drafted, stated, "The rights of the people to be secured in their persons, houses, papers, and effects, shall not be violated by warrants issuing without probable cause, supported by oath or affirmation, and not particularly describing the place to be searched and the persons or things to be seized." 1 Annals of Cong. 452 (1789); *see* Warden v. Hayden, 387 U.S. 316 (1967). Apparently, the "unreasonable searches and seizures" language was inadvertently omitted in the first draft. Representative Benson, Chairman of the Committee to arrange the amendments, preferred the "no warrants shall issue" language. Thus, when reported out of committee the phrase "unreasonable searches and seizures" was added, along with the language "and no warrants shall issue." Most problematic, however, is that the amendment went from one clause to two clauses.

seized.[72]

As history suggests, this amendment was the framers' response to the abuses of general warrants and the violations of personal liberty they engendered. It abolishes the pre-revolutionary practices of searches pursuant to general warrants or writs of assistance, and safeguards the privacy of individuals against arbitrary invasions by agents of the state.[73] "The Fourth Amendment thus gives concrete expression to a right of the people which is basic to a free society."[74]

Whether employers may screen employees for drug use is a timely issue of significant import, likely to appear on the dockets of many courts within the coming years.[75] When a public entity mandates such tests questions of constitutionality arise.[76] Foremost among the consti-

---

72. U.S. CONST. amend IV.

73. *Boyd*, 116 U.S. 617 (1886): "The essential purpose of the Fourth Amendment is to 'impose a standard of reasonableness upon the exercise of discretion by government officials' in order to safeguard the privacy and security of individuals against arbitrary invasions by government officials." Camara v. Municipal Ct., 387 U.S. 523 (1967); Capua v. City of Plainfield, 643 F. Supp. 1507, 1512 (1986) (citing Delaware v. Prouse, 440 U.S. 648 (1979)). *See also* Patchoque-Medford Congress v. Board of Educ., 119 A.D.2d 35, 505 N.Y.S.2d 888 (App. Div. 1986); Marshall v. Barlows, Inc., 436 U.S. 307 (1978); Shoemaker v. Handel, 619 F. Supp. 1089, 1098 (D.N.J. 1985), *aff'd*, 795 F.2d 1136 (3rd Cir.), *cert. denied*, 107 S. Ct. 577 (1986); McDonell v. Hunter, 612 F. Supp. 1122 (S.D. Iowa 1985), *aff'd as modified*, 809 F.2d 1302 (1987); Tucker v. Fraternal Order of Police, 500 A.2d 1005, 1007 (D.C. 1985).

74. Wolf v. Colorado, 338 U.S. 25, 27 (1949).

75. Presently, there are cases pending both at the district court and appellate levels. The Supreme Court recently denied certiorari in a case from the third circuit, Shoemaker v. Handel, 795 F.2d 1136 (3d Cir. 1986), *cert. denied*, 107 S. Ct. 577 (1986). As additional agencies impose drug screening, employee unions and individuals will continue turning to the courts to challenge the procedures. As the constitutionality of employee drug testing is decided in the various other circuits, the Supreme Court surely will be faced with further writs of certiorari.

76. There are significant issues of civil rights and privacy that are implicated when private employers initiate drug testing, as well. Constitutional challenges to private employer programs are more tenuous, because there is no official state action involved in the testing program; however, challenges under the Civil Rights Act, 28 U.S.C. § 1983, for example, are not precluded. Moreover, numerous private causes of action ranging from intentional infliction of emotional distress, to wrongful termination, to defamation are appropriate, and are currently being raised in various forums. *See, e.g.*, Luck v. Southern Pac. Transp. Co., No. C843-230 (Cal. Super. Ct., Dec. 20, 1985); O'Brien v. Papa Gino's Inc., 780 F.2d 1067 (1st Cir. 1986). These issues are mentioned here, however, only in passing because they are beyond the scope of this writing.

tutional challenges to a drug testing program is whether rights guaranteed by the fourth amendment are compromised.[77]

B. *Search and Seizure and Reasonable Expectation of Privacy*

Whether employee urinalysis amounts to a search is a threshhold question. While it is relatively easy to define "seizure" under the fourth amendment,[78] it is correspondingly difficult to define "search." As the Supreme Court has faced novel situations, it continually has refined what constitutes a "search."[79] The first significant refinement of what is a search for constitutional purposes occurred in 1928 in *Olmstead v. United States*.[80] In *Olmstead*, the government placed a tap on Mr.

---

77. Other constitutional challenges include: abridgments of the rights, liberty and property without due process, U.S. CONST. amend. V; Schmerber v. California, 384 U.S. 757 (1966); Cleveland Board of Educ. v. Loudermill, 470 U.S. 532 (1985); National Treasury Employees v. Von Raab, 649 F. Supp. 380 (E.D. La. 1986); Jones v. McKenzie, 628 F. Supp. 1500 (D.D.C. 1986); and infringement upon penumbral privacy rights, Roe v. Wade, 410 U.S. 113 (1973); Griswold v. Connecticut, 381 U.S. 479 (1965). For further discussion of these issues, see *infra* notes 221-83 (due process), and 284-96 (privacy), and accompanying text.

78. United States v. Jacobsen, 466 U.S. 109 (1984) (a seizure occurs when there is some meaningful interference with an individual's possessory interests in that property); Hale v. Henkel, 201 U.S. 43 (1906) ("a seizure contemplates a forcible dispossession of the owner").

79. Since the finding of a search often changes with the facts of each case, it is actually too strong to say that the Court "defines" search. According to United States v. Jacobsen, 466 U.S. 109, 113 (1984), "[a] 'search' occurs when an expectation that society is prepared to consider reasonable is infringed." Likewise, in United States v. Dionisio, 410 U.S. 1, 15 (1973), the Court characterized a search as an action involving "the probing into an individual's private life and thoughts." Not every police effort to seek out evidence is found to be a search. *See, e.g.*, Hester v. United States, 265 U.S. 57, 59 (1924) ("the special protection accorded by the Fourth Amendment to the people in their 'persons, houses, papers and effects' is not extended to the open fields"); United States v. Lee, 274 U.S. 438 (1928) (no search "on the high seas" where a coast guard agent shined a searchlight on the deck of a motorboat). In Oliver v. United States, 466 U.S. 170 (1983), the Court conceded that individuals do have a reasonable expectation of privacy in the area immediately adjacent to their homes ("the curtilage"), but rejected the notion that "steps taken to protect privacy (such as the erection of fences and no trespassing signs) establish that expectations of privacy in an open field are legitimate." *Id.* at 182. *See also* United States v. Place, 462 U.S. 696 (1983) ("Canine sniff" of luggage is not a search within the meaning of the fourth amendment). *But see* Arizona v. Hicks, 107 S.Ct. 1149 (1987) (moving stereo equipment to read and record serial numbers is a search).

80. 277 U.S. 438 (1928).

Olmstead's telephone wires and thereby listened to his conversations. The Court held that this was not a violation of Mr. Olmstead's constitutional rights. The electronic eavesdropping was not a search because "the intervening wires are not part of his house or office, any more than are the highways along which they are stretched."[81] Accordingly, the Court began tying the concept of search to the nature of the area searched.[82]

Thirty-nine years later in *Katz v. United States*,[83] the Court wrote

---

81. *Id.* at 465.

82. "The language of the Amendment can not be extended and expanded to include telephone wires reaching to the whole world from the defendant's house or office." *Id.* The trespass doctrine, under which no fourth amendment violation was found unless the government invaded a property interest of the defendant, was also followed in Silverman v. United States, 365 U.S. 505 (1961), where evidence was excluded because it was obtained by inserting a microphone under the defendant's baseboard until it touched a heating duct which ran throughout his house. However, in 1960, the Court began to move away from tying the right to challenge a search to property concepts alone. In Jones v. United States, 362 U.S. 267 (1960), the Court held that where the defendant was legitimately on the premises searched by the police, he had standing to challenge the search despite the fact that he had no possessory interest in the apartment. Furthermore, the defendant was not required to assert possession of the narcotics seized then, since this would infringe on his right not to incriminate himself, but rather was given "automatic standing" to challenge their seizure. Following the *Katz* decision, the Court tied the expectation of privacy concept to the issue of standing as well, in Mancusi v. DeForte, 392 U.S. 3674 (1968). In examining the legality of a search of a large labor union office shared by the defendant and other union officials, the Court focused on whether DeForte had a "reasonable expectation of freedom from governmental intrusion" in the office, rather than deciding the case on the ground that DeForte was legitimately in the office at the time of the search. The "legitimately-on-the-premises" rule was expressly overruled in Rakas v. Illinois, 439 U.S. 128 (1978), in favor of the legitimate expectation of privacy formulation. In *Rakas*, the Court, per Justice Rehnquist, noted that while legitimate presence was not irrelevant to the inquiry, it could not confer standing in itself. The Court also did away with the *Jones* rule of automatic standing in regard to possession of a seized item of contraband, such as narcotics, in United States v. Salvucci, 448 U.S. 83 (1980), stating that "we must instead engage in a 'conscientious effort to apply the Fourth Amendment' by asking not merely whether the defendant had a possessing interest in the items seized, but whether he had an expectation of privacy in the area searched." *Id.*

The same analysis was applied in a companion case, Rawlings v. Kentucky, 448 U.S. 98 (1980). These cases state that while possession of seized items and presence on the searched premises are not irrelevant to the issue of standing to assert fourth amendment rights, they must be viewed only as two of the factors affecting the decision; others include dominion and control of the premises, and the right to exclude others. *Rakas*, 439 U.S. at 149.

83. 389 U.S. 347 (1967).

its seminal statement on what constitutes a "constitutionally protected area." In *Katz*, the Court was once again faced with a wiretap of a telephone conversation. This time, however, the listening device was attached to the outside of a public telephone booth that Katz used to transmit wagering information.[84] Justice Stewart wrote:

> [T]he Fourth Amendment protects people, not places. What a person knowingly exposes to the public, even in his own home or office, is not a subject of Fourth Amendment protection. . . . But what he seeks to preserve as private, even in an area accessible to the public, may be constitutionally protected.[85]

While this interpretation dramatically changed the law of searches, it is the two prong test set out in Justice Harlan's concurrence that has been adopted as the benchmark of whether there has been a search. Justice Harlan wrote, "[T]here is a twofold requirement, first that a person have exhibited an actual (subjective) expectation of privacy and, second, that the expectation is one that society is prepared to recognize as 'reasonable.' "[86] Hence, a showing that state officials conducted a "search" of an area in which the defendant was present is not enough to invoke fourth amendment protections.[87] One additionally must show that the area searched was one in which the individual had an expectation of privacy that society is prepared to recognize.[88]

---

84. *Id.*
85. *Id.* at 351-52.
86. *Id.* at 361 (Harlan, J., concurring).
87. *Rakas*, 439 U.S. at 148.
88. Given this formulation, a person's expectation of privacy conceivably could vary depending upon the individual's sensitivity or shyness. Arguably, persons less reluctant to undress in public would have a lesser expectation of privacy, and possibly would not be "searched" within the meaning of the fourth amendment.

Moreover, because in public restrooms men urinate in less than private circumstances, they might have a lesser expectation of privacy in the act of urination than women, who perform the same act behind closed doors. If based upon this distinction, employers impose drug tests on men and women differently what becomes of equal protection? In Lovvorn v. City of Chattanooga, 647 F. Supp. 875 (E.D. Tenn. 1986), Judge Edgar rejected the argument that because fire fighters live in the same quarters, undress in each other's presence, and use common restrooms exposing themselves in the act of urination in the presence of others of the same sex, they have no expectation of privacy in the act of urination.

> The Court suspects that the degree of intrusion engendered by a urine test will vary greatly upon the individual being tested. Some persons may not mind it at all, while others, . . . may take great offense. This Court con-

Description of a typical drug testing scenario is useful for the discussion of expectations of privacy and reasonable searches that follows. Employee X has worked as a mail handler and driver for the Post Office for the past seven years. She has a good work record and is not unusually absent or tardy. She has two school-age children, and is the sole support for her family. She has not been involved in any accidents or mishaps in the last three years.

Last week Ms. X was asked to report to her supervisor's office, where she was told that she would have to submit to urinalysis, pursuant to new federal postal regulations. She was appalled by the request and claimed there was no basis for subjecting her to this procedure. Ms. X was informed that she could be disciplined or even suspended for refusing to take the drug test. Given this ultimatum, she agreed to the drug screening.

She was then escorted to a bathroom by a female employee hired for the specific purpose of overseeing the Post Office drug testing program. Ms. X was given a plastic cup and asked to urinate into it. She was allowed to step into a stall, but not to close the door behind her. To prevent tampering with the specimen, Ms. X was personally observed during the whole procedure. Ms. X's sample was turned over to the supervisor, labelled, and sent on to a drug testing laboratory for analysis.[89]

Does forcing an individual, like Ms. X, to urinate into a container under the watchful eye of a supervisory person violate an area of individual privacy that society recognizes? Recent decisions find individuals

---

cludes that most people, including fire fighters, have a certain degree of subjective expectation of privacy in the act of urination.

Id.

89. This scenario is not based on any particular drug testing program, but rather on common elements of many programs. Actual cases are:

> At 7:00 A.M. on May 26, 1986, the Plainfield Fire Chief and Plainfield Director of Public Affairs and Safety entered the city fire station, secured and locked all station doors and awakened the fire fighters present on the premises. Each fire department employee was required to submit a urine sample while under the surveillance and supervision of bonded testing agents employed by the city.

Capua v. City of Plainfield, 643 F. Supp. 1507, 1511 (D.N.J. 1986).

> The laboratory representative accompanied each of us into the restroom, one by one. He placed some dye into the urinal and then stepped behind a partition. The representative was able to observe me from my shoulders up from behind the partition while I urinated into the sample jar.

National Treasury Employees Union, 649 F. Supp. at 382.

maintain the highest degree of privacy in bodily functions normally performed in private.[90] "Excreting body fluids and body wastes is one of the most personal and private human functions."[91] One Court has declared, "drug testing bodily wastes is even more intrusive than a search of a home."[92] American society recognizes the private nature of urination. Indeed, all but a few primitive societies respect the privacy attendant to excreting bodily wastes.[93] Thus, it appears likely that society is prepared to recognize not only the expectation of privacy in urination, but also the reasonableness of such expectation.

Assuming the above conclusion of a recognizable reasonable expectation of privacy in urination is correct, the next inquiry is whether

---

90. "Urine testing involves one of the most private of functions, a function traditionally performed in private, and indeed, usually prohibited in public." *Capua*, 643 F. Supp. at 1511.

Judge Vietor, in *McDonell v. Hunter*, agrees:

> One does not reasonably expect to discharge urine under circumstances making it available to others to collect and analyze in order to discover the personal physiological secrets it holds, except as part of a medical examination. It is significant that both blood and urine can be analyzed in a medical laboratory to discover numerous physiological facts about the person from whom it came, including but hardly limited to recent ingestion of alcohol or drugs. One clearly has a reasonable and legitimate expectation of privacy in such personal information contained in his body fluids.

McDonell, 612 F. Supp. at 1127. *See also* Storms v. Coughlin, 600 F. Supp. 1214, 1220 (S.D.N.Y. 1984). *Contra Shoemaker*, 619 F. Supp. at 1098; *Turner*, 500 A.2d at 1011 (Nebeker, J., concurring).

91. *McDonell*, 612 F. Supp. at 1127. Indeed, in many jurisdictions it is a crime to urinate in public. *See, e.g.*, CAL. PENAL CODE § 314 (West 1970) (indecent exposure; first offense is misdemeanor); DEL. CODE ANN. tit. 11, § 768 (1979) (indecent exposure; class B misdemeanor); D.C. CODE ANN., § 22-1122 (1981) (lewd, indecent, or obscene acts, penalty of not more than $300 fine, or imprisonment of not more than 90 days, or both); N.M. STAT. ANN. § 30-9-14 (1978) (indecent exposure; petty misdemeanor).

92. *National Treasury Employees Union*, 649 F. Supp. at 386.

93. *See Capua*, 643 F. Supp. at 1507. There are some primitive societies in which body functions are performed openly. Margaret Mead noted that American notions of privacy are unknown in Samoa; bathing is done in the sea without clothes and the beaches are openly used as latrines. A.R. Holmberg described the Siriono Indians of Bolivia as a tribe in which only intercourse is performed privately. Everything else — sleeping, eating, urinating and defecating — is done openly; as many as fifty people live in the same hut. A. WESTIN, PRIVACY AND FREEDOM 12, 17 (1967). However, the typical American "will spend his wealth installing private bathrooms in his house, buying a private car, a private yacht, private woods and a private beach, which he will then people with his privately chosen society. The need for privacy is an imperative one in our society." D. LEE, FREEDOM AND CULTURE 74-75 (1959).

urinalysis is the type of intrusion that invades such privacy. In *Schmerber v. California*[94] the Supreme Court found that extracting blood for purposes of testing alcohol content is a search within the meaning of the fourth amendment.[95] In *Schmerber* the state compelled an individual suspected of drunk driving to undergo a blood test that would determine his blood alcohol level. Schmerber was under arrest at the hospital when a police officer directed a physician to take a blood sample, over Schmerber's objection.[96] The Court noted that "[t]he overriding function of the Fourth Amendment is to protect personal privacy and dignity against unwarranted intrusion by the State."[97] When dealing with an intrusion into the human body, rather than an interference with property relationships or private papers, the Court must make a discerning inquiry into the facts and circumstances to determine whether the intrusion is justifiable.[98]

In *Winston v. Lee*,[99] Justice Brennan, writing for a unanimous Court, suggested that other factors beyond the ordinary requirements of the fourth amendment (probable cause and search warrant) must be considered when looking at a bodily intrusion. Among these are the extent to which the procedure may threaten the safety or health of the individual and the extent of the intrusion upon the individual's dignity interests in personal privacy and bodily integrity.[100] The community's interest in a fair and accurate determination of guilt is weighed against these individual interests.[101] Using this analysis the Court in *Lee* affirmed the lower court's ruling that requiring the defendant to undergo surgery to remove a bullet lodged in his chest is unreasonable under the fourth amendment, and was just the kind of substantial intrusion cau-

---

94. 384 U.S. 757 (1966).

95. The Court then went on to determine that the search was reasonable in light of the circumstances. Schmerber was involved in an automobile accident and was taken to a hospital for treatment. At the hospital, the police officer noticed signs of drunkenness, and arrested him. The officer then directed a physician to perform a blood test, over Schmerber's objection. The Court found that although the search was conducted without a warrant, it was valid for several reasons: it was conducted incidental to a valid arrest; there was a danger that the level of alcohol in Schmerber's blood would diminish before a warrant could be obtained; the test itself was reasonable; and the test was conducted in a reasonable manner. *Id.* at 769-72.

96. *Id.* at 758.

97. *Id.* at 767.

98. Winston v. Lee, 470 U.S. 753 (1985).

99. *Id.*

100. *Id.*

101. *Id.*

tioned against in *Schmerber*.[102] "[W]hen the State seeks to intrude upon an area in which our society recognizes a significantly heightened privacy interest, a more substantial justification is required to make the search reasonable."[103]

Urinalysis is both a lesser and a greater intrusion upon individual privacy than the process at issue in *Schmerber*. To the extent that urinalysis functions by trapping fluids that persons void on a regular basis without the aid or interference of any medical instrument(s), it is a lesser, or no, intrusion upon the body.[104] Extracting blood, usually by inserting a hypodermic needle into a person's vein, and withdrawing the fluid into an attached syringe is certainly intrusive.[105] Where taking blood is an invasive procedure into the body, taking urine is not. Conversely, one submits to blood withdrawal in a routine fashion in what are usually non-private surroundings.[106] One does not routinely urinate in public. Moreover, one is not observed while urinating, even in a medical setting.

Since urinalysis involves an invasion of privacy normally attendant to personal body functions, it is a search covered by the fourth amendment.[107] Whether the procedure meets constitutional requirements,

---

102. *Id.*

103. *Id.*

104. *See, e.g., McDonell*, 612 F. Supp. at 1127: "Urine, unlike blood, is routinely discharged from the body, so no governmental intrusion into the body is required to seize urine." *But see McDonell*, where Judge Lay stated, "A search's intrusiveness does not hinge merely upon whether or not a person's skin is punctured or body touched in some way, but must be evaluated in terms of the individual's legitimate expectations of privacy in the context in which the search is conducted." 809 F.2d at 1311 (Lay, J., concurring in part, dissenting in part).

105. *Schmerber*, 384 U.S. at 757.

106. The Red Cross, for example, routinely takes blood donations in a variety of public settings ranging from its travelling bloodmobiles, to temporary donation centers set up in gymnasiums, community centers, and churches. Generally, no efforts are made to provide privacy for blood donors within the donation facility. For procedures attendant to taking blood *see generally* J. LIPPINCOTT, MANUAL OF NURSING PRACTICE (1986).

107. See for example the holding in Patchoque-Medford Congress of Teachers v. Board of Educ., 119 A.D.2d 35, 37, 505 N.Y.S.2d 888, 890 (App. Div. 1986):

> In *Schmerber v. California*, the Supreme Court stated that "[t]he overriding function of the Fourth Amendment is to protect personal privacy and dignity against unwarranted intrusion by the State." The court in *Schmerber* (supra) held that arbitrary State-sponsored intrusions into the human body are equally as offensive to the Fourth Amendment as unreasonable searches of a person's home or property. We now hold that the act of com-

however, is determined by how the search is conducted.[108]

C. *The Warrant Requirement*

After concluding that urinalysis is a search, the next inquiry is whether a warrant is required for employee drug testing. Referring to the case of *Entick v. Carrington*,[109] Justice Bradley wrote in *Boyd v. United States*:[110]

---

pelling a person to provide a urine sample is a search within the meaning of the Fourth Amendment, and we reject the argument that, since such testing involves no physical intrusion into the body, the 4th Amendment is not implicated.

The court in *National Treasury Employees Union v. Von Raab* held:

Drug testing of Customs workers' bodily wastes is even more intrusive than a search of a home. When analyzing urine specimens, the defendant is searching for evidence of illicit drug usage. The drug testing plan is no minor frisk or pat down. It is rather a full-scale search that triggers application of Fourth Amendment protections.

649 F. Supp. at 386. *Accord Shoemaker*, 795 F.2d at 1136, 1141; *Capua*, 643 F. Supp. at 1507, 1513; *McDonell*, 809 F.2d at 1307; Allen v. City of Marietta, 601 F. Supp. 482, 488 (N.D.Ga. 1985); *Storms*, 600 F. Supp. at 1218; City of Palm Bay v. Bauman, 475 So. 2d 1322, 1324 (Fla. 5th Dist. Ct. App. 1985); Murray v. Haldeman, 16 M.J. 74 (C.M.A. 1983).

108. For example, a search conducted pursuant to a warrant is presumed rational based upon the safeguards attending the warrant process. Among those safeguards are that a warrant be based upon probable cause. Spinelli v. United States, 393 U.S. 410, 419 (1969). Once the officials present their sworn affidavit alleging criminal activity, a magistrate is to determine on the basis of the affidavit, and using a "totality-of-the-circumstances analysis," whether "there is a fair probability that contraband or evidence of a crime will be found in a particular place." Illinois v. Gates, 462 U.S. 237, 239 (1983). The determining magistrate is required to be neutral and detached, Shadwick v. Tampa, 407 U.S. 345 (1972); Johnson v. United States, 333 U.S. 10 (1948), and the warrant must specify with particularity the place to be searched and the things to be seized, Lo-Ji Sales, Inc. v. New York, 442 U.S. 319 (1979); Marron v. United States, 275 U.S. 192 (1927). The warrant must be executed promptly, and during the day, unless a night search is specifically authorized. *See, e.g.*, FED. R. CRIM. P. 41(c).

Since a search conducted without a warrant has none of safeguards mentioned, it must be presumptively unreasonable, unless it falls within one of the exceptions to the warrant requirement. *See infra* note 117 and accompanying text. *See generally* W. LA FAVE, SEARCH AND SEIZURE: A TREATISE ON THE FOURTH AMENDMENT § 4.1 (1978) (discussing when a warrant must or may be utilized).

109. 19 Howell's St. Tr. 1029 (1765); *see supra* text accompanying notes 60-62.

110. 116 U.S. 617 (1886).

> [a]s every American statesmen, during our revolutionary and formative period as a nation, was undoubtedly familiar with this monument of English freedom, [ruling that general writs were illegal] and considered it as the true and ultimate expression of constitutional law, it may be confidently asserted that its propositions were in the minds of those who framed the Fourth Amendment to the Constitution. . . .[111]

Although Justice Bradley concluded that the propositions from *Entick v. Carrington* and the history surrounding that case were "sufficiently explanatory of what was meant by unreasonable searches and seizures,"[112] more recent events do not bear him out. The relationship between the clause prohibiting unreasonable searches and seizures and the clause regulating the process for issuing warrants is unclear. "Unreasonable" is undefined, and the relationship between unreasonable searches and seizures and the warrant process is unclear.[113] One scholar aptly notes that the language has "both the virtue of brevity and the vice of ambiguity."[114]

Hence, the debate continues over what role the framers intended the warrant play in protecting against unreasonable searches and seizures. One line of Supreme Court cases hold that searches conducted without a search warrant are *per se* unreasonable.[115] This approach

---

111. *Id.* at 626.
112. *Boyd*, 116 U.S. at 627.
113. *See* W. LaFave, *supra* note 108, § 1.1 at 5 for further discussion.
114. J. Landynski, Search and Seizure and the Supreme Court 46 (1966).
115. C. Whitebread & C. Slobogin, Criminal Procedure: An Analysis of Cases and Concepts § 4.03(a) (1986).

Mr. Justice Jackson argued in favor of a per se rule in Harris v. United States:

> I cannot escape the conclusion that a search, for which we can assign no practicable limits, on premises and for things which no one describes in advance, is such a search as the Constitution considered "unreasonable" and intended to prohibit.
>
> In view of the long history of abuse of search and seizure which led to the Fourth Amendment, I do not think it was intended to leave open an easy way to circumvent the protection it extended to the privacy of individual life. In view of the readiness of zealots to ride roughshod over claims of privacy for any ends that impress them as socially desirable, we should not make inroads on the rights protected by this Amendment.

Harris v. United States, 331 U.S. 145, 198 (1947) (Jackson, J., dissenting). The following year the Court adopted the doctrine of the presumptive unreasonableness of warrantless searches, Johnson v. United States, 333 U.S. 10 (1948), and this has remained the general rule, although some commentators believe that the Court may be

reached its zenith in *Mincey v. Arizona*[116] where Justice Stewart, for a unanimous Court, wrote: "The Fourth Amendment proscribes all unreasonable searches and seizures, and it is a cardinal principle that 'searches conducted outside the judicial process, without prior approval by judge or magistrate, are per se unreasonable under the Fourth Amendment — subject only to a few specifically established and well-delineated exceptions.' "[117]

Under this analysis, any drug test conducted by a governmental entity[118] absent a warrant no matter how reasonable it appeared, would

---

moving toward the view that the reasonableness of the search, not whether a warrant was obtained, is the key question. *See, e.g.*, Bloom, *The Supreme Court and Its Purported Preference for Search Warrants*, 50 TENN. L. REV. 231, 270 (1983) ("the Court, despite its espoused preference for warrants, has largely ignored the original practical reasons for the warrant exceptions and has disregarded the previous requirement of limiting the permissible scope of warrantless activity by the practical justification for that activity"); Bloom, *Warrant Requirement — The Burger Court Approach*, 53 U. COLO. L. REV. 691, 744 (1982) ("the Court's preference is in words, not in deeds"). Although these scholars accurately perceive the recent direction of the Supreme Court, it appears they may have overstated the case. The Court continues to require that a warrant be obtained unless the search fits into an established exception. Payton v. New York, 445 U.S. 573 (1980); Arkansas v. Sanders, 442 U.S. 753 (1979); Mincey v. Arizona, 437 U.S. 385 (1978); Vale v. Louisiana, 399 U.S. 30 (1970); Chimel v. California, 395 U.S. 752 (1969); Katz v. United States, 389 U.S. 347 (1967); United States v. Jeffers, 342 U.S. 48 (1951). The day soon may come when the Court reduces the warrant requirement to a mere form of words, but that day has not yet arrived.

116. 437 U.S. 385 (1978).

117. *Id.* at 390. There are a number of such well-defined exceptions: (1) searches incident to a lawful arrest, Weeks v. United States, 232 U.S. 383 (1914); (2) the "automobile exception," Carroll v. United States, 267 U.S. 132 (1925); (3) hot pursuit, Warden v. Hayden, 387 U.S. 294 (1967); (4) stop and frisk, Terry v. Ohio, 392 U.S. 1 (1968); (5) plain view, Coolidge v. New Hampshire, 403 U.S. 443 (1971); (6) border searches, United States v. Montoya de Hernandez, 105 S. Ct. 3304 (1985); United States v. Ortiz, 422 U.S. 891 (1975); (7) administrative searches of closely regulated industries, Donovan v. Dewey, 436 U.S. 309 (1978); United States v. Biswell, 406 U.S. 311 (1972); Colonnade Catering Corp. v. United States, 397 U.S. 72 (1970); Shoemaker v. Handel, 795 F.2d 1136 (3d Cir. 1986); (8) inventory searches, Illinois v. LaFayette, 462 U.S. 640 (1983); Michigan v. Thomas, 458 U.S. 259 (1982); South Dakota v. Opperman, 428 U.S. 364 (1976); (9) searches of school-children's possessions at school, New Jersey v. T.L.O., 469 U.S. 325 (1985); (10) consent, United States v. Mendenhall, 446 U.S. 544 (1980); United States v. Watson, 423 U.S. 411 (1976); Schneckloth v. Bustamonte, 412 U.S. 218 (1973).

118. Governmental entity as used in this article refers to any federal, state, municipal body, or actor within such body whose conduct is constrained by the Constitution. This article is confined to a federal constitutional analysis. Naturally, individual

be unreasonable, unless it fit in with a specific exception.[119]

Other jurists and commentators conclude that the original intention of the fourth amendment was to protect against unreasonable searches and seizures, the warrant requirement being a means to that end, but not an end of constitutional dimension in itself.[120] While the warrant clause cannot be ignored, it is given far less weight than the reasonableness requirement. Under this interpretation a search warrant is not always required, even when it would be feasible to obtain one.[121] The warrant language thus is reduced to a statement of standards for issuing a warrant, should the police seek one.[122] Presence or absence of a warrant is never dispositive; rather, whether the search is reasonable under the circumstances is controlling.[123] This construction has its origins in *United States v. Rabinowitz*,[124] which was overruled in *Chimel v. California*,[125] and is enjoying a renaissance particularly in the opin-

---

state constitutions may require additional protections.

119. Johnson v. United States, 333 U.S. 10, 14-15 (1948). The basis for the exceptions to the warrant requirement is that at times exigent circumstances make obtaining a warrant unfeasible, or consent makes it unnecessary. In *Schmerber*, which like the urine testing cases involved seizure of body fluids, the Court held that the evanescent nature of the evidence sought (the defendant's blood alcohol level) excused the police from obtaining a warrant. *Schmerber*, 384 U.S. at 771. However, in the case of urine testing such a rationale is unavailable, because urine retains traces of drugs for extended periods of time. Morgan, *The Problems of Mass Urine Screening for Misused Drugs*, 16 J. PSYCHOACTIVE DRUGS 305 (1984).

120. *Johnson*, 333 U.S. at 10.

121. *See, e.g.*, Michigan v. Clifford, 464 U.S. 287, 305 (1984) (Rehnquist, J., dissenting); Michigan v. Tyler, 436 U.S. 499, 516 (1978) (Rehnquist, J., dissenting). Justice White's opinion in New Jersey v. T.L.O., 469 U.S. 325 (1985), held the warrant requirement inapplicable in a school search situation.

122. C. WHITEBREAD & C. SLOBOGIN, *supra* note 115, § 4.03(a) at 136.

123. *See* United States v. Rabinowitz, 339 U.S. 56 (1950) for the origination of this interpretation. "The relevant test is not whether it is reasonable to procure a search warrant but whether the search was reasonable. That criterion in turn depends upon the facts and circumstances — the total atmosphere of the case." *Id.* at 66.

124. 339 U.S. 56 (1950).

125. 395 U.S. 752 (1969). In *Chimel* the Court narrowed the search incident to arrest warrant exception to the area within the immediate control of the arrestee. The reasoning of *Rabinowitz*, however, is favored by Justice Rehnquist. *Tyler*, 436 U.S. at 516; *Clifford*, 464 U.S. at 305. Professors Whitebread and Slobogin suggest that what they call the *Rabinowitz*/Rehnquist approach "would make nearly every warrantless search acceptable, while the *Johnson*/Stewart approach would validate only those warrantless searches that fully satisfy at least one of the narrowly-defined exceptions to the warrant requirement." C. WHITEBREAD & C. SLOBOGIN, *supra* note 115, § 4.03(a) at 137.

ions of Chief Justice Rehnquist.[126]

To be sure, both interpretations of the warrant clause find support in the language of the amendment. Each, however, is more a justification for a specific result (the *Mincey* per se analysis for invalidating searches; the *Rabinowitz*/Rehnquist analysis for upholding searches), than a search for the true meaning of the warrant clause. Moreover, each of these approaches are unnecessarily extreme.

Per se analyses are per se imprudent. They not only discourage further analysis, but, by definition, prevent it. Per se tests sacrifice the rigor of analysis on the altar of certainty and direction for the lower courts. With all the competing interests that must be considered to determine whether a search is constitutionally valid, a per se approach is often unworkable. In fact, *Mincey* itself, despite purporting to establish a per se test, recognizes "a few specifically established and well-delineated exceptions."[127] Further, although a per se test can be defended based on the framers' intent,[128] it cannot be defended based on the language of the amendment. The amendment contains no specific prohibition on searches without a warrant.[129] At best the language is equivocal and the prohibition implied.

Likewise, the *Rabinowitz*/Rehnquist construction is sophistic and counterproductive. Although this construction can be defended by a strict reading of the isolated words of the amendment, under this construction, warrants, and the warrant clause itself, would be superfluous.[130] The only relevant inquiry would be whether the search was rea-

---

126. *See, e.g., supra* note 125.
127. *Mincey*, 437 U.S. at 390.
128. *See supra* notes 64-77 and accompanying text.
129. U.S. CONST. amend. IV.
130. A strict reading of isolated words in the fourth amendment is antithetical to accepted conclusions that words and clauses in the Constitution are ordinarily to be given a broad and liberal construction, rather than a narrow or literal one. *See generally* C. ANTIEAU, CONSTITUTIONAL CONSTRUCTION (1982). In 1819, Chief Justice Marshall wrote that "[f]air construction requires that words be given their full and obvious meaning." Sturges v. Crowinshield, 17 U.S. (4 Wheat.) 122 (1819). In 1944, Justice Black said: "Ordinarily courts do not construe words used in the Constitution so as to give them a meaning more narrow than one which they had in the common parlance of the times in which the Constitution was written." United States v. Southeastern Underwriters Co., 322 U.S. 533 (1944).

Fundamental rights are especially to be accorded liberal construction. In fourth amendment cases the Court has stated that the language should be liberally construed in favor of the individual. *See, e.g.*, United States v. Lefkowitz, 285 U.S. 452 (1932); Go-Bart Importing Co. v. United States, 282 U.S. 344 (1931). As Professor Antieau

sonable. In fact, under this approach there would be a substantial *disincentive* to obtaining a warrant before a search, for when a warrant was sought its issuance must be measured against the standards of probable cause; whereas a warrantless search would only be measured, after the intrusion already occurred, against the standards of reasonableness. This result cannot be reconciled either with the Supreme Court's consistent holdings that warrants should be obtained whenever possible.[131]

A practical middle ground between either throwing out all warrantless searches or throwing the warrant clause out of the fourth amendment, would be to consider warrantless searches *presumptively* unreasonable. A warrantless search would increase substantially the burden that the government must carry to prove that the search was reasonable. Under this presumptively unreasonable standard, although the recognized exceptions would be illustrative, they would not be exhaustive of those situations that would validate an otherwise unreasonable search. This approach would eliminate the need to squeeze the expanding girth of what are perceived to be reasonable warrantless searches into what originally were tapered vestments of the narrowly drawn, well-delineated exceptions to the warrant requirement.[132]

---

concludes, "a liberal construction is to be given constitutional clauses designed to protect the individual." C. ANTIEAU, *supra* note 130, at 36.

131. *See, e.g.*, United States v. Ventresca, 380 U.S. 102 (1965). "[I]n a doubtful or marginal case [of probable cause] a search under a warrant may be sustainable where without one it would fail." *Id.* at 106.

132. This development is perhaps best exemplified in the automobile exception cases. The Supreme Court first recognized a need to differentiate a search of a dwelling house, a store, or other structure from a vehicle in Carroll v. United States, 267 U.S. 132 (1925). The Court held that because it was impracticable to obtain a warrant where a vehicle could be quickly moved out of a jurisdiction in which the warrant must be sought, a warrantless search was permissible. In *Carroll*, however, there was no basis for an arrest of the car occupants and thus the police could not have prevented them from moving the car while a warrant was being sought. The auto exception to the warrant requirement (based upon the inherent mobility of a vehicle) was thus created. In 1970 the foundational principles of this exception shifted. In Chambers v. Maroney, 399 U.S. 42 (1970), the Court upheld a warrantless vehicle search under conditions involving no possible vehicle mobility. Both the driver and passengers were under arrest and the car was impounded at the police station. Because the Court found there was probable cause to search the car at the arrest scene, it held there was also probable cause at the station house. Later cases further illuminate the expanding rationale for the warrantless vehicle searches. In California v. Carney, 471 U.S. 386 (1985), a search of a non-mobile trailer home (it was up on blocks) survived constitutional challenge because the Court held that the trailer was readily mobile, licensed to operate on

This presumptively unreasonable standard finds ample support in the language and history of the fourth amendment.[133] That is not, however, the motivation for it. Rather, the presumptively unreasonable standard is necessary for the warrant clause to retain any meaningful vitality. As each exception to the warrant requirement expands in scope well beyond its original purpose, the protections of the warrant clause correspondingly recede. Adopting a presumptively unreasonable standard would not engender any major change in fourth amendment law to date,[134] but it would provide a meaningful framework for analyzing future challenges to warrantless searches. Moreover, a presumptively unreasonable standard would put some teeth back into the warrant requirement. If a warrantless search comes into Court with the presumption that it is invalid, and thereby substantially increases the burden the government must carry to validate that search, then presumably law enforcement will obtain a warrant whenever practicable. The obvious danger of the presumptively unreasonable standard, however, is that it provides a ready justification for swallowing up the entire warrant requirement.

Drug tests are uniformly conducted absent a warrant,[135] thus,

---

the street, serviced in public places, and "subject to extensive regulation and inspection." *Id.* at 393 (citations omitted). However, recognizing the great difference in mobility between *Carney* and *Carroll*, the Court secondarily concluded that the auto exception is increasingly justified because there is a diminished expectation of privacy in an auto. "These reduced expectations of privacy derive not from the fact that the area searched is in plain view, but from the pervasive regulation of vehicles capable of travelling on the public highways." *Id.* at 392. The dissenters, Justices Stevens, Brennan and Marshall, argued that a warrantless search can be justified only when there is both inherent mobility and a lesser expectation of privacy. *Id.* at 395 (Stevens J., dissenting). But Chief Justice Burger, speaking for a six justice majority, held that "[e]ven in cases where an automobile was not immediately mobile, the lesser expectation of privacy resulting from its use as a readily mobile vehicle justifie[s] application of the vehicular exception." *Id.* at 391. Thus, we see that the Court is no longer relying on the original rationale for the auto exception.

These cases illustrate the problem of trying to fit new situations into old exceptions. Under a presumptively unreasonable standard the Court could perhaps reach similar conclusions, but without straining previously defined standards.

133. *See generally supra* notes 29-77 and accompanying text.

134. All of the current exceptions to the warrant requirement (*see supra* note 117) would then just be viewed as circumstances that overcome the presumption of unreasonableness.

135. *See, e.g.*, Shoemaker v. Handel, 795 F.2d 1136 (3d Cir. 1986), *aff'g* 619 F. Supp. 1089 (D.N.J. 1985); Division 241 Amalgamated Transit Union (AFL-CIO) v. Sucsy, 538 F.2d 1264 (7th Cir. 1976); National Treasury Employees Union v. Von

under the above analysis they must be presumptively unreasonable. Given the humiliating nature of the invasion and the state's limited need to conduct wholesale testing,[136] their unreasonableness is all the more egregious.

In *Camara v. Municipal Court*,[137] the Court stated that "there can be no ready test for determining reasonableness other than by balancing the need to search against the invasion which the search entails. . . ."[138] Using that formula the Court found that warrants to search an apartment building that was subject to municipal regulations could be based upon less than probable cause.[139]

Under the very same reasoning, warrants to search a person's urine should be based upon a "greater than ordinary" showing of probable cause. If the Court chooses to tie probable cause to the nature of the area searched, as it did in *Camara*, or more recently in *New Jersey v. T.L.O.*,[140] then it must require an even higher than average standard

---

Raab, 649 F. Supp. 380 (E.D. La. 1986); Lovvorn v. City of Chattanooga, 647 F. Supp. 875 (E.D. Tenn. 1986); Penny v. Kennedy, 643 F. Supp. 615 (E.D. Tenn. 1986); Capua v. City of Plainfield, 643 F. Supp. 1507 (D.N.J. 1986); Jones v. McKenzie, 628 F. Supp. 1500 (D.D.C. 1986); McDonell v. Hunter, 612 F. Supp. 1122 (S.D. Iowa 1985), *modified*, 809 F.2d 1302 (8th Cir. 1987); Turner v. Fraternal Order of Police, 500 A.2d 1005 (D.C. App. 1985); Odenheim v. Carlstadt-East Rutherford Regional School Dist., 211 N.J. Super. 54, 510 A.2d 709 (1985); Caruso v. Ward, 133 Misc. 2d 544, 506 N.Y.S.2d 799 (1986); Patchoque-Medford Congress of Teachers v. Board of Educ., 119 A.D.2d 35, 505 N.Y.S.2d 888 (1986); King v. McMickens, 120 A.D.2d 351, 501 N.Y.S.2d 679 (1986).

136. The fact that the government had failed to demonstrate any widespread drug problem among its employees was one factor relied on by the courts to enjoin screening of the entire work force in *National Treasury Employees Union*, 649 F. Supp. at 380; *Penny*, 643 F. Supp. at 615; and *Lovvorn*, 647 F. Supp. at 875. *See also* NATIONAL INSTITUTE ON DRUG ABUSE, HOUSEHOLD SURVEYS (1986) (reporting a decline or stabilization in the use of all illegal drugs except cocaine in the three years since 1983).

137. 387 U.S. 523 (1967).

138. *Id.* at 536-37.

139. *Id.* at 538. The Court noted that probable cause for an area search "will not necessarily depend upon specific knowledge of the condition of the particular dwelling." *Id.*

140. 469 U.S. 325 (1985). In *T.L.O.*, a student's purse was searched by the assistant vice principal after a teacher caught the girl smoking in the lavatory. He found cigarettes, marijuana, rolling papers, and letters implicating her in drug dealing. The Court reversed the New Jersey Supreme Court's suppression of the evidence, and held that neither a warrant nor probable cause were required for this type of search; the only requirement is that the search be reasonable, that is "justified at its inception" and "reasonably related in scope to the circumstances which justified the interference."

where the area is traditionally and undeniably private.[141]

The Court, however, appears willing to forego the warrant requirement and use a "reasonableness" test in situations presenting circumstances other than "ordinary [street] crime."[142] Not surprisingly, therefore, every lower federal court faced with a challenge to governmental drug testing devotes little, if any, discussion to the warrant issue, even though a majority of those decisions have struck down testing procedures as unconstitutional.[143] Failing to address the warrant issue skips a critical step in analyzing the constitutionality of drug screening.

Id. at 341.

141. Justice Marshall dissenting in Gooding v. United States, 416 U.S. 430 (1974), argued that a flexible notion of probable cause cannot be a "one-way street, to be used only to water down the requirement of probable cause when necessary to authorize governmental intrusions." *Id.* at 465. "In some situations . . . this principle requires a showing of additional justification for a search over and above the ordinary showing of probable cause." *Id.*

142. C. WHITEBRED & C. SLOBOGIN, *supra* note 115, § 3.11 at 292. Professor LaFave states:

> [T]he Supreme Court's assertion "that the police must, whenever practicable, obtain advance judicial approval of searches and seizure" [citing Terry v. Ohio, 392 U.S. 1 (1968)] must be taken with a grain of salt. The Court in fact has not been that demanding, but yet has failed to articulate clearly any basis for squaring the principle that warrants when practicable is the best policy.

W. LAFAVE, *supra* note 108, § 4.1 at 5.

143. Cases which fail to address the warrant requirement issue include *McDonell*, 809 F.2d at 1302; Odenheim v. Carlstadt-East Rutherford Regional School Dist., 211 N.J. Super. 54, 510 A.2d 709 (1985); Caruso v. Ward, 133 Misc. 2d 544, 506 N.Y.S.2d 789 (1986); Patchoque-Medford Congress of Teachers v. Board of Educ., 119 A.D.2d 35, 505 N.Y.S.2d 888 (1986); King v. McMickens, 120 A.D.2d 351, 501 N.Y.S.2d 679 (1986). A number of cases do refer to the warrant requirement, although they all conclude that no warrant is required. *See, e.g., Shoemaker*, 795 F.2d at 1136, 1142 (using administrative search exception for testing jockeys); *Lovvorn*, 647 F. Supp. at 875 (discussing the warrantless administrative searches and the reasonable suspicion standard in testing fire-fighters); *Capua*, 643 F. Supp. at 1507, 1513 (citing *New Jersey v. T.L.O.* for proposition that warrants are not always necessary, and requiring reasonable suspicion for testing firefighters and city employees); Allen v. City of Marietta, 601 F. Supp. 482, 488-491 (N.D. Ga. 1985) (discussing a "government employee" exception to the warrant requirement); *Turner*, 500 A.2d at 1005, 1009 (holding that a warrant is required for private citizens, but not for police officers). *But see National Treasury Employees Union*, 649 F. Supp. at 380 (warrant supported by probable cause must be obtained in order to test urine of Customs workers).

D. *Exceptions to the Warrant Requirement*

While urinalysis may fail the warrant requirement of the fourth amendment, its constitutionality may survive under one of the exceptions that have been carved out of the amendment.[144] The two most appropriate are the administrative search and the consensual search.[145] Each will be discussed in turn.

1. *Administrative Searches*

"All of us are protected by the Fourth Amendment all of the time, not just when police suspect us of criminal conduct."[146] However, when we are engaged in an activity that is subject to public regulation or inspection, the strictures of the fourth amendment may be somewhat relaxed. Under the broad doctrine of "administrative or regulatory search" courts will sometimes allow wide scale searches without a warrant and without particularized suspicion. This is most apparent in highway license checks,[147] safety inspections of residential[148] and commercial buildings,[149] metal detector checks at airports,[150] at United

---

144. *See supra* note 117.

145. There are other exceptions, such as search incident to arrest (Weeks v. United States, 232 U.S. 383 (1914)), the so-called emergency exception (Warden v. Hayden, 387 U.S. 294 (1967)), and the automobile exception (Carroll v. United States, 267 U.S. 132 (1925)), that will not be discussed. To the extent that border searches (Almeida-Sanchez v. United States, 413 U.S. 266 (1971)) are similar to administrative searches, they will be included in this section.

146. *McDonell*, 612 F. Supp. at 1122, 1127. As Professor LaFave remarked: "It is a perversion of the exclusionary rule to conclude that the Fourth Amendment should protect most against the conviction of criminals. The basic function of the Amendment is to protect personal privacy . . . . [T]he individual's interest in privacy 'would not appear to fluctuate with the 'intent' of the invading officers.'" W. LaFave, *supra* note 108, § 10.1 at 188-89 (quoting from the dissent in Abel v. United States, 362 U.S. 217 (1960)).

147. Delaware v. Prouse, 440 U.S. 648 (1979).

148. *Camara*, 387 U.S. at 523.

149. Marshall v. Barlows, 436 U.S. 307 (1978); See v. City of Seattle, 387 U.S. 541 (1967).

150. United States v. Albarado, 495 F.2d 799 (2d Cir. 1974). Magnetometer searches at airports are conducted without even reasonable suspicion because they "involve none of the indignities" of more intrusive searches and do not humiliate those who pass through them. *Id.* at 806. *See also* United States v. Davis, 482 F.2d 893 (9th Cir. 1973) (upholding pre-boarding screening of all airplane passengers and carry-on luggage for weapons and explosives as reasonable, so long as each prospective boarder retains the right to leave rather than submit to search).

States border areas,[151] and in school discipline matters.[152] At least one United States Court of Appeals has employed this rationale in upholding a random drug testing scheme for racehorse jockeys.[153]

The Supreme Court first recognized the need for a relaxed standard of probable cause in 1967 in a case involving purported violations of a San Francisco housing code. In *Camara v. Municipal Court*,[154] the defendant was convicted of housing code violations after he refused to permit housing inspectors to inspect quarters that he leased and used for residential purposes, allegedly in violation of the apartment building's occupancy permit.[155] The Court overturned the conviction because the inspectors did not seek a warrant after the defendant's refusal.[156]

Although the Court found that a nonconsensual search of private property was unconstitutional, it significantly relaxed the standard of probable cause needed to obtain a warrant for an administrative inspection. Particularized suspicion was abandoned in favor of a more flexible general standard of need to inspect. After *Camara* an "administrative" warrant may be based upon such factors as the passage of time (from last inspection), nature of the building, or the condition of the entire area.[157]

A few years later the Court dispensed completely with the warrant requirement in a case involving the inspection of gun dealers.[158] Due to the highly regulated nature of the firearms industry, pervasive government regulation and licensing were found to have reduced the dealer's legitimate expectation of privacy.[159] Furthermore, the Court found that unannounced periodic inspections were essential if the law were to have any effect.[160] Thus, further exception to the prohibition of warrantless

---

151. United States v. Montoya De Hernandez, 473 U.S. 531 (1985). "[T]he Fourth Amendment's balance of reasonableness is qualitatively different at the international border than in the interior." *Id.* at 549; United States v. Ramsey, 431 U.S. 606 (1977) (border searches are reasonable by the single fact that the person or item — in this case letters mailed from Thailand suspected of containing drugs — had entered the country from the outside).

152. New Jersey v. T.L.O., 469 U.S. 325 (1985).

153. *Shoemaker*, 795 F.2d at 1136.

154. *Camara*, 387 U.S. at 523.

155. *Id.* at 526.

156. *Id.* at 534.

157. *Id.* at 538.

158. United States v. Biswell, 406 U.S. 311 (1972).

159. *Id.* at 316.

160. *Id. See also* Donovan v. Dewey, 452 U.S. 594 (1981), in which the Court held that warrantless inspections of the coal mining industry, as required by the Fed-

searches is carved out for highly regulated industries. Absent consent or some exigency, however, in "ordinary" business or quasi-public settings, the state still must obtain an "administrative warrant" prior to searching.[161]

Assuming that a business is subject to some form of license or regulation, the only question remaining after *Camara*[162] and *Donovan v. Dewey*[163] is how heavily the government interest outweighs the private interest; that, in turn, directs how deeply the inroads into the fourth amendment will travel. Apparently, the greater the need to search freely, the more freely the search will be allowed.

Indiscriminate employee drug testing, therefore, may withstand constitutional challenge if it can fit itself into this regulatory framework. First, however, the justification for finding an exception to the warrant and probable cause requirements of the fourth amendment must come within the rationale set out in *Camara*. Writing for the Court in *Camara*, Justice White set out three factors supporting the reasonableness of relaxed probable cause in a regulatory setting: the long history of judicial and public acceptance of code-enforcement programs; the public interest in abating dangerous conditions; and the lim-

---

eral Mine Safety and Health Act, serve a legitimate Congressional purpose and do not violate the fourth amendment. "[A] system of warrantless inspections was necessary if the law is to be properly enforced and inspection made effective." *Id.* at 602-03; Colonnade Catering Corp. v. United States, 397 U.S. 72 (1970) (pervasive regulation in the liquor industry).

161. *See, e.g.*, Michigan v. Clifford, 464 U.S. 287 (1984). A fire investigator entered a home without a warrant or consent six hours after a blaze was extinguished, and searched the basement where he discovered the cause of the fire, but then went upstairs, where he gathered evidence of arson. A four-justice plurality found that the investigator should have obtained a warrant because there were no longer exigent circumstances justifying an entry. Moreover, the Court found that an administrative warrant would have sufficed to search the basement to "determine the cause and origin of the fire," but a criminal search warrant was required before going upstairs into the private residence with the purpose of gathering evidence of criminal activity. The Court thus upheld the administrative warrant requirement of Michigan v. Tyler, 436 U.S. 499 (1978) (fire inspectors may enter a burning building to fight a blaze and remain a reasonable time to investigate the cause of the fire, but later entries without consent require an administrative warrant). However, Justice Rehnquist, joined by Chief Justice Burger, Justice Blackmun and Justice O'Connor, would have found the search of the basement reasonable under the exigent circumstances doctrine enunciated in *Michigan v. Tyler*.

162. *Camara*, 387 U.S. at 523.

163. *Donovan*, 452 U.S. at 594. *See supra* note 160 for a discussion of the facts in *Donovan*.

ited invasion of the urban citizen's privacy stemming from the non-personal and non-criminal nature of the searches.[164] These three factors provide the structure for analyzing whether public employee drug testing programs fall within the administrative exception to the warrant requirements.

First, since employee drug testing is such a new practice, there is no long standing history of judicial and public policy favoring it. In fact, most recent judicial opinions disfavor random employee drug screening, finding it offensive to guarantees of individual freedom.[165] Second, certainly the public is interested in ridding government of the scourge of illegal drug use, but there are natural limits to such enforcement.[166] Public interest might also be in the abatement of all crime and criminals. Yet we do not relax probable cause standards and sanction area searches of homes to find criminals.[167] Finally, unlike regulatory searches, drug screenings are personal,[168] and while they may not start out as a criminal search, they may end up as one.[169] Thus, the rationale supporting the administrative search decisions may face greater challenge in the area of employee drug testing.

Furthermore, some quantum of individualized suspicion is generally a prerequisite to a constitutional search or seizure, even in areas where the government has a great need to search.[170] Within the vast array of government jobs, there lie varying degrees of supervision and regulations. A rationale for testing one government employee may be irrelevant and insufficient for another.[171]

---

164. 387 U.S. at 537.

165. *See, e.g., National Treasury Employees Union*, 808 F.2d at 1057; *Lovvorn*, 647 F. Supp. at 875; *Penny*, 648 F. Supp. at 615; *Capua*, 643 F. Supp. at 1507; *Jones*, 628 F. Supp. at 1500; *Odenheim*, 211 N.J. Super at 54, 510 A.2d at 709; *Patchogue-Medford Congress of Teachers*, 119 A.D.2d at 35, 505 N.Y.S.2d at 888.

166. *See infra* notes 180-85.

167. *See, e.g.*, W. LaFave, *supra* note 108, at § 10.1(b).

168. *See* notes 146-78 and accompanying text.

169. "[G]overnment investigations of employee misconduct always carry the potential to become criminal investigations." Allen v. City of Marietta, 601 F. Supp. 482, 491 (N.D. Ga. 1985).

Moreover, "Governmental agents, once they possess incriminatory information, may not have the authority to withhold such information from prosecuting agents, even if that is their desire." *Capua*, 643 F. Supp. at 1507, 1520.

170. *Shoemaker*, 795 F. Supp. at 1100.

171. *See Capua*, 643 F. Supp. at 1518, distinguishing *Shoemaker*: "[I]n balancing the state's interest against that of individual jockeys, the considerations before the *Shoemaker* court differed dramatically from those of the instant case. First, horse rac-

In *Delaware v. Prouse*,[172] the Court held that random stops of automobiles on a highway, without any reasonable suspicion that a motorist is unlicensed or the vehicle is unregistered, or that any other violation has occurred, is the kind of "standardless and unconstrained discretion" that must be circumscribed.[173] To be constitutional, a discretionary search must be tempered by safeguards including the legitimate purpose of the search and the reasonableness of the procedures followed.[174] In *United States v. Martinez Fuerte*,[175] the Court upheld a warrantless automobile search for illegal aliens not because it was based upon probable cause, but because it occurred at a fixed reasonably located checkpoint. The Court found the procedures were reasonable, met a legitimate purpose, and because they were at a checkpoint, not a roving border patrol, they were a minimal intrusion upon the individuals searched.[176] Unless the government can meet the challenge of showing that employee drug testing is reasonable, minimally intrusive, and legitimately related to its interest in fighting drug abuse, its warrantless testing programs must be found unconstitutional.[177]

---

ing, unlike fire fighting, is an intensely regulated industry within the administrative search exception to the Fourth Amendment."

172. 440 U.S. at 661.

173. *Id.*

174. United States v. Martinez-Fuerte, 428 U.S. 543, 562 (1976).

175. *Id.*

176. *Id.* Three years earlier, in Almeida Sanchez v. United States, 413 U.S. 266 (1973), the Court struck down random searching by border patrol agents. The only significant difference in the cases appears to be the Court's finding that the latter procedure (fixed checkpoints) was less of an intrusion upon individual privacy interests and more reasonable. Possibly due to the fact that the illegal alien problem in this country was on the rise, the Court found a heightened legitimacy to the government's purpose, as well.

177. *See supra* 136 note and accompanying text. In *Capua* the Court found that there was no need to randomly test police and firefighters even though preserving the integrity of such forces is in the public interest. While the state may derive less benefit if jockeys are perceived negatively by the public (lost wagering-related revenues), "fire fighters can still continue to serve the public effectively, even in the face of unpopular perception.'" *Capua*, 643 F.Supp. at 1519. If safety or job performance is the basis for testing, then such concerns can adequately and more efficiently be addressed through an individualized suspicion standard. *See also Penny*, 648 F. Supp. at 815. "The defendants do not have to rely on across-the-board drug tests to insure the integrity of the Police Department. Information concerning drug problems can be acquired by physical observation of police officers, citizens complaints, tips from other law enforcement agencies and other means." *Id.* at 817.

There are public employees who may fall within the "intrusively regulated" stan-

The reasoning that because in certain areas one has a lesser expectation of privacy (due to regulations, notice of inspections, etc.), and the state has a greater interest in regulating the area for the public good,[178] warrantless random searches are permissible, highlights the need for the most stringent protections for ordinary government workers. The mere fact that a practice or industry is heavily regulated does not in itself justify a search of the participants in that industry or practice. However, the individuals who participate in regulated industries and practices do so voluntarily and subject themselves to state regulation, at least with respect to their professions or businesses. The legitimacy of the state's search of these individuals upon a lesser showing of

---

dard, such as air traffic controllers (FAA regulations), nuclear power plant operators (NRC regulations). Such individuals may be subject to testing under a lesser standard than individualized suspicion given the nature of their professions, the tremendous detriment to the public good should they be impaired on the job, and the fact that they knowingly accept employment in these highly regulated industries.

It is not always true, however, that the degree of state regulation is an accurate guide to the state's interest in conducting a search. Presumably the state's interest in conducting a search is either to root out criminal activity or to protect public safety. The state, however, regulates industries and practices for additional reasons as well. Thus, the mere fact that an industry or practice is pervasively regulated does not necessarily mean that the state has regulated that industry for purposes of public safety.

For instance, wagering is a practice that most states regulate extensively. Although it is true that the state has a significant interest in ensuring that wagering activity is conducted only under the most open and honest circumstances, the state's interest in regulating that activity is not so much one of public safety, as resulting from the enormous trust that those who engage in wagering place in the system, and relative ease and susceptibility of that system to abuse. *See infra* note 178. *See also Shoemaker*, 795 F.2d at 1136. Similarly, most states pervasively regulate the sale of liquor. To be sure, many of those regulations are to protect the public safety by controlling the persons to whom liquor may be sold and the circumstances of sale. However, most of the regulation of liquor sales are fiscally related, to raise revenue through taxes.

178. *See, e.g., Shoemaker*, 795 F.2d at 1136:

> [T]he horse racing industry has been among the state's most highly regulated industries. . . . Because of the state's interest in the revenue generated by wagering and the vulnerability of the industry to untoward influences, the statute has always provided that no person could be employed in any capacity at a race track "who has been convicted of a crime involving moral turpitude. . . ." As previously noted, the intense regulation of the racing industry is justified because of public wagering on the outcome of races. Substance abuse by jockeys, who are the most visible human participants in the sport, could affect public confidence in the integrity of that sport.

Id. at 1141, 1144 (citations omitted).

suspicion derives not from the mere fact that the state regulates the industry or practice, but rather from their consent to the state's regulation. Thus, while the rationale for the administrative search may fail, the consensual search exception to the warrant requirement may justify the warrantless drug testing of public sector employees.

a. *Consensual Search*

An alternative argument supporting random drug screening is that the searches are reasonable because they are based upon employee consent.[179] A finding of consent can validate a warrantless and otherwise unreasonable search. Interestingly, consent searches are frequently relied upon by police because they involve less paperwork and offer an opportunity to search when probable cause is lacking.[180] To the extent they are free from official duress or coercion, express or implied, they are a perfectly useful and legitimate investigative tool.[181] However, when the government relies upon consent because it has no probable cause to search without it, it must bear a heavy burden of proving such consent, because "the Constitution explicitly prefers the private person's interest to society's."[182]

Whether a search based upon consent is reasonable under the fourth and fourteenth amendments depends upon whether the defendant voluntarily agreed to a search.[183] If, for example, an individual

---

179. *See* Schneckloth v. Bustamonte, 412 U.S. 218 (1973).

180. *See also* Weinreb, *Generalities of the Fourth Amendment*, 42 U. CHI. L. REV. 57-8 (1974):

> When the police do rely on consent, either (1) they could not have obtained a warrant because a constitutional requirement like probable cause was not met; or (2) they could have obtained a warrant but did not; or (3) the constitutional requirements were met, but the police could not obtain a warrant for other reasons, such as unavailability of a magistrate.

In the drug testing setting only the first of these reasons applies. In fact, in all of the drug testing cases the government admits that it has no probable cause to test all employees, but argues the need to search based upon general safety considerations.

181. *Schneckloth*, 412 U.S. at 220.

182. *Weinreb, supra* note 180, at 57.

183. Actually, for many years a debate centered on whether the test for consent was voluntariness or actual waiver of constitutional rights. To be voluntary, the government had only show that the person made a free choice in allowing the search. On the other hand, to show waiver the government had to meet the test of Johnson v. Zerbst, 304 U.S. 458 (1938) — that is, an intentional relinquishment or abandonment of a known right or privilege. In *Schneckloth*, the Court did away with the strict voluntariness and waiver approaches, favoring instead a bipartite analysis.

agrees to a search of a home, but only after she is led to believe that the police had a warrant, there is no consent.[184] Or, if a person agrees to a search when his or her ability to understand or reason effectively is impaired, there is no valid consent.[185] Under the holding of *Schneckloth v. Bustamonte*[186] and later cases, voluntariness is determined only after considering all the facts and circumstances surrounding the search, including whether the individual knew of, and was able to exercise, a right to refuse.

Consent to surrender fourth amendment rights cannot be implied from the fact that one works for the government, even in high risk security positions.[187] This is most apparent in some of the recent prison

---

> [W]hen the subject of a search is not in custody and the State attempts to justify a search on the basis of his consent, the Fourth and Fourteenth Amendments require that it demonstrate that the consent was in fact voluntarily given, and not the result of duress or coercion. Voluntariness is a question of fact to be determined from all the circumstances, and while the subject's knowledge of a right to refuse is a factor to be taken into account, the prosecution is not required to demonstrate such knowledge as a prerequisite to establishing a voluntary consent.

Schneckloth, 412 U.S. at 249-50. Justice Marshall harshly criticized the majority opinion. He argued that the Court unnecessarily clouded the issue by importing the fifth amendment standard for coerced confessions as opposed to simply seeing if a consent search violated the fourth amendment. He argued that consent searches should be permitted,

> not because such an exception to the requirements of probable cause and warrant is essential to proper law enforcement, but because we permit our citizens to choose whether or not they wish to exercise their constitutional rights. . . . I am at a loss to understand why consent "cannot be taken literally to mean a 'knowing' choice." In fact, I have difficulty in comprehending how a decision made without knowledge of available alternatives can be treated as a choice at all.

Id. at 284-85.

184. Bumper v. North Carolina, 391 U.S. 543, 548 (1968). When a law enforcement officer announces that he has a warrant, there is coercion. "Where there is coercion there can be no consent." *Id. See also* United States v. Jones, 641 F.2d 425 (6th Cir. 1981) (a valid consent must be free and voluntary — more than a mere expression of approval); People v. Mullaney, 104 Mich. App. 787, 306 N.W.2d 347 (1981) (no consent where police falsely state that a warrant is on the way).

185. *See* United States v. Elrod, 441 F.2d 353 (5th Cir. 1971). The key to valid consent is actual mental capacity of the suspect, regardless of whether police believed that at the time the individual had adequate mental capacity to consent.

186. 412 U.S. 218 (1973).

187. Conceivably, a government employee could have a lesser expectation of privacy in certain "sensitive" positions. If, for example, the branch of government is highly regulated and subject to frequent security checks, and the individual was aware

litigation.[188] *McDonell v. Hunter*[189] presents a good example. McDonell, and other guards at Anamosa Prison, Iowa Department of Corrections, challenged the Department's policy allowing for broad searches of employee's cars and persons, including urine, blood, or breath specimens. Before coming to work at Anamosa, guards are informed that all employees may be searched (including strip searched), or asked to provide blood, urine or breath samples at any time at the discretion of the warden. They then sign standardized forms acknowledging their consent to such procedures.[190]

---

of such procedures at the time of accepting employment, it would be reasonable to find a reduced privacy interest. Members of the military find themselves in just this situation. *See, e.g.*, Goldman v. Weinberg, 106 S. Ct. 1310 (1986) (air force regulation that prevented an Orthodox Jewish serviceman from wearing a yarmulke does not violate the first amendment because of great deference given to professional decisions of military authorities). But even military personnel do not give up all constitutional rights. *See, e.g.*, Parker v. Levy, 417 U.S. 733, 758 (1974); Committee for G.I. Rights v. Calloway, 518 F.2d 466, 476 (D.C. Cir. 1975).

The reduced fourth amendment protection afforded military personnel is justified under a general balancing test of state versus private interests, with the government usually tipping the scales due to the unique requirements and responsibilities of the military. Drug screenings and other warrantless military inspections are not reasonable because they are consensual. Indeed, this is the antithesis to the notion of voluntary act, absent express or implied coercion, established in *Schneckloth*, 412 U.S. at 218. They are constitutional, however, because they are reasonable.

188. *See, e.g.*, SEC & Law Enforcement Employees Dist. v. Carey, 737 F.2d 187 (2d Cir. 1984) (visual body cavity and strip searches of prison employees for contraband unconstitutional in the absence of individualized suspicion); McDonell v. Hunter, 612 F. Supp. 1122 (S.D. Iowa 1985); King v. McMickens, 120 A.D.2d 351, 501 N.Y.S.2d 679 (1986).

189. 612 F. Supp. at 1122. The Eighth Circuit modified the district court's opinion, which disallowed urinalysis on less than reasonable suspicion, to allow "systematic random selection of . . . employees who have regular contact with prisoners on a day to day basis in medium or maximum security prisons." 809 F.2d at 1308. It affirmed the remainder of the lower court's opinion including its finding that employees may not give advance consent to unreasonable searches. *Id.* at 1310.

190. In addition to language indicating that employees have read and understood the appropriate portions of the employees' manual, the forms include the following "waiver":

> My signature on this page constitutes my permission to be searched at any time while on State property by a staff member of the same sex that I am, when the staff member is directed to do so by the Warden. . . . I, also, agree to submit to a urinalysis or blood test when requested by the administration of the institution. I further agree to cooperate and assist in any and all investigations of a security or possible criminal nature when requested to do so. I hereby affix my signature knowingly and voluntarily,

Although the Corrections Department argued that McDonell validly consented to urinalysis and other searches, the Court found otherwise. Judge Vietor found that there was no evidence from which he could determine voluntariness.[191] The consent form cannot provide a blanket waiver of all fourth amendment rights.[192] Moreover, the court concluded that it was unlawful for the Iowa Department of Corrections to condition employment on consent to future unreasonable searches.[193] "Fourth Amendment rights are more limited inside the correctional institution, but the consent cannot be construed to be a valid consent to any search other than one that is, under the circumstances, reasonable and, therefore, permissible under the Fourth Amendment."[194]

---

absent of any duress or coercion.
Plaintiff McDonell signed such a form when he accepted employment, several years before the events challenged in the case.

191. "There is no evidence concerning the circumstances of that signing from which the court can determine voluntariness. . . . Under this record the court cannot rest its decision on an assumption that plaintiff McDonell [and others] who signed consents voluntarily consented in advance to any search made under the Department's policy." 612 F. Supp. at 1131.

192. *Id. See also* 809 F.2d at 1310.

193. 612 F. Supp. at 1122. Cases which have held that consent to future unconstitutional searches is invalid include: Thorne v. Jones, 765 F.2d 1270 (5th Cir. 1985), *cert. denied*, 106 S. Ct. 1198 (1986); Security and Law Enforcement Employees v. Carey, 737 F.2d 187 (2d Cir. 1984); *National Treasury Employees Union*, 649 F. Supp. at 380; *McDonell*, 612 F. Supp. at 1131; Armstrong v. New York State Comm'r of Corrections, 545 F. Supp. 728, 731 (N.D.N.Y. 1982); *Caruso*, 133 Misc. 2d at 549, 506 N.Y.S.2d at 794.

194. 612 F. Supp. at 1131. Urinalysis and strip searches of prison personnel based upon less than reasonable suspicion are unreasonable. *McDonell* 612 F. Supp. at 1129-30. *See also* Thorne v. Jones, 765 F.2d 1270 (5th Cir. 1985). Visitors to the Louisiana State Penitentiary (LSP), a maximum security facility, were required to sign a form agreeing to a personal search by security personnel while on prison grounds. There was also a large sign posted outside the front gate warning that "If you enter the gates of Angola, you consent to a search of your person and property . . . ." *Id.* Mr. Thorne, father to two inmates, brought a civil rights action after being strip searched before a visit with his sons. LSP argued that Mr. Thorne consented to the search, or, alternatively, that he waived his fourth amendment rights when he entered the facility. The court rejected the consent argument as too broad, finding that it would validate otherwise unreasonable random strip searches of prison visitors. Simply being a visitor in a prison does not deprive one of fourth amendment protections. *Accord* Hunter v. Auger, 672 F.2d 668, 674 (8th Cir. 1982); *Security & Law Enforcement Employees*, 737 F.2d at 205; Giles v. Ackerman, 746 F.2d 614, 617 (9th Cir. 1984), *cert. denied*, 471 U.S. 1053 (1985). *But see* United States v. Sihler, 562 F.2d 349 (5th Cir. 1977) (upholding search of prison employee's lunch bag based upon explicit and inferred consent).

Judge Collins reached a similar conclusion in *National Treasury Employees Union v. Von Raab*,[195] finding that a scheme to screen customs workers as a precondition to advancement was unconstitutional and based upon invalid consent. The court found that workers who agreed to the plan did not do so voluntarily, but rather gave their consent "as a result of coercion, express or implied."[196] Additionally, the court held that "it is unconstitutional for the government to condition public employment on 'consent' to an unreasonable search [and] refuses to find voluntary 'consent' to an unreasonable search where the price of not consenting is loss of government employment or some other government benefit."[197]

The consent exception to the warrant requirement cannot validate an otherwise unconstitutional urine screening. Notions of consent in the employment context are strained, at best. One does not have freedom of choice where one's profession and livelihood are conditioned upon submitting to a drug test.[198] Looking at all the facts and circumstances, it is unreasonable to conclude that consent is voluntary in the employment context.[199]

E. *Balancing Test of Reasonableness*

The fourth amendment does not protect against all searches and seizures, only those that are unreasonable. As we see from the above discussion, reasonableness is determined by a careful review of all the facts and circumstances attendant to the search.[200]

For example, it is reasonable to stop a "suspicious" person for questioning,[201] and even to conduct a limited search at the scene if

---

195. 649 F. Supp. at 380.

196. *Id.*

197. *Id.*

198. *See* discussion of property rights, *infra* notes 251-65 and accompanying text.

199. This is especially true where drug testing policies are implemented after an employee accepts employment with the government, as is the case with the Reagan plan that seeks to screen current as well as new employees. Our hypothetical, Ms. X, a seven year veteran of the post office, certainly did not accept employment with an understanding that she would be subject to urinalysis. When asked to submit to a test she can refuse and jeopardize her seniority, security and pension. Or, she can "consent."

200. "Although the underlying command of the fourth amendment is always that searches and seizures be reasonable, what is reasonable depends on the context within which a search takes place." New Jersey v. T.L.O., 469 U.S. 325, 337 (1985).

201. Terry v. Ohio, 392 U.S. 1 (1968). In *Terry*, the Court stated that a frisk for

there is any concern that the individual may be armed;[202] however, it is not reasonable to follow that same person home and then stop and search the individual there.[203] Both scenarios involve a significant invasion of personal privacy,[204] yet the first setting is constitutionally acceptable while the latter is not. The explanation for this difference lies not within the language of the fourth amendment, but again in the balancing test of state's interests versus the individual's expectation of privacy.[205]

Government has a vital interest in ensuring that its workforce, particularly those in "sensitive" areas, is drug free.[206] This interest is even

---

weapons was justified following an investigatory stop after "a police officer observes unusual conduct which leads him reasonably to conclude in the light of his experience that criminal activity may be afoot and that the persons with whom he is dealing may be armed and presently dangerous." *Id.* at 30. In Delaware v. Prouse, 440 U.S. 648, 663 (1979), the Court held that an automobile stop must be justified by "at least particular and reasonable suspicion that a motorist is unlicensed or that an automobile is not registered, or that either the vehicle or an occupant is otherwise subject to seizure for violation of the law . . . ." Likewise, in Brown v. Texas, 443 U.S. 47 (1979), the Court reversed the conviction of the defendant for refusing to identify himself to a police officer, because the initial detention and questioning of the defendant was not justified by a reasonable suspicion that he was involved in criminal activity. *Terry* and its progeny are still good law. *See, e.g.*, United States v. Sharpe, 397 U.S. 1026 (1985) (referring to *Terry* for the proposition that an investigative stop must be justified at its inception and reasonably related in scope to the circumstances which justified it in order to be reasonable).

202. *Terry*, 392 U.S. at 27.

203. Vale v. Louisiana, 399 U.S. 30 (1970). In *Vale*, after police observed what they believed to be a narcotics transaction between Vale in front of his house, they arrested him at his front steps. They then searched his house without a warrant. The Supreme Court held that this search was not justifiable as a search incident to arrest and violated the fourth amendment.

204. *See T.L.O.*, 469 U.S. at 325, 341. The Court stated that in determining the reasonableness of a search, "one must determine whether the search as actually conducted 'was reasonably related in scope to the circumstances which justified the interference in the first place' " (quoting Terry v. Ohio, 392 U.S. at 1, 20).

205. *T.L.O.*, 469 U.S. at 325, 337. It is reasonable, for example, for police to search a suspect after they have placed the individual under arrest. Considering the need for officers to protect themselves from a potentially dangerous situation, it would be unreasonable for them to wait until a warrant was secured. It is also reasonable for police to seize an object clearly within their view, assuming they are legitimately in the place where they are viewing it. Again, to require police to do anything else might jeopardize the evidence, and would be unreasonable. In fact, all the "exceptions to the warrant requirement" are rooted in basic notions of reasonableness.

206. *Shoemaker*, 795 F.2d at 1136, 1142 (state has strong interest in assuring integrity of horse racing industry); Division 241 v. Suscy, 538 F.2d at 1267 (transit

more pressing in the face of reported widespread drug use in our society.[207] This has been recognized by every court to address the issue.[208] Two additional questions, however, must be answered: (1) whether drug testing is reasonably related to the government's goal, and (2) whether it violates individual rights.

If testing were conducted pursuant to a warrant based upon probable cause, the likelihood of exposing a drug user is strong, and the need to take appropriate action in that case is great. But, in fact, that is not the case in the President's drug testing plan, which calls for mandatory testing of *all* government employees on a random basis, nor in any of the governmental plans adopted to date. To the extent the government

---

authority has "paramount interest in protecting the public by insuring that bus and train operators are fit to perform their jobs"); *National Treasury Employees Union*, 649 F. Supp. at 387 (government has legitimate interest in a "drug-free work place and work force"); *Lovvorn*, 808 F.2d at 1057 (city has "compelling interest in having its fire fighters free from drugs"); *Capua*, 643 F. Supp. at 1511 ("Government has a vital interest in making certain that its employees, particularly those whose impairment endangers their co-workers or the public, are free from drugs"); *McDonell*, 612 F. Supp. at 1128 (state's interest in preservation of security and order in prisons); *Allen*, 601 F. Supp. at 491 (government employer has same right to investigate job-related misconduct as private employer); *Turner*, 500 A.2d at 1008 (paramount interest in public safety justifies limited testing of police); *Bauman*, 475 So. 2d at 1326 (same); *Caruso*, 133 Misc. 2d at 551, 506 N.Y.S.2d at 796 (maintaining integrity, order and discipline in law enforcement agencies); King v. McMickens, 120 A.D.2d at 351, 501 N.Y.S.2d at 679 (corrections officer cannot perform duties if impaired by drugs). *But see* Jones v. McKenzie, 628 F. Supp. at 1509 (public safety considerations do not require urine testing of school bus attendant without particularized probable cause); *Odenheim*, 211 N.J. Super. at 60-61, 510 A.2d at 712 (distinguishing students from corrections officers and jockeys in regard to government interest in testing); *Patchoque-Medford Congress of Teachers*, 119 A.D.2d at 35, 505 N.Y.S.2d at 891 (government's interest in testing urine of teachers not as strong as that in testing urine of police, firefighters, bus drivers, or train engineers).

207. Results of the most recent National Institute for Drug Abuse (NIDA) study do not fully support a finding of widespread drug abuse. NIDA's surveys indicate that marijuana use of persons 12 or older has decreased by 10% from 20.0 million in 1982 to 18.2 million in 1985. For the same group cocaine use increased 1% from 4.2 million in 1982 (2% of the household population) to 5.8 million in 1985 (3% of the population). Overall, persons eighteen to twenty-five years of age stabilized or decreased their use of most drugs in 1985. While persons twenty-six and older were "most likely to have increased their drug use." Of this group current drug use, based on figures from 1972-1985, is estimated at 6.2% for marijuana and hashish, 2.1% cocaine, less than half of 1% for hallucinogens and heroin; 60.7% for alcohol and 32.8% for cigarettes. (NIDA classifies both alcohol and cigarettes as drugs.) *National Household Survey on Drug Abuse* (Nov. 1986).

208. *See supra* note 206.

cannot establish an individualized basis for its need to search, and then carefully tailor its search to that need, its drug screening programs most likely will fail the balancing test.[209]

Additionally, the government's plan must be reasonably related to its interest. Indiscriminate testing of employees is not a reasonable means to address the problem.[210] Such procedure is likely to reveal few positive results.[211] Thus, the effect that random drug testing will have on the national drug problem is speculative, at best.[212] Whereas, the effect it will have on civil liberties is great.[213]

---

209. Division 241 Amalgamated Transit Union v. Sucsy, 538 F.2d 1264 (8th Cir. 1976). City bus drivers were tested for drug use after involvement in serious bus accidents, but only after two supervisory personnel concurred on the necessity to test the individual. In *National Treasury Employees Union*, 649 F. Supp. at 387, a federal court held that, regarding urine testing of customs workers in "covered positions": "[t]his dragnet approach, a large scale program of searches and seizures made without probable cause or even reasonable suspicion, is repugnant to the United States Constitution." Other cases which have required reasonable suspicion for testing employees for drugs are *Lovvorn*, 647 F.Supp. at 875 (fire fighters); *Penny v. Kennedy* 648 F. Supp. at 815 (police officers); *Capua*, 643 F. Supp. at 1507, 1517-1520 (fire fighters and police department employees); *McDonell*, 612 F. Supp. at 1122, 1130 (correctional officers); *Turner*, 500 A.2d at 1005, 1009 (police officers); *Bauman*, 475 So. 2d at 1325-26 (police officers and fire fighters); *Caruso*, 133 Misc. 2d at 553, 506 N.Y.S.2d at 798-99 (police officers in the City of New York's Organized Crime Bureau); *Patchoque-Medford Congress of Teachers*, 119 A.D.2d at 35, 505 N.Y.2d at 888 (teachers).

210. Judge Irving Kaufman, Chairman of the President's Commission on Organized Crime, makes the contrary argument. Judge Kaufman suggests that random drug testing programs that affect all employees equally may be more reasonable than programs that single people out or apply only to employees "who stir the boss's whimsy." Kaufman, *The Battle Over Drug Testing*, N. Y. Times, Oct. 19, 1986, (Magazine), at 52, 66. The fallacy in this position is that it totally ignores the fourth amendment probable cause requirement and undermines its protection of the individual. Certainly, charges of retaliatory testing may arise occasionally under a drug testing plan based upon probable cause or reasonable suspicion, but that is not a justifiable basis for abandoning standards altogether.

In fact, random testing protects only the person (or entity) least needy of protection — the employer. The reasonableness to employees argument is thus only a disguised insulation for employers. Under a constitutionally permissible drug testing plan there would be no need to protect employers because there already would be adequate procedures for investigating and resolving charges of discrimination.

211. The term positive results is used advisedly, for even a so-called positive may be false. See further discussion of this in the section on reliability, *infra* notes 244-50.

212. The effect upon the individual is just the opposite, since it may result in suspension, dismissal, damaged reputations, and permanent impact upon livelihood.

213. Judge Sarokin expresses this thought far more eloquently:

The threat posed by the widespread use of drugs is real and the need to

Under Justice Harlan's twofold test in *Katz*,[214] a person must have a subjective expectation of privacy in the area or thing searched, and such expectation must be one that society recognizes. Under this test the level of intrusion of mass urine testing is significantly high.[215] As mentioned earlier, individuals maintain a high degree of privacy in bodily functions. This extends not only to where or how the functions are performed, but also to what happens to the product.[216]

Furthermore, urinalysis forces individuals to divulge private personal facts unrelated to the government's professed interest in discovering illegal drug use.[217] Medical sampling of urine can reveal information such as whether a person is diabetic, epileptic, and whether a woman is pregnant.[218] Judge Sarokin writes:

> Plaintiffs have a significant interest in safeguarding the confidenti-

---

> combat it manifest. But it is important not to permit fear and panic to overcome our fundamental principles and protections. A combination of interdiction, education, treatment and supply eradication will serve to reduce the scourge of drugs, but even a reduction in the use of drugs is not worth a reduction in our most cherished constitutional rights.

Capua, 643 F. Supp. at 1522.

214. 389 U.S. 347, 361 (1967). *See supra* notes 83-88 and accompanying text. In Hudson v. Palmer, 468 U.S. 517 (1984), a case involving fourth amendment rights of prisoners, the Court focused primarily upon the legitimate expectation of privacy, abandoning subjective expectation. However, even if we are to assume that the Court has abandoned the subjective part of Justice Harlan's two-part test, urinalysis certainly meets the legitimate expectation of privacy test. *See, e.g., National Treasury Employees Union*, 649 F. Supp. at 387 ("Customs workers do maintain a legitimate expectation of privacy in their urine.").

215. *Capua*, 643 F. Supp. at 1514; *Patchoque-Medford Congress of Teachers*, 119 A.D.2d 35, 505 N.Y.S.2d 888 (App. Div. 1986); *Caruso*, 133 Misc. 2d at 554, 506 N.Y.S.2d at 789.

216.

> The Court notes that excreting body fluids and body wastes is one of the most personal and private human functions. While body fluids and body wastes are normally disposed of by flushing them down a toilet, Customs workers do maintain a legitimate expectation of privacy in their urine until the decision is made to flush the urine down the toilet and the urine is actually flushed down the toilet.

National Treasury Employees, 649 F. Supp. at 387.

217. *Capua*, 643 F. Supp. at 1515.

218. *Id. McDonell*, 612 F. Supp. at 1127. *See also* Bookspan, *A Balanced Privacy*, 11 DEL. LAW 40 (1986). In addition, the individual tested may be required to disclose prescription and non-prescription medications recently ingested. *See, e.g., Shoemaker*, 619 F. Supp. at 1089, 1095.

> ality of such [medical] information whereas the government has no countervailing legitimate need for access to this personal medical data. The dangers of disclosure as a result of telltale urinalysis range from embarrassment to improper use of such information in job assignments, security and promotion."[219]

When it comes to balancing states' interests against individual rights, Judge Vietor wrote:

> Taking and testing body fluid specimens, as well as conducting searches and seizures of other kinds, would help the employer discover drug use and other useful information about employees. There is no doubt about it — searches and seizures can yield a wealth of information useful to the searcher. (That is why King George III's men so frequently searched the colonists.) That potential, however, does not make a governmental employer's search of an employee a constitutionally reasonable one.[220]

As Judge Vietor aptly notes in his reference to the activities of King George III's soldiers, the creation of the fourth amendment is shrouded in the fabric of early colonial history. It is a document designed to protect the citizen from over-zealous law enforcers. While the drafters of the fourth amendment could not possibly foresee with particularity the ever-expanding opportunities for the government to invade the individual's private sphere, they did draft a document broad enough to encompass and regulate searches unknown to them at the time. Warrantless, random drug testing is unreasonable in scope and application and

---

219. *Capua*, 643 F. Supp. at 1515. The United States Supreme Court and other federal courts have recognized that individuals do have a constitutional right to privacy which limits the government's access to their medical records. Whalen v. Roe, 429 U.S. 589, 602 (1977); Robinson v. McGovern, 83 F.R.D. 79, 90 (W.D. Pa. 1979); United States v. Colletta, 602 F. Supp. 1322, 1327 (E.D. Pa. 1985). In United States v. Westinghouse Elec. Corp., 638 F.2d 570, 577 (3d Cir. 1980), the court set forth several factors to be considered in determining whether a government intrusion into someone's medical records is reasonable:

> the type of record requested, the information it does or might contain, potential for harm in any subsequent nonconsensual disclosure, the injury from disclosure to the relationship in which the record was generated, the adequacy of safeguards to prevent unauthorized disclosure, the degree of need for access, and whether there is an express statutory mandate, articulated public policy, or other recognizable public interest militating toward access.

220. *McDonell*, 612 F. Supp. at 1130.

unconstitutional under the fourth amendment.

III. Fifth Amendment and Due Process

The fifth amendment commands that the federal government must provide a person with due process before depriving him of "life, liberty or property."[221] The fourteenth amendment similarly binds the states: "[N]or shall any State deprive any person of life, liberty, or property without due process of law."[222] Like the fourth amendment, these provisions have their historical origins in the concern that there must be checks upon arbitrary governmental action.[223] Unlike prohibitions on searches and seizures and the requirements of a warrant, the historic and generative principles of due process preclude defining, and thereby confining standards of conduct.[224] In the broadest manner, due process serves as a constitutional restraint on all three levels of government.[225] It protects "those fundamental principles of liberty and justice which lie at the base of all our civil and political institutions"[226] and guarantees a protection of intimate decency in a civilized society.[227]

In *Rochin v. California*[228] the Court took its first look at bodily invasions and due process. Upon information that Rochin was selling

---

221. The fifth amendment states, among other things: "no person shall . . . be deprived of life, liberty, or property, without due process of law. . . ." U.S. CONST. amend. V.

222. U.S. CONST. amend. XIV, § 1.

223. L. TRIBE, AMERICAN CONSTITUTIONAL LAW § 10-7 (1978) *See generally* Nowak, *Due Process Methodology in the Postincorporation World*, 70 J. CRIM. L. & C. 397, 400-01 (1979); Kadish, *Methodology and Criteria in Due Process Adjudication — A Survey and Criticism*, 66 YALE L.J. 319, 340 (1957); L. LEVY, ORIGINS OF THE FIFTH AMENDMENT (1968).

224. *See* L. TRIBE, *supra* note 223, at § 10-7. The broad and general maxims of the Magna Carta were "[a]pplied in England only as guards against executive usurpation and tyranny, here they have become bulwarks also against arbitrary legislation. . . [T]hey must be held to guaranty not particular forms of procedure, but the very substance of individual rights to life, liberty and property." Hurtado v. California, 110 U.S. 516 (1884).

225. *See* Murray's Lessee v. Hoboken Land & Improvement Co., 59 U.S. (14 How.) 272 (1856), "The article is a restraint on the legislative as well as on the executive and judicial powers of the government, and cannot be so construed as to leave congress free to make any due process of law, by its mere will." *Id.* at 276.

226. Hurtado v. California, 110 U.S. at 535.

227. Adamson v. California, 332 U.S. 46, 60 (1947) (Frankfurter, J., concurring).

228. 342 U.S. 165 (1952).

narcotics, police broke into his home, forcefully tried to open his mouth and remove capsules he had just swallowed. Unsuccessful at this attempt to secure the capsules, they then took Rochin to a hospital where upon instruction by the officers a doctor forced an emetic solution through a tube into Rochin's stomach.[229] The emetic solution caused Rochin to vomit, thereby producing two morphine capsules he swallowed earlier. His conviction for possession of morphine chiefly was based upon those capsules.[230] Rather than finding that the police action violated specific guarantees of individual freedom in the Bill of Rights, the Court per Justice Frankfurter, reversed the conviction on the grounds that the police action violated fourteenth amendment notions of due process.[231] Justice Frankfurter wrote that the police action was "conduct that shocks the conscience. . . . They are methods too close to the rack and the screw to permit of constitutional differentiation."[232] In later cases the Court limited its holding in *Rochin* to cases involving coercion, violence, or brutality to a person.[233] Following this developing line of analysis, the *Schmerber*[234] Court found no due process violation in forcefully extracting blood because the procedure at issue was conducted in an ordinary, "medically acceptable manner in a hospital environment."[235] The Court found the procedure involved none of the indignity suffered by Rochin and thus, did not offend the "sense of justice" alluded to in *Rochin*.[236]

---

229. *Id.* at 172.

230. *Id.*

231. *Id.*

232. *Id.* Justice Black concurred in opinion but wrote that he would have decided the case on strict fifth amendment grounds. He felt that "faithful adherence to the Bill of Rights insures more permanent protection of individual liberty than nebulous [fourteenth amendment] standards." *Id.* at 175. Justice Douglas also would have decided that case on fifth amendment grounds. However, he would have included within the privilege against self incrimination "words taken from [an accused's] lips, capsules taken from his stomach, blood taken from his veins . . . ." *Id.* at 179.

233. Breithaupt v. Abram, 352 U.S. 432, 435 (1957) (blood); Irvine v. California, 347 U.S. 128, 133 (1954) (wiretap).

234. Schmerber v. California, 384 U.S. 757 (1966).

235. *Id.* at 759.

236. *Id.* at 760. *Schmerber* thus reaffirmed *Breithaupt*, 352 U.S. at 432, where blood was extracted from an unconscious person who was involved in a fatal automobile accident. That individual was later convicted of manslaughter based upon the alcohol level of his blood at the time of the accident. But see the dissent by Justices Douglas and Black, "if the decencies of a civilized state are the test, it is repulsive to me for the police to insert needles into an unconscious person in order to get the evidence necessary to convict him" *Id.* at 778.

Challenges to employee drug tests conducted by government agencies may force the Court to once again examine the parameters of fifth and fourteenth amendment procedural and substantive due process. Three distinct but related questions are involved — whether drug tests by their very nature offend principles of decency in civilized society;[237] whether they involve a protected property interest;[238] and whether they involve protected liberty interests in reputation, good name, and integrity.[239]

Given the reluctance of the Court to expand the analysis in *Rochin*[240] to other body invasions, it is unlikely that a urine test will be found to so offend the conscience as to violate due process. However, unlike extracting blood, urinalysis involves a much greater indignity, requiring an individual to urinate in a humiliating and degrading setting.[241] Moreover, unlike blood alcohol tests performed in hospitals, urine tests performed through the most widely used procedure[242] are

---

237. *Breithaupt*, 352 U.S. at 444. *Cf.* Rochin v. California, 342 U.S. 165 (1952).

238. *See, e.g.*, Perry v. Sindermann, 408 U.S. 593 (1972) (state junior college professor who had been teaching for four years was denied procedural due process by failure of junior college to grant him a hearing before deciding not to renew his teaching contract); Board of Regents v. Roth, 408 U.S. 564 (1972) (a nontenured state university professor hired on one year contract had no right to a hearing before the university declined to renew his contract). "[T]o have a property interest in a benefit, a person clearly must have more than an abstract need or desire for it; property interests "are created and . . . defined by existing rules or understandings that stem from an independent source such as state law" or independent custom. *Id.* at 577. Cleveland Bd. of Educ. v. Loudermill, 470 U.S. 532 (1985). *See generally* Reich, *The New Property*, 73 YALE L.J. 733 (1964).

239. Bishop v. Wood, 426 U.S. 341 (1976); Vaugn v. Shannon, 758 F.2d 1535 (11th Cir. 1985); Sipes v. United States, 744 F.2d 1418 (10th Cir. 1984).

240. 342 U.S. at 165.

241. *See infra* note 289 and accompanying text.

242. The most widely used urinalysis screen is the EMIT test. EMIT stands for Enzyme Multiplied Immunoassay Technique. EMIT is based on immunological chemistry. The drug to be tested for is bound to an enzyme, which is then mixed with an antigen of the drug and added to the urine specimen. If the specimen contains the drug, the antigen will bind itself to the drug, leaving the enzyme active. A bacterial suspension in the solution will then be acted upon by the enzyme. If the specimen does not contain the drug being tested for, the antigen will attach itself to the drug bound to the enzyme. The enzyme will be inactive, and will not act on the bacterial suspension. Morgan, *Problems of Mass Urine Screening for Misused Drugs*, 16 J. OF PSYCHOACTIVE DRUGS 305, 306-08 (1984). Scientific experts have concluded that EMIT tests are not as reliable as a "one-shot test." *See* Wykoff v. Resig, 613 F. Supp. 1504, 1508-09 (N.D. Ind. 1985). Instead, EMIT tests should be used only as a quick and efficient method of eliminating negative urine samples; any positive result should be confirmed

not reliable. The question is not only one of the invasion itself, but also the unreliability of results obtained thereby. Given the potential negative impact that a positive result can have upon a person's job, reputation, and ability to earn a living in the future,[243] the question of reliability is a critical one.

A. *Reliability*

Depending upon variables such as the type of test used,[244] the substance tested for, the laboratory employed, the handling of the sample,[245] and the taking of the sample, results vary tremendously.[246] The

---

by an alternative method. *Id.* Several courts have held that a single, unconfirmed EMIT test is unreliable. *See, e.g.*, Higgs v. Wilson, 616 F. Supp. 226 (W.D. Ky. 1985) (district court issued a preliminary injunction barring punishment of inmates based on unconfirmed EMIT test); *Wykoff*, 613 F. Supp. at 1504 (due process requires confirmation of EMIT test by second EMIT test or its equivalent); Peranzano v. Coughlin, 608 F. Supp. 1504 (S.D.N.Y. 1985) (due process requires second EMIT test to confirm a positive EMIT test); Jones v. McKenzie, 628 F. Supp. 1500 (D.D.C. 1986) (Plaintiff entitled to summary judgment that her termination on basis of unconfirmed EMIT test was arbitrary and capricious); *contra* Jensen v. Lick, 589 F. Supp. 35 (D.N.D. 1984) (unconfirmed EMIT test sufficient for imposition of sanctions upon prisoners).

243. Cleveland Bd. of Educ. v. Loudermill, 470 U.S. 532 (1985). Justice White for the Court wrote of the significant private interest in retaining employment. "We have frequently recognized the severity of depriving a person of the means of livelihood. While a fired worker may find employment elsewhere, doing so will take some time and is likely to be burdened by the questionable circumstances under which he left his previous job." *Id.* at 543 (citations omitted).

244. There are a number of tests currently on the market. The most popular of these are the EMIT and ABUSCREEN, both are based on immunoassay techniques which screen for certain metabolites in bodily fluids. *See supra* note 242. Gas chromatography (G/C) and mass spectrometry (M/S) are two more accurate tests, and are recommended if an initial screening assay shows a sample as positive. G/C and M/S are more expensive tests that require sophisticated instruments and highly trained technicians to operate them. M. WALSH, QUESTIONS AND ANSWERS (1986). Because of the expense they are not often used.

245. Reliability is also significantly affected by handling of a specimen. Appropriate procedures must be implemented to preserve and prove chain of custody. Documentation of how and by whom a sample is handled from the time it is taken to the time when final assay results are tabulated is critical to reliability. *See generally* FED. R. EVID. 901; IMWINKELREID, EVIDENTIARY FOUNDATIONS 82 (1980).

> After I urinated, I noticed that the laboratory representative was affixing a sticker to my sample bottle. The sticker he was affixing had the wrong social security number on it. He had already filled out the labels before collecting our samples, and apparently he placed Fred Robinson's sticker on my bottle. When I alerted him to his mistake, he went back and

greatest problem of reliability is that test results cannot indicate whether an employee is impaired on the job.[247] Moreover, present tests poorly differentiate certain compounds. Poppy seeds may be confused for opiates, cold medications for amphetamines, antibiotics for cocaine, and aspirin for marijuana.[248] The National Centers for Disease Control in Atlanta did a secret study of selected laboratories and found that the worst laboratories came up with false positives as often as 66% of the time.[249]

Given the opportunities for substantial error, and the grave consequences that may result from a positive drug test, at least one court has found that the procedure is a violation of due process.

> The Court concludes that the drug testing program is so fraught with dangers of false positive readings as to deny Customs workers due process of law when they apply for promotion into covered positions. Furthermore, in balancing the legitimate law enforcement, societal and governmental interests of the defendant against the severity of the intrusiveness, the unreliability of the testing further convinces the Court that the drug testing plan is unreasonable and not related to achievement of the governmental interest.[250]

---

checked his papers to determine my social security number and then corrected his error.

National Treasury Union, 649 F. Supp. at 390 (affidavit of Benito D. Juarez, Plaintiffs' Exhibit No. 6, at 3).

246. Problems of unreliability are highlighted by the experience of the military drug testing program. In 1981, the military initiated a drug testing program using primarily urinalysis. The number of false positives, mixed up samples or both, was overwhelming. *See, e.g.*, Battiata, *Drug Testing: The Pros and Cons*, Washington Post, May 5, 1986, at B8, col. 5. In 1982 and 1983 a total of 9,100 Army employees were given dishonorable discharges. The Pentagon later tried to track them down to apologize for convicting them on faulty evidence. Problems ranged from inadequate specimen collection and handling to poor quality control at testing laboratories. *Id.*

247. "Impairment, intoxication, or time of last use cannot be predicted from a single urine test. A true positive . . . test indicates only that the person used marijuana in the recent past, which could be hours, days, or weeks depending on the specific use pattern." M. WALSH, *supra* note 244 at 10; *see also The Yellow Peril*, THE NEW REPUBLIC Mar. 31, 1986, at 28.

248. Battiata, *supra* note 246.

249. Hansen, Caudill, & Boone, *Crisis in Drug Testing: Results of CDC Blind Study*, 253 J. A.M.A. 2382 (1985). The CDC blind study found false positive error rates as follows: barbiturates, 0-6%; amphetamines, 0-37%; methadone, 0-66%; cocaine, 0-6%; codeine, 0-7%; and morphine, 0-10%.

250. *National Treasury Employees Union*, 649 F. Supp. at 390.

The unreliability of testing methods is only one factor in this analysis. While the statistics in this area are compelling, alone they are unlikely to rise to the level of a due process violation. Thus, questions of property and liberty rights are considered next.

B. *Property*

> "Liberty" and "property" are broad and majestic terms. They are among the "[g]reat [constitutional] concepts . . . purposely left to gather meaning from experience. . . . [T]hey relate to the whole domain of social and economic fact, and the statesmen who founded this Nation knew too well that only a stagnant society remains unchanged."[251]

While the Court respects the need for flexible concepts of property and liberty, it also recognizes the need to create certain boundaries. Over the years property interests in employment recognized by the constitution have been defined either by statute or by some mutually explicit understanding of continued employment between the parties.[252] While the Court has to some extent narrowed the liberty and property interests protected by procedural due process,[253] most government employees still have a valid basis for reliance upon their continued employment.[254]

---

251. Board of Regents v. Roth, 408 U.S. 564, 571 (1972). *See also* National Ins. Co. v. Tidewater Co., 337 U.S. 582, 646 (1949) (Frankfurter, J., dissenting).

252. *See* Sullivan v. School Bd. of Pinellas County, 773 F.2d 1182 (11th Cir. 1985); Board of Regents v. Roth, 408 U.S. at 577. Property interests "are created and their dimensions are defined by existing rules or understandings . . . that secure certain benefits and that support claims of entitlement to those benefits." *Id.* There must be a legitimate claim of entitlement, not a mere need or desire in order for a protected interest to be found. *Id. See also* Webb's Fabulous Pharmacies v. Beckwith, 449 U.S. 155 (1980). The source of a claim of entitlement must be a federal, state, or local law which "governs the dispensation of the benefit." R. ROTUNDA, J. NOWAK & J. YOUNG, TREATISE ON CONSTITUTIONAL LAW § 17.5 (1986). As to employment contracts, the general rule is that if an employee may be terminated only "for cause," he has an interest in his job which is protected by the fifth and fourteenth amendments. An employee who may be terminated "at will" has no such protected interest. Jungels v. Pierce, 638 F. Supp. 317, 319-20 (N.D. Ill. 1986). *But cf.* Bishop v. Wood, 426 U.S. 341 (1976) (state that creates a benefit is able to define that benefit in such a way that no property interest is created).

253. *See generally* L. TRIBE, *supra* note 223, § 10-10.

254. Government employees are considered part of the Civil Service. Job appli-

Where a legislative body confers a property interest either through statute, ordinance, or contract, it may not constitutionally authorize "the deprivation of such an interest . . . without appropriate procedural safeguards.[255] In *Capua v. City of Plainfield*,[256] for example, Judge Sarokin found that firefighters as civil servants were endowed with constitutionally protected interests in their tenure, pursuant to a New Jersey statute governing municipal fire fighters.[257] Once a statutorily bestowed property right to continued employment is found, it cannot be abrogated without due process.[258] The question, put simply, is: What process is due?[259] That is determined in one of two ways — by looking at the mandates in the statute itself, or, if this is unavailable, by looking to precedent in other cases.[260]

In *Capua*, the statute was sufficiently detailed to provide procedures for notice, hearing and adjudication. There also were provisions permitting pre-hearing suspension in cases requiring further investigation, but disallowing the procedure as a punitive measure prior to a finding of guilt.[261] Since the fire fighters were terminated without pay following positive test results, with no hearing, and no opportunity to

---

cants must follow individual agency procedures, which in turn must meet federal civil service guidelines. Retention, promotion, and dismissal are all subject to federal statutes and agency guidelines. *See, e.g.*, 5 U.S.C. § 3301 (Civil Service Exam Selection), 5 U.S.C. § 3501 (retention), 39 U.S.C. § 1005 (Postal service employee guidelines).

255. Arnett v. Kennedy, 416 U.S. 134, 167 (1974). *See also* Cleveland Bd. of Educ. v. Loudermill, 470 U.S. 532 (1985); R. ROTUNDA, J. NOWAK & J. YOUNG, *supra* note 252, § 17.5.

256. 643 F. Supp. 1507 (D.N.J. 1986).

257. *Id.* at 1520. *See* N.J. STAT. ANN. § 40A:14-7 conferring upon fire department employees a reasonable expectation of continued employment unless and until "just cause" is established for their termination. Additionally, the statute provides for written complaints, setting forth the charge or charges, and notice of a hearing within a specified time period. *Id.*

258. *Capua*, 643 F. Supp. at 1520.

259. *See, e.g.*, Morrisey v. Brewer, 408 U.S. 471 (1972).

260. An essential principle of due process is that a deprivation of life, liberty, or property "be preceded by notice and opportunity for hearing appropriate to the nature of the case." Mullane v. Central Hanover Bank & Trust Co., 339 U.S. 306, 313 (1950). The "root requirement" of the due process clause is "that an individual be given an opportunity for a hearing before he is deprived of any significant property interest." Bell v. Burson, 402 U.S. 535, 542 (1971); Boddie v. Connecticut, 401 U.S. 371, 379 (1971). At a minimum, the employee must have access to the material upon which the dismissal charge is based and be able to respond to the charge. *Arnett*, 416 U.S. at 167; Barry v. Barchi, 443 U.S. 55, 65 (1979).

261. *Capua*, 643 F. Supp. at 1521.

ment could not be terminated without due process.

C. *Liberty*

Governmental drug testing procedures may also impact upon employees' constitutionally protected liberty interests in their good name, reputation, honor and integrity.[266] Among the considerations are whether the governmental act damages a person's standing in a community,[267] or imposes a stigma that forecloses an individual's freedom to work.[268] Additionally courts will look to whether the person was stigmatized in or as a result of an employment termination,[269] whether the charges were publicly disclosed,[270] and whether the individual was given a meaningful opportunity to clear her name.[271]

In *Board of Regents v. Roth*,[272] the Court first discussed its liberty analysis in the context of public employment. Roth was hired for a one year appointment as Assistant Professor at Wisconsin State University-Oskosh. Before his term was up he was informed by the University President that he would not be rehired. Roth was given no reasons for the decision, and no opportunity to challenge it. He then brought an action in federal district court alleging infringement of his fourteenth amendment rights. The majority stressed that in discharge of a public employee only two liberty concerns are implicated: the employee's interest in good standing in the community, and the interest in being able to pursue a career elsewhere.[273] Roth's liberty claim was denied, be-

---

266. *See* Bishop v. Wood, 426 U.S. 341 (1976); Board of Regents v. Roth, 408 U.S. at 573. *See also* Paul v. Davis, 424 U.S. 693 (1976) (reputation alone, when not coupled with some more tangible interest such as employment, may not be sufficient "liberty" or "property" to invoke procedural protections).

267. *In re* Selcraig, 705 F.2d 789, 795-96 (5th Cir. 1983); *but see* Codd v. Velger, 429 U.S. 624, 628 (1977) (in a footnote the Court required a finding that the charges not only seriously damaged the employee's standing and association in the community or foreclosed future employment, but that the charges were false). *Id.* at 629 n.1.

268. Board of Regents v. Roth, 408 U.S. at 575; Cafeteria Workers v. McElroy, 367 U.S. 886 (1960); Sipes v. United States, 744 F.2d 1418 (10th Cir. 1984).

269. Blanton v. Griel Memorial Psychiatric Hosp., 758 F.2d 1540 (11th Cir. 1985); Vaugn v. Shannon, 758 F.2d 1535 (11th Cir. 1985).

270. *Vaugn*, 758 F.2d at 1535.

271. *Id.*

272. 408 U.S. 564 (1972).

273. *Id.* at 573-74; *accord* Hadley v. County of DuPage, 715 F.2d 1238, 1244-45 (7th Cir. 1983).

cause the Court found that the university's decision not to rehire Roth would not *seriously* damage his reputation and standing in the community. While Roth would have to explain his non-renewal of contract, he was not precluded from working in a university setting again.[274]

Later cases narrowed the liberty claim of Roth much further. The additional restrictions include a finding that a detriment to reputation alone, without identifiable impact on employment, is insufficient to involve procedural protections;[275] the employee must prove that the allegations upon which she was dismissed are false;[276] and that the governmental agency publicly disclosed the reasons for dismissal.[277]

Dismissal or suspension for failing a drug test presents a situation that falls within even the Court's narrowed construction of liberty interest. The return of a positive result of a urinalysis is certain to have a detrimental effect upon the good name and reputation of a government employee. It also will affect that individual's ability to obtain other employment with the government.[278] The question of whether the result is

---

274. 408 U.S. at 574. *Cf.* Nicoletta v. North Jersey Dist. Water Supply Comm'n, 77 N.J. at 159-62, 390 A.2d at 97-99. Plaintiff, Mr. Nicoletta was dismissed from his job as a police officer on the Wanaque Reservoir Police Force. The officer had received a letter summoning him to a meeting of the commission to discuss an altercation with a fellow officer. At this meeting, prior actions of Officer Nicoletta were examined, including subjects which the officer had not known would be inquired about. The hearing resulted in the officer's dismissal. The hearing was held to violate the notice that officer Nicoletta's liberty interests were implicated because his dismissal exposed him to disqualification from public employment. Thus, the court ruled, Officer Nicoletta was entitled to a hearing. However, because the officer was terminable at will, only a post-termination hearing was required to satisfy the due process clause. *Id.* at 147-50, 390 A.2d at 92-95.

275. Paul v. Davis, 424 U.S. 693 (1976). Plaintiff's name and photograph were distributed to local merchants as part of a flyer listing known shoplifters. Mr. Davis' name was included on the basis of an arrest for shoplifting. The charge was dropped with leave to reinstate. Plaintiff sued local police officials under 42 USC § 1983 claiming deprivation of his fourteenth amendment rights to due process. The Supreme Court, per Justice Rehnquist, held that injury to reputation alone, without some tangible interest such as employment, does not implicate the liberty interest of the due process clause. *Id.* at 694-96, 701. This holding has come to be known as the "reputation plus" requirement. *See generally Developments in the Law—Public Employment*, 97 HARV. L. REV. 1611, 1789-90 (1984).

276. Codd v. Velger, 429 U.S. 624 (1977) (per curiam).

277. Bishop v. Wood, 426 U.S. 341, 348 (1976). Justice Brennan in dissent observed the fallacy of the majority's reasoning was that even if discharge reasons are not initially publicized, they will be conveyed to prospective employers upon request.

278. Since the President's Order requires a drug free work-place, Exec. Order No. 12,564, 51 Fed. Reg. 32,899 (1986), an employee dismissed for drug abuse has

false is complicated, and can only be answered after determining exactly what test or tests were performed upon the sample, where and under what conditions the tests were performed, and whether the employee had an opportunity to have the sample tested by an independent laboratory.[279] The government has engaged in a significant media campaign publicizing its use of drug tests in the war against drugs.[280] If an otherwise satisfactory employee is dismissed shortly after an agency institutes a drug screening program, it is hard to conclude that the reasons for dismissal are not publicly disclosed.[281] Thus, public employees must be given some form of due process prior to any punitive action for a positive urinalysis.[282]

In discussing the liberty interest of a public school bus attendant, Judge Oberdorfer concluded:

> [I]t is beyond argument that discharge of plaintiff on unsupported charges of drug abuse could severely affect her interest in her "good name, reputation, honor or integrity," and it is well established that such a deprivation in her reputation triggers constitutional procedural due process requirements. While there is no evidence that defendants published their drug abuse findings, it is a reasonable inference that, unless expunged, the rationale for her termination will remain in her file for automatic publication to any prospective employer of plaintiff.[283]

To meet the safeguards of due process, any governmentally imposed drug screening must be narrowly confined and strictly monitored.

---

little chance of regaining federal employment. Chances may be equally as dismal within the private sector, which recently has become most sensitive to drug use.

279. *See generally supra* notes 244-50 and accompanying text.

280. *See, e.g.*, N. Y. Times, Sept. 12, 1986, at A19, col. 4,; N. Y. Times, Sept. 3, 1986, at A12, col. 1; N. Y. Times, Sept. 2, 1986, at A1, col. 1; N. Y. Times, Aug. 21, 1986, at A1, col. 4; N. Y. Times, Aug. 5, 1986, at A24, col. 1.

281. *See, e.g.*, Bratt v. IBM, 392 Mass. 508, 467 N.E.2d 126 (1984).

282. At a minimum public employees must be given notice of any testing procedure sufficient to allow the employee to curtail employment within the government prior to any drug test. If an employee submits to a test and the results are positive, the employee must have the opportunity to formally challenge the test result. Areas ripe for challenge would be the type of test used, what, if any, confirmation assays were performed, and the quality control at the testing laboratory. *See generally Developments in the Law—Public Employment, supra* note 275, at 1791.

283. Jones v. McKenzie, 628 F. Supp. 1500, 1505 (D.D.C. 1986) (citations omitted). *See also* Justice Brennan's dissent in Bishop v. Wood, discussed *supra* note 277.

IV. Ninth Amendment, Privacy and the Penumbra

> The enumeration in the Constitution of certain rights, shall not be construed to deny or disparage others retained by the people.[284]

Beyond the technical violations of the law of search and seizure and the procedural encroachments on fifth and fourteenth amendment due process, employee drug screening raises questions of violations of general notions of a constitutional right to privacy.[285] Although the term never appears in the Constitution, the concept of a "zone of privacy" within which the government shall not intrude, is recognized by the Court, and relied upon by the people.[286] As Justice Goldberg con-

---

284. U.S. CONST. amend. IX.

The tenth amendment can be read along with the ninth amendment as together preserving and protecting certain natural rights to the citizens and states of the United States: "The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people." U.S. CONST. amend. X.

285. General notions of a constitutional right to privacy deserve, and have been the subject of, substantial scholarly attention on their own. *See, e.g.*, Clark, *Constitutional Sources of the Penumbral Right to Privacy*, 19 VILL. L. REV. 833 (1974); Redlich, *Are There Certain Rights . . . Retained by the People*, 37 N.Y.U. L. REV. 787 (1972); R. DIXON, T. EMERSON, P. KAUPER, R. MCKAY, & A. SUTHERLAND, THE RIGHT OF PRIVACY (1971); M. GOODMAN, THE NINTH AMENDMENT (1981); B. PATTERSON, THE FORGOTTEN NINTH AMENDMENT (1955); J. SHATTUCK, RIGHTS OF PRIVACY (1977); *see also* authorities collected *supra* note 22. It is beyond the scope of this article to explore the origins, or try to delineate the parameters, of constitutional privacy rights. Nonetheless, this article on constitutional implications of employee drug testing would be remiss if it neglected the ninth amendment and the penumbras of the amendments comprising the Bill of Rights; for in these shadows lie some of the most compelling bases for finding a constitutional right of privacy. *See, e.g.*, Griswold v. Connecticut, 381 U.S. 479 (1965)." The specific guarantees in the Bill of Rights have penumbras, formed by emanations from those guarantees that help give them life and substance. . . ." The "Ninth Amendment shows a belief of the Constitution's authors that fundamental rights exist that are not expressly enumerated in the first eight amendments and an intent that the list of rights included there not be deemed exhaustive. . . ." *Id.* (Goldberg, J., concurring).

The analysis in this section, therefore, begins with the premise that jurists and scholars alike recognize a general constitutional right of privacy in areas involving governmental intrusions on an individual's body. *See Griswold*, 381 U.S. at 493; Gerety, *Redefining Privacy*, 12 HARV. C.R.-C.L. L. REV. 233, 296 & n.119 (1977); L. TRIBE, AMERICAN CONSTITUTIONAL LAW §§ 15-9, 15-10 (1977).

286. *See, e.g., Griswold*, 381 U.S. at 484, "Various guarantees [in the Bill of

cluded in *Griswold v. Connecticut*,[287] this right which emanates from the ninth amendment and the penumbras of first, third, fourth, fifth and fourteenth amendments, is the constitutional embodiment of natural law privacy rights.[288] There simply are certain areas of personal lives into which the state has no right to intrude.

Employee drug testing potentially violates the individual zone of privacy in three ways: (1) it involves the state in the traditionally private and personal act of urination; (2) it allows the government to intrude upon non-work related activities performed in the sanctity of the home; and, (3) it reveals confidential medical information found in urine.

The nature of the testing process demands that individuals provide their specimen in non-private surroundings.[289] Consequently, employees must bare their genitals and urinate in the presence of another individual. To permit specimen collection in any less intrusive manner could jeopardize the integrity of a drug testing program and subject it to strong reliability challenges.[290]

Present drug tests are not sophisticated enough to identify when a drug was used. The metabolites of certain compounds will remain in a person's body and show up in urine long after actual use.[291] Since drug tests screen for presence of metabolites, they cannot reveal whether an employee used an illegal substance on-or-off the job.[292] Individuals who

---

Rights] create zones of privacy." Roe v. Wade, 410 U.S. 113, 152 (1972). The Constitution does not explicitly mention any right or privacy. In a line of decisions, however, going back perhaps as far as Union Pacific R. Co. v. Botsford, 141 U.S. 250, 251 (1891), the Court has recognized that a right of personal privacy, or a guarantee of certain areas or zones of privacy, does exist under the Constitution.

287. 381 U.S. at 486 (Goldberg, J., concurring).

288. *Id.*

289. A recent news article highlights the need to observe employees while they are producing a urine sample. "A black market for clean urine samples is developing as more employers consider drug testing on the job. Clean urine samples are going for $50 in Nashville to employees subject to drug testing. . . ." Wilmington News Journal, October 12, 1986, at 6, col. 1.

290. To the extent that the science involved is imprecise, drug tests are already unreliable. Any further questionable factors will most certainly impact upon employee due process rights. For a more complete discussion *see supra* notes 244-50 and accompanying text.

291. M. WALSH, *supra* note 244, at 9.

292. *Id.* This argument should not be misread as condoning the use of drugs in society, since that is not at all what is intended. Rather the underlying idea is that individuals must be free to choose how they wish to run their lives. Not all persons will make the same choices. Some may, in effect, choose lifestyles that run counter to per-

have not used a drug but may have been in a room where other persons were, can test positive as a result of passive inhalation.[293] Not only may drug tests affect individual leisure activities, they may also influence decisions about whom to associate with.[294] Furthermore, employee drug testing may go way beyond its stated purpose, and could be used as a tool for government to dictate the morality of its workers.[295]

Finally, drug tests can divulge significant medical facts about the individual tested. The information that can be gleaned from urinalysis includes whether an individual is diabetic, epileptic, pregnant or has AIDS.[296] The improper use of this confidential information could have

---

ceived notions of a general good. That is, of course, a corollary of freedom of choice. But it is such freedom and variety that gives color and excitement to our democratic American culture. *Accord* Bowers v. Hardwick, 106 S. Ct. 2841, 2848-57 (Blackmun, J., dissenting).

Drugs certainly are a scourge on society. But there are other means of eradicating them than by snooping on what individuals do on Saturday nights in their homes. Certainly some people may change their leisure activities if they are concerned about drug tests at work. But those who do so are probably those who are also the least threat to society. Spending more money on enforcement of drug laws here and in foreign countries, imposing harsher penalties for persons convicted of trafficking in drugs, and educating schoolchildren are just some alternatives, less intrusive, and probably more effective means to the same end.

293. M. WALSH, *supra* note 244, at 9. False positive results from passive inhalation can be corrected. They occur due to poor quality assurance procedures in a laboratory and drug concentrations cut off too low to eliminate detectable levels from passive inhalation. Individual laboratories can be instructed not to report a result as positive unless it falls above a certain pre-determined figure, and only after an appropriate confirmation assay is performed.

294. Thus, the intrusion upon constitutional privacy resulting from governmental drug testing invokes the first amendment right to freedom of association. We have, therefore, a noticeable example of the interplay of "ninth amendment privacy" emanating from the penumbra of another amendment.

295. Such a conclusion may not be as implausible as it sounds. Over 50 years ago Aldous Huxley envisioned a society with government sponsored morality and harsh punishment for non-adherents to its models.

> [T]his man who stands before you here, this Alpha-Plus to whom so much has been given, and from whom, in consequence so much must be expected, this colleague of your — or should I anticipate and say this ex-colleague? — has grossly betrayed the trust imposed in him. By . . . his refusal to obey the teachings of Our Ford and behave out of office hours, even as a little infant, he has proved himself an enemy of Society. . . . For this reason I propose to dismiss him, to dismiss him with ignominy from the post he has held in this Centre . . . .

A. HUXLEY, BRAVE NEW WORLD (1932).

296. *See supra* note 218. In addition to what tests results reveal, individuals may

severe consequences upon an individual's job.

Before concluding that any governmental drug testing program is constitutional, courts must carefully consider whether this isn't exactly the type of governmental act that "denies or disparages rights retained by the people."

V. Conclusion

Employee drug testing is an issue of substantial public moment. Urinalysis programs already are prevalent and are expanding in all areas of American industry. Government employee drug testing is prominent on President Reagan's agenda, and is appearing with increased frequency on court dockets throughout the country.[297] While testing programs offer the allure of a drug-free work force and workplace, they also threaten to fulfill some of Orwell's and Huxley's more ominous predictions[298] by extending government tendrils into the most private of bodily functions. The challenge is to balance these countervailing and equally valid concerns into a constitutional, prudential, and practical testing program.

The President's proposed testing program does not meet this challenge. The government employee drug testing program advocated by President Reagan's Executive Order does not pass constitutional muster. The fourth amendment prohibits wholesale testing of government employees, without a warrant and absent probable cause. Because it is warrantless, the procedure is presumptively unreasonable. While this presumption may be overcome under particular circumstances, random or dragnet testing does not qualify. The procedure does not fall within any of the well-defined exceptions to the warrant requirement, nor does it meet a general balancing test of reasonableness.

The President's proposed testing program also runs afoul of fifth amendment due process rights. The reliability of the tests themselves are suspect. Errors arise from numerous sources, including: the type of test used, the number (if any) of confirming assays, contamination of

---

be asked beforehand to disclose all medications they may be using. *See, e.g., Shoemaker*, 795 F.2d at 1136.

297. At the time this article went to press (Feb. 1987), for example, Secretary Dole of the Department of Transportation announced a program to begin drug screening railroad employees. At about the same time, the union representing transportation workers announced that it would fight any drug screening program. Similar scenarios are being enacted outside of Washington, D.C. in many of our states and cities.

298. *See supra* note 295.

samples, and poor quality assurance procedures for sample collection and handling. The devastating effects of false positive test results on persons, careers and jobs make these errors particularly serious, and unconstitutionally encroach on government employees' property interests in their jobs and liberty interests in their goods names and reputations.

Government employee drug testing also violates privacy rights emanating from the ninth amendment and the shadows of the Bill of Rights. Personal hygienic bodily functions fall within the zones of privacy that historically have been protected by the Constitution and general notions of decency and dignity. Further, the broad panoply of private facts that may be learned about individuals by analyzing their wastes also intrudes upon constitutionally protected spheres of privacy. Thus, the President's drug testing program is not the answer.

While no set of static rules can properly balance the need to remove drugs from our work force and workplace against the need to respect individual privacy in doing so, any government employee drug testing program should include the following considerations:

1. Some quantum of individualized suspicion must be a prerequisite to any search or seizure, even within areas where the government has a great need to search. To avoid potential abuse by supervisors, the individualized suspicion should be based upon well-articulated and demonstrable performance criteria.

2. The quantum of individualized suspicion may vary with the job, but it should only be significantly relaxed in the most intrusively regulated industries. Society's need for a drug-free work force and workplace varies with the job being performed. For example, presumably society has a greater interest in ensuring that its nuclear engineers are drug-free than ensuring that its clerical workers are. Thus, a correspondingly lesser degree of suspicion necessary to justify testing the nuclear engineer than for testing the clerical worker may be acceptable.

3. Rigorous safeguards must be implemented to ensure that drug testing is as accurate and reliable as possible. Testing laboratories should be licensed, and they should be inspected on a regular basis. Trained specimen handlers should be employed, and detailed chain of custody procedures must be mandatory.

4. Test results should remain confidential. All employees should be given the opportunity to enroll in a government sponsored treatment program before being disciplined or dismissed. Participation in any treatment program must also be kept strictly confidential.

While these rules may not resolve all the constitutional issues

raised by government mandated drug testing, they suggest the minimal individual protections necessary to sustain any broad-based drug testing program.

Drug Testing From the Arbitrator's Perspective

Tia Schneider Denenberg* and Richard V. Denenberg**

I. Introduction: The Role of Arbitration

Much of this nation's industrial policy on drug testing will be fashioned within workplaces which are governed by collective bargaining agreements. Even though only about one-fifth of American workers are covered by such agreements, policies and practices which are set by collective bargaining often form the model for human resources management throughout industry. These agreements typically provide for arbitration of disputes that are not settled during the grievance procedure. Given the current surge of interest by management in drug testing, grievances over such policies are likely to become a regular feature of the case-load of arbitrators. Indeed, one federal court has already ruled that drug testing disputes are the province of arbitrators. In dismissing a union challenge to an employer testing program, the United

---

* Tia Schneider Denenberg is an arbitrator who serves on the labor panels of the Federal Mediation and Conciliation Service and various other national and state agencies. She is a member of the National Academy of Arbitrators and a graduate of the Cornell School of Industrial and Labor Relations, where she has been an Adjunct Professor. Articles by Ms. Denenberg have appeared in the *Arbitration Journal*, the *Monthly Labor Review* and the proceedings of many professional organizations. In March, 1986, she was appointed a member of the Foreign Service Labor Relations Board by the Chairman of the Federal Labor Relations Authority.

** Richard V. Denenberg has been an editor on the staff of the *New York Times* and a U.S. Supreme Court correspondent for *Newsday*. He has published several books and numerous articles on public issues, including drug policy, in journals such as the *International and Comparative Law Quarterly*. He was educated at Cornell University, Stanford University and Cambridge University. A former lecturer at Columbia University and the University of Wales, Mr. Denenberg has been awarded fellowships and study grants by the Ford Foundation, the English-Speaking Union, the American Political Science Association and the Alicia Patterson Foundation.

Tia Schneider Denenberg and Richard V. Denenberg are the co-authors of ALCOHOL AND DRUGS: ISSUES IN THE WORKPLACE (Bureau of National Affairs, Inc., 1983), a comprehensive analysis of the industrial relations aspects of substance abuse. For 1986-87, the Denenbergs have been awarded the J. Noble Braden Chair of the American Arbitration Association.

Research for this article was supported by a grant from The R. Brinkley Smithers Institute for Alcoholism Prevention and Workplace Problems at Cornell University.

Copyright 1987 by Tia Schneider Denenberg and Richard V. Denenberg.

States District Court for Oregon said that "it is appropriate that these problems be addressed through work rules, which be evaluated by arbitrators."[1]

For many arbitrators drug testing will be a relatively new subject. Although issues such as overtime pay and job classification have been an arbitral staple for decades, hardly any drug cases appeared before the 1960's — the Bureau of National Affairs (BNA) Labor Arbitration Reports printed its first cocaine case in 1961 — and only in recent years have such cases begun to proliferate. A survey of more than 3,600 American Arbitration Association (AAA) labor cases in 1985-86 found that in only seven percent was alcohol or drugs the main issue.[2] The specific issue of drug testing is an even more recent phenomenon. Testing is largely a product of the "war on drugs" sentiment which surfaced in force in the workplace in 1985. The first cases dealing with the complex issues raised by testing are just now beginning to appear.

How will arbitrators analyze and decide these issues? What will be the "common law of the shop,"[3] in Justice Douglas's memorable phrase, as it emerges in the pages of arbitral opinions? To answer these questions, we should understand how cases come before arbitrators and what tests they normally apply to industrial relations disputes.

A drug testing program usually will be subjected to arbitral review when a disciplinary action — a discharge or suspension for a drug offense — has been challenged through the grievance procedure. The standard arbitral rule in such cases is that the employer bears the burden of proving that it had "just cause" to discipline the grievant, and the arbitrator typically scrutinizes the employer's case with a number of basic questions in mind. Among these are:

> Was the employer's action arbitrary or capricious or discriminatory?;
> Was the rule allegedly violated by the employee reasonable and uniformly enforced?;
> Was the collective bargaining agreement violated by the employer in imposing the penalty?; and
> Was the grievant accorded basic due process rights?

---

1. Association of Western Pulp and Paper Workers v. Boise Cascade Corp., No. 86-873-PA (D. Or. Sept. 11, 1986), *reported in* STUDY TIME (AAA), no. 4, 1986.
2. Memo from Richard M. Reilly, Regional Director, AAA, Boston, Jan. 7, 1987.
3. United Steelworkers of Am. v. Warrior & Gulf Navigations Co., 363 U.S. 574, 582 (1960).

When arbitrators begin asking such questions about testing programs, certain inherent defects in the technique may begin to appear. Although drug testing is now being widely implemented, because of the desire of employers to enlist in the war on drugs, the disciplinary consequences of testing may well prove difficult to enforce in arbitration if these traditional standards are applied.

II. Ignoring Alcohol and Punishing Use of Other Chemicals

The discrimination standard is likely to be applied initially in situations in which the employer has aimed a testing program at drug use but has excluded from the program the drug ethanol, or common drinking alcohol. Employer urine screening programs generally do not test for alcohol. Thus, those employees who test "positive" are merely those whose substance abuse extends only to non-alcoholic substances. A threshold question before the arbitrator, therefore, is whether it is inherently unfair or discriminatory for an employer to deal more harshly with an employee involved with non-alcoholic drugs than one involved with ethanol.

Despite the current enthusiasm in Washington and elsewhere for rooting out the abuse of cocaine and marijuana, the research data indicate that alcohol is by far the most abused drug in modern industrial societies. The Royal College of Psychiatrists in Britain issued a study in 1986 on the deleterious effects of drinking upon that country's populace; it was entitled, "Alcohol, Our Favorite Drug."

This characterization is also borne out for the American population by a recent insurance industry study of drinking patterns:

> Alcohol remains the most widely used and abused drug in the United States, despite the recent publicity surrounding the increasing prevalence of cocaine and other illegal drugs. . . .Clearly, alcohol abuse and dependence are problems of major health import that deserve as much, if not more media, medical and social attention as is currently given to the use of illicit drugs.[4]

A television news poll discovered that 66 percent of the nation's population used alcohol while only four percent used drugs.[5] A survey of households by the National Institute on Drug Abuse found that in

---

4. *Alcohol Use in the United States*, STATISTICAL BULLETIN, Metropolitan Life Ins. Co., Jan.-Mar., 1987, at 20-25.
5. *ABC World News Tonight*, Sept. 19, 1986.

1985 about 10 percent of the U.S. population (12 years or older) were current users of marijuana. Cocaine users amounted to three percent; no other drug had users amounting to more than one percent. In contrast, 59 percent of the population were alcohol users.[6]

Doctors Page Hudson and Arthur McBay, two respected forensic scientists with the Chief Medical Examiners' Office in North Carolina, have concluded that alcohol abuse is the primary cause of lost productivity in the workplace. They question the reluctance of employers to concentrate on this menace, even though testing for alcohol abuse is relatively simple:

> If health, safety, productivity, performance and cost-effectiveness are criteria, testing for marijuana should have very low priority. Alcohol has a greater adverse effect. . . than all of the other drugs. . . .[7]

The Chief Medical Examiner's office produced a study of 600 road accident fatalities. The study concluded that alcohol could have been responsible for about two-thirds of the accident fatalities, while traces of drugs unaccompanied by alcohol were present in only about two percent of the victims.[8] Those with experience in employee treatment programs usually accord alcohol the number one rank on the list of addictive threats. The validity of their belief is borne out by one much-studied group: airline pilots. Dr. Richard Masters, the aeromedical advisor to the Air Line Pilots Association has estimated that of the 800 cases of pilot substance abuse he has treated since 1974, "less than five involved pure drug abuse;" the vast majority involved alcohol, although some of those were dual abusers.[9]

The Federal Aviation Administrataion (FAA) has reported that of a total of 3,996 general aviation pilots who died in accidents between 1976 and 1985, only twenty-two were found with traces of "illegal

---

6. *Highlights of the 1985 National Household Survey on Drug Abuse*, NIDA Capsules, Washington, D.C., Rockville, Md.: National Institute on Drug Abuse, Nov. 1986.

7. McBay & Hudson, Cost Effective Drug Testing 8 (Oct. 1986) (unpublished manuscript). *See also* McBay, *Efficient Drug Testing: Addressing the Basic Issues*, 11 NOVA L. REV. 647 (1987).

8. Mason & McBay, *Ethanol, Marijuana and Other Drugs in 600 Drivers Killed in Single-Vehicle Crashes in North Carolina, 1978-81*, 29 J. FORENSIC SCIENCES 987 (1984).

9. *U.S. Weighing Wider Drug Tests for Airlines' Operational Workers*, N.Y. Times, Sept. 28, 1986.

drugs of abuse" while another fourteen were found with traces of "legal drugs of abuse." In contrast, out of 5,853 pilots who died in general aviation accidents, from 1968 to 1985, 441 were found to have a blood alcohol concentration above 0.04 —a significant impairment level.[10]

Drinking by members of this occupational group, even while off duty, has been shown to be a much more serious threat to safety than previously recognized. In 1984, a report by the National Transportation Safety Board called attention to evidence which suggested that the "hangover effect" impeded pilots' responses to critical cockpit situations long after alcohol ceased to be detectable in the bloodstream.[11] More recently, a Stanford University study found that pilot performance — such as the ability to keep on course — was significantly affected as much as fourteen hours after heavy drinking. At the moment, the FAA requires only eight hours to elapse between drinking and flying—the so-called "bottle to throttle" period.[12]

Thus, if promoting industrial safety and productivity were the goal, employers of pilots should be giving due emphasis to eradicating alcohol abuse, including post-metabolism performance effects. Effort spent on testing for drug abuse might be better spent on measures to reduce the influence of alcohol in the workplace. One simple approach would be to carefully examine the qualifications of the 16,000 licensed pilots (including up to 2,000 passenger plane pilots) who have drunken-driving convictions.[13] Also, more attention might be paid to erratic scheduling of duty periods. Such scheduling has been implicated in loss of attentiveness by pilots.[14] Although there are studies which suggest that marijuana can affect pilot performance for a considerable time, given the pervasiveness of alcohol and other non-drug factors which can impair performance, it may be difficult to justify drug abuse as the top priority threat to air safety.[15]

---

10. Federal Aviation Administration, *Control of Drug and Alcohol Use for Personnel Engaged in Commercial and General Aviation Activities: Advance Notice of Proposed Rulemaking*, 51 Fed. Reg. 44,433 (1986).

11. *Safety Study: Statistical Review of Alcohol-Involved Aviation Accidents*, Nat'l Transp. Safety Bd., Washington, D.C., 1984.

12. *Alcohol Found to Impair Pilots Hours Later*, N.Y. Times, Dec. 7, 1986, at 39, col. 1.

13. *Federal Study Finds 16,000 Pilots With Records of Drunken Driving*, N.Y. Times, Nov. 5, 1986.

14. *Researcher Says Some Pilots Nap in Cockpit*, N.Y. Times, Dec. 26, 1986.

15. *See generally* Yesavage, *Carry-Over Effects of Marijuana Intoxication on Aircraft Pilot Performance: A Preliminary Report*, 142 AM. J. OF PSYCHIATRY 11

The arbitrator may not find medical or therapeutic justification for an employer policy that distinguishes between abuse of ethanol and other drugs. From a scientific standpoint, abuse of alcohol and abuse of other substances have much in common. One medical authority on drug abuse has stated that Valium is essentially whiskey in a pill. Moreover, the American Psychiatric Association has created an omnibus diagnostic category, entitled "Substance Use Disorders," which makes no distinction between alcohol and other addictive substances. The disorders are defined as behavioral changes caused by either alcohol, barbiturates and similar sedatives, hypnotics, opiates, amphetamines or cannabis (marijuana). The disorders each have the following common symptoms: "[I]mpairment in social or occupational functioning . . . , inability to control use of or to stop taking the substance, and the development of serious withdrawal symptoms after cessation of or reduction in substance use."[16]

There is support in the case literature for the proposition that drug abusers and alcohol abusers must be treated substantially on equal terms, even when the employer would like to distinguish between the two types of offenses. One arbitrator has remarked that "I . . . cannot conclude that the use of alcohol on company property is less dangerous than the use of marijuana, or that referral to a drug abuse program is less effective than the referral to an alcohol abuse program."[17] Another arbitrator has stated that the "use of [alcohol and drugs] has a similar debilitating effect on people" and that for the company to punish the drug abuser more heavily would mean that the company "has been inconsistent in the assessment of the hazards involved, and in turn the penalties applied."[18]

If drug use is singled out for special attention by a testing program, despite the evidence that it is not the primary threat, the only explanation is that it is a law enforcement policy, rather than a safety or productivity policy. In taking on such law enforcement responsibilities, it will be argued, employers are acting inconsistently, since they otherwise usually eschew such responsibilities whenever possible. For

---

(Nov. 1985). However, the methodology of this study has been questioned by some medical experts: personal communication from R. Masters, M.D., Aeromedical Advisor, Airline Pilots Association, May 19, 1986.

16. DIAGNOSTIC AND STATISTICAL MANUAL OF MENTAL DISORDERS, AM. PSYCHIATRIC ASSOC. (3d ed. 1980).

17. Hooker Chem. Co., 74 Lab. Arb. (BNA) 1032, 1034 (1980) (Grant, Arb.).

18. Ethyl Corp., 74 Lab. Arb. (BNA) 953, 957 (1980) (Hart, Arb.).

example, management generally objected to being held responsible for ensuring that their employees are not illegal aliens—a requirement imposed on reluctant employers by federal legislation in 1986—and they have not volunteered to enforce employee compliance with other legal obligations, such as payment of court-ordered child support or registration for the draft. Such idiosyncratic attempts at law enforcement may be considered arbitrary and unrelated to the employer's demonstrable interests in an employee's behavior.

III. Licit vs. Illicit Drugs as Objects of Testing

The workplace should, of course, be free of criminal activities such as the distribution of illegal drugs on an employer's premises. Furthermore, in some fields of employment, such as law enforcement, an employee's involvement with an illegal drug may be antithetical to the very mission of the enterprise. In such cases, arbitrators have been quick to recognize that the illegality of the substance was the germ of the offense.[19] Similarly, a state university employee's sale of amphetamines was held to justify discharge, because it jeopardized the university's relations with students and their parents.[20]

The primary concern for most employers, however, is safety and productivity. If these are menaced more by legal than illegal substances, then employment rules which deal much more harshly with abusers of illegal drugs than with abusers of legal drugs may invite a re-examination by arbitrators to see whether such an approach meets the test of reasonableness.

Treatment specialists generally agree that, in practice, most non-alcoholic impairment of employees is caused by licit rather than illicit substances. As Dr. Richard Hawks, the chief of research technology for the National Institute of Drug Abuse, has pointed out:

> [T]ranquilizers, barbiturates, sleeping pills and antidepressants are even more prevalent in the workplace than illicit drugs and are potentially just as likely to impair job performance or to create health problems if used in excess of prescribed amounts or without adequate medical supervision.[21]

---

19. *See* City of Taylor, 65 Lab. Arb. (BNA) 147 (1975) (Keefe, Arb.).
20. *See* State University of New York, 74 Lab. Arb. (BNA) 299 (1980) (Babiskin, Arb.).
21. NIDA Research Monograph 73, 1986, at 2.

No issue of criminality is posed when an employee abuses a drug, such as Valium or Seconal, which is obtained with a doctor's prescription. Of course, even prescription medication is frequently misused. It may be taken in too large or too frequent doses or be combined with alcohol. Naturally, such abuse can be of concern to employers for safety reasons. Drug testing, however, cannot distinguish between the person who uses his prescription drugs properly and one who does not. Nor can it distinguish between employees who are using medicine validly obtained by prescription and those who buy their Valium on the street.

A prescription drug which poses unique questions is the class of drugs known as performance enhancers. These are potent substances which the employee uses in order to improve physical and mental endurance, but which may have long-term ill consequences. A common example is the use of anabolic steroids by athletes to increase their body strength.

There is a curious public tolerance of these chemicals. Although it had tested for other drugs long before, professional football did not begin screening players for steroids until 1987.[22] When amateur athletic bodies banned some athletes from football games in late 1986 because of evidence of steroid use, a common reaction was that it was unfair because the drug was not illegal. One athlete commented rather disingenuously that the doctor had prescribed the steroids so that he could "stay healthy" during the season, and his coach indicated that the offense was relatively minor because steroids were legal. Yet there is abundant medical evidence to show that the steroid user may suffer long-term adverse consequences, such as liver tumors, as the price for making short term performance gains. The outcry against the banning of steroid users demonstrates how over-emphasis on legal status, as opposed to practical effect, can become a tacit endorsement of some types of drug abuse.

Prescription abuse is partly a result of lax medical practices, and the only practicable solution may be beyond the workplace, in tighter regulation by government. New York State, for example, recently took steps to reduce prescription drug abuse by requiring doctors to report each prescription for sedatives, including Valium.[23] Some employers have required employees to notify supervisors when they have been prescribed any potentially impairing substance. Employer drug testing

22. *NFL Planning Tests for Steroids*, N.Y. Times, Nov. 22, 1986.
23. *State to Stiffen Sedative Rules*, N.Y. Times, Oct. 1986.

programs are not likely to be justified, however, as rational responses to licit drug abuse, given the enormous range of drugs at issue and the ambivalent public attitudes toward their use.

Even tightening prescription controls would not be a total solution, however, since many of the most troublesome drugs are over-the-counter preparations whose use is aggressively promoted. High dosage — "a thousand milligrams strong"— is advertised as a competitive virtue. Indeed, an official of a cocaine-exporting country has argued that American industry fosters the market for his nation's product by "encouraging the use of artificial substances that make you feel better. . . . As long as [illicit drug dealers] are kept prosperous by the numerous industries that make drug use appear not only fashionable but indispensable in the United States, they have good reason to celebrate."[24]

According to some medical researchers, much of the population comes to work each morning suffering the lingering effects of sleeping pills and cold remedies. One treatment expert has remarked that the only employees in her experience who died of an overdose were "Ny Quil addicts."[25] Moreover, many abused substances are not even classified as "drugs" in the ordinary sense of the word: they are common industrial chemicals such as toluene, gasoline, aerosol products, or inhalants.

Given this veritable drug delicatessen frequented by the chemical gourmet, who often combines licit drugs with alcohol, a testing program which focuses on a few illegal substances may appear to arbitrators as unrelated to the true hazards to be found in the workplace.

IV. Arbitrary Selection of Drugs to be Detected

It is often assumed that a drug "screen" casts a net likely to catch most drugs of abuse. However, the number and variety of abused drugs is so large that in practice employment testing programs generally are designed to detect only a small sample of the wide spectrum of substances that are available. Under a typical arrangement between an employer and a testing laboratory, the lab will test for a finite number

24. Letter from Ambassador Carlos Alban-Holguin, Permanent Representative of Colombia to the United Nations, N.Y. Times, Sept. 19, 1986.

25. Dale Masi, Ph. D., Remarks to Conference on Interdisciplinary Approaches to the Problem of Drug Abuse in the Workplace, Mar. 1986, Washington, D.C., sponsored by the National Institute on Drug Abuse.

of drugs. One "basic" screen for employees schedules the following substances:

DRUG CLASS	GENERIC NAME	BRAND NAME
Antidepressants:	Amitriptyline	Elavil
	Impramine	Tofranil
Antihistamines:	Diphenhydramine	Benadryl
	Hydroxyzine	Atarax
	Promethazine	Phenergan
Sedative-Hypnotics:	Amobarbital	Amytal
	Butabarbital	Butisol
	Pentobarbital	Nembutal
	Phenobarbital	Luminal
	Secobarbital	Seconal
	Aprobarbital	Alurate
Opium Alkaloids:	Morphine (Heroin)	*
	Codeine	*
Synthetic Narcotics:	Pentazocine	Talwin
	Hydromorphone	Dilaudid
	Propoxyphene	Darvon
	Methadone	Dolophine
	Meperidine	Demerol
	Levo-Alpha-Acetymethadol	LAAM
Stimulants:	Cocaine	*
	Amphetamine	Benzedrine
	Methamphetamine	Desoxyn
	Phentermine	Ionamin
	Phenmetrazine	Preludin
Major Tranquilizers: (Phenothiazines)	Chlorpromazine	Thorazine
	Thioridazine	Mellaril
	Trifluoperazine	Stelazine
	Promethazine	Phernergan
	Perphenazine	Trilafon
Adulterants:	Quinine	*

*sold under generic name

While the schedule embraces the many well publicized drugs, such as opiates and cocaine, it is limited to a mere two dozen of the scores of commonly abused drugs. More than 80 are included in an authoritative catalog of abused substances prepared by a leading medical organization.[25.1] The National Collegiate Athletic Association has about 300 substances on its prohibited list.[26] Indeed, the basic screen omitted some of the most common dependency-producing substances — the benzodiazepines, encompassing Valium and Librium. Testing for these drugs is an option for which employers must pay extra. Such charges deter employers from commissioning very elaborate screens.

Cost is, in fact, a significant factor in the design of screens. Mass screening became feasible only with the advent of a relatively low-cost technology based on immunoassay in which specially targeted antigens indicate the presence of a substance in urine by forming a chemical bond with it. This down-market technology (such as that sold under the brand name EMIT) is used for detecting a single substance in a population — for example, screening the entire workforce at a plant for marijuana. Because of the inherent limitations of the immunoassay — antigens sometimes bind with the wrong substance, giving a "false positive" — laboratories may report cautiously that a sample is "presumptively positive." Forensic scientists recommend that the result be confirmed by a different and usually more costly chemical process.

One such procedure is thin-layer chromatography (TLC). In the TLC procedure colored spots appear on a sensitized plate; the position and tint of the spots identify the constituents of the urine. Another frequently used confirmatory procedure is gas chromatography/mass spectrometry. (GC/MS). Often dubbed the gold standard of testing, GC/MS searches for the molecular fingerprint of a specific drug, producing a readout which resembles a seismographic chart.

GC/MS would be prohibitively expensive were the net cast widely to screen an entire employee population. But if the issue is whether the employer has met his burden of proof for discharge, the arbitrator presumably would demand the best available proof, that is, a test confirmed by the most probative analytical method, regardless of the cost. An arbitrator is unlikely to be impressed by the case of an employer

---

25.1 STATE OF NEW YORK DIVISION OF SUBSTANCE ABUSE SERVICES AND NEW YORK STATE MEDICAL SOCIETY, DESK REFERENCE ON DRUG MISUSE AND ABUSE (1981).

26. *National Report on Substance Abuse*, BUREAU NAT'L AFFAIRS, Jan. 7, 1987, at 2.

who was willing to spend, for example, $20 to discharge an employee but not $100.

Even if they were willing to bear higher costs in order to make the screen more comprehensive, employers would face the difficulty that standard tests are readily available only for chemicals with standard formulas, those that appear in the pharmaceutical manuals. Beyond the reach of the commercial technology is that vast body of substances that have been termed "designer drugs." The National Institute on Drug Abuse defines a designer drug as a "substance that appears in the illicit drug market that is a chemical analogue or variation of another psychoactive drug." Such drugs have been likened to the "bathtub gin" of the Prohibition Era. Produced by underground chemists —frequently with degrees from the better universities — they mimic the effects of standard controlled substances but have novel molecular structures. For that reason, and because the designer variant may be so potent that it can be taken in smaller doses, the home-made chemical often cannot be detected by a routine test. The most widely-used designer drug has been MDMA, also known as "Ecstasy," a drug with hallucinogenic and amphetamine-like properties.[27]

Because their chemical composition did not match the standard formulas, designer drugs were not listed on the schedules of the Controlled Substances Act and thus were technically legal until passage of the Omnibus Drug Enforcement and Control Act in 1986, which prohibited their manufacture. But the formulas change rapidly, and it is questionable whether testing procedures could keep pace with these pharmaceutical phantoms. A similar problem exists in keeping pace with the large numbers of exotic natural drugs that are expected to make their way into this country from the Third World over the next several years. One such drug is ibogaine, an extract of an African shrub. It is used indigenously as an aide to game stalking, and it has stimulant and possibly hallucinatory effects. The commercial screening programs are bound to fall behind the new line of imports and product developments on the street.

Because of cost or the inherent limits of the technology, most screens can, at best, detect only a relatively short list of chemicals. Ar-

27. *MDMA: The Most Popular 'Designer Drug'*, BUREAU OF NAT'L AFFAIRS, Jan. 21, 1987, at 3. Other common designer drugs are variants of the narcotics fentanyl and meperidine. One fentanyl analogue sold on the streets is 3000 times as potent as morphine and remains undetected by conventional screens. *See* Baum, *New Variety of Street Drugs Poses Growing Problem*, CHEM. & ENG'G NEWS, Sept. 9, 1985, at 7.

bitrators may question the rationale for a screening process which is so truncated that it ignores scores of commonly abused drugs. An employer would have difficulty demonstrating that he was ridding the workforce of impairing chemicals by testing employees for only a fraction of the possibly impairing substances. A program which requires employees to submit to mass screening but which is not comprehensive enough to promise a substantial increase in safety may not meet the test of reasonableness in that the means are too meager to achieve the stated ends.

Arbitrators also will be compelled to examine the rationale for disciplining an employee who refuses to submit to such a screen. A drug test requires an employee to sacrifice a significant degree of privacy and personal dignity. As one federal court has recently stated in an employee drug testing case, "[E]xcreting body fluids and body wastes is one of the most personal and private human functions."[28] The duty to excrete upon demand is a novel feature of the employment relationship. Employers will face the task of convincing arbitrators that exacting this sacrifice from the employee is warranted by proving that it adds measurably to workplace safety. The task may become difficult if the employer cannot demonstrate that the screen will uncover more than an arbitrarily chosen fraction of the substances that threaten the workplace.

V. Surveillance as a Management Technique

Another factor to be considered in assessing the reasonableness of testing programs is the overall context. If there were an "Intrusiveness Index" for the workplace, it would have been rising rapidly in recent years. Drug testing is not the only form of intrusive scrutiny to which the average worker may be subjected. Some employees are already required to submit to AIDS screens, polygraph examination and psychological tests ("personality profiles"). Screening for genetic susceptibility to industrial hazards is on the horizon. An Illinois employer announced recently that it would put employees through periodic pulmonary function tests to deter violations of a company rule against smoking — either on-duty or off-duty.[29]

---

28. National Treasury Employees Union v. Von Raab, 649 F. Supp. 380, 387 (E.D. La. 1986).

29. *Smoking is Grounds for Being Dismissed by Illinois Company*, N.Y. Times, Jan. 21, 1987. *Cf.* M. ROTHSTEIN, MEDICAL SCREENING OF WORKERS (1983).

Adding random urine screening may contribute to surveillance overload. The typical employee could, as a sportswriter recently remarked of professional athletes, "come to live in fear of a flying visit from the vial squad." One worry may be that employees would discover undisclosed conditions such as epilepsy—by detecting therapeutic drugs—or pregnancy.

To be realistic, arbitrators will have to decide the reasonableness of drug tests in light of the totality of invasive testing that the employee may be required to undergo — now or in the future. They will have to evaluate whether it is a rational management strategy — inherent in the concept of management rights — to try to direct the workforce by a steady flow of monitoring reports from laboratories, undercover agents and psychological analysts. Such a strategy has been criticized as a quasi-Darwinian program of "employment of the fittest."

Approval of drug testing programs could encourage other types of screening, sending the Intrusiveness Index ever higher. Many of these tests are of even more disputed scientific validity than drug screening. One commonly used test judges an employee's honesty by asking him to draw a pencil line through a maze; cutting across the lines is interpreted to mean that he is dishonest — i.e., likely to cut corners in his work. Moreover, arbitral approval of surveillance as a management strategy would encourage adoption of suggestions that surveillance be extended beyond the workplace. Attorney General Meese, for example, has suggested that employers stake out taverns and other places where employees congregate while off duty. This is a proposal put forward earlier by Peter Bensinger, a former head of the Federal Drug Enforcement Administration.[30]

An additional consideration is the effect of testing and other forms of surveillance on programs which attempt to deal with drug abuse through non-punitive methods: education and treatment. An authority on occupational health policy has pointed out that "drug screening should be only one part, and indeed should be the least important part, of a comprehensive drug abuse program. The other two components of the program should be drug awareness and employee assistance."[31]

These components emphasize drug abuse prevention, early intervention, treatment and "peer counselling" (in which employees take the

30. *Meese Tells Employers to Look Out for Drugs*, N.Y. Times, Nov. 1, 1986; Bensinger, *Drugs in the Workplace*, HARV. BUS. REV., Nov.-Dec., 1982, at 48.

31. Rothstein, *Screening Workers for Drugs: A Legal and Ethical Framework*, 11 EMPL. REL. L. J. 432, 434 (1986).

initiative in assisting chemically dependant co-workers without waiting for supervisors to act). Many of these programs are sponsored or co-sponsored by unions, especially in occupations such as nursing and railroading. The Operation Red Block program of the Brotherhood of Locomotive Engineers is a model effort of this type: it encourages members to identify co-workers whom they consider to be impaired and unsafe for duty on trains.

Such obviously worthwhile programs depend upon trust, confidentiality and protection of the referred worker against reprisal by the employer. Emphasizing surveillance measures, such as random urinalysis, could destroy confidence in the benevolent aims of these non-punitive approaches, resulting in what has been termed the "recriminalization" of addictive disorders. A recent report on the status of Employee Assistance Programs found:

> The major concern about drug testing voiced by a number of EAP practitioners. . . is that damage will result to the relationship between employees and the EAP, and that the EAP will be viewed suspiciously as a tool of management and a means to conduct a "witch hunt" of employees.[32]

The practitioners who endorsed screening presumed it would be used for therapeutic—not punitive—purposes. In determining the validity of testing programs, arbitrators may take into account the possible deleterious effects of heightened surveillance on these other constructive efforts to deal with workplace drug abuse.

Nor will arbitrators easily avoid the argument that chemical and undercover surveillance could be replaced by a more balanced policy, based on close performance evaluation, coupled with an offer of referral to an EAP. As a federal court commented in reviewing one testing program: "If indeed the use of drugs is causing deficient performance. . . this should be detectable to a considerable extent by properly designed personnel procedures. . . ."[33]

Managers are themselves aware of the benefits that better personnel supervision might bring. The American Management Association concluded, on the basis of an extensive survey of corporate executives from Fortune 500 companies, that drug testing was receiving too much

---

32. *Drug Testing and EAPs*, Employee Assistance Programs: Benefits, Problems, and Prospects (BNA Special Reports) Washington, D.C., 1987.
33. Loworn v. City of Chattanooga, 647 F. Supp. 875, 883 (E.D. Tenn. 1986).

emphasis, at the expense of other approaches. The AMA suggested that training supervisors to recognize symptoms of drug abuse and to confront employees about it may be more productive.[34]

The capabilities of well-trained observers were demonstrated by the Los Angeles Police Department. The department discovered in an experiment that officers could be taught to "detect the patterns of behavioral and physiological symptoms associated with major drug categories" with astonishing accuracy, thereby reducing the need for testing.[35] Obviously workplace managers would not be as elaborately trained as police officers on the alert for drugged drivers, but the experiment does illustrate the theoretical potential of the powers of observation.

Some employers have already formulated policies which rely on supervisory observation and referral to the EAP, rather than drug testing. Here is an example of a written company policy based on this principle:

> It is the responsibility of the supervisor to evaluate a staff member's performance.
> a. When a staff member's performance slips to an unsatisfactory level and normal supervisory action does not improve performance, it is the responsibility of the supervisor to determine if the staff member should be referred to the Assistance Program. In such cases, the supervisor is to discuss the matter with the Employee Assistance Coordinator. The supervisor *does not diagnose* the problem, rather the supervisor is concerned with job performance and attendance.
> Prior to referring a staff member, the following steps must be taken.
> (1) Document examples of deteriorating job performance, (i.e., excessive absences, decreased productivity, poor judgement).
> (2) Inform the staff member of the inadequate work record. Give the staff member an adequate period of time to improve.
> (3) If job performance does not improve, refer the staff member who desires help to the Assistance Program for evaluation and assistance. Advise the staff member that the decision to seek assistance is confidential and is *not* included in the personnel file.
> Staff members who do not desire assistance will be expected to

34. *National Report on Substance Abuse*, *supra* note 26, at 5.
35. Richard P. Compton, *Field Evaluation of the Los Angeles Police Department Drug Detection Procedure*, Research Notes, National Highway Traffic Safety Administration, Washington, D.C., Aug. 1986 (MS.).

improve performance. If performance is not improved, the supervisor must take the appropriate disciplinary action.
b. Once the staff member is referred to the program, the supervisor is to follow through with the required job performance evaluations.

Given that Employee Assistance Programs result in fewer accidents, absenteeism and medical costs, employers may be asked to demonstrate that chemical surveillance, coupled with punishment, was an appropriate management response to the threat of drug abuse. Management may need to show that it had first exhausted the possibilities of more traditional supervisory methods, linked to employee assistance options.

VI. Validity of Administering a Test

A primary issue in arbitration is likely to be: was it proper to administer a test to the grievant in the first place? This question entails an examination of the principle of selection that governs the testing program. Most are based either on the principle of randomness or what is variously referred to as "probable cause" or "reasonable cause" (sometimes also described as an "incident-driven policy").

A series of judicial decisions in late 1986 held unconstitutional a variety of random testing programs in the public sector.[36] In a strict sense, these decisions, stemming from the fourth amendment jurisprudence, restrict only public employers because constitutional limits apply to governmental action. But as examples of procedural equity these decisions could also influence arbitrators, who deal with both public and private employers. For example, U.S. District Court Judge H. Lee Sarokin noted,

> The invidious effect of such mass round-up urinalysis is that it casually sweeps up the innocent with the guilty and willingly sacrifices each individual's Fourth Amendment rights in the name of some larger public interest. The. . .[employer] essentially presumed the guilt of each person tested. The burden was shifted onto each. . .[employee] to submit to a highly intrusive urine test in order to vindicate his or her innocence. Such an unfounded presumption of guilt is contrary to the protections against arbitrary and intrusive government interference set forth in the Constitution. Although. . .[an employee's] privacy and liberty interests may be

36. *Drug Tests Losing Most Cases in Court*, N.Y. Times, Dec. 11, 1986.

charged if they refused a management order to submit to a drug test. The arbitrator ruled the program violated the contractual requirement that discipline "shall be based upon just and sufficient cause." The program improperly transferred the burden of proof from the employer to the employee. Although the program called for tests only where there was reason to suspect impairment, the arbitrator held that the employer must prove impairment by:

> observing overt behavior or conduct of the employee relative to his job that establishes probable cause that the employee is under the influence of alcohol or drugs.
> To unilaterally require the employee to take a test. . .or be suspended or discharged is requiring the employee to prove his innocence before the employer decided to assess a penalty. . .It is the employer who seeks to discipline the employee. . . .
> . . . .
> The [testing] plan is in violation of the "just cause" provision of the collective bargaining agreement. It is, therefore, not a reasonable plan.[39]

Arbitrators may also be urged to find that the decision to test a given employee was improper, either because it was arbitrary, discriminatory or retaliatory. Such an issue is most likely to emerge where drug testing programs confer upon supervisors broad discretion to decide whom to test.

The federal government offers a useful illustration of such a program. Although it may be modified after judicial review, the Presidential Executive Order[40] (issued on September 15, 1986) authorized testing of federal workers in "sensitive positions." Under the proposed guidelines for implementing the plan, devised by the Office of Personnel Management, "the definition of a sensitive position is so broad that more than half of government workers are covered. . . . Agency heads have complete latitude in deciding whom to test."[41] Anticipating a pos-

---

39. Association of Western Pulp and Paper Workers, Local 180 and Boise Cascade Corp. (Kagel, Arb.) (Jan. 8, 1987) (unpublished opinion). Another arbitrator held that testing violated the collective bargaining agreement by unilaterally imposing a new term or condition of employment. *See* Wappingers (New York) Central School Dist. and New York State Teachers Union, (Schwartz, Arb.) (Dec. 16, 1986) (unpublished opinion).

40. Exec. Order No. 12,564, 51 Fed. Reg. 32,889 (1986).

41. *Who Said Federal Workers Couldn't Be Fired for Using Drugs*, Washington Post, Weekly Edition, Dec. 15, 1986. *See also National Report on Substance Abuse*,

sible misuse of managerial discretion, the guidelines state: "Agencies are absolutely prohibited from selecting positions for drug testing on the basis of a desire to test particular individual employees."[42] In other words, the guidelines take refuge in the principle of randomness as a way of avoiding the accusation that a particular employee has been singled out for retribution.

Arbitrators may be asked to scrutinize the selection procedure for suspect motives. The grievant may allege that he had become a target of retaliation or intimidation. The catalog of improper motives would no doubt also include race or gender discrimination, anti-union animus, and the desire to rid the workforce of "whistleblowers." Some employees have contended that they were designated for testing because they exposed safety problems at sensitive facilities, such as nuclear plants.[43]

Allegations of testing for retributive reasons may arise even where the collective bargaining permits only testing for reasonable cause. The Executive Director of the National Football League Players Association has declared that, under the league's contractual "reasonable cause" standard, players have been unfairly tested because they fell asleep at a meeting, were injured in a game, laughed in a elevator, or failed to drink beer with teammates.[44] In some instances, it will be argued, the mere act of ordering an employee to be tested represents punishment through stigmatization, even if the results are negative.

VII. The Definition of "Reasonable Cause" for a Test

What would constitute reasonable cause to test an employee: An anonymous tip would not qualify, if employers were judged by criteria analogous to constitutional standards. But the courts in public sector cases have not set a uniform high standard. Reasonable cause has sometimes been defined much more loosely as "some quantum of individualized suspicion. . .some articulable basis. . .usually framed as a 'reasonable suspicion'" of drug use.[45] An employer policy based on reasonable suspicion emphasizes the role of supervisors as careful observers. A typical policy provides that reasonable suspicion "shall include,

---

BUREAU NAT'L AFFAIRS, Mar. 4, 1987, at 2-3.

42. *Reagan Aides Split on Drug Tests*, N.Y. Times, Nov. 25, 1986.

43. *Alcohol & Drugs in the Workplace: Costs, Controls, and Controversies*, BNA SPECIAL REPORT 108 (1986) [hereinafter *Alcohol & Drugs*]; *see also The Nuclear Dilemma: Safety and the Drug Issue*, Washington Post, May 5, 1986.

44. 123 Lab. Rel. Rep. (BNA) 185, 187 (Nov. 10, 1986).

45. Lovvorn v. City of Chattanooga, 647 F. Supp. 875, 877 (E.D. Tenn. 1986).

but not be limited to, management's personal observation of an employee's appearance, behavior, or speech."[46] This is a formula which implies that testing primarily would be used to confirm visible impairment rather than seek out drug users among those who appear to be doing their jobs normally.

Purely statistical indicia, such as excessive absenteeism or tardiness, may not qualify as reasonable suspicion. A California state court temporarily restrained a public bus service from selecting employees for testing on that basis. Although the plan ostensibly treated employees individually, the employer in fact resorted to batch processing: it sought to begin the program by testing 125 mechanics.[47]

A charge of insubordination for refusal to take a drug test cannot be sustained, an arbitrator has held, where the employer failed to show either that drugs menaced the plant or that the individual displayed any signs of drug use. The arbitrator declared that the employer's order to take the test was not reasonable. The employer had unilaterally added the drug screen to a negotiated medical examination whose overall purpose was to ensure that workers were not harmed by toxic industrial chemicals. The arbitrator noted that there had been no testimony with "regard to any significant problem in the plant suspected to be related to drugs"[48] nor any testimony that the grievant's "behavior had been unusual, unsafe, uncoordinated, or in any way arousing suspicion that he was unable to handle his job."[49] She concluded:

> Lacking such probable cause to suspect a particular individual, forcing them to take such a test is an invasion of privacy and unwarranted requirement to furnish confidential medical information. In essence, it is requiring the employee to incriminate himself without probable cause. It is also requiring the test as a condition of continued employment when no reason exists in the performance of the individual to place such a condition upon him.
>
> . . . .
>
> . . .I find that the refusal to take the drug screen was a reasonable protest against the invasion of privacy, and that the discharge was not warranted.[50]

---

46. *National Report on Substance Abuse, supra* note 26, at 5.
47. *Id.* at 4.
48. Gem City Chem., Inc. and IBT, Local 957, 86 Lab. Arb. (BNA) 1023 (1986) (Warns, Arb.).
49. *Id.*
50. *Id.*

In both the public and private sectors, there are examples of a probable cause standard being adopted through the unilateral action of an employer or through collective bargaining. The Maryland Attorney General has determined that testing of state employees is permissible "only if based on particularized probable cause" — the traditional prerequisite to a search or seizure.[51] Under a private-sector testing agreement, between players and owners in the National Basketball Association, an official who formerly served as an Assistant U.S. Attorney and a Deputy Police Commissioner of New York City has been retained to decide whether sufficient evidence exists to order a drug test.[52] The parties to the basketball agreement selected someone who was qualified, by virtue of his background, to exercise quasi-prosecutorial discretion. Employers lacking such in-house "special prosecutors" are probably ill-equipped to adhere to so scrupulous a standard.

To maximize the chances of surviving arbitral review, the practical option for most employers may be to test as few employees as possible and to be prepared to produce concrete evidence in support of the decision to test in each instance. Such evidence would include documented reports of job-related impairment or performance deficits so serious that substance abuse was a plausible explanation.

Of course, where such evidence is present, the test results presumably would not be essential. Keen observation by supervisors of an employee's behavior and job performance is often enough to convince an arbitrator that an employee is impaired. In cases involving the nation's primary drug, alcohol — which has a much longer history in arbitration — a medical test (breathalyzer or blood alcohol concentration) has by no means been necessary to prove impairment. The "unsteady gait" and other well-known symptoms, as reported by lay witnesses, are routinely accepted in arbitration and are highly desirable as corroboration, even when a blood test is in evidence.[53]

VIII. Evaluation of Analytical Methods and "Decision Levels"

Arbitrators are likely to be called upon to evaluate the specific

---

51. 123 Lab. Rel. Rep. (BNA) 185 (Nov. 10, 1986).

52. *Lloyd and Wiggins of Rockets Banned for Drug Use*, N.Y. Times, Jan. 14, 1987.

53. *Cf., e.g.*, the discussion of the value of lay observation in T. Denenberg & R. Denenberg, Alcohol and Drugs: Issues in the Workplace 68-70 (1983).

methods which were used to analyze the sample being offered in evidence against the grievant. One issue typically will be whether the initial test that registered positive was confirmed by another test based on a different chemical method. The importance of the confirmation step for the immunoassay technique used in screening was underscored by a forensic journal report which observed that

> biological samples such as urine are complex chemical mixtures. As such, there is no absolute guarantee that the drug antibodies [in an immunoassay] will not bind with another similar compound; or that another substance will not trigger a false positive. Thus the results are always suspect to some degree. . .[Yet] unconfirmed immunochemical testing is being used to influence hiring, firing, and disciplinary actions.[54]

A survey by CompuChem Laboratories of North Carolina found that forensic experts had strong preferences about which combinations of analytical methods — such as immunoassay, radio immunoassay, thin-layer chromatography (TLC), and gas chromatography/mass spectrometry (GC/MS) — should be used for confirming positives. Often, these preferences varied with the type of drug in question. Arbitrators who were surveyed, on the other hand, had a difficult time discerning differences in the reliability of various combinations that were rated by the forensic experts, such as immunoassay confirmed by GC/MS. The study concluded that arbitrators "have little understanding of the differences in accuracy among commonly used analytical methods."[55] In fact, 61 percent of those who heard a case involving urinalysis could not recall which methods were used to analyze the sample.[56]

Arbitrators may become more sensitive to such questions as they gain experience in urinalysis cases. But to the extent that the survey reflects the attitudes of the arbitration community, advocates may find it prudent to rely heavily on expert witnesses to educate decision-makers in the nuances of the various test methodologies. Unless the parties resolve these issues through negotiations, it is likely that basic technical

---

54. *Workplace Alcohol Testing: Cost-Effective*, EMPLOYEE TESTING AND THE LAW, Nov., 1986, at 8.

55. Hoyt, Finnigan, Nee, Shults, & Butler, *Drug Testing in the Workplace: Are Methods Legally Defensible, A Survey of Experts, Arbitrators, and Testing Laboratories*, Compuchem Laboratories, Research Triangle Park, NC, 1986, at 21 (unpublished manuscript) [hereinafter *Drug Testing*].

56. *Id.* at 14.

controversies will be disputed *de novo* in each disciplinary case stemming from a drug test.

One such controversy is the threshold for reporting a positive. In a disciplinary case, the assertion may be made that the employee registered "positive" on a test, but not all positives are alike. A laboratory typically will pre-determine the minimum concentration of a drug in the urine — known as the "decision level" — that will trigger a "positive" report. Concentrations below that level will be reported as negative. The decision level is designed to avoid obtaining a false positive because of "background noise" — that is, spurious chemical reactions in the urine.

The decision level may be changed dramatically in the course of a testing program. In one company the decision level was raised from 25 nanograms per milliliter [ng/ml] to 75 ng/ml at the suggestion of the laboratory, to preclude the argument that the result was due to passive inhalation of marijuana smoked by others. (A nanogram is a billionth of a gram, or one 28-billionth of an ounce.) Some testing programs have set the level as high as 200 ng/ml. Thus, a "positive" may vary substantially from one employer to another and also may change from time to time within the same testing program.

Such shifts illustrate that "positive" is not an objective scientific threshold — certainly not a threshold which correlates with impairment — but the result of an administrative decision by the laboratory and the employer. That decision may reflect such factors as convenience. Some forensic experts have cautioned that the level could be changed deliberately to achieve results that justify the program: the illusion of gains against drug abuse could be fabricated merely by raising the decision level so that fewer personnel registered positive.[57]

Arbitrators may find themselves faced with having to decide whether 25 ng/ml provides just cause for discharge, even though they are aware that such a level would not even count as a positive if the grievant worked for another employer, or if the employer had contracted with a different laboratory. A major advantage of negotiated testing protocols is that they eliminate disputes in arbitration about decision levels (see section below on joint protocols).

---

57. Arthur McBay, Ph.D., Taped Remarks, *Testing Employees for Alcohol and Other Drugs*, delivered at the Bureau of National Affairs Conference on Alcohol and Drugs: Issues in the Workplace, Washington, D.C., 1984.

IX. Do Test Results Establish "Just Cause" for Discipline?

It is likely to be argued in arbitration that basing a discharge on a quasi-medical test such as a drug screen is invalid because it violates the canons of proof observed in medicine itself. That argument has been voiced from a variety of perspectives. A group of human resources experts meeting under the auspices of the National Institute on Drug Abuse in 1986 concluded that "a single positive test result, even if confirmed, should not form the sole basis for disciplinary action."[58] A good reason for this caution, some academic physicians maintain, is that even a test with a 95 per cent accuracy rate, which corresponds to some of the most accurate tests in general medical use, will falsely identify as a positive one of every 20 employees tested in a large-scale screen:

> Prudence and fairness would suggest that tests be applied only when there is at least a 50 percent chance that the suspect is guilty. . . . But if we knew the chance of guilt was 50 percent, would we need a test like this? Or could we use more standard personnel methods?[59]

In medicine, a test is used for therapeutic rather than punitive purposes. Furthermore, test results are usually supported by other clinical findings before a decision is made about the patient's treatment. In contrast, a decision about an individual's employment status may be made on the basis of a single test result. Many clinicians find this practice disturbing because they believe it wrenches a diagnostic tool out of its proper medical context. The CompuChem study, which was prepared by laboratory scientists, noted:

> [I]n the case of non-probable cause samples, the persons [tested] do not have signs or symptoms of drug use. In clinical practice, physicians can request multiple tests and/or retests to arrive at a supportable diagnosis or treatment protocol. . . . [I]n drug testing in the workplace frequently one does not have that multiple information base for arriving at a decision. Companies are basing their action on one piece of information, the urine test result.[60]

---

58. Consensus Summary, Conference on Interdisciplinary Approaches to the Problems of Drug Abuse in the Workplace, NIDA, Dept. of Health and Human Services Pub. No. (ADM) 86-1447 (1986).

59. W. Anderson, M.D., *Too Many Bugs in Screening Measures*, Wall Street J., Apr. 14, 1986.

60. *Drug Testing, supra* note 55, at 17.

If a positive test result is relied upon as the sole or primary piece of evidence against the grievant, the question often arises: does the positive result prove impairment, the condition which is properly subject to discipline? In a case involving the meaning of a positive, a shipyard workers' union challenged a unilateral employer testing program which provided that the employee is presumptively under the influence of marijuana if an EMIT (immunoassay) urinalysis registers 100 ng/ml, and conclusively under the influence if the result is confirmed by GC/MS. After listening to a debate among technical experts, the arbitrator concluded:

> I have no quarrel with the 100 ng threshold level. My quarrel is with the company's conclusion that a level of 100 ng in the urine in the EMIT test, if confirmed by the laboratory GC/MS test, means that the employee is "under the influence."
>
> . . .
>
> The evidence in this case does not conclusively show that a recording of 100 ng in the urine, if confirmed, is synonymous with any mental or physical impairment.[61]

The arbitrator resolved the dilemma by allowing the employer to declare a result of 100 ng/ml in itself a violation of company rules, whether or not that level proved anything about the employee's condition: "I do not consider it unreasonable for the company to deem an EMIT test of 100 ng. . . a prohibited or an unacceptable level of the drug, and to conclude that such a level *may* cause impairment or *may* result in being under the influence."[62]

However, the arbitrator also called for "some additional due process protection" and thus ordered that the company physician:

> shall also examine the affected employee physically for the presence or lack of presence of other symptoms of drug and alcohol use. . .[including] a test of reflexes, examination of eyes, gait, general demeanor, breath and condition of speech. . . .[The results of the examination shall be] made a part of the official record of any disciplinary action imposed on and/or counseling required of the affected employee and shall be available if the matter is grieved or

61. Local 6 and Local 7, Industrial Union of Marine and Shipbuilding Workers of America, and Bath Iron Works Corporation (Schmertz, Arb.) (June 30, 1986) (unpublished opinion).

62. *Id.*

arbitrated.[63]

The decision suggests that even where a testing program is accepted in principle, arbitrators may be left with such deep reservations about the significance of a test result that they will require additional evidence of impairment. The issue thus may be whether the totality of the evidence, not just the test result alone, justifies discipline.

The collective bargaining agreement itself could provide a reference point for deciding the significance of a single test result. Some agreements, however, suffer from lack of precision on the drug test issue, requiring interpretation by arbitrators. The discharge of a truck driver with eight years' service was upheld after he registered positive in a marijuana urinalysis. The test was ordered because he seemed "sullen and withdrawn," as well as uncoordinated, after returning from a funeral leave occasioned by the sudden death of his brother.

In the urinalysis, the decision level had been set at 100 ng/ml. The contract contained the following provision: "An employee may be discharged for. . .being under the influence of drugs. . .The employer may request an employee to take a medical test to determine whether he was under the influence of. . .drugs."[64]

The union argued that the positive on the marijuana test did not demonstrate the grievant was under the influence. However, the arbitrator held that:

> the contract says the test results can be used to conclude that an employee is under the influence of drugs. The union's mistake is assuming that "under the influence of drugs" has a precise scientific meaning that is incorporated in the contract. . .I cannot interpret the contract to authorize discharge only upon a type of proof that exceeds present scientific capabilities.[65]

It is interesting to note that while the arbitrator in the shipyard workers' case doubted that the employer could use a 100 ng/ml decision level to establish that an employee was impaired, the arbitrator in the trucker's case deemed such a positive sufficient proof. The reasoning of the latter arbitrator seems to be this: that if the contract allows

---

63. *Id.*

64. Roadway Express, Inc. and IBT, Local 705, Apr. 22, 1986 (Cooper, Arb.) (unpublished award) *See also* AAA Summary of Labor Arbitration Awards, No. 331-1, Oct. 15, 1986.

65. *Id.*

the employer to request a medical test, then the test results must have some meaning for the disciplinary proceedings, notwithstanding the general agreement of the scientific community that they have no such meaning. In other words, within the four corners of the contract, but nowhere else, a marijuana positive proves impairment.

The arbitrator evidently relied heavily on the fact that the parties had contracted for the test. It could be argued, of course, that by contracting for a medical test, they meant a test that was scientifically capable of proving what the employer had to prove. The contract provision did not mention marijuana specifically, and the framers could have had in mind tests such as blood alcohol concentration, which are accepted evidence of impairment. In drafting their agreements, parties would be well advised to specify which tests they envision.

X. Conduct that Occurs Off-Duty

Drug testing cases are likely to fall into the class of arbitrations in which nexus to the job is a key issue. By and large, arbitrators have regarded off-duty misconduct, including many types of criminal behavior, as beyond the reach of the employer's disciplinary powers, except where the misconduct has a direct bearing on the employment relationship. A recent study summarized arbitral thinking in this way:

> The employer must. . .demonstrate that there is a valid nexus between the off-duty misconduct and the status of the grievant as an employee. The decisions indicate that this may be accomplished by showing that the misconduct has damaged the employer's business or will do so if the employee is reinstated; that fellow employees would refuse to work with the offender or would be exposed to danger from the offender; and/or that the nature of the misconduct is disqualifying, in that it is incompatible with the duties of the employee's job classification.[66]

Unless these conditions are present, marijuana testing cases may pose peculiar problems in arbitration, inasmuch as urinalysis reaches backward in time. It often probes into possible drug use during periods when the employee was off duty.

In a typical alcohol intoxication case, the grievant is charged with

---

66. Hill & Kahn, *Discipline and Discharge for Off-Duty Misconduct: What are the Arbitral Standards?*, ARBITRATION 1986: CURRENT AND EXPANDING ROLES, PROCEEDINGS NAT'L ACAD. ARB., 1986, at 152-53.

violation of employer rules against being under the influence of ethanol while on the job. A blood alcohol concentration test result may be introduced into evidence to substantiate the charge that the grievant was chemically impaired while at work. In such cases, the job nexus is clear; the impairment is temporally related to the offender's duties.

But supporting an allegation of "under the influence" with a urinalysis result raises serious nexus issues, because a positive merely substantiates that use occurred in the past, not that the grievant was impaired on the job. To that extent, marijuana analysis is quite unlike blood alcohol testing, which shows current effects; it fights the presumption that the employer is primarily concerned with on-the-job impairment.

This point is likely to be made quite forcefully by expert witnesses in arbitration. For example, Professor Ronald K. Siegel of UCLA Medical School, a forensic psychopharmacologist who has testified in many arbitrations and judicial forums, maintains: "Testing does only one thing. It detects what is being tested. It does not tell us anything about the recency of use. It does not tell us anything about how the person was exposed to the drug. It doesn't even tell us whether it affected performance."[67]

Underlying this opinion is the fact that the marijuana immunoassay, the most popular form of urinalysis, is based on inference: it detects not the psychoactive substance itself but the excreted metabolites — that is the waste products into which the drug has been broken down by the body's physiological processes. Such a testing procedure is analogous to inferring —in the best Sherlock Holmesian tradition — that cigarette smoking has occurred by discovering tobacco ashes. The inference is a fair one, so far as it goes. But it begs questions crucial to grievance arbitration: How recently did the employee use marijuana? To what extent was the employee's ability to carry out his duties affected by the drug? Just as one could not tell exactly when the cigarette was smoked from the mere presence of ashes, urinalysis cannot demonstrate when an employee used marijuana or was impaired by it.

The difficulty of relating urinalysis results to impairment has been explained by the U.S. Centers for Disease Control in an "advisory" notice:

> [A]ttempts to correlate urine concentration with impairment or time of dose are complicated by variations in individual metabo-

67. *Alcohol and Drugs*, *supra* note 43, at 29.

> lism, metabolite accumulation in the chronic user, and urine volume changes due to diet, exercise and age. Therefore, a positive result by the urine cannabinoid test indicates only the likelihood of prior use. Smoking a single marijuana cigarette produces THC metabolites that are detectable for several days. . . .[T]he urine cannabinoid test result alone cannot indicate performance impairment or assess the degree of risk associated with the person's continuing to perform tasks.[68]

The notice adds that the cannabinoids remain detectable in urine "for up to 2 weeks in the casual user and possibly longer in the chronic user."[69]

The effect of urine volume on the significance of the test result has been vividly explained by an experienced forensic witness, Harold L. Klawans, a professor of neurology and pharmacology at Rush Medical College in Chicago. Testifying about the excretion of marijuana metabolites, he gave the following illustration:

> Let us say that on the day of the test, the patient, it's a hot day, he is drinking two gallons of water. Puts out four liters [4,000 ml] of urine. . . .
>
> Let us say he is going to put out 4,000 nanograms [of the metabolites]. He puts out 4,000 nanograms in a day in 4,000 milliliters of urine, it's one nanogram per milliliter.
>
> Let us say for whatever reason, he only drinks one quart of water. He puts out. . .one liter [1,000 ml] of urine. He still puts out the same 4,000 nanograms. It's now in one liter of urine. His test result is 4 nanograms per milliliter. Four times as high. [Yet] it's the same amount of chemical [metabolites].
>
> Basically, all this tells you is how much is in one milliliter of urine of an inactive chemical. . .[and] you don't know when it got into the body. . . .[70]

A Harvard Medical School psychiatrist, commenting on the investigation of train crewmen involved in an accident, has given the opinion that the effects of the cannabis detected would have been relatively short-acting: reaching a pharmacological peak within five minutes of

---

68. Centers for Disease Control, *Urine Testing for Detection of Marijuana: An Advisory*, MORBIDITY AND MORTALITY WEEKLY REP., Sept. 16, 1983.
69. *Id.*
70. Sworn testimony of Dr. Harold L. Klawans, *Deposition in the matter of testing for marijuana (cannabis) use among railroad workers*, Chicago, Ill., Aug. 9, 1986.

use and tapering off rather sharply — within 45 minutes to an hour.[71] Such expert opinions would favor the conclusion that, in the absence of proof of on duty use, the positive result did not demonstrate an effect lasting long enough to be of concern to the employer.

Not knowing when a drug was used would leave a large gap in the arbitration record if the employee is not subject to discipline for his off-duty and off-premises conduct. To uphold a discharge on the basis of such a record would presumably require a finding that the employer has the right to discharge an employee for using impairing substances at any time — a premise which would be revolutionary if applied to the leading chemical threat to industrial safety: alcohol. It should also be noted that among the substances that TLC detects is nicotine; urinalysis thus could be as easily used to enforce disciplinary penalties for off-duty smoking (a possible source of medical costs to the employer) as to enforce rules against marijuana use. Prohibiting off-duty smoking has been praised as an industrial health measure.[72]

An employer might promulgate a policy of disciplining employees for drugs which are "in their system." This policy is equivalent to imposing discipline for the mere act of registering positive on a drug test. Such rules may be attacked as unreasonable, on the grounds that what is "in the system" is inert and has no psychoactive effect. To return to our cigarette analogies, these rules will be likened to disciplining an employee for violating a plant no-smoking rule on the ground that he had ashes in his pocket when he reported for duty.

The argument also may be advanced that punishing the mere act of registering positive ignores the element of intent. While some experts doubt that passive inhalation of marijuana smoke would appear on an employment test — because studies have not shown that such smoke produces urine levels as high as 20 ng/ml — it has been pointed out that smoke is not the only medium of unintentional contact with marijuana:

> As a practical matter, passive inhalation has been an unsuccessful defense. What is technically plausible, however, is accidental or passive ingestion of marijuana from eating a brownie, a piece of cake, or some other food prepared with marijuana. Here a real question of credibility exists because a subsequent test will proba-

71. Dr. Norman Zinberg, quoted in *Drug Trace Found in 2 Rail Workers After Fatal Crash*, N.Y. Times, Jan. 15, 1987, at 1.

72. Professor M.S. Rutstein, Letter to N.Y. Times, Feb. 5, 1987.

bly register positive.[73]

The reasoning here is that by unwittingly eating food laced with marijuana, perhaps a treat proffered by a co-worker, the grievant could have ingested a substantial dose, in comparison with the quantity that could be inhaled from ambient smoke. Unintentional ingestion of marijuana in food was the basis for reinstatement of the grievant in some cases.[74]

Another issue is whether a penalty of discharge could properly be imposed on an employee for registering positive on a test — especially as part of a company physical — without examining whether the positive indicated the need for treatment of a substance abuse disorder. Discharging him without an opportunity for treatment could be considered tantamount to dismissing an employee for being ill, an action which arbitrators often are reluctant to endorse, particularly where there has been no demonstrable effect on job performance. Reasoning along similar lines, the Maryland Attorney General has opined that discharging state employees solely because they were identified as drug users by a test would violate the Federal Rehabilitation Act of 1973.[75]

XI. Blood Tests for Marijuana

Urinalysis is by far the most popular method of testing employees for marijuana use, because it is considered less invasive than blood tests. But even if blood samples were analyzed and the results introduced into evidence at an arbitration, a number of questions would be raised about the significance of the results.

Blood levels of THC, the active ingredient in cannabis, are more closely linked to recent use than metabolites in urine. The THC is active when in the blood, while metabolites in urine are inert. Also, blood levels dissipate within a matter of hours rather than days or weeks, making a blood test a better indicator of proximate use than a urine test.

But could a high THC blood level prove impairment? Many reputable researchers believe that the data available so far reveals no corre-

---

73. *Passive Inhalation Defense Difficult to Demonstrate*, EMPLOYEE DRUG TESTING AND THE LAW, Nov. 1986, at 5.

74. KCBS and IBEW, Local 202, 72 Lab. Arb. (BNA) (1978) (Ward, Arb.); Oshkosh Truck Corp., 75 Lab. Arb. 722 (1980) (Cox, Arb.).

75. 123 Lab. Rel. Rep. 185.

lation between dosage levels and behavioral effects. This is true even when the level of THC currently in the bloodstream is known. Scientists have been unable to discern a uniform physiological response among persons administered the same measured dose. Summarizing a large body of research, Dr. Richard Hawks of the Research Technology Branch at the National Institute on Drug Abuse, a Federal agency, has commented:

> [W]hat is obvious so far is that even though some consistency exists among individuals smoking a given dose of marijuana, in terms of expected blood levels, the associated performance effects of these doses do not show the same consistency. It is not yet clear whether a practical presumptive concentration of THC can be related to measurable impairment.[76]

More recently, Dr. Hawks and a collaborator have noted:

> Due to wide variations in the pharmacokinetics [drug concentrations over time] and pharmacodynamics [intensity of drug effects] . . .the use of plasma drug concentrations for the estimation of impairment has not been established for most drugs.
> As for urinalysis, drug concentrations in the urine are further complicated by other factors such as urine flow and pH [acidity].[77]

This phenomenon contrasts sharply with the effects of alcohol: the blood alcohol concentration is a highly accurate measure of the level of impairment. Persons with blood alcohol concentrations of more that 0.10 are presumed to be legally intoxicated by highway codes in many states, and few doubt that drivers with such blood levels are dangerous. Many employers have incorporated the BAC in their disciplinary policies, providing for example that 0.05 will be considered a presumption of "under the influence" and 0.10 will be deemed "intoxication." Differing levels may entail different penalties. In a marijuana case, however, there might be expert witnesses giving the opinion that human physiology seems too variable to establish a firm link between dosage and effect, thus precluding conclusive proof by blood test that the employee was "under the influence."

---

76. Hawks, *The Analysis of Cannabinoids in Biological Fluids*, NATIONAL INSTITUTE ON DRUG ABUSE MONOGRAPH No. 42, 1982, at 4.

77. Hawks & Chiang, *Urine Testing for Drug Abuse*, NATIONAL INSTITUTE ON DRUG ABUSE RESEARCH MONOGRAPH, No. 73, 1986, at 80.

XII. Laboratory Accuracy

Since a grievant may face "industrial capital punishment" on the basis of a laboratory report, arbitrators will be forced to take note that commercial drug testing services and laboratories can vary widely in their accuracy and reliability. The diligence and qualifications of the technicians and supervisors, as well as the thoroughness of the procedures may differ.

The National Institute on Drug Abuse issued preliminary guidelines for choosing laboratories early in 1987, but cautioned that its proposed code of standards "does not guarantee absolute reliability."[78] Until there is a widely accepted accreditation system, or routine proficiency evaluation, the booming "diagnostics industry" will remain a highly competitive, unregulated business.[79] The race may be to the swiftest, not necessarily the most competent. Pressures for a share of the expected $115 million market could compel some testing services to promise more than they can deliver.

The variability of laboratory performance was demonstrated by a study conducted by the Centers for Disease Control. Chemists at the federal facility in Atlanta mailed to 13 laboratories serving drug treatment centers a number of urine samples which either had been spiked with known chemical substances, such as cocaine and barbiturates, or were blank. The results were dramatic. The laboratory reports contained a large proportion of false negatives (substances present were not detected), and some laboratories produced false positive rates (substances purportedly detected were not present) of 66 percent.[80]

Although the survey research was done some years ago, Dr. Robert Willette, the former chief of research technology for NIDA and a frequent witness in arbitration, has commented that "there are laboratories currently offering services to employers that would probably do as badly on those tests. . . .There are some good labs — there are some excellent labs — and then there are some poor labs. . . ."[81]

The same caution is heard from within the testing community itself. Dr. Don H. Catlin, chief of clinical pharmacology at the University of California at Los Angeles, and the scientist who supervised test-

78. *National Report on Substance Abuse*, BUREAU NAT'L AFFAIRS, Feb. 4, 1987, at 1-2.
79. *Boom in Drug Tests Expected*, N.Y. Times, Sept. 8, 1986.
80. Hansen, Caudill, & Boone, *Crisis in Drug Testing*, 253 J. A.M.A. 2382-87 (1985).
81. *Alcohol & Drugs*, *supra* note 43, at 30-31.

ing at the 1984 Olympics, has stated that testing firms "vary tremendously from laboratory to laboratory as well as within the same laboratory on a day-to-day basis because the tests require skill in interpretation and the reliability of the results depend on who does the test."[82]

An illustration of how laboratory personnel staff can influence the result of the test is provided by a Congressional committee staff report. It notes that the marijuana immunoassay "is unusually reliant on the skill of the technician, in maintaining the appropriate environmental conditions, in mixing the proper level of reagents, and in comparing color intensity between the mixed sample and the pre-mixed sample, known as the calibrator."[83]

Some experts, such as Dr. Willette, consider it imperative for employers to perform a "pre-contract award assessment" of the laboratory's quality control system. Similarly, the authors of the *Crisis in Drug Testing* study recommended that the performance of contract laboratories should be monitored "with quality-control samples, preferably through blind testing."[84] If a laboratory's quality control were challenged in arbitration, the measures taken by the employer to evaluate the laboratory's quality and performance presumably would be relevant. An employer's failure to apply the rigorous assessment methods recommended by responsible scientists might make more plausible an argument that the test results offered in evidence were suspect.

Arbitrators have at times required employers to make an affirmative showing that the laboratory procedure was sound. One arbitrator held:

> Correct testing procedures include not only arrangements to insure the fairness and accuracy of drug testing samples obtained from employees, but also checking the testing laboratory's experience, its analytical methods and the way it protects the security and identity of each sample.
>
> . . . .

---

82. *Drug Tests Gain Precision, But Can be Inaccurate*, N.Y. Times, Sept. 16, 1986.

83. *Drug Testing in the Federal Government*, Staff of the Subcommittee on Civil Service of the Committee on Post Office and Civil Service, U.S. House of Representatives, Washington, D.C., June 20, 1986, at 14 [hereinafter Staff Report]; *see also* Schroeder & Nelson, *Drug Testing in the Federal Government*, 11 NOVA L. REV. 685 (1987).

84. Hansen, Caudill & Boone, *supra* note 80.

> [I]n order to sustain its burden of proof, an employer must show by substantial evidence, that the testing facilities and personnel were qualified. This requirement includes the obligation to make available, by testimony and written records, complete details of the testing.[85]

Despite the possibility that proof of laboratory quality may be required in disciplinary cases, few employers apparently take the necessary steps. A survey conducted by a management information service revealed that only 19.8 percent of firms with testing programs had evaluated their laboratories by submitting "blind" samples.[86]

XIII. Verifying the Chain of Custody

In addition to disputes about the overall accuracy record of laboratories and the specific analytical methods used, arbitrators may face disagreement about the integrity of the urine specimen at issue. Did it emanate from the grievant charged with misconduct? Furthermore, was it properly handled and secured during all stages of the test procedure?

Assuring an unbroken chain of custody begins with the taking of the sample. In the past, when testing was only sporadic, samples were often treated quite casually — left lying about in the employer's mail room unattended and similarly neglected in transit. Today many testing services are moving toward what has been called the "forensic philosophy":

> The forensic philosophy is characteristic of laboratories which were originally established to perform law enforcement. . . . They take a very defensive approach to the entire analytical process, and implement strict controls to ensure that each and every activity in the laboratory can withstand legal scrutiny . . . .
>
> The forensic philosophy starts at the time of sample collection. Sample collection includes a witnessed urine sample, verified by the submitter, sealing of collection vial, signature of person collecting and shipping of the sample. Samples are not accepted for analysis if there are any discrepancies in the collection procedures or docu-

85. Wappingers (New York) Central School District and New York State United Teachers Union, (Schwartz, Arb.) (Dec. 16, 1986) (unpublished opinion).
86. *M&M Management Memo*, MERCHANTS AND MANUFACTURERS ASS'N, Jan. 1987.

mentation submitted by the employer.[87]

Some laboratories supply their employer customers with kits, containing sample bottles, instructions for collecting and mailing cartons, to which have been affixed seals signed by the employee and witnesses. But difficulties still arise. Before it gets to the laboratory, the specimen must get into the bottle under verifiable circumstances. To avoid doubts, collection must be witnessed, a necessity which is repugnant to — and often resented by — both the watchers and the watched. (A new job classification of "Micturition Monitor" may become necessary). Whether witnessing was performed effectively could become an arbitration issue.

Urine advertised as clean has been offered for general sale "for experimental purposes only."[88] Street vendors of urine sometimes appear outside the plant gates to assist employees who face a drug screen. A grievant might contend that he was merely a victim of consumer fraud — that his positive came from urine which did not live up to the claims made for it by the seller.

Catheters and similar devices permit exogenous urine to be introduced into a sample. Urine may also be diluted with bathroom water. So ample are the opportunities for adulterating a specimen that even an eye-witness might not detect subterfuge. One employer, the Boston Police Department, has promised to make available a special high-security bathroom in which "the sink water has been shut off and the toilet water chemically treated to prevent unnoticed tampering."[89] Grievants may challenge in arbitration the reasonableness of testing procedures based upon less careful specimen-giving procedures — or less advanced plumbing. The argument is sometimes made that such a program is not adequately designed to accomplish its ends, since those who are involved in drug use are also those who are most likely to defeat the system by tampering with the sample.

To obviate the need for witnesses, some proposed testing programs would allow employees to sign an affidavit attesting that the urine is their own. It has been argued that if the employee's word is acceptable,

87. *Drug Testing, supra* note 55, at 17.

88. *Texan is Selling Drug-Free Urine to Meet "Unanticipated Demand"*, N.Y. Times, Nov. 29, 1986.

89. *Boston Waits Word on Police Drug Test Suit*, N.Y. Times, Sept. 28, 1986. The federal employee testing program also provides for checking the temperature of the sample. *National Report on Substance Abuse, supra* note 41.

et al.: Nova Law Review Full Issue

he could be asked to sign an affidavit that he was not a drug user, thereby eliminating the need to test at all.

Large-scale testing programs often have trouble keeping track of the samples. In disciplinary proceedings in the armed forces, for example, a key defense strategy is to challenge the prosecution to prove that the test result offered in evidence came from a urine specimen of the accused; defense advocates report regular success with this approach.[90]

Mixups can result from automated processing of sample bottles identified only by stick-on labels with serial numbers. An example of such a mixup occurred recently when a boxer was accused of testing positive for marijuana in connection with a heavyweight bout in late 1986. A boxing official later withdrew the charge, explaining that the wrong urine specimen had been linked to the accused because "someone in my office misread the number. . . .[I]t was clearly a clerical error."[91]

The quality of evidence in arbitration may also be affected by long-term custody techniques. Freezing is required to store urine samples for later verification and re-analysis. This requirement might prove impractical on a large scale, given the volume of samples and time that it takes to process a case to arbitration.[92] The evidence may also deteriorate due to evanescence of the test materials. TLC requires subjective judgments about the colors of spots on a glass plate. Yet the colors on the TLC plate fade, making it difficult to preserve the plate as evidence. Reliable photographs of the plates are notoriously hard to secure because subtle color discrepancies could prove crucial. An arbitrator might be called upon to decide whether the loss of the original sample or test materials vitiated the reported test result.

In sum, arbitrators can expect to have much argument over the very identity of the sample and its provenance. Many cases may turn upon this issue.

XIV. Compulsory Treatment of Employees Testing Positive

Arbitrators will hear cases in which the grievant has not been discharged because of a drug test but referred to treatment against his will as a condition of further employment. In the debate within the

90. *See e.g.* Waple, *Drug Tests: Issues Raised in the Defense of a "Positive" Result*, 11 NOVA L. REV. 751 (1987).

91. *Boxer's Drug Test Negative*, N.Y. Times, Dec. 20, 1986.

92. *See generally* Staff Report, *supra* note 83.

Published by NSUWorks, 1987

Reagan cabinet on drug testing policy for federal employees, one position was that anyone testing positive should be discharged. The ostensibly more compassionate position, which prevailed to some extent, was that an employee should be sent for treatment the first time a positive was registered. Discharge was reserved for a second offense. But compelling an employee to undergo treatment merely on the basis of a single positive drug test may also be difficult to support.

In 1986, a group of air traffic controllers in Palmdale, California, were investigated by their employer because of an off-duty party at which drugs were reportedly in use. Drug tests were part of the investigation. The upshot was that 13 of the 34 controllers were ordered to enter treatment or lose their jobs. The employer, in fact, did not offer any evidence that they were compulsive users or could be considered addicted.[93]

Quite apart from whether the employer has a reasonable need to scrutinize an employee's off-duty behavior in that fashion — the employees, after all, had not been arrested or charged with any criminal offense — such an incident raises crucial questions about the propriety of using a drug test as an indicator of the need for treatment.

There is a school of thought which holds that no drug use should be considered "recreational." Adherents of that school believe the label "recreational" sends a permissive message, which encourages drug use. They also regard the casual drug user as someone who sets a bad example for those less capable of moderating their drug use: the "successful" casual user lures the compulsive personality into an addictive lifestyle.

While such considerations may figure in law enforcement "demand reduction strategies," they may not justify referring for treatment — involving costly use of medical or quasi-medical facilities — someone who does not truly require treatment. Treatment is not a form of punishment, it will be argued, and to regard it as such may both debase treatment and confuse the disciplinary process. An arbitrator might well conclude that forcing an employee into treatment who is not ill (in any customary sense of the word) is a cynical exercise and a waste of scarce treatment resources.

---

93. *FAA Reports 13 of 34 Controllers Took Drugs*, N.Y. Times, Sept. 13, 1986, at 8. In another aviation case, a federal judge suggested that off-duty drug use might constitute reasonable grounds to administer a test—but only to determine possible on-duty drug use. *National Report on Substance Abuse*, BUREAU OF NAT'L AFFAIRS, Mar. 18, 1987, at 3.

A person who has registered a positive in a drug screen is not necessarily a compulsive user. The positive result shows only an instance of drug use. There is no accepted treatment for casual, non-compulsive use of drugs, such as marijuana (or NyQuil, for that matter) other than to explain the potential health risks to the user and hope that rational persuasion prevails. No psychological "therapy" is indicated, according to Professor Siegel of the UCLA School of Medicine, who has given this description of how he deals with occasional users:

> tell them everything we know about the drug. . . .[W]e feel that if they really knew everything we know about marijuana or cocaine. . .they probably will never go near it again. . . .But I find it particularly troublesome when somebody [who is not addicted] is ordered for treatment. Isn't that sort of like Russian psychiatry, where when you are deviant and you think differently from the state, you are mentally disordered until you agree to think differently?[94]

XV. Legislative and Judicial Restraints on Testing

A long-standing debate in arbitration concerns the proper relationship between arbitration and external law. In the case of testing, a swirl of legislative and judicial developments now forms the external environment in which arbitrators must make their decisions.

Legislative proposals to restrict the use of drug testing as a condition of employment are under consideration at all levels of government. San Francisco has already enacted a municipal ordinance on the subject,[95] and legislation is pending in several states. The New York State Assembly and Senate Standing Committees on Labor held extensive hearings in November, 1986, at which there was substantial testimony in favor of regulating testing. Bills introduced into Congress by Rep. Charles Schumer and others proposed federal controls on testing. In its preliminary version, the Schumer bill would make it unlawful for any employer "to require or cause any employee. . .to undergo. . .any drug test: except when the employer has reasonable suspicion that a

---

94. Los Angeles County Bar Association, *Alcohol and Drugs and the Disciplinary Process*, 1985 SOUTHERN CAL. LABOR LAW SYMP. PROC. 153 (These remarks were made by Professor Siegal of the UCLA School of Medicine on May 23, 1985).

95. *See generally* Palefsky, *Corporate Vice Precedents: The California Constitution and San Francisco's Worker Privacy Ordinance*, 11 NOVA L. REV. 669 (1987).

Nova Law Review, Vol. 11, Iss. 2 [1987], Art. 23

controlled substance or designer drug had been used."[96]

In the courts, unfair dismissal suits challenge private employer testing programs. As noted above, a number of suits in public employment, some stemming from the Presidential Executive Order, have resulted in judicial decisions which, in the main, have found the programs constitutionally defective.

It may be difficult for arbitrators to ignore this body of evolving law. Influenced by the general politico/legal culture, arbitrators often derive "workplace rights" by analogy to constitutional and statutory rights. They tend to enforce such rights as part of the due process to which an employee is entitled in the system of industrial justice. Moreover, if a trend toward legislative regulation of testing develops, arbitrators could be swayed by what they perceive to be the climate of public opinion, as evidenced by the statutory enactments — just as they were influenced by marijuana decriminalization a decade ago. Thus, even in jurisdictions without laws regulating testing, arbitrators may impose closer scrutiny of testing programs.

XVI. Dealing with Substance Abuse through Joint Agreements

Given the uncertainties facing the parties to an arbitration over drug testing, there are many advantages to negotiating a joint policy on substance abuse. Such a policy might define the meaning of test results precisely. It could include a mutually agreed testing protocol, which would specify when employees may be tested, the substances to be detected, the decision levels for registering "positive," the chain of custody, the technical procedures, and the laboratory to which the analysis will be entrusted. The policy would announce the penalties and the treatment options being offered to employees, placing testing within the context of an overall strategy for preventing chemical abuse.

There are models for such negotiated policies. In 1984, the International Brotherhood of Teamsters signed a Letter of Understanding with a committee of employers, providing for reasonable-cause testing as a part of the master Freight Agreement. Annexed to it was a five-page protocol, designating the testing laboratory and the procedures. The protocol even covered such details as the amount of urine to be taken ("25 ml. . .in a screw capped container"). For marijuana, an immunoassay confirmed by thin-layer chromatography was required. A

96. H.R. 5530, 99th Cong., 2d Sess., (introduced Sept. 16, 1986).

positive triggered analysis of an already drawn blood sample.[97]

The Washington (DC) Area Metropolitan Transportation Authority and the Amalgamated Transit Union (Local 689) reached a comprehensive agreement on chemical abuse in 1984 which stipulates not only the testing procedures and the decision levels, but also the consequences of testing positive. The agreement creates a disciplinary offense: "use off-duty of any intoxicant with detectable presence in the body as indicated by a post-incident [such as accident] medical examination." However, the policy requires blood, rather than urine, tests for marijuana (as well as alcohol), to create a closer nexus to the job. Furthermore, it differentiates the penalties according to whether the results reach a "stipulated minimum level." The minimum for alcohol is 0.05 BAC and for marijuana 5 ng/ml (blood) or 10 ng/ml (blood plasma). A first offense for those with detectable but below-minimum levels is a 10-day suspension; for those at or above the minimum level, the first offense requires enrollment in the Employee Assistance Program and assignment to a job that is not safety-sensitive during the treatment period.[98]

The agreement replaced a testing program under which the employer discharged scores of employees but saw many reinstated by arbitrators because of doubts about the test results. One immediate advantage of the agreement to both parties was that it virtually eliminated arbitrations, owing to the narrowing of the technical and policy issues that had pervaded grievances in the past. A number of employees returned to work after receiving treatment, saving the employer retraining costs. There was also positive spinoff for industrial relations at the Authority: the overall climate was reported to have improved significantly because of the mutually satisfactory experience of negotiating the chemical abuse policy.[99]

Drug testing disputes that turn entirely on technical points might also be resolved by means of specialized arbitration forums. The arbitrator would sit with independent forensic experts as a tripartite panel. A similar panel could be used for disputes over the diagnosis of the

---

97. Richard D. Cohn, *Testing for Controlled Substance, Alcohol and Other Substances for Abuse Within Industry*, paper presented to BNA Conference on Alcohol and Drugs: Issues in the Workplace, Washington, D.C., Nov. 4-5, 1985.

98. BUREAU NAT'L AFFAIRS, CONFERENCE COURSEBOOK 145 (1985) (The Coursebook is from the Bureau of Nat'l Affairs Conference on Alcohol and Drugs: Issues in the Workplace, given in Washington, D.C., in 1985).

99. *Alcohol and Drugs*, *supra* note 43, at 56-57.

grievant as a substance abuser; on the panel would be independent diagnostic and treatment experts as well as a neutral chairman.

These solutions depend on the kind of cooperation now found in Labor-Management Committees. Such committees have been formed in many industries to undertake joint decision-making, replacing the usual strife. Health and safety typically are prime subjects on their agendas. Since substance abuse is among the chief threats to worker health and safety, as well as productivity, there is a mutual interest in forming Labor-Management Committees to address this issue, rather than leaving the field to unilateral assertions of management rights.

Jointly made substance abuse policy — particularly policy which provides recovery options as well as penalties — not only avoids needless arbitration but also is more likely to be effective. In consensus policy, management and labor devote their energies to making the policy work — rather than opposing each other. If management and employee representatives can fashion a joint approach to substance abuse, the achievement could well become a model for other cooperative attempts to improve the welfare and productivity of the American workforce.

Drug-Use Testing: Scientific Perspectives

Kurt M. Dubowski*

I. INTRODUCTION 416
II. TECHNOLOGY: ANALYTES AND SPECIMENS 422
A. *Analytes* 423
B. *Biological Specimens* 426
III. TECHNOLOGY: DRUG ANALYSIS METHODS 436
A. *Analysis methods* 436
B. *Characteristics of analysis methods* 438
C. *True and false positive and negative results* 445
IV. TECHNOLOGY: DRUG ANALYSIS TECHNIQUES 446
A. *Color or spot tests* 446
B. *Thin-layer chromatography* 447
C. *Immunochemical assays: Basic principles* 453
D. *Enzyme immunoassays* 456
E. *Fluorescence polarization immunoassay* 460
F. *Radioimmunoassay* 463
G. *Gas chromatography* 469
H. *High-performance liquid chromatography* 475
I. *Mass spectrometry* 479
V. TECHNOLOGY: QUALITY ASSURANCE PRACTICES 484
A. *Quality control* 485
B. *Quality assessment* 487
VI. SIGNIFICANCE AND INTERPRETATION OF TEST RESULTS 496
A. *Validity and accuracy of analytical results* 498
B. *Significance of test results* 507

* Ph.D., DABCC, DABFT; Distinguished Professor of Medicine and Director of Toxicology Laboratories at the University of Oklahoma Health Sciences Center. Doctor Dubowski serves as a member of the Advisory Group on Accreditation of Drug-Testing Laboratories to the National Institute on Drug Abuse, United States Department of Health and Human Services. *NOTICE:* Names of manufacturers or commercial products, or trade and proprietary names appearing in this article are used only because they are considered essential in the context of the information appearing herein. Such mention is not intended and should not be construed as an endorsement of any such product or manufacturer.

C. *Relationship of drug dose, route of administration, time, and concentration* 523
D. *Limitations of drug-use testing of urine* 526
E. *Typical periods of drug detectability after use* 528
VII. REGULATION OF DRUG-USE TESTING 531
A. *Lack of universal accreditation or licensure systems* 532
B. *Criteria for laboratory accreditation or licensure* 542
C. *Standards for personnel of drug-use testing laboratories* 545
VIII. CONCLUSIONS AND RECOMMENDATIONS 548
A. *Conclusions* 548
B. *Recommendations* 549

I. Introduction

Through a coalescence of various events and interests during the past fifteen years, a massive public concern in nonmedical drug-use has developed, resulting in increasingly widespread and large-scale drug-use testing[1] in the United States. Inappropriate drug use has been documented (or suspected) over the past 40 years in an increasing portion of the population, and is now considered to be a major public health and safety problem. Technological breakthroughs in drug-use testing and aggressive marketing of instruments, reagents, and materials for that purpose have widely disseminated the capability of performing simple screening tests for many categories of drugs. This has in effect removed them from the original province of a relative handful of sophisticated forensic toxicology laboratories under expert direction and control. A case can be made that this new capability, rapidly and widely implemented, has itself generated new and difficult problems for society, especially for segments such as industry, labor, and the legal system.[2]

Drug-use testing of the U.S. military personnel was initiated on a

1. The term *drug-use testing*, as used by the author in this article, means the systematic laboratory examination of human body fluids to determine absence or presence of drugs which are illicit or have an abuse potential, and thus to establish inferentially whether the tested person is currently using such drugs or has recently done so.

2. *See* McBay, Dubowski & Finkle, *Urine Testing for Marijuana Use*, 249 J. A.M.A. 881 (1983); *See also* Lundberg, *Mandatory Unindicated Urine Drug Screening: Still Chemical McCarthyism*, 256 J. A.M.A. 3003 (1986).

large scale as a result of our involvement in the Vietnam war and has escalated in scale and scope, thus providing a 20 year background to its more recent expansion into the civilian sector. It is a common pattern for the rapid growth, expansion and application of new technology to actual or perceived societal problems to generate formidable new problems while solving others. The dramatic increase in the performance capabilities and availability of new clinical laboratory technology in the decade following the end of World War II is one such example. Its resemblance to many aspects of the current drug-use testing crisis is striking, especially in the problems of test demand and laboratory performance, and the issue of appropriate use of the newly available information.

Drug-use testing, often popularly called "drug testing" in the present context is, of course, only one key element in programs for control of drug use or abuse in various settings. It is useful to classify its principal elements:

1) Selection and designation of the drugs and/or drug metabolites of interest and concern;
2) Selection and collection of biofluid specimens;
3) Identification, storage, preservation, and transport of the specimens;
4) Chemical analysis of the specimens, namely, the laboratory search for the designated analytes of interest;
5) Reporting of the laboratory generated analysis results; and
6) Interpretation and use of those results.

Some cynical observers of the present drug-use testing scene would add a final seventh step - litigation (or arbitration) or other adversary proceedings, because of the growing frequency and intensity with which the results are contested. Because formal challenge of the reported test results and their involvement in litigation and other adversary processes is an expectable and predictable consequence of drug-use testing in many circumstances, the latter should be considered a forensic toxicology activity[3] and carried out with due consideration for that status and in accordance with all of its applicable principles, procedures, and

3. The American Board of Forensic Toxicology adopted the following position in November 1986: "It . . .is declared the policy of the American Board of Forensic Toxicology that drug (substance)-use testing activities by means of laboratory examinations be considered as encompassed within the scope of forensic toxicology when carried out under mandate of law, or under equivalent circumstances."

safeguards.[4]

Drug-use testing is thus a forensic toxicology activity for which the performance capability is broadly available and accessible. That has created a pervasive problem. Although drug-use testing shares many or most of the special characteristics, constraints, and demands of other classical forensic toxicology tasks, it is now largely performed in non-forensic laboratory settings such as independent clinical laboratories, hospital laboratories, correctional institutions, and industrial plants. Furthermore, these tasks are often performed by personnel who are not trained for or experienced in forensic laboratory operations, nor sensitive to the latter's special requirements. The typical clinical laboratory operation neither needs nor provides for challenge-proof specimen identification; chain-of-possession; restricted areas for specimens, facilities and records; permanent documentation of laboratory methods, "raw" data and final results; and rigorous confirmation of findings. Consequently, if such enterprises enter the drug-use testing arena, they need to develop and implement a completely separate operation from that for routine clinical laboratory work. To do so, they need suitably expert advice and assistance not available internally. There is also the anomaly that drug-use testing is not performed for medical or clinical purposes (except in special circumstances, as in drug treatment programs) but is most often carried out in laboratories originally organized exclusively for clinical laboratory work and regulated and controlled only for that function.

It should be recognized that not all drug-use testing is performed for the same ultimate purpose or under the same legal authority and constraints. The following applications reflect several different categories of testees:

1) Job applicants for public and private employment;
2) Employees holding federal or state civil service status or other governmental standing, including those with special status such as law enforcement authority or occupying "sensitive positions";
3) Private sector employees, including professional athletes;
4) Governmental or private sector employees or independent persons in specified occupations or specifically regulated industries, for example, railroad or aviation operating personnel and general aviation pilots;

4. *See, e.g.*, INTRODUCTION TO FORENSIC TOXICOLOGY (R. Cravey & R. Baselt ed. 1981).

5) Military active duty personnel;
6) Prisoners in federal civil or state custody, and parolees or probationers;
7) Individuals under lawful arrest; and
8) Incidental testees, for example, amateur athletes in NCAA-regulated programs.

Each of these categories has different characteristics with respect to voluntariness of test participation, requirements for consent, conditions of sample collection, right of access to test results, use of test results, and the consequences of positive test results or the refusal to submit to testing. The drug-use testing under discussion here and commonly performed on persons in the above categories must also be distinguished from the very different specimen collection and analysis carried out, under full evidential safeguards, as mandated or authorized by law on persons in lawful custody on criminal charges of operating a motor vehicle under the influence of or while impaired by alcohol (DUI), other drugs (DUID), or other intoxicating substances. All states and the federal jurisdiction provide for evidential testing in accordance with the statute and administrative law of the respective jurisdiction under often very specific provisions governing who may collect and analyze body fluids for those purposes and how the analyses may be conducted. It is especially important that laboratories which engage in the routine drug-use testing of job applicants and employees under consensual conditions not be misled into considering and representing themselves automatically as qualified and authorized to conduct evidential specimen procurement and analysis for investigation and prosecution of DUI and DUID offenses or other criminal charges.

Drug-use testing is currently most commonly performed on specimens of urine. That body fluid has long been routinely collected and examined clinically in connection with physical or medical examinations, whether performed for routine health assessment (as in pre-employment or periodic medical examination) or for medical diagnostic purposes. Urine collection on these occasions is, therefore, a common practice with which most persons are familiar and to which they routinely acquiesce without inquiry regarding the purpose of specimen collection. That situation lends itself to surreptitious drug-use testing on urine specimens ostensibly or perhaps legitimately collected for medical diagnostic or health assessment purposes.

In the author's view, surreptitious or clandestine testing of urine without informing the testee is wholly impermissible and unacceptable. Apart from its undoubted illegality under federal and state constitu-

tional prohibitions against unreasonable search and seizure, it is certainly unethical conduct for any person to be knowingly administratively or professionally involved in arranging for or conducting clandestine drug-use testing. Among others, one major reason for this position is that deliberately concealed testing deprives the testee not only of guaranteed legal rights, but also of the opportunity to challenge incorrect results and any actions based thereon. One such action may be denial of employment to otherwise qualified job applicants.

Since this kind of drug-testing activity is so easily masked and concealed, there are no published data on how widespread or frequent the practice is. Clearly, it should be prohibited by specific statutory enactments; and the sooner, the better. Every person subjected to drug-use testing should be apprised of that event on every occasion, in documented fashion. No other procedure will safeguard the testee's inherent rights to challenge the test results and to refuse to undergo testing where that is a legally available option.

It is evident from the foregoing classification of testees that drug-use testing can vary greatly in the circumstances of testing and in the initial and ultimate use of the test results. The intended use of the information derived from drug-use testing ranges from the purely statistical data analysis on the nature and extent of drug presence in an anonymous population to introduction in evidence in judicial and quasi-judicial proceedings. Hence, no single or universal scheme for drug-use testing is adequate for these disparate purposes. Every drug-use testing program should, therefore, establish from the outset its purpose or purposes and the intended use of the information to be obtained. The program details and its consequent testing characteristics (such as extent, turn-around time, validity, and costs) can then be properly matched to its goals and purposes.

Among the more common applications of information obtained from drug-use testing are the following:

1) Epidemiological, anonymous data collection on drug-use;
2) Medical (including psychiatric) diagnosis and treatment of drug-dependence, addiction , or abuse;
3) Intervention, counseling, rehabilitation and other assistance to drug users;
4) Elimination of applicants for employment on the basis of recent prior illicit drug use;
5) Evidential or quasi-evidential searches on the basis of probable cause or reasonable suspicion of illicit drug use, or as a consequence of designated events (accident involvement, ex-

cessive absences from work, apparent drug intoxication or impairment) for subsequent use in administrative, disciplinary, or judicial proceedings; and

6) Validation, replication or off-setting of prior test results.

The above listed applications do not include the so-called "random testing", i.e., unscheduled, unannounced testing in the absence of clinical indications, probable cause or reasonable articulable suspicion of illicit drug use. Most so-called random testing is, in fact, not actually random. Instead, it is conditioned upon some personal or work-related characteristic of the testee such as being in a pool of social security numbers or beginning letters of last names, or in a particular work assignment or physical location. In these situations, the purpose of the test on employees is purely and simply to establish absence or presence of previously designated drugs or their metabolites with a view toward subsequent disciplinary or remedial action, termination of employment, transfer, or other administrative action. Testing every employee on the same occasion, irrespective of assignment, rank or function, would be a truly random arrangement because it eliminates opportunity for singling out given individuals (assuming all employees are present); but it is clearly impracticable. In the usual scientific sense, as in experimental design, randomization of trial, treatment or observation means that the pertinent decision is left to chance alone. In practice, true randomization is rarely obtained and that term certainly does not properly apply to the typical unannounced, unindicated mandatory drug-use testing of persons selected on the basis of personal or class characteristics.

Another troubling and unique characteristic of present private-sector drug-use testing in the United States is the complete or nearly complete absence of governmental regulation, at least with respect to its technological aspects such as selection, collection and analysis of biological specimens and interpretation of results. Nor are there universally accepted national criteria for the various elements and aspects of drug-use testing such as analysis methodology and interpretation of results. This situation is in marked contrast to the noted consensus on comparable aspects of clinical laboratory practice, where federal and state statutory and private-sector professional self-regulation are of long-standing and have had a documented positive impact on the improvement of clinical laboratory practice.

Widely prevalent attitudes reflecting this laissez-faire theory of noninterference are splendidly captured in contemporary advertisements in laboratory trade journals by a major manufacturer of drug-

use testing reagents and supplies. A large illustration depicts a thin-layer chromatogram in the process of conversion into a twenty dolla, bill being extracted from a chromatography vessel; it is accompanied in the advertisement by bold headlines which proclaim "Drug screening is nobody's business but yours," and "You'll find more than hidden drugs with the . . ." followed by the registered trade name of the advertised drug detection system.

Unfortunately, pertinent lessons from the extensive and expensive military drug-use testing experience appear to be ignored in the civilian sector. Serious shortcomings in military drug-testing operations had been found.[5] Thereafter, rigorous, universally applicable, monitored and enforced standards for the sample collection and analysis phase of drug-use testing were uniformly adopted by the military establishment. These efforts have been followed by a large decrease in contested litigation of drug-use testing results in military administrative and judicial proceedings.

II. Technology: Analytes and Specimens

Because of their mutual interdependence, analytes and specimens are paired for consideration in this article. In principle, a decision should first be made on the target drugs to be sought (i.e., the analytes) and then one or more pharmacologically and physiologically appropriate specimen materials selected for any given drug-use testing scheme. In actual practice, the decisions are often reversed. The biofluid to be collected as the specimen is often chosen on the basis of factors such as its collectability by noninvasive means or without recourse to skilled professionals. Other factors are the specimen's ability to be analyzed by a particular instrument system and the cost of the testing service. The analytes are then selected from among those which appear in the chosen specimen material, such as urine, in readily detectable form and concentration. Clearly, this is not an ideal testing situation but rather a product of compromise.

---

5. *See* D. Einsel, M. Elsohly, R. Simon, R. Willette, J. Ecoppi, J. Burton, J. Lemberger, J. Rucker, & J. Del Valle, Office of the Surgeon General, Department of the Army, Review of Urinalysis Drug Testing Program (1983). *See also* R. Wheeler, R. Simon, C. Street, T. Youwer, F. Hartnett, F. Moran, W. Richey, E. Kley, & J. Whiting, U.S. Air Force, Department of the Air Force, Headquarters (1984); U.S. Department of Defense, Review of the Department of Defense Drug Urinalysis Testing Program (1984).

A. *Analytes*

As with other aspects of drug-use testing, there is lack of unanimity on one of the most fundamental elements — what drugs should be tested for? While that sounds like a simple question, the apparent simplicity is deceptive. If the term "drug" is understood in its traditional medical sense as any substance which, when taken into a living organism, can alter or modify body functions, then the number of substances which may be considered to be drugs is vast. Some reduction in that number is achievable by excluding foods and certain other items. If one further postulates that drug-use testing in its common current context is intended to identify and ultimately to eliminate or at least limit hazards to persons, operations, property, and the public at large arising from inappropriate use of drugs by the workforce, it becomes clear that the primary targets of the testing efforts should be those drugs which have mood-altering properties as either primary or secondary characteristics. Whether this mood-altering substance is licit or illicit should not be a factor. The most prominent and ubiquitous licit drug is ethyl alcohol. It is also demonstrably the single most widely misused drug in Western societies. This wide misuse has had an enormous adverse impact upon the health, safety, and well-being of millions of persons.[6] Yet, partly because most people merely think of alcohol as a legally available beverage and partly because of its widespread use, alcohol is generally omitted from the list of drugs to be sought in drug-use testing.

If the ultimate objective of drug-use testing is truly the promotion of health and safety by recognition and containment of drug-caused hazards, rather than simply detection of illicit-drug use as a law enforcement tool, then alcohol should clearly be included in every drug-use testing panel. This should be done despite the recognized limitation that its effect on the testee (e.g., alcohol-caused impairments) at any given time cannot be ascertained by analysis of urine.[7] This recognized

---

6. *See* INSTITUTE OF MEDICINE, ALCOHOLISM, ALCOHOL ABUSE, AND RELATED PROBLEMS: OPPORTUNITIES FOR RESEARCH 4-5 (1980).

See also U.S. DEPARTMENT OF THE TREASURY and U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES, REPORT TO THE PRESIDENT AND THE CONGRESS ON HEALTH HAZARDS ASSOCIATED WITH ALCOHOL AND METHODS TO INFORM THE GENERAL PUBLIC OF THESE HAZARDS 1-31(1980).

7. *See* Blanke, Caplan, Chamberlain, Dubowski, Finkle, Forney, Hawks, Hollister, Jatlow, Maickel, McBay & Walsh, *Drug Concentrations and Driving Impairment*, 254 J. A.M.A. 2618 (1985).

Nova Law Review, Vol. 11, Iss. 2 [1987], Art. 23

limitation is but another indication for use of other body fluids besides urine for drug-use testing.

The selection of drugs other than alcohol for drug-use testing in different programs is variously based on one or more of the following factors: 1) prevalence of use in the population according to publicized surveys;[8] 2) modeling after the military drug testing programs, such as the Navy program which currently involves tests for amphetamines, barbiturates, cannabinoids, cocaine metabolite, opiates, and phencyclidine; 3) local assessment of target drugs based on known incidents, surveys, or other information; 4) contract proposals by drug-use testing laboratories based on their respective economic considerations or analysis capability; 5) decision to conduct on-site testing, with consequent limitations imposed by available personnel, equipment and other facilities, and analytical capabilities; 6) testing capability of a pre-selected analysis scheme, instrument, or system; 7) status as illegal or illicit substances, for example, listing in Schedules I and II of the Controlled Substances Act; and 8) testing costs. Conspicuously absent in the great majority of programs is a decision based on the previously documented frequency and severity of drug-related accidents and incidents involving death, injury or illness, property damage, product defects, or comparable misadventures.

No longer controlling the choice of drugs to be searched for are pure considerations of technology, such as lack of suitably sensitive and practical analysis methods or of drug and drug metabolite standards, which until recently automatically limited the testable drug universe. National selection of target analytes should include consideration of both the potential for producing psychoactive effects and the frequency of current or recent reported use. For prescription products, popularity can be estimated from annual national prescription audits of the 200 most frequently prescribed medications.[9] Information is also available annually on the frequency of "Emergency Room Mentions" of both illicit and other drugs involved in overdose situations or otherwise associated with hospital emergency department patient visits, compiled by the Drug Abuse Warning Network (DAWN) operated by the Drug Enforcement Administration, U.S. Department of Justice. During

---

8. *See* L. JOHNSTON, P. O'MALLEY & J. BACHMAN, NATIONAL INSTITUTE ON DRUG ABUSE, U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES, PUB. NO. (ADM) 86-1450, DRUG USE AMONG AMERICAN HIGH SCHOOL STUDENTS, COLLEGE STUDENT AND OTHER YOUNG ADULTS (1986).

9. *See Top 200 Drugs of 1985*, 52 PHARMACY TIMES 25-33 (1986).

1985, the 20 controlled substances were ranked in the DAWN survey[10] as shown in Table 1.

Table 1. TOP 20 CONTROLLED SUBSTANCES BASED ON NATIONAL ESTIMATES OF "DAWN" EMERGENCY ROOM MENTIONS[11]

Rank	Drug	Licit (L) or Illicit (I)	Rank	Drug	Licit (L) or Illicit
1	Heroin	I	11	Lorazepam	L
2	Cocaine	I/L	12	Chlordiazepoxide	L
3	Diazepam	L	13	Phenobarbital	L
4	Marihuana	I	14	Oxycodone	L
5	Codeine Combinations	L	15	Clorazepate	L
6	Alprazolam	L	16	Butalbital	L
7	Amphetamines	I/L	17	Methadone	L
8	Phencyclidine	I	18	Temazepam	L
9	Propoxyphene	L	19	LSD	I
10	Flurazepam	L	20	Codeine	L

Another index of drug popularity is their ranking in the System to Retrieve Information From Drug Evidence (STRIDE) compiled annually by the Drug Enforcement Administration.[12] The 1985 STRIDE listing for the same top 20 drugs found in the 1985 DAWN compilation shows that only 2.7% of all evidence exhibits consisted of licit drugs; and that the order of frequency of major controlled substances encountered as evidence was: Cocaine, marihuana, heroin, phencyclidine and PCP combinations, amphetamines, diazepam, LSD, and methaqualone.

Therefore, a case can be made, on both theoretical and practical grounds according to the present state of knowledge, that a comprehensive general drug-use testing scheme should include at least the following drugs, listed individually or as categories, and sought as parent drugs or metabolites:

* Alcohol (Ethanol)

10. *See* Frank, *Drugs of Abuse Data*, 10 TOXTALK 4 (1986).
11. *Id.*
12. *Id.*

* Amphetamines: Amphetamine, Methamphetamine
* Cannabinoids
* Cocaine
* Hallucinogens: Lysergic Acid Diethylamide (LSD), Phencyclidine (PCP), etc.
* Methaqualone
* Opiates: Codeine, Heroine, Hydromorphone, Morphine, Oxycodone, etc.
* Prescription drugs with high potential for misuse and producing dependence: Barbiturates, Benzodiazepines, Pentacozine, etc.
* Synthetic Narcotics: Fentanyl and its Derivatives, Meperidine (Pethidine), Methadone, Propoxyphene, etc.

It should be recognized that virtually any therapeutic agent (i.e., both prescription and nonprescription medications) can be misused or abused, and can produce psychic or physical dependence. That is also true for several categories of non-drug substances such as certain gases, volatile organic solvents, other inhalants, and tobacco. The variety of such non-drug materials subject to misuse and abuse has given impetus to use of the unfortunate term "substance abuse" in an attempt to be suitably inclusive.

Other classifications of analytes are extant, a common one being based on pharmacological categories such as CNS stimulants, CNS depressants, and hallucinogens. An alternative is to avoid the problem of classification altogether by simply listing the target drugs individually or by chemical drug class. Regardless of the classification scheme used to identify the target analytes of interest, they will usually consist entirely, or nearly so, of substances which exert their principal effects upon the central nervous systems, usually designated as psychoactive agents.

B. *Biological Specimens*

All drugs of interest in this context are absorbed into the circulation, irrespective of the route of administration, and are distributed throughout the body; thereafter they are metabolized and/or excreted. It consequently appears that one could select any accessible biofluid as the specimen for analysis. In practice, the choices are limited by the pharmacokinetics[13] of the drug, and the practicalities of specimen

13. *Pharmacokinetics* is the term generally applied to the study of the quantitative and temporal relationship between organism and drug, and includes consideration

availability, accessibility and collection. Additional constraints are imposed by the nature of the information desired. A prime example of the latter is that information concerning the absence and extent of drug-produced impairment at a given time cannot be obtained solely by analysis of urine, but can be obtained from blood and its components for some drugs. Specimens potentially useful for drug-use testing are blood and its components - plasma or serum, breath, hair, saliva and urine. Other secretion such as tears, sweat, and milk (in lactating women) are minor routes for drug excretion but are not suitable specimens for mass collection.

Blood: Blood, in the form of whole blood, or preferably as plasma or serum,[14] is a potentially universal specimen for drug analysis. Because the blood stream is the primary pathway for drug distribution throughout the body, presence of a drug in the blood or its components usually signifies recent intake into the body, particularly when it is found in relatively high concentration and in the form of the parent drug rather than as its metabolites or biotransformation products. For alcohol and a few other drugs, valid quantitative correlations have been experimentally established between the drug concentration in whole blood, plasma, or serum and behavioral impairments and other effects. Correlations have also been established for alcohol and a few other drugs between their concentrations in whole blood or serum and those in other body fluids and tissues, useful for some interpretive purposes. Most drugs other than alcohol are transported in blood bound to plasma proteins; hence, plasma or serum is preferable to whole blood for most drug analyses. Blood as a specimen is, therefore, best collected with sterile precautions as whole blood into a suitable container without anticoagulants or other additives; the blood is allowed to clot, and the supernatant serum removed after centrifugation to separate the cellular elements from the liquid.

Collection of blood, of course, is an invasive process. It requires penetration of the body and it is accompanied by certain risks, such as infection and prolonged bleeding in hemophiliac subjects. Qualified personnel and proper supplies are necessary to collect blood. Furthermore, rather specific limitations have been imposed by the United

---

of absorption, distribution, localization, biotransformation and excretion of drugs.

14. *Blood plasma* is the liquid portion of the blood obtained by centrifugation of blood which has been prevented from clotting by addition of anticoagulants or by processing in containers with nonwettable surfaces; *blood serum* is the supernatant fluid obtained by centrifugation of blood after clotting has occurred.

States Supreme Court on the nonconsensual collection of blood by the States under color of law. *Schmerber v. California*[15] holds that minor intrusions into an individual's body under "stringently limited conditions" are permissible but such minor and more substantial intrusions under other conditions are impermissible. Clearly, it should not be assumed that *Schmerber* permits intrusions into an individual's body in all settings or for other than law enforcement purposes.

Breath: Breath contains volatile substances such as alcohol, solvents, and their metabolites which have reached the breath by diffusion from the blood in the lungs. For very volatile substances, such as some general anesthetics, breath is the major elimination route, while for other substances it is only a minor excretion pathway. As with blood, breath concentrations of drugs reflect the instant circulating body burden and can be used to ascertain the presence or absence of impairment or other effects at the sampling time. Breath is a noninvasive specimen which is easily collectable in the field. Furthermore, it is devoid of most of the matrix problems shared by other biological specimens. The preferred breath sample is expired alveolar air. This sample is substantially in equilibrium with the pulmonary blood circulation with respect to alcohol and other volatile substances. It is most commonly and most efficiently collected as end-expiratory breath. This is accomplished by trapping the terminal portion of a single uninterrupted full expiration. Precautions must be taken against cooling to avoid condensation of water vapor with which the breath is saturated. This form of sampling is universally employed in quantitative evidential breath-alcohol analyzers used in traffic law enforcement.[16] Since the arterial blood circulation of the lungs is essentially equal to that subsequently reaching the rest of the body and since the brain is also amply perfused by arterial blood, typically receiving about 14% of the total cardiac outflow, the concentration of alcohol and other volatiles in the pulmonary and brain blood supply are closely correlated. Thus, the expired alveolar breath concentration of these substances is an excellent index of their effective concentration in the brain, especially during the active absorption phase. Further, a large body of experimental data exists, correlating breath-alcohol concentrations with driver impairment, accident epidemiology and other performance data. Breath is, therefore, the specimen of preference for determination of alcohol and most other volatile sub-

15. Schmerber v. California, 384 U.S. 757 (1966).

16. *See* Dubowski, *Recent Developments in Alcohol Analysis*, 2 ALCOHOL, DRUGS AND DRIVING: ABSTRACTS AND REVIEWS 13 (1986).

stances subject to abuse.[17]

Certain scientific safeguards are necessary to assure the validity of breath-alcohol analysis. One safeguard is to provide a pre-sampling "deprivation" period of at least 15 minutes to eliminate the possible residual effects of ingested alcoholic beverages.[18] No waiting period is required, of course, when the gas or volatile substance sought was initially inhaled rather than ingested. Any drug which has a sufficiently high vapor pressure at body temperature will reach the blood by pulmonary alveolar diffusion. However, the partial pressures or concentrations of drugs thus attained in the breath are too low to be measured by other than the most sensitive and sophisticated methods currently available (e.g., atmospheric pressure ionization mass spectrometry) or by prolonged collection of serial breaths over a sufficient time period to accumulate a detectable quantity of drug, as by absorption during breath passage through a suitable liquid solvent. Nevertheless, expired alveolar breath is a specimen of great promise which is likely to become the specimen of choice for many drugs with continued advances in analysis technology.

Hair: Hair has been stated to contain a historical record of past drug intake. Many drugs and other toxic substances (e.g., heavy metals like arsenic) are deposited in the hair as it grows and human hair growth generally occurs at predictable rates, typically 2.7mm/week for head hair with a life cycle of about 3 years.[19] Hair is, therefore, an accessible specimen capable of providing the longest retrospective record of drug intake. Segmental hair analysis potentially allows one to estimate when past drug intake occurred and whether past drug intake was continuous or interrupted by periods of abstinence. Naturally, the hair must be collected properly and be in sufficient quantity. Analysis of hair by such sensitive methods as radioimmunoassay following appropriate extraction has been carried out for amphetamines, cocaine and cocaine metabolite, opiates, phencyclidine, phenobarbital and other drugs.[20] Although hair collection is noninvasive, the preferred method

---

17. *See* Dubowski, *Alcohol Analysis: Clinical Laboratory Aspects. Part I*, 20:3 LABORATORY MANAGEMENT 43 (1982).

18. *See* Dubowski, *Necessary Scientific Safeguards in Breath Alcohol Analysis*, 5 J. FORENSIC SCI. 422 (1960).

19. BIOLOGY DATA BOOK 47 (P. Altman & D. Dittmer ed. 1964).

20. *See* Maugh, *Hair: A Diagnostic Tool to Complement Blood, Serum and Urine*, 202 SCIENCE 1271 (1978); Baumgartner, Jones, Baumgartner & Black, *Radioimmunoassay of Hair for Determining Opiate-Abuse Histories*, 20 J. NUCLEAR MED.748 (1979); Baumgartner, *Detection of Phencyclidine in Hair*, 26 J. FORENSIC

involves plucking with intact hair roots and thus engenders some discomfort.

Saliva: Saliva has long been employed as a specimen for drug analysis, especially for therapeutic substances.[21] For many but not all drugs, saliva concentrations correspond to those of free or unbound drugs in plasma. They are hence a more meaningful indicator of pharmacological activity or toxicity than the total concentration (say in plasma) reflecting both bound and unbound drugs. Saliva is secreted into the mouth by three major salivary glands, the parotid, submaxillary, and sublingual - and from other small labial, buccal, and palatal glands. These secretions differ somewhat from each other in composition and other characteristics; the usual specimens have been mixed saliva and parotid saliva. The former can be collected noninvasively by spitting or absorption of saliva on blotter strips and dental sponges; but collection of uncontaminated parotid saliva requires placement of a miniature suction cup over the opening of Stensen's duct, or comparable intraoral instrumentation. It is usual to stimulate saliva secretion by the chewing of paraffin wax, sucking on a small piece of Teflon, or use of citric acid in order to reduce the time interval for collection of suitable volumes of saliva and to obtain a narrow pH range (which affects salivary excretion of weakly acidic or basic drugs).

With sensitive modern analytical methods, drugs can be identified and quantitated in as little as 20-50 microliters of saliva, which are

---

SCI. 576 (1981); Smith & Pomposini, *Detection of Phenobarbital in Bloodstains, Semen, Seminal Stains, Saliva Stains, Perspiration Stains, and Hair*, 26 J. FORENSIC SCI. 582 (1981); Baumgartner, Black, Jones & Blahd, *Radioimmunoassay of Cocaine in Hair: Concise Communication*, 23 J. NUCLEAR MED. 790 (1982); Puschel, Thomasch & Arnold, *Opiate Levels in Hair*, 21 FORENSIC SCI. INT 181-86 (1983); Suzuki, Hattori & Asano, *Detection of Methamphetamine and Amphetamine in a Single Human Hair by Gas Chromatography/Chemical Ionization Mass Spectrometry*, 29 J. FORENSIC SCI. 611 (1984); Marigo, Tagliaro, Poiesi, Lafisca & Neri, *Determination of Morphine in the Hair of Heroin Addicts by High Performance Liquid Chromatography with Fluorimetric Detection*, 10 J. ANALYTICAL TOXICOLOGY 158 (1986); Smith & Liu, *Detection of Cocaine Metabolite in Perspiration Stain, Menstrual Bloodstain, and Hair*, 31 J. FORENSIC SCI. 1269 (1986).

21. *See* Horning, Brown, Nowlin, Lertratanangkoon, Kellaway & Zion, *Use of Saliva in Therapeutic Drug Monitoring*, 23 CLINICAL CHEMISTRY 157 (1977); Danhof and Breimer, *Therapeutic Drug Monitoring of Saliva*, 3 CLINICAL PHARMACOKINETICS 39 (1978); Mucklow, Bending, Kahn & Dollery, *Drug Concentration in Saliva*, 24 CLINICAL PHARMACOLOGY THERAPEUTICS 563 (1978); Paxton, *Measurement of Drugs in Saliva: A Review*, 1 METH. FINDINGS EXP. CLIN. PHARMACOLOGY 11 (1979).

readily and rapidly collectible without prior preparation. The additional advantages - identifying the specimen donor with certainty, eliminating contamination, dilution or other specimen alterations or tampering during the collection process, and obviating unacceptable invasion of privacy during specimen collection make saliva a potentially very practical specimen for drug-use testing schemes. Some additional research is necessary to extend our knowledge of what drugs of interest appear in the saliva. For example, we must discover whether there are secretor/non secretor differences for some drugs, the relative concentrations of conjugated or bound versus free drugs in the saliva, and other relevant data.

It is easy to visualize extension of saliva analysis for drugs to large-scale studies on the pharmacokinetics and the time-related effects of drugs, which are necessary to understanding drug-induced impairments. An obvious extension of analytical technology to saliva analysis is to develop solid-phase tests for key drugs, in a form analogous to the "dipsticks" widely used in urine testing. Commercial versions of these solid-phase tests have been developed for alcohol in saliva and are now on the market. They use enzymatic oxidation with alcohol oxidase and an indicator dye whose blue color intensity semi-quantitatively reflects the saliva-alcohol concentration.[22] A substantial amount of experimental work has been carried out on saliva alcohol analysis since the 1930's, and high correlation of whole blood, plasma and serum alcohol concentrations with those in saliva has been demonstrated.[23]

Saliva has thus been shown to be an appropriate specimen for determination of alcohol for experimental studies, clinical applications and very probably for certain forensic uses. Presence of cannabinoids in mixed saliva has been demonstrated, by radioimmunoassay for Δ^9-THC and by other methods, after both recent smoking and ingestion of marihuana.[24] Cocaine is present in mixed saliva after intravenous adminis-

---

22. *See* Matzinger, Ervin & Phillips, *A Solid State Approach to Alcohol Testing*, 30 CLINICAL CHEMISTRY 1029 (1984).

23. *See* DiGregorio, Piraino & Ruch, *Correlations of Parotid Saliva and Blood Ethanol Concentrations*, 3 DRUG & ALCOHOL DEPENDENCY 43 (1978); Jones, *Distribution of Ethanol Between Saliva and Blood in Man*, 6 CLINICAL EXPERIMENTAL PHARMACOL. PHYSIOL. 53 (1979); McColl, Whiting, Moore & Goldberg, *Correlation of Ethanol Concentration in Blood and Saliva*, 56 CLINICAL SCI. 283 (1979); Schulz, Magerl & Vock, *Der Alkoholgehalt des Speichels und seine Verwertbarkeit: Alcohol content of saliva and its utilization*, 23 BLUTALKOHOL 55 (1986).

24. *See* Just, Filipovic & Werner, *Detection of Delta-9-tetrahydrocannabinol in Saliva of Men by Means of Thin-Layer Chromatography and Mass Spectrometry*, 96

tration[25] as well as after oral intake.[26] There are also other abused drugs which have been demonstrated in saliva. They include the following: amphetamine; anticonvulsants; barbiturates; benzodiazepines including diazepam and its major metabolite; LSD; methaqualone; opiates including codeine, heroin, and morphine; steroids; major tranquilizers; and several volatile substances in addition to ethanol.[27] The potential applicability of drug detection in saliva to the evaluation of impaired drivers has also been demonstrated in a pilot study in which benzodiazepines, cannabinoids, and cocaine were detected in mixed saliva, in addition to caffeine and nicotine.[28] It is apparent that saliva is a very versatile specimen which has not yet been used optimally and which seems to be far more than an ultrafiltrate of plasma.

Urine: Urine has become the de facto principal specimen material employed in drug-use testing by the military establishment and the civilian sector despite material shortcomings. This present preeminent position was reached chiefly for pragmatic reasons and because of the circumstance that the early commercial developments in drug testing instrumentation and reagents capable of large scale application (e.g., the Abuscreen System of Roche Diagnostic Systems, and the FRAT and EMIT Drug Detection Systems of Syva Company) were limited to analysis of urine specimens. Urine had been the most commonly used biological sample in the forerunner of multiphasic drug-use testing; it was originally used in the late 1960s and early 1970s for the diagnosis of heroin addiction and day-to-day management of patients enrolled in methadone maintenance programs.

As indicated earlier, whatever the entry route of a drug, it is carried by the blood stream to the brain, liver, kidney and other organs and the process of metabolism and excretion begins. Metabolism or bioconversion of most drugs changes them, at least partly, to conju-

---

J. OF CHROMATOGRAPHY 189 (1974); Gross, Worthy, Nerder, Zimmerman, Soares, & Lomax, *Detection of Recent Cannabis Use by Saliva* Δ⁹-THC Radioimmunoassay, 9 J. ANALYTICAL TOXICOLOGY 1 (1985).

25. *See* Thompson, Yousefnejad, Kumor, Sherer & Cone, *Confirmation of Cocaine in Human Saliva After Intravenous Use*, 11 J. ANALYTICAL TOXICOLOGY 36 (1987).

26. *See* Inaba, Stewart & Kalow, *Metabolism of Cocaine in Man*, 23 CLINICAL PHARMACOLOGICAL THERAPEUTICS 547 (1978).

27. *See* Idowu & Caddy, *A Review of the Use of Saliva in the Forensic Detection of Drugs and Other Chemicals*, 22 J. FORENSIC SCI. SOC. 123 (1982).

28. *See* Peel, Perrigo & Mikhail, *Detection of Drugs in Saliva of Impaired Drivers*, 29 J. FORENSIC SCI. 185 (1984).

gated forms which are more water soluble than the parent drug and hence excreted primarily through the kidneys into the urine. That process is controlled by various pharmacological, biochemical, and physiological factors, including the chemical nature of the metabolites and conjugates as well as the pH of the urine and other factors including the drug concentration in plasma. Because bladder urine is a pooled specimen accumulated over time, and because the kidneys in effect concentrate the urine with respect to many constituents including most drugs, the concentration of most drugs excreted in urine is higher than in other accessible biological fluids at the same time. These facts, and the noninvasive nature of urine collection by micturition, the relatively large volumes of urine available by ordinary voiding compared with practically collectible volumes of blood or saliva, and the usually high stability of drugs in urine, have combined to make urine the most common specimen for drug-use testing.

There are also substantial disadvantages to urine as a drug specimen. Direct visual observation of urine collection has been amply proven to be necessary to connect the urine specimen to a given testee. Direct visual observation is needed to prevent substitution of other specimens for the authentic urine and to eliminate post-voiding tampering by the testee with the urine by dilution or addition of substances which will interfere with the analysis. Such direct monitoring of the act of urinary voiding is unpleasant for the observer and observed alike. Furthermore, it often impedes voluntary voiding in many persons.

Dilution of urine to reduce drug concentrations below readily detectible concentrations can be accomplished not only by the addition of water, drug-free urine, or other diluents to an authentic voided urine specimen. It can also result from copious fluid intake prior to urination. Some drugs are not excreted in urine as the parent compounds introduced into the body but only as metabolites which may not specifically indicate which one of the given class of drugs (e.g., opiates) was administered. The urine drug concentration often varies greatly among individuals receiving the same drug dose. Urine drug concentrations can also vary greatly in single urine specimens from the same person on different occasions, depending on factors such as fluid intake, state of hydration, urinary pH and the functional circulating plasma concentration of the drug concerned. The latter is a function of drug dose, elapsed time since administration of that drug dose, and individual variations in drug metabolism. The drug quantity administered by whatever route, its bioavailability (i.e., capacity to be absorbed into the bloodstream from the administered state), and the elapsed time since

the drug was taken are the principal factors affecting the drug concentration in the plasma. It and the pooled urine volume are the principle factors which influence the drug concentration in voided specimens of bladder urine. None of the foregoing factors are under control of the collector. With some drugs, body stores accumulate and are gradually released even after cessation of intake of that drug, so that positive urine test results are obtainable days or even weeks after last drug administration. Cannabis (marihuana) is the leading example.

The principal features of urine as a specimen for drug analysis are summarized in Table 2.

Table 2. Urine as a Specimen for Drug Tests

Advantages	Disadvantages
* Collection is physically noninvasive	* Readily substituted, diluted or otherwise altered, unless collected under direct observation
* Available in large volumes	* Wide variations in drug concentrations with fluid intake, state of hydration, and time lapse since drug intake, etc.
* Urinary drug and metabolites are stable	* Lack of correlation of urine drug concentrations with impairment or other effects at time of collection or other relevant time
* Readily preserved by freezing or chemical preservatives	* Absence of parent form of many drugs impedes differentiation among alternate administered drugs
* Cellular material and proteins not commonly present in great quantities, simplifying the analysis	* Difficulty in voluntary urine voiding in many persons upon command, especially under observation
* Wide availability of commercial reagents and systems for drug detection in urine	* Privacy invasion when urination is observed
* Elevated drug concentrations compared to other biological materials	* Urine is subject to decomposition if not promptly and properly treated and refrigerated/frozen
* Drug excretion continues after termination of administration, sometimes useful to indicate earlier drug exposure(s)	* Urine drug excretion often continues after termination of administration, confusing recency of use issues
* Presence of metabolites can indicate drug use by subject	* Urine drug concentrations are not well correlated with those in other body fluids
* Large literature base on urine drug analysis and significance of analysis results	* Analysis may be deceptively "simple," leading to errors

Quantitation of analytes in urine is an essential step in the analysis procedure to determine whether the established concentration threshold for positive results has been reached or exceeded; it can be performed directly or indirectly. For consistency in interpretation of results, both among different individuals and in the same person on different occasions, it is desirable and good laboratory practice to minimize the effect of fluctuations in the urine water content reflecting urinary flow rate and the other factors mentioned above. That can be accomplished readily by relating the drug quantity to a unit quantity of urinary creatinine rather than to a unit volume of urine. Creatinine is a product of endogenous metabolism which is neither actively secreted nor absorbed by the kidneys. Therefore, it can be used as a "marker" to adjust for urine flow fluctuations, that is, to "normalize" drug concentrations by expressing them in units of, say, nanograms per milligram of creatinine rather than ng/ml of urine. Even so, results of drug tests on urine can only indicate absence or presence and concentration of target analytes. Those results cannot be used, by themselves, to establish exactly when or what dose of a drug was administered. Neither can they be used to draw valid inferences regarding the systemic concentration of a drug at the time of urine collection or any prior time, or about the absence or presence and extent of drug produced impairment or other systemic effects.[29] This is a marked contrast to the significance of plasma or saliva drug concentrations.

It is an indication of the ubiquity of urine drug testing that two monographs have been issued on "Urine Testing for Drugs of Abuse" by the Federal government, one in 1973[30] and one in 1986.[31]

Other Specimens: Specimens other than the biological samples discussed above can be analyzed for drugs but are not involved in customary drug-use testing. Since drugs are carried in blood, urine, saliva, semen, sweat, tears, and other biofluids, stains produced by any of these fluids on cloth or other absorbent materials can in principle be analyzed for drugs by sufficiently sensitive methods.[32] Such testing is

---

29. *See* Blanke, Caplan, Chamberlain & Dubowski, *Drug Concentrations and Driving Impairment*, 254 J. A.M.A. 2618 (1985).

30. *See* D. CATLIN, SPECIAL ACTION OFFICE FOR DRUG ABUSE PREVENTION, EXECUTIVE OFFICE OF THE PRESIDENT, A GUIDE TO URINE TESTING FOR DRUGS OF ABUSE (1973).

31. *See* NATIONAL INSTITUTE ON DRUG ABUSE, DEPARTMENT OF HEALTH AND HUMAN SERVICES, PUB. NO. (ADM) 87-1481, URINE TESTING FOR DRUGS OF ABUSE, NIDA RESEARCH MONOGRAPH 73 (R. Hawks & C. Chiang ed. 1986).

32. *See* Smith & Pomposini, *Detection of Phenobarbital in Bloodstains, Semen,*

generally only indicated for specialized forensic purposes and, accordingly, will not be considered further here.

III. Technology: Drug Analysis Methods

Space considerations preclude other than a cursory discussion of the principles of analytical methodology for abused drugs, and method characteristics.

No single analysis method or technique is capable of encompassing a search for all analytes of interest in drug-use testing - drugs and drug metabolites - and of measuring the pertinent physiological, physical or chemical characteristics of interest or concern in every drug testing scheme, program, or circumstance. Neither can all analysis methods be universally applied to all biological specimen materials. Some methods are only applicable to a given biological specimen, for example, urine, in their original version. Others are more versatile and can be used without extensive modifications for various specimen materials. Still others can be suitably modified for use with a given biological material.

A. *Analysis Methods*

Test Category: The analysis aspect of drug-use testing in the context of this article can be considered as a two-stage process - "screening" or presumptive testing, followed by confirmatory analysis on positive specimens. Screening or presumptive tests are, in general, initial sorting procedures to eliminate from further consideration those specimens which are drug free or contain drugs only below established thresholds, and secondarily to indicate for further consideration those specimens which apparently contain one or more identified target analytes at or above their respective threshold concentrations.[33] A threshold concentration is sometimes referred to as "cutoff." In practice, an instrument response or other analytical method output above the inherent sensitivity limit of the method but below the calibrated "cutoff" concentration is interpreted as a negative result. Response or

---

Seminal Stains, Saliva Stains, Perspiration Stains, and Hair, 26 J. FORENSIC SCI. 582 (1981).

33. *Concentration* in chemical analysis is the quantity of a compound of interest (e.g., a drug analyte) present in a given quantity of specimen material. It is usually expressed for fluids in terms of mass of the analyte per unit volume of the sample, e.g., nanogram per milliliter (ng/ml) or in comparable units appropriate to the concentration range for the analyte of concern (microgram/milliliter, gram/liter, etc.)

output equal to or greater than the "cutoff" is considered to be a positive result.

Positive presumptive results of screening tests, standing alone, lack the validity necessary for use in strictly forensic applications, such as driving under influence of drugs prosecutions and for use in other proceedings which will or can adversely affect the testee, such as disciplinary action by employers, denial of employment to job applicants, or for most other applications other than anonymous studies of drug use.[34] Accordingly, all results of these types of screening tests must be properly verified (or superseded) by subsequent confirmatory analyses. The only time this isn't necessary is when the methods used for the initial screening tests were themselves of confirmatory test quality.

In general, the confirmatory analysis must be more reliable than the presumptive or screening test. In particular, if the confirmatory test result is to be valid and meaningful, it must either be specific or more selective for the target analyte and must be at least as sensitive as the initial screening test. The current informed professional consensus on the requirements for confirmatory testing is reflected in the following position statement adopted by the Toxicology Section of the American Academy of Forensic Sciences in 1986:

> Confirmation of results is essential in forensic toxicology. Positive results of toxicological screening tests, regardless of the method used, and positive toxicological analysis results obtained by immunoassay methods should either be adequately confirmed before the results are used for forensic purposes, or be clearly designated as "unconfirmed" results.
>
> Analysis methods used for attempted confirmation of presumptive results must be appropriately sensitive and specific or unequivocally selective for the analyte(s) in question, and must be based upon different chemical or physical principles than the initial analysis method(s).[35]

In a properly designed analysis scheme, the results of the corroborative or confirmatory analysis are controlling and characteristics of the

---

34. *See* McBay, Dubowski & Finkle, *Urine Testing for Marijuana Use*, 249 J.A.M.A. 881 (1983); CATLIN *supra* note 30; NATIONAL INSTITUTE ON DRUG ABUSE, DEPARTMENT OF HEALTH AND HUMAN SERVICES, *supra* note 31.

35. *See* AMERICAN ACADEMY OF FORENSIC SCIENCES AND THE FORENSIC SCIENCES FOUNDATION, INC., NEWS AND VIEWS. A FORUM FOR FORENSIC TOXICOLOGISTS No. 11 AT 1 (T. Rohrig ed. 1986).

latter must be appropriate for that purpose. It follows that screening or presumptive test methods cannot be appropriately used to confirm the results of other screening tests, even those which are based upon different chemical or physical principles. Both the informed professional consensus[36] and governmental regulations[37] hold that immunochemical assays are not acceptable as confirmatory methods. Further, repetition of an initial screening or presumptive test result, by the same method, does not constitute "confirmation" of the result, though it is otherwise useful to reduce the possibility of random error.

B. *Characteristics of Analysis Methods*

All analytical methods can be characterized in terms of two groups of characteristics - reliability and practicability. The former concerns the appropriateness, validity and correctness of results yielded by the method, while the latter concerns applicability, usability and utility of the method in a given situation. Table 3 lists the major factors relating to both characteristics.

Table 3. Characteristics of Analytical Methods

Parameters Affecting Reliability	Parameters Affecting Practicability
* Accuracy	* Applicability to specimen material(s) of interest
* Precision	* Time required for the analysis ("Turnaround time")
* Specificity	* Relative technical complexity and personnel demands

36. *See* McBay, Dubowski, & Finkle, *Urine Testing for Marijuana Use*, 249 J. A.M.A. 881 (1983); AMERICAN ACADEMY OF FORENSIC SCIENCES AND THE FORENSIC SCIENCES FOUNDATION, INC., *supra* note 35; WORLD HEALTH ORGANIZATION, WHO TECHNICAL REPORT SERIES NO. 556, DETECTION OF DEPENDENCE-PRODUCING DRUGS IN BODY FLUIDS. REPORT OF A WHO MEETING OF INVESTIGATORS 11, 16 (1974); Gorodetzky, *Detection of Drugs of Abuse in Biological Fluids*, HANDBOOK OF EXPERIMENTAL PHARMACOLOGY 321 (G. Born, ed. 1977); Baselt, *Urine Drug Screening by Immunoassay: Interpretation of Result*, 1 ADVANCES IN ANALYTICAL TOXICOLOGY 119 (R. Baselt ed. 1984).

37. *See* Control of Alcohol and Drug Use in Railroad Operations; Final Rule, 49 C.F.R. §§212, 217, 218, 219.30(b), 225. 50 Fed Reg. 31508-31579 (1985).

* Sensitivity
* Detection Limit
* Resolution
* Adaptability to automation and to multiple analyses
* Required facilities (instrumentation, equipment, supplies)
* Stability of reagents and calibration
* Concentration range covered without repeating analysis
* Costs

Accuracy: Accuracy means concordance between an experimental result and the true fact or value. The term applies to both qualitative and quantitative results. Clearly, accuracy — the correctness of the result reflecting the true situation —is the supreme requirement for an analysis. A qualitative test must correctly indicate either absence of all target analytes or their presence and identity. An incorrect qualitative result can be either a *false positive*, indicating apparent presence of a drug or drug category which is not in fact present; or a *false negative*, indicating apparent absence of a drug or drug class which is in fact present in the specimen at or above the pre-established detection limits or "cutoff" values. Incorrect quantitative results misrepresent the concentration of a particular analyte in the specimen. Errors can either be systematic or random. The former is a predictable and observable characteristic of a method which regularly yields biased results. The latter is usually an accidental and unpredictable aberration which can be caused by failure to adhere to the analysis protocol, computation errors, or other inadvertence.

Systematic errors can be revealed by including appropriate use of control specimens of known composition in every set of analyses, or by result comparisons on proficiency test specimens and by other quality control measures. Random errors can generally only be detected by repeated careful analysis of the same specimen carried out from the start. Hence, it is good laboratory practice automatically to repeat analyses of a fixed proportion (e.g., 5 per cent) of all specimens of sufficient quantity, with comparison of the independently obtained results. Lack of agreement in these results is an indication that the analysis system is prone to random error. With quantitative methods, accuracy signifies the closeness of a measured value to the true value. It can be assessed by the assay of specimens with independently established reference compositions, or by comparison of a laboratory's result with the mean

value of results on identical proficiency test (P.T.) specimens, compiled from a sufficiently large cohort of participant laboratories or reference laboratories in a P.T. survey program, and by other measures. The term "uncertainty" denotes an estimate by statistical means of the bounds of inaccuracy; it reflects the fact that few experimental measurements will coincide absolutely and completely with the true value each and every time; and it affords a statistical measure of the limits between which a true value is likely to lie.

All chemical, physical and biological analyses are subject to error. They can differ in the nature of errors which can occur, the magnitude and extent of possible errors, and the probability of the occurrence of both systematic and random errors.

Precision: Precision is the reproductability of results from quantitative measurements; it refers to the variability of the individual results of replicate (repeated) measurements of the same specimen. A method which shows small scatter is considered to be precise, while wide scatter signifies imprecision. Observed scatter of measured values is usually the result of random errors, that is, each individual value will tend to deviate from the true value. Since the probability of occurrence of a zero random error is zero, it is unlikely that any individual measurement made by an unbiased system will be completely accurate.

Replicate measurements add confidence to the mean result and increase its likely accuracy. An analysis method should be sufficiently precise to minimize the number of repeated measurements required for the intended use. The greater the inherent precision, the fewer replicate analyses are needed to provide data which would not be significantly improved by further replication. Full disclosure of the analytical method characteristics used by a drug testing laboratory should include statistical measures of precision such as the Coefficient of Variation for replicate analyses at a stated mean concentration, determined in the laboratory itself, not simply obtained from the literature, a manufacturer, or other secondary source.

Specificity: Specificity is a most important characteristic of drug analysis methods. In chemical terms, specificity is response by a method only to the particular target substance sought; consequently it is an absolute term - a method is either specific or it is not specific for a given analyte. In practice, the "specificity" of a test can be considered as its ability to distinguish unequivocally between the compound or compound class (e.g., barbiturates or opiates) to be measured and other, closely related drugs, metabolites, or naturally occurring substances which are present in the specimen matrix. For some purposes,

as in initial screening tests, "specificity" limited to a drug class (e.g., barbiturates, or amphetamines, or opiates) rather than to an individual drug is an advantage. For example, cross-reactivity of an immunochemical assay with both morphine and its morphine glucuronide metabolite can enhance the sensitivity of the assay for that target drug without need for pre-test preparation such as hydrolysis of the specimen; or cross-reactivity to codeine, morphine, hydromorphone and other opiates can indicate by a single test whether any drug in that class is present. Inappropriate nonspecificity, however, leads to false positive results.

Selectivity can be considered as less than absolute specificity, that is, the ability of a method "selectively" to respond more readily to a desired specimen constituent or target analyte than to other constituents present in the specimen, whether target analytes or not. This selectivity can be manifested by response to a lower concentration of the target analyte (drug or drug class) than of other drugs or non-drug physiological specimen constituents, or ability to respond more rapidly or more completely so as to discriminate among various target drugs. Cross-reactivity of an immunochemical assay to all drugs and their metabolites in a given class (e.g., opiates) exemplifies selectivity rather than specificity. Specificity implies the ability to discriminate, for example, between codeine, morphine, hydromorphone and other opiates. Inability of a method to distinguish between different classes of drugs (say, opiates versus synthetic narcotics) constitutes nonspecificity.

A phenomenon related to specificity and selectivity is *interference*. Interference signifies that a constituent of the specimen other than the target analyte under investigation can or did cause response in an analysis. In true interference, it is generally unrecognized that a result was caused or was affected by the substance(s) other than the analyte to which the response is ascribed. While the usual outcomes of interference are a false positive qualitative result or a falsely elevated quantitative result, negative interference can also occur. Such interference prevents response by a target analyte which is actually present or diminishes the true quantitative result. Some immunochemical assays, for example, are subject to negative interference by addition of sodium chloride or other substances to a urine specimen, usually in tests which do not involve preparatory steps such as extraction or other separational procedures. Interferants or interfering substances are those constituents of a specimen which cause responses similar or identical to that of the target analyte or otherwise alter the results. So-called "matrix effects," responses caused by physiological specimen constituents

(e.g., proteins or electrolytes), rather than by the target analyte, likewise constitute a form of interference in the analysis, whether they enhance, suppress or otherwise alter the results.

Sensitivity: In drug-use testing, sensitivity is commonly defined as the minimal concentration of an analyte in an undiluted biological specimen which is detectable with high probability. For other scientific purposes, sensitivity is often stated in terms of the absolute quantity of analyte detectible with high probability or certainty by a given method, sometimes in the form of the pure analyte. Obviously, the required sensitivity depends upon the purpose of the analysis. It has been suggested that sensitivity in drug-use testing be defined as the concentration of a particular analyte detectible by a given method in a specified specimen material 99% of the time,[38] a value readily determined statistically with given confidence limits by simple experiments.

A complication arises in characterizing the sensitivity of analysis methods which give continuous quantitative results, such as some immunochemical assays. Minimum "cutoff" concentrations or instrument responses are commonly selected to reflect the operational sensitivity of these methods for use as screening tests. Assay values at and above the "cutoff" are considered to be positive results, while those below the "cutoff" are deemed to be negative results. These thresholds must be selected with appropriate consideration of the upper limit of assay values yielded by the relevant normal and abnormal drug-free biological specimen from a sufficiently large group of individuals of both sexes, various ages, and other relevant demographic characteristics. It is also necessary that attention be given to "nonspecific" assay responses caused by other factors than the target analyte. At any specified concentration, the scatter or distribution of values depends on the precision or variability of the assay; hence the concentration of a target drug detectible at a rate of 95% (or higher) will be greater than the "cutoff" value,[39] assuming Gaussian distribution of the scatter.

It should be noted in passing that the terms "sensitivity" and "specificity" have different meanings when applied as statistical indices of the efficiency of a diagnostic test used in clinical medicine.[40] In ap-

38. Gorodetzky, *Urinalysis: Practical and Theoretical Considerations*, Proceedings of the Fourth National Conference on Methadone Treatment 155 (1972).

39. Gorodetzky, *Detection of Drugs of Abuse in Biological Fluids*, HANDBOOK OF EXPERIMENTAL PHARMACOLOGY 321 (G. Born ed. 1977).

40. *See* Yerushalmy, *Statistical Problems in Assessing Methods of Medical Diagnosis with Special Reference to X-Ray Techniques*, 62 PUB. HEALTH REP. 1432

plications of that type, sensitivity and specificity are defined as follows, expressed as a numerical ratio (or converted into a percentage):

$$\text{Sensitivity} = \frac{\text{Number of True Positive Results}}{\text{Number of True Positive Results} + \text{Number of False Negative Results}}$$

$$\text{Specificity} = \frac{\text{Number of True Negative Results}}{\text{Number of False Positive Results} + \text{Number of True Negative Results}}$$

Detection Limit: This is often defined as the smallest quantity (or concentration) of an analyte which can be reliably detected, by a given method, in a single analysis and with a sufficiently high level of confidence to be independent of the statistical fluctuations to which every method is subject. The usual form of that definition is the analyte quantity (or concentration) which provides a ratio of at least 2 to 1 for method response to the target analyte/nonspecific method response of the same specimen lacking the target analyte. In effect, this detection limit involves the concept of *blank value* or blank response, the measured value or method response yielded by a given biological specimen material which is unequivocally free of the target analyte. Such "blanks" must be routinely analyzed as part of each set of analyses (or together with any single analysis). This provides assurance that no false positive results will be produced and provides a "blank" result value to be subtracted from each target analyte response before the net measured value, attributable to the target analyte is used to determine the final result. In drug-use testing, absolute detection limits for pure analytes in nonbiological matrices are generally meaningless and the relevant value for every method in use should be determined for each biological specimen material to be tested. Although not truly applicable in analytical chemistry, the electronics term "signal to noise ratio" is often used to denote the analogous chemical situation of target analyte response over nonspecific background (or "blank") response. Obviously, the concepts of sensitivity and detection limit are related.

Resolution: This term denotes the ability of a method to discriminate unequivocally between closely adjacent concentrations of the tar-

(1947).

get analyte in a biological specimen. It is, therefore, related to the sensitivity of the method and to its precision. Adequate resolution is required for quantitative measurements in which a specified threshold value determines the significance of a result and the gravity of its consequences. That is true, for example, for statutorily established blood-alcohol concentrations as the alcohol element of per se (or absolute concentrations) driving-under-the-influence laws. Resolution in quantitative measurements is thus somewhat analogous to the specificity characteristics of qualitative analysis methods.

Practicability Parameters: The method characteristics listed in Table 3 under "Parameters Affecting Practicability" are largely self-defining and self-explanatory. There is commonality or interdependence between some of these parameters. Costs, for instance, are clearly determined in part by the nature and extent of personnel involvement in a given kind of analysis as well as the level of education, training, and experience required of the analyst. None of these characteristics can be evaluated in isolation.

The turn-around time is one example. It refers to the length of time required to complete the analysis of one sample, assuming all necessary facilities and supplies are at hand. However, drug-use testing is not usually carried out on one sample at a time. Instead, drug-use testing is generally done in groups or sets or in an essentially continuous sample chain fashion. The individual turn-around time is thus not nearly as significant as the total number of specimens which can be processed in a given time period; such as an 8-hour work shift. Some testing methods require a 24-hour interruption for one step in the analysis. Other testing methods may be so lengthy that an analysis cannot be completed in one normal work shift, thereby requiring involvement of different analysts with any given test. Stability factors for reagents and calibration also affect how rapidly a given sample can be tested on an intermittent test performance basis. Ultimately, this can affect the timely availability of results as well as overall costs.

Those parameters listed and other practicability considerations need to be evaluated for a given laboratory environment. Unfortunately, few published methods include the relevant practicability parameter information in the literature. Usually, the pertinent information must be developed experimentally in the laboratory concerned. Manufacturers' claims concerning parameters such as calibration stability, turn-around time and costs need to be regarded skeptically in many instances because they are often ascertained under ideal or unique conditions never found in operational practice.

C. *True and False Positive and Negative Results*

In qualitative testing, as in screening tests, test results are commonly reported as positive or negative for a given drug or class of drugs, depending upon the test panel of target analytes. The result is usually taken to signify that the tested specimen is positive or negative for the target analyte(s). Thus two possibilities exist for results. Two possibilities also exist with respect to the urine specimen: It either contains or does not contain the drug(s) in question. Thus, four qualitative test outcomes are possible, as shown in Table 4.

Table 4. Outcome of Qualitative Drug-Use Tests

	Drug Presence in Sample	
Test Result	Yes	No
Positive	True Positive	False Positive
Negative	False Negative	True Negative

The two true test results accurately report the factual situation and constitute the ideal, desired result. Unfortunately, practical tests are not perfect and both false negative and false positive results do occur in practice. False or incorrect results can occur because of chemical, physiological or pharmacological factors, outright errors in the analysis including instrument malfunctions and mistakes made by analysts, or inherent limitations of analysis methods. Another separate category of incorrect results is those attributable to improper reporting.

Improper reporting can occur through substitutions, transpositions or other clerical errors yielding a report which differs from the actual test result. It can also occur when a correct test result is linked with the wrong person through initial or subsequent misidentification of specimens. Analysis methods requiring substantial experience and judgment by the analyst (e.g., interpretation of a thin-layer chromatogram) are more subject to error than automated methods which make fewer demands for decision-making and judgment upon the analyst. The frequency of occurrence of false negative test results is unknown, for all practical purposes, because negative test results are rarely repeated or confirmed by further analysis. Their existence is, however, indicated by the results of proficiency testing (P.T.) in which well characterized specimens are analyzed by laboratories which will learn only after submission of their reports what the sample composition was and what the other survey participants and referee laboratories found. Even those

survey results can be biased. It is common practice by licensing bodies and proficiency testing groups to penalize false positive results more than false negative results in scoring the P.T. submissions. Doubt in P.T. analysis results is thus often resolved in favor of negative reports.

IV. Technology: Drug Analysis Techniques

Although there is some overlap, it is convenient to consider the techniques used in drug analysis under the twin categories of screening tests and confirmatory analyses. Once again, space constraints limit consideration of techniques in this article to brief descriptions of their principles and some of their more relevant characteristics. Currently available and widely used screening test techniques are color and spot tests, thin-layer chromatography, and immunochemical assays. Currently available and widely used confirmatory analysis techniques are gas chromatography, high-pressure liquid chromatography, and gas chromatography/mass spectrometry. Hundreds of published variations for each of these techniques exist and the number of unpublished modifications is countless. Few, if any, laboratories use a given technique or method entirely in accordance with the originally published details. Nearly all make local modifications or changes. Supposedly, this is done to "improve" upon the original procedure, or made to adapt a given testing method to a locally available instrument or scheme or to accommodate a local laboratory situation of peculiarity. Published data concerning the characteristics of a given technique or the performance of a given method are not necessarily applicable to the local modification, nor are those characteristics determined in the laboratory at some prior time necessarily still correct for the current situation.

A. *Color or Spot Tests*

Early qualitative chemical tests for various elements, anions and cations, and certain compounds yielded recognizable color change or precipitation upon addition of a drop or two of various liquid reagents to a tested sample. The sample was sometimes pretreated by a simple extraction procedure or pH adjustment. Some of these tests were subsequently adapted or modified for use with urine to indicate presence of salicylates, phenothiazine tranquilizers and other drugs for emergency toxicology purposes. Key problems were applicability of available spot tests to only a few drugs - none significant in a drug-abuse context - low sensitivity, and high potential for both false positive and false nega-

tive results.

For drug-use testing applications, the original spot test principles have been modified, mostly to solid-state impregnated strip or spot tests. The qualitative saliva-alcohol strip test based on enzymatic oxidation of ethanol by alcohol oxidase[41] is a current-generation example of spot or color tests. A commercial product introduced in 1987 uses a chemically impregnated test paper. Urine is subjected to a simple extraction procedure and the eluate is applied to a reagent paper. A blue-gray coloration surrounding the sample locus supposedly indicates presence of cocaine, morphine or other opiates, methadone, phencyclidine or amphetamines, but does not differentiate between them. The product literature indicates that numerous over-the-counter and prescription medications can produce false positive results.

In principle, it is possible to develop solid-state tests employing monoclonal and polyclonal antibodies and other immunochemical approaches with coupled color reaction using dyes to produce visible color changes upon contact with biological fluids containing very low concentrations of target drugs or their metabolites. They may appear in commercial form if the market warrants the required investment of time and money. However, at the time of this writing, color and spot tests or strip tests are not a significant element in drug-use testing, with the possible exception of saliva-alcohol tests, and those evaluated have proven unacceptable.[42]

B. *Thin-Layer Chromatography (TLC)*

Chromatography is the family name for procedures which are primarily processes for the separation of essentially molecular mixtures by physical means. The first recorded work on column chromatography was published in 1892, although the use of paper as a chromatography medium was apparently proposed as early as 1861. Such separations employ a stationary and a mobile phase. The adsorbent is the stationary phase and the solvent or solvent mixture is the mobile phase. The principles of chromatography applied to "thin layers" of adsorbents were first described about 50 years ago and then first used for analytical (rather than preparative) purposes about 30 years ago.

---

41. *See* Matzinger, *A Solid State Approach to Alcohol Testing*, 30 CLINICAL CHEMISTRY 1029 (1984).

42. *See* Jukofsky, Kramer & Mulé, *Evaluation of the TRI "Dipstick" Test for the Detection of Drugs of Abuse in Urine*, 5 J. ANALYTICAL TOXICOLOGY 14 (1981).

The many alternative methods all share common principles.[43] A uniform, hard, thin layer of a finely-divided adsorbent medium such as silica gel is bonded onto glass plates, or cellulose acetate, nylon, polymers or other support materials. Today, commercially prepared TLC materials are almost universally employed. A urine or other liquid sample is subjected to drug separation procedures (e.g., liquid-liquid or solid-liquid extractions) using solvents and/or macroreticular polymers or substituted polysaccharides under controlled conditions of pH, time, temperature, etc., usually followed by elution of the preliminarily separated compounds by suitable solvents and their concentration by removal of the organic solvent phase. The residue of this process is redissolved in a small volume of organic solvent, a few microliters of which are placed on the TLC plate or other TLC medium at a predetermined position.

Other sample extracts and standards and controls containing known target analytes are placed in parallel on the same TLC medium at regular intervals. Other sample extracts and standards and controls containing known target analytes are placed on the same TLC medium at regular distances. After evaporation of the sample solvent, one end of the TLC medium (usually called a "plate" regardless of the actual support material) is placed into a layer of organic solvent(s) in a closed vessel and left there for a sufficient length of time to allow the solvent to migrate by capillary action for a predetermined distance from the "origin" line to effect sufficient spatial separation of the components of the sample. After removal of the residual developing solvents, the "plate" is inspected under visible and/or ultraviolet light before and after application of various visualizing reagents by sequentially spraying them on the plate or dipping the plate into dissolved visualizing reagents, which may produce colors more or less characteristic of drug or other compound classes.

The basic chromatographic measurement is distance. A given substance is, in principle, characterized and partially identifiable by the distance it has migrated from the origin, compared to the distance the solvent front or, less commonly, a standard marker has moved from the origin. The target analyte migrates as a more or less symmetrical spot upward across the plate. However, "tailing", an inverted tear drop or pear shape often occurs as do other alterations in drop or streak shape as the result of conditions under which the "development" occurred or

43. *See* THIN-LAYER CHROMATOGRAPHY. A LABORATORY HANDBOOK (E. Stahl, 2d ed. 1969).

because of overloading or other factors. The usual and most common approach to identification of visualized "spots" is to calculate their Rf value, defined as:

$$Rf = \frac{\text{Distance the "spot" has migrated from the origin}}{\text{Distance the solvent front has migrated from the origin}}$$

That value obviously can vary continuously from 0 to 1. A substance which travels with the solvent front will have an Rf = 1.0, while an analyte which remains fixed at the origin under the particular solvent, TLC medium and other conditions of the analysis will have an Rf = 0. A putative or tentative identification of the analyte is then made by comparing the observed TLC outcome to the previously-established characteristics of all target analytes of interest with respect to: 1) Rf; 2) appearance under short (254 nm) and long-wave (350 nm) ultraviolet light; 3) visualization or nonvisualization of the spot after application of various reagents (i.e., functional group analysis); and 5) apparent metabolic patterns (parent drug and characteristic metabolites). Rf values and other characteristics are markedly affected by environmental factors (e.g., temperature and humidity) and many other variables in the analysis. It is, therefore, generally accepted practice to require an authentic sample of the suspected analyte to be "run" on the sample plate at the same time, as a comparison standard. When a large number of target analytes sought in any given single TLC chromatogram prevents simultaneous analysis of authentic standards of all of them on the same plate, a reference compound or marker can be "run" at the same time, and the relative Rf value calculated as the ratio of the distance migrated by the test spot to that of the reference substance spot (RRf).

Thin-layer chromatography is one of the oldest methods for drug-use testing, but is still in wide-scale use, especially for multi-drug screening programs. It offers the advantages of low equipment cost, relatively rapid analysis, and capability for determining more than one target analyte per analysis. Relatively low drug concentrations, as low as 0.3 - 1.0 micrograms per milliliter, can be detected under favorable circumstances. A recent outgrowth of TLC has been development of so-called high-performance TLC (HPTLC) which has enhanced the analytical capability of thin-layer chromatography. In HPTLC, the particle size of silica gel or other adsorbents and thickness of the absorbent layer are reduced, allowing for separation of drugs and metabolites in much shorter distances and increasing the sensitivity of the method.

One consequence is a shorter analysis time.

There are also a number of shortcomings and disadvantages to TLC. Many factors affect the performance of the procedure and the results obtained, especially reproductibility of the Rf values which are the primary identifying criteria in TLC. Above all, it requires considerable practice to recognize patterns of drug and metabolite presence by their visualized colored spots which are often atypical and usually accompanied by a profusion of other spots, streaks and artifacts produced by non-target substances and physiological sample components. All TLC methods are highly labor-intensive and completely dependent upon the skill, experience and judgment of the analyst. For successful TLC results, extensive sample preparation and pre-treatment is required.

In presenting details of a TLC procedure for certain drugs, one highly experienced toxicologist made the following statements concerning TLC interpretation:

> One swallow does not indicate spring is here, and just as surely, one spot on a thin-layer chromatogram does not indicate a particular drug is present. The spot at a particular Rf with particular reactions to given spray reagents is a necessary condition for proof of identity, but *it is not sufficient for positive proof*. All drugs presumed to be present as a result of a spot on a chromatograph should be confirmed by other tests . . . . Whenever the quantum of proof must be high, the TLC data must be confirmed by another method using different physical properties of the substance.[44]

Unlike immunoassays, thin-layer chromatography also first requires hydrolysis of drug and metabolite conjugates in biological samples — their splitting by acid or enzyme treatment from combination with glucuronic acid and other coupled endogenous substances for the detection of drugs, such as morphine, which are excreted in urine or carried in blood in conjugated form, if maximum analysis sensitivity is to be achieved.

Not all drugs are detectible by TLC at equal concentrations or under a single set of analytical conditions (pH of extraction, extracting solvents, developing solvents, developing time, and visualizing reagents, etc.). By altering those conditions and performing two or more TLC assays, the number of detectible target analytes and confidence in their

---

44. *See* Sunshine, *TLC for Weak Acids, Neutrals, and Weak Bases*, METHODOLOGY FOR ANALYTICAL TOXICOLOGY 412 (I. Sunshine ed. 1975).

correct identification can be increased, at additional costs of time, effort and materials. TLC is basically a qualitative separational technique; its ability to quantitate analytes is limited to rough estimates, chiefly by comparison of the unknown spot density and size with a set of standards run in parallel. Commercial TLC systems are available which include the principal materials and reagents in ready-to-use form and employ standardized manipulations for improved reproducibility of results.

Many other TLC modifications have been proposed, including two-dimensional schemes, partial automation, densitometric measurement of spot intensity for estimation of the drug concentration. None of these are currently utilized for drug-use testing.

One limitation common to all TLC techniques is the inability to readily retain the initial "raw data" output of a TLC analysis. For all practical purposes, one is limited to either preserving the actual chromatogram (i.e., the TLC "plate") which has been exposed to various chemicals and will change in appearance over time, or to photographing the TLC chromatogram at the time of the analysis, an inconvenient and secondary way of recording the analysis results. One technique which deserves wider use is removal of the TLC adsorbent region containing an unknown spot, elution of the chromatographed drug or other analyte, and analysis of the eluate by any of several instrumental means for further identification and confirmation purposes.[45]

The importance of independent confirmation by other appropriate means of the identity of drugs and metabolites identified tentatively by TLC cannot be overemphasized. The need for independent confirmation is well illustrated by one of the most careful and comprehensive studies of TLC applied to the identification of therapeutically significant organic bases (antihistamines, narcotics, stimulants, etc.) by Sunshine et al.[46] They studied separation and identification of 138 *pure* drugs in nonbiological media, using 4 and 7 TLC systems (i.e., various combinations of absorbents, diluents, developing solutions, and visualizing agents). Even when using 4 of these TLC systems, they were only able to identify 113 of the 138 pure drugs, or 81.8 per cent. Using only one TLC system (e.g., their System III), 27 drugs could only be sepa-

45. *See* Coumbis, Fulton, Calise & Rodriguez, *The Necessity of Elution and Identification of Drugs Indicated by Thin-Layer Chromatography*, 54 J. OF CHROMATOGRAPHY 245 (1971).

46. *See* Sunshine, Fike & Landesman, *Identification of Therapeutically Significant Organic Bases by Thin-Layer Chromatography*, 11 J. FORENSIC SCI. 428 (1966).

rated into 10 groups ranging from 1 to 5 in number. One can readily extrapolate statistically from the 18.2 per cent overlap rate in four TLC systems (for one class of drugs - organic bases) to the probable overlap for all analytes of interest in drug-use testing, in biological sample matrices, in any one or 2 systems, even considering analytical advances. The situation is summarized succinctly by one experienced drug analyst writing on the comparable topic of *Drugs and the Performance Horse*.[47] The drug analyst stated, "TLC simply does not have the resolving power necessary to generate a specific identification in the context of forensic chemistry."[48] The same conclusions apply to high performance TLC.

The characteristics which make TLC and HPTLC unsuitable as the sole procedure for identification of drugs or drug metabolites or as confirmatory tests do make them very useful for initial screening tests. By proper selection of analysis conditions, many drugs or metabolites can be eliminated from further consideration by one or two TLC tests, instead of individual tests for all target drugs/target analytes or drug classes of interest. Phrased differently, negative results obtained by proper TLC drug-use testing are acceptable to rule out the presence of those analytes encompassed by the TLC system in use, at significant concentrations; putative or presumptive positive results require further analyses by different principles. The author's view is shared by many persons recognized in the field. A typical statement is that made by Wallace and Hamilton: "TLC and HPTLC should be viewed only as the useful screening and initial detection procedures they are, and should not be extended beyond those limits."[49]

A widely used TLC method for detection of abused drugs was introduced in 1968 by Davidow[50] and many modifications of it have been developed. Thin-layer chromatography has since been widely used for emergency toxicological, and other drug testing and many reviews and evaluations of the technique have been published.[51]

---

47. T. TOBIN, DRUGS AND THE PERFORMANCE HORSE 383 (1981).

48. *Id.* at 383.

49. *See* Wallace & Hamilton, *Analytical Principles*, INTRODUCTION TO FORENSIC TOXICOLOGY 96 (R.H. Cravey and R.C. Baselt ed. 1981)

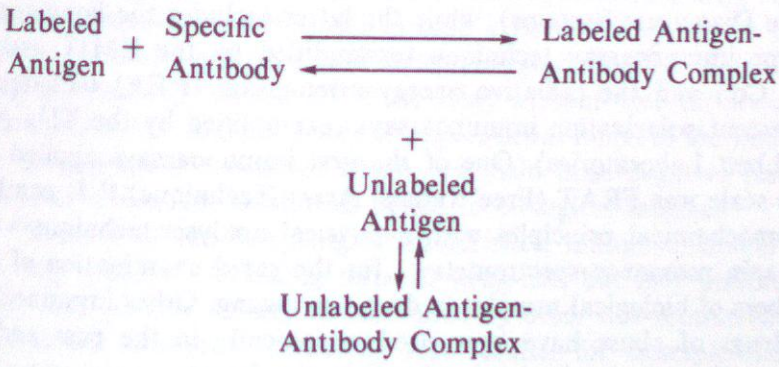
50. *See* Davidow, Petri & Quame, *A Thin-Layer Chromatographic Screening Procedure for Detecting Drug Abuse*, 50 A.J. CLINICAL PATHOLOGY 714 (1968).

51. *See, e.g.* Stead, Gill and Wright, *Standardized Thin-Layer Chromatographic Systems for the Identification of Drugs and Poisons*, 107 ANALYST 1106 (1982): Schepers, Franke & deZeeuw, *System Evaluation and Substance Identification in Systematic Toxicological Analysis by the Mean List Length Approach*, 7 J.

C. *Immunochemical Assays: Basic Principles*

The development of a radioimmunoassay for the measurement of endogenous insulin in plasma, originally described by Yalow and Berson in the 1950-1960 period, was a sufficiently great advance to earn a share in the Nobel prize in Physiology or Medicine for Doctor Rosalyn Yalow in 1977. Immunochemical assay (often simply called immunoassay) techniques have since been successfully applied to the quantitative or semi-quantitative analysis of many compounds present in low concentrations in biological fluids, such as enzymes, hormones and drugs. In the early 1970s, techniques based on immunochemical principles were first applied to the assay of morphine and other abused drugs.

Driven by the need for rapid, sensitive, simple and selective techniques for identification and quantitation of drugs in biological fluids, preferably without the need for prior separation from the biological samples or for a pre-analysis concentration step, immunoassays rapidly found a place in drug-use testing. All immunoassays, in essence, entail the measurement of antigen-antibody reactions, which are controlled by the law of mass action, using such procedures as fluorescence or other optical measurements or radioisotopic measurements. The basic principle can be stated as:



or Ag + Ag* + Ab ⇄ AgAb + Ag*Ab, where Ag is an unlabeled

ANALYTICAL TOXICOLOGY 272 (1983); Bogusz, Klys, Wijsbeek, Franke & de Zeeuw, *Impact of Biological Matrix and Isolation Methods of Detectability and Interlaboratory Variations of TLC Rf.- Values in Systematic Toxicological Analysis*, 8 J. ANALYTICAL TOXICOLOGY 149 (1984); Treiber, *Utility of Thin-Layer Chromatography as an Analytical Tool*, 24 J. CHROMATOGRAPHIC SCI. 220 (1986); Moffat, *Thin-Layer Chromatography*, CLARKE'S ISOLATION AND IDENTIFICATION OF DRUGS 160 (A. Moffat ed. 1986).

antigen either in the form of a drug standard or an unknown drug substance in the specimen or control; Ag* is an antigen labeled with a radioisotope or fluorescent compound or enzyme; Ab is an antibody to the target antigen; AgAb is a complex of unlabeled antigen with its antibody; and Ag*Ab is a complex of labeled antigen with its antibody. The underlying principle is competitive protein binding. A drug in free or conjugated form in a biological sample competes for more or less specific binding sites on the antibody with labeled drug when fixed quantities of the antibody, labeled drug and test sample containing the analyte are mixed. The proportion of labeled drug molecules bound is inversely proportional to the number of unlabeled drug molecules present in the mixture. A suitable measurement is then made of the displaced labeled drug or, alternatively, of the quantity of labeled drug still bound to the antibody. Using the appropriate radioisotope signal or optical measurement, the instrument signal is compared with those of a calibration curve or other standard measurement.

The two major classifications of immunoassays are those requiring separation of the free and bound drug forms prior to the final measurement, as in radioimmunoassays, and those which do not require a separation step and are hence designated homogeneous immunoassays. As widely applied to drug-use assays at present, the former category includes radioimmunoassays (exemplified by the Abuscreen System of Roche Diagnostic Systems), while the latter includes the homogeneous enzyme immunoassay technique (exemplified by the EMIT assay of Syva Co.) and the radiative energy attenuation (REA) technique or fluorescent polarization immunoassays (exemplified by the TDx Assay of Abbott Laboratories). One of the first immunoassays applied on a large scale was FRAT (Free Radical Assay Technique).[52] It combined immunochemical principles with a physical analysis technique - electron spin resonance spectrometry - for the rapid examination of large numbers of biological samples in drug-use testing. Other immunoassays for drugs of abuse have been used periodically in the past and still others will undoubtedly be developed in the future.

Immunoassays share certain characteristics: High sensitivity at microgram or nanogram per milliliter concentrations and small specimen volume requirements; use of immunoglobulin antibodies produced by animals or animal cell lines and subject to variations in sensitivity and specificity and reactivity (or titer); need for little or no sample

52. *See* Dubowski, *Free Radical Assay Technique for Drugs (Application to Opiate Analysis)*, 1 ANN. CLIN. LAB. SCI. 199 (1971).

preparation or pretreatment; relative rapidity of the test; adaptability to automation and analysis of multiple specimens; and dependence on instrumentation. Another common characteristic and limitation is the discrete nature of each assay, that is, the applicability of a given immunochemical assay to only one drug or drug class (e.g., opiates or barbiturates). Repetition of the entire analysis, with different antibodies and other reagents, is thus required for each analyte or analyte class of interest. If the immunochemical assays were truly specific and responded only to a given target analyte, that one-on-one characteristic would be well worth the additional effort, cost and time required for multiple analyses for different analytes. Unfortunately, the second major characteristic of immunochemical assays in general, in addition to high sensitivity, is their cross-reactivity, that is, their response to other sample constituents that the one antigen used to produce the antibody - a property of nearly all naturally derived antibodies. This propensity, in effect, constitutes nonspecificity of the immunochemical assay for any given single drug in the presence of sufficiently high concentrations of cross-reacting substances, and can produce false-positive results. The usual situation is that the antibody (and hence the assay) is highly selective for the target analyte, which may be a given drug or a class of drugs such as the cannabinoids to all members of which the assay responds to varying degrees. This cross-reactivity within a drug class also usually produces test responses to both a parent drug and its metabolites (e.g., both morphine and morphine glucuronide). This substantially increases the sensitivity of the assay without need for pre-analysis hydrolysis of the sample. There are operational limits to the linearity of the immunoassay reactions, which can yield false negative results, as can interference by substances added to biological samples.

Because of the foregoing characteristics, immunochemical assays are very useful as screening tests for drug-use, but they uniformly require that positive results be confirmed by other non-immunochemical techniques. Obviously, screening test results, for example those obtained by immunoassays, cannot be validly confirmed by other screening tests such as thin-layer chromatography, and vice versa. The literature encompassing drug-use testing by immunoassays is extensive, and many pertinent reviews, summaries, and evaluations have been published.[53]

---

53. *See e.g.* Mulé, Bastos & Jukofsky, *Evaluation of Immunoassay Methods for Detection in Urine, of Drugs Subject to Abuse*, 20 CLINICAL CHEMISTRY 243 (1974); IMMUNOASSAYS FOR DRUGS SUBJECT TO ABUSE (S. Mulé ed. 1974); Mulé, Whitlock &

D. *Enzyme Immunoassay*

Enzyme immunoassay (EIA) has become a leading technique for drug-use screening tests, based on the favorable general characteristics of immunochemical assays described above, particularly the sensitivity and applicability to untreated urine specimens. The most widely used form of EIA is the *E*nzyme *M*ultiplied *I*mmunoassay *T*echnique (EMIT) of Syva Company. EMIT is a homogeneous assay system in which the components of the reaction mixture do not need to be separated. Discrete EMIT assays are available in one or two versions (EMIT d.a.u. and EMIT st) for amphetamines, barbiturates, benzodiazepine metabolite, cannabinoids, cocaine metabolite (benzoylecgonine), methadone, methaqualone, opiates, phencyclidine, and propoxyphene. Other EMIT assays are available as serum tests for various therapeutic substances and for several common toxic substances (barbiturates, benzodiazepines). Most EMIT assays for drugs of abuse are applicable only to urine specimens, but some (e.g., those for phencyclidine and benzodiazepine) are also available in a form suitable for serum specimens.

The homogeneous enzyme immunoassay (HEIA) technique uses an enzyme as the label attached to the target drug. When the enzyme-labeled drug becomes bound to an antibody raised against that drug, the activity of the enzyme is reduced. The target drug in a biological fluid sample competes with the enzyme-labeled drug for binding sites on the antibody, thereby proportionately decreasing the antibody-in-

---

Jukofsky, *Radioimmunoassay of Drugs Subject to Abuse: Critical Evaluation of Urinary Morphine-Barbiturate, Morphine, Barbiturate, and Amphetamine Assays*, 21 CLINICAL CHEMISTRY 81-86 (1975); Spiehler, Reed, Cravey, Wilcox, Shaw & Holland, *Comparison of Results for Quantitative Determination of Morphine by Radioimmunoassay, Enzyme Immunoassay, and Spectrofluorometry*, 20 J. FORENSIC SCI. 647 (1975); Law & Moffat, *The Evaluation of an M4 Homogeneous Enzyme Immunoassay (EMIT) and Radioimmunoassay for Barbiturates*, 21 J. FORENSIC SCI. SOC. 55-66 (1980); O'Connor & Regent, *EMIT Cannabinoid Assay: Confirmation By RIA and GC/MS*, 5 J. ANALYTICAL TOXICOLOGY 168 (1981); Peat, Finkle & Deyman, *Laboratory Evaluation of Immunoassay Kits for the Detection of Cannabinoids in Biological Fluids*, NIDA RESEARCH MONOGRAPH 42: ANALYSIS OF CANNABINOIDS IN BODY FLUIDS 85 (R. Hawks ed. 1982); Baselt, *Urine Drug Screening by Immunoassay: Interpretation of Results*, ADVANCES IN ANALYTICAL TOXICOLOGY 81 (1 R.C. Baselt ed. 1984); Irving, Leeb, Foltz, Cook, Bursey & Willette, *Evaluation of Immunoassays for Cannabinoids in Urine*, 8 J. ANALYTICAL TOXICOLOGY 192 (1984); Frederick, Green and Fowler, *Comparison of Six Cannabinoid Metabolite Assays*, 9 J. ANALYTICAL TOXICOLOGY 116 (1985).

duced inactivation of the enzyme. The enzyme activity correlates with the concentration of the target drug in the sample introduced into the reaction mixture. The activity is measured by an ultraviolet light absorbance change which is induced by the catalytic action of the enzyme on an appropriate substrate for that enzyme. In practice in current EMIT assays, urine is mixed with a reagent which contains antibodies to a particular drug together with substrate for the enzyme glucose-6-phosphate dehydrogenase (G6PDH). Binding occurs to any drug in the urine which is "recognized" by the antibody. A drug labeled with the enzyme G6PDH is then added as a second reagent. The labeled drug combines with any remaining antibody binding sites, and the enzyme activity is thereby proportionately reduced. The residual enzyme activity is directly related to the concentration of the target drug present in the urine. The active enzyme converts nicotinamide adenine dinucleotide (NAD) to its reduced form NADH, resulting in a change in ultraviolet light absorbance measured spectrophotometrically at 340 nm over a brief time span.[54] Earlier versions of some EMIT assays, such as that for cannabinoids, used the enzyme lysozyme and later the enzyme malate dehydrogenase as enzyme labels. Those enzymes occurred from natural sources in some samples and were capable of causing false positive or falsely elevated true positive results in either 2-4% or up to 10% of all urine specimens under some conditions.[55] That possibility is somewhat reduced by the practice of performing a "blank" analysis on every positive urine sample and subtracting the "blank" reading from the test assay reading on the same sample before comparing the corrected value to the appropriate "cut-off" value for interpreting results.

It has also been found that addition of sodium chloride to yield concentrations greater than 20 grams per liter (=20mg/ml) to urine known to contain a target analyte (e.g., cannabinoids) can cause false negative results.[56] High concentrations of other salts can also cause false negative tests, a fact known to the drug-using community. Other interferences have also been reported, as have false positive or false

---

54. *See* Rubenstein, Schneider & Ullman, *"Homogeneous" Enzyme Immunoassay. A New Immunochemical Technique*, 47 BIOCHEM. BIOPHYS. RES. COMMUNIC. 846 (1972).

55. *See* Arcenal & Osterloh, *Endogeneous Lysozyme Inactivation in EMIT-dau Assays*, 6 J. ANALYTICAL TOXICOLOGY 312 (1982).

56. *See* Kim & Cerceo, *Interference by NaCl with the EMIT Method of Analysis for Drugs of Abuse*, 22 CLINICAL CHEMISTRY 1935 (1976); SYVA COMPANY, EMIT - d.a.u. CANNABINOID URINE ASSAY, 20 (1982).

negative results in various EMIT assays.[57] Substances which appear in the urine and absorb light strongly at 340 nm in an alkaline medium can cause negative interference, as was found true for p-nitrophenol, a urinary metabolite of the pesticide parathion.[58] Presence of some preservatives in urine specimens was found to inactivate the assay.[59] Numerous other cross-reactions have been shown to occur, for example, in the EMIT amphetamine assay with over-the-counter products containing ephedrine, pseudoephedrine, or phenylpropanolamine.[60] Specificity or selectivity of these immunoassays is therefore an individual property which varies considerably among the several EMIT assays. It deserves emphasis that interference or cross-reactivity findings reported in the literature often pertain to earlier or different versions of these assays than those marketed currently, as illustrated by the problems encountered earlier with the lysoenzyme-labeled EMIT products which have been replaced by tests using other enzyme systems. However, even reformulated immunochemical assays can be affected by non-target substances present in the biological sample. EMIT d.a.u. users were notified by Syva Company that urine from persons who had taken certain prescription and nonprescription nonsteroidal antiinflammatory drugs (phenylpropionic acid derivatives) could cause interference with the EMIT drug abuse assays, the drugs involved being ibuprofen, fenoprofen, and naxopren.[61] Next, Syva Co. notified its customers that

---

57. *See, e.g.* Baselt, *Urine Drug Screening by Immunoassay: Interpretation of Results*, ADVANCES IN ANALYTICAL TOXICOLOGY 81 (R. Baselt ed. 1984); Bost, Sutheimer & Sunshine, *Relative Merits of Some Methods for Amphetamine Assay in Biological Fluids*, 22 CLINICAL CHEMISTRY 789 (1976); Allen and Stiles, *Specificity of the EMIT Drug Abuse Urine Assay Methods*, 18 CLINICAL TOXICOLOGY 1043 (1981); Walberg & Gupta, *Quantitation of Phencyclidine in Urine by Enzyme Immunoassay*, 6 J. ANALYTICAL TOXICOLOGY 97 (1982); SYVA COMPANY, EMIT st URINE AMPHETAMINE ASSAY 3, 23 (1982); Hausmann, Kohl, von Boehmer & Wellhöner, *False-Positive EMIT Indication of Opiates and Methadone in Doxylamine Intoxication*, 21 J. CLINICAL CHEMISTRY CLINICAL BIOCHEMISTRY 599 (1983); Apple, *Labetalol: False Positive Indices by EMIT;d.a.u. Assay and Toxi-Lab A Urine Screen*, 31 CLINICAL CHEMISTRY 1250 (1985); Clark and Hajar, *Detection and Confirmation of Cocaine Use by Chromatographic Analysis for Methylecgonine in Urine*, 33 CLINICAL CHEMISTRY 118 (1987).

58. *See* Giblin, Hite, Samuels & Ragan, *p-Nitrophenol Interferes with EMIT Phencyclidine Urine Assay*, 7 J. ANALYTICAL TOXICOLOGY 297 (1983).

59. *See* Law and Moffat, *supra* note 53.

60. *See* Baselt, *supra* note 57; SYVA COMPANY, EMIT d.a.u. DRUG ABUSE URINE ASSAYS (1982).

61. *See* Letter from D. Lorenzen, Syva Company to Syva EMIT Drug Abuse Assay Users (Feb., 1986).

urine from persons who had taken ibuprofen, fenoprofen, and napoxen had been found capable of affecting EMIT cannabinoid assays using malate dehydrogenase (MDH) as the enzyme label, but not the assay using G6PDH enzyme, and the fenoprofen could also yield false positive results with the EMIT assays for amphetamines, barbiturates, benzodiazepines, and methaqualone.[62] Further tests demonstrated that the reformulated EMIT cannabinoid assay using G6PDH as the enzyme label introduced in July 1986 was not affected by any of the three nonsteroidal anti-inflammatory drugs mentioned above.[63] The last word is never written in such matters.

The sensitivity of the several EMIT EIA assays differs among the assays and different "cutoff" concentrations are employed as the dividing line between positive and negative results. Those assays used in drug-use testing are essentially used as qualitative tests, in distinction to those used for quantitative determinations of therapeutic substances such as antiepileptic drugs. The cutoff values in urine for a given EMIT assay such as cannabinoids have been changed by the manufacturer from time to time, and different cutoff values are employed for the d.a.u. and the st test versions. Currently, the former is listed by the manufacturer as having a detection limit of 50 nanograms of 11-nor-Δ^9-THC-9-carboxylic acid (the principal urinary metabolite of Δ^9-THC) per ml. of urine and the latter a detection limit of 200 ng/ml.[64] The respective cutoff values are 20 or 100 ng/ml for the d.a.u. test and 100 ng/ml for the st test. Other EMIT d.a.u. assays are stated by the manufacturer to have the following detection limits in urine: Amphetamines 2.0 micrograms/ml; barbiturates (as secobarbital equivalents) 2.0 micrograms/ml; benzoylecgonine (cocaine metabolite) 1.6 micrograms/ml; methadone 0.5 micrograms/ml; oxazepam (benzodiazepine metabolite) 0.7 micrograms/ml; opiates (as morphine equivalents) 0.5 micrograms/ml; phencyclidine 150 nanograms/ml; propoxyphene 2.0 micrograms/ml.[65] These are realistic concentrations for laboratory use of these assays.

Because of the factors discussed above under *Precision*, *Sensitivity*, and *Detection Limit* as analysis method characteristics, the func-

---

62. *See* Letter from D. Lorenzen, Syva Company to Customers (Mar. 12, 1986); Letter from D. Lorenzen to Customers (Apr., 1986).

63. *See* Letter from D. Lorenzen, Syva Company to Customers (June, 1986).

64. Syva Company EMIT-d.a.u. Cannabinoid Urine Assay 20 (1982), Syva Company EMIT st Urine Cannabinoid Assay, (1982).

65. Syva Company EMIT d.a.u. Drug Abuse Urine Assays (1982).

tional value selected as a "cutoff" for a given assay is different than the stated detection limit of that EMIT assay to minimize chances of obtaining false positive or false negative results. A multi-laboratory evaluation study of the EMIT d.a.u. cannabinoid assay showed generally satisfactory test performance, although some problems were noted.[66] Of 106 urine specimens which had yielded positive results for cannabinoids with the EMIT d.a.u. test, about 35% could not be confirmed as positive for cannabinoids by a gas chromatography/mass spectrometry confirmation method (which, however, did not initially include a hydrolysis step), and 7.5% were screened negative by EMIT but yielded positive results for cannabinoids by GC/MS.[67] EMIT assays were developed originally as positive/negative or semi-quantitative tests only. As pointed out in the manufacturer's literature (e.g., for the Cannabinoid 20 Assay), "for semiquantitative results" a standard curve for the assay can be prepared by plotting assay readings of the several standards against the respective known concentrations, but quantitative results for positive samples can only be estimated because of inherent characteristics of the assay.[68]

E. *Fluorescence Polarization Immunoassay (FPIA)*

Fluorescence measurements inherently have high sensitivity, and various procedures have therefore been proposed from time to time to use spectrofluorimetry for drug-use testing. Fluorescence polarization immunoassay (FPIA) has been applied to the analysis of several major drug classes, in the form of TDx Toxicology/Abused Drug Assays (Abbott Laboratories). Discrete TDx assays are available or in development for amphetamines, barbiturates, benzodiazepines, cannabinoids, cocaine metabolite, methadone, opiates, and phencyclidine. There is also a TDx assay for ethanol which is not based on immunochemical principles, and additional discrete TDx assays are available for therapeutic substances, such as phenobarbital and tricyclic antidepressants.

By using selectively cross-reacting antibodies, the TDx Abused Drug Assays detect parent drugs and/or major metabolites within a given class of drugs with related chemical structures. The assay is homogeneous, without need for separational procedures, and depends on competitive-binding immunoassay principles, measuring the tracer by

66. *See* Peat, *supra* note 53.
67. *Id.*
68. *See* SYVA COMPANY EMIT d.a.u. CANNABINOID 20 ASSAY (1982).

fluorescence. The principal reagents for FPIA are a fluorescent-labeled analyte (tracer) and antibodies raised against that analyte or analyte group. Blue light at 485 nm polarized to a single plane excites that tracer or fluorophore, and raises it to an excited energy state. After excitation, the fluorophore returns to steady energy state and emits green light of a different energy level and wavelength (525-550 nm). When the fluorophore is bound to the antibody, it does not rotate freely, and the emitted green light is in the same plane as the blue excitation light and thus polarization of the light is retained. Conversely, when the tracer is free to rotate because it is not bound to the antibody, the emitted green light is in a different plane than the blue excitation light, and the light is depolarized. The fluorescent tracer competes for antibody binding sites with the unlabeled analyte in the biological sample. The higher the analyte concentration, the larger the unbound tracer fraction, and the greater the decrease in polarized light fluorescence. The concentration of the analyte is inversely proportional to the degree of polarization of light. The changes in fluorescence signal corresponding to various concentration of the unlabeled analyte in the biological specimen are determined by calibration with analyte standards of known concentration. The FPIA tests for drugs of abuse can be used to show presence or absence of the analyte of interest as established by a calibrated threshold, or to quantitate the analyte concentration by use of a series of standards. The tests are designed to use urine as the biological fluid specimen.

Because the Abbott TDx Drugs of Abuse Assays are relatively new, evaluations and experience descriptions have not yet appeared in the peer-reviewed scientific literature, although the principles have been well-established and reviewed[69] and a number of articles have been published on therapeutic drug monitoring by FPIA. A characteristic of the TDx FPIA tests is one common to competitive binding immunoassays, namely different drugs and/or metabolites within a given drug class react with the antibody to a different extent, with some additional variations in cross-reactivity[70] depending upon the concentration of the drug involved. An example of the cross-reactivities, as determined by the manufacturer in extensive testing of each TDx assay, is

69. *See* Quattrone, O'Donnell, McBride, Mendershausen & Putnam, *An Update of Approaches Toward the Fluorescence Immunoassay of Drugs*, 5 J. ANALYTICAL TOXICOLOGY 245 (1981).

70. *Per Cent Crossreactivity* = (measured concentration of the drug recognized by the antibody divided by the actual concentration of the test compound) x 100.

as follows for the TDx barbiturates assay using secobarbital as the calibrator and for all drugs at a concentration of 0.70 micrograms/ml:[70.1] Butalbital = 100%; butobarbital = 147.1%; hexobarbital = 0%; pentobarbital = 90%; phenobarbital = 145.7% and; amobarbital = 140%. TDx assay sensitivities and minimum allowable threshold values reported by the manufacturer are as follows:[71]

TDx Assay	Assay Sensitivity micrograms/ml	Minimum Allowable Threshold micrograms/ml
Amphetamines	0.09	0.3
Barbiturates	0.06	0.5
Benzodiazepines	0.04	0.2
Cannabinoids	10 nanograms/ml	25 nanograms/ml
Cocaine Metabolite	0.03	0.3
Opiates	25 nanograms/ml	0.2
Phencyclidine	5 nanograms/ml	25 nanograms/ml

Presence of detergents in samples potentially interferes with TDx immunoassay results; sodium chloride in concentrations up to 60 grams/liter (up to 25 grams/liter for the cannabinoids assay) resulted in less than 10% error in detecting added drugs in most assays.[72] The manufacturer cautions that "confirmation should be by an equally sensitive and specific methodology using a different chemical principle."[73] The manufacturer further advises "[d]ocumented procedures should be established and maintained to insure that before a result is reported as positive, that corroborating evidence exists to support that result or, in the absence of confirmation, that the result is identified as being an 'unconfirmed' result."[74]

70.1 ABBOTT LABORATORIES, BARBITURATES TDx ASSAY INFORMATION (1986).

71. DIAGNOSTICS DIVISION, ABBOTT LABORATORIES, PERSONAL COMMUNICATION (Jan. 28, 1987).

72. *Id.*

73. ABBOTT LABORATORIES, INTRODUCTION TO TDx TOXICOLOGY/ABUSED DRUG ASSAYS (1986).

74. *Id.*

F. *Radioimmunoassay*

Radioimmunoassays are laboratory procedures which combine physical measurement of radioisotopes (i.e., radioactive unstable species of a chemical element) with immunochemical reactions between biologically produced antibodies and antigens such as drugs and drug metabolites. They have the relatively high sensitivity of immunochemical methods and hence small sample requirements. Furthermore, radioimmunoassays require little or no pretreatment of samples. A target drug is labeled with a radioactive isotope. The most commonly used radioactive isotopes are tritium ^{3}H, a radionuclide with a half-life of 12.26 years which decays by beta ray emission) and iodine-125 ^{125}I, a radionuclide with a half-life of 60 days which decays by electron capture with gamma rays emission). Known quantities of biological specimen and radioactively-labeled drug are mixed with a known, limiting quantity of antibodies raised in animals against the target drug. The mixture is allowed to incubate, during which time that labeled drug and any unlabeled drug present in the specimen compete for binding sites on the antibody, thus reducing the fraction of radioactivity bound to the antibody. After separating the antigen (drug)-antibody complex, one can measure either the free or the bound radioactivity with a beta or gamma scintillation counter, as appropriate. Separation of the bound and unbound radioactivity is usually accomplished by precipitation of the antigen-antibody complex with a second antibody reagent, or adsorption, followed by centrifugation. The presence or absence of the target analyte is indicated by the amount of radioactivity found which is proportional to the amount of labeled drug bound to the antibody. If the supernatant fluid is counted, a positive result is indicated by free radioactivity (universally measured in counts per minute, CPM) equal to or greater than produced by a positive control containing a threshold concentration of the analyte and treated identically to an unknown specimen. If the bound radioactivity is measured, as in a pellet of precipitated and centrifuged antigen-antibody complex, presence of the analyte is indicated by radioactivity (CPM) lower than that produced by a positive control containing the threshold concentration of the analyte.

Like enzyme immunoassay and fluorescent polarization immunoassay, RIA is a procedure yielding continuous readout values. Therefore, experimentally established threshold values are used to distinguish positive from negative results. Because of the phenomenon of "nonspecific binding" (NSB), the threshold must exceed the sensitivity of the par-

ticular method sufficiently to eliminate interference from this source. Corrections are usually made for such nonspecific binding counts by running appropriate NSB controls (containing no drug) and subtracting their average counts per minute as well as radioactivity background counts from those of standards, other controls, and unknowns before interpreting the analytical RIA results. Simple calibration curves can be constructed as linear-plots of radioactivity in CPM versus the concentration of several target drug standards. However, because such curves are exponential and have other drawbacks, it is common practice in RIA to construct so-called log-logit curves which are linear. An initial step in log-logit plotting is to express the binding of radioactivity for all points in the standard curve as a percentage of binding at zero concentration of nonradioactive target antigen, $B/B_0 \times 100$. A plot of these data against the logarithm of the concentrations yields a smooth sigmoidal curve. Linearization is obtained by the logit plot in which the logit[75] of B/B_0 is plotted against the log of the analyte concentration on "logit-log" graph paper.[76]

Drug concentrations in the specimens can be determined from these calibration curves. However, in drug-use testing, RIA is most commonly used as a screening test to obtain a positive/negative result based on the pre-established "cutoff" value. The basic RIA measurement made is radioactivity in counts per minute (CPM). To enhance RIA precision and accuracy, however, counting is carried out for longer periods of time which in part depend upon the respective radioactivity of each specimen. The accumulated counts are divided by the elapsed counting time to yield average CPM data. Because the radioactivity decays over time in the isotope-labeled reagents, standards and controls must be run in parallel with the unknown specimens at the time of analysis.

Several RIA kits for drugs of abuse are currently available commercially. They include the Abuscreen System (Roche Diagnostic Systems) with separate discrete assays, using ^{125}I radiolabeled antigen, for several drugs or drug classes, with the following sensitivities and cutoff values, for analysis of urine:[77]

---

75. *Logit* is a mathematical function used to transform data so that a linear function is obtained; logit $(x) = \log_e (x/1-x)$.

76. *See* Rodbard, *Data Processing for Radioimmunoassay: An Overview*, CLINICAL IMMUNOCHEMISTRY 477 (S. Natelson ed. 1978).

77. *See* ROCHE DIAGNOSTIC SYSTEMS, ABUSCREEN SYSTEMS PACKAGE INSERTS (Jan./Mar./Apr. 1986).

Abuscreen Assay	Sensitivity nanograms/ml	Cutoff Concentration nanograms/ml
Amphetamines	20	1000
Barbiturates	5	200
Cannabinoids	5	100
Cocaine Metabolite	5	300
LSD (Lysergic Acid Diethylamide)	0.025	0.5
Methaqualone	50	750
Morphine	10	300
Phencyclidine	2.5	25

Also available commercially is a Direct RIA for Urine THC Kit (Amersham Corporation) for cannabinoids in urine, using ^{125}I labeled THC metabolite. Sensitivity of that assay is stated by the manufacturer as 0.8 ng/ml, with a cutoff of 10 ng/ml.[78] Another RIA kit, using tritium (^{3}H) labeled Δ^{9}-Tetrahydrocannabinol as the tracer, is available for cannabinoids quantitation in whole blood samples, the Δ^{9}-THC Direct Blood RIA Kit [^{3}H] (Immunalysis Corporation). It can be used with whole blood, including hemolyzed samples such as those obtained postmortem. It requires a 20 microliter sample and is sensitive to 5 nanograms of Δ^{9}-THC and employs a 5 ng/ml cutoff.[79]

These RIA tests differ substantially from each other in several important characteristics including especially the cross-reactivity of their respective antibodies, as well as sensitivity of the assay. In the Abuscreen RIA for cannabinoids, using a 100 ng/ml cutoff, Δ^{9}-THC (the parent drug) cross-reacts at only about 5% of the reactivity of the major urinary metabolite, 9-carboxy-THC. In the Direct RIA Cannabinoids Assay (Amersham Corporation) using a 10 ng/ml cutoff, both Δ^{9}-THC 9-carboxy-THC cross-react at 100% with the antibody. This characteristic of the latter assay makes it suitable for estimating the effect of the active drug at the time a blood sample is collected while the other assays do not permit such evaluation of test results.
Δ^{9}-THC 9-carboxy-THC cross-react at 100% with the antibody. In the Δ^{9}-THC Direct Blood RIA [^{3}H] test (Immunalysis Corporation), using a 5 ng/ml cutoff, Δ^{9}-THC cross-reacts at only 0.5%. This characteristic of the latter assay makes it suitable for estimating the effect of the active drug at the time a blood sample is collected while the other assays do not permit such evaluation of test results.

78. AMERSHAM CORPORATION, CANNABIS: DIRECT RIA FOR URINE THC KIT (1985).

79. IMMUNALYSIS CORPORATION, Δ^{9}-THC DIRECT BLOOD RIA KIT [^{3}H] (1986).

Because of sensitivity of RIA procedures, they are not uncommonly among the first, and sometimes only, methods to be developed for chemical analysis for abused drugs which occur only in low concentrations in biological fluids. Examples of such analyses are those for lysergic acid diethylamide (LSD), a hallucinogen, in urine,[80] and for fentanyl, a potent, fast-acting narcotic analgesic used clinically in anesthesia, and its analogues in human plasma.[81] In addition to analysis of whole blood, plasma and serum, and urine RIA has also been applied to analysis of drugs in saliva[82] and other biological specimens.

Since about 1970 when the first application of RIA to drug-use testing took place, the technique has been widely used and the literature is extensive. Some recent evaluations of RIA have been published. Determination of Δ^9-THC and other cannabinoids in blood and serum by RIA using both ^{3}H and ^{125}I radioimmunoassay methods were compared with the results of gas chromatography/mass spectrometry on 100 specimens from subjects in a driving study; the 3 methods gave comparable but significantly different quantitative results and both ^{125}I RIA and GC/MS yielded 14% false positive results on whole blood quality control specimens.[83] To increase the specificity of RIA for cannabinoids in blood and urine, an ^{125}I RIA procedure was combined with high pressure liquid chromatography for separation of the drugs and metabolites prior to RIA measurements at cannabinoids concentrations as low as 3.3 ng/ml in urine and 6.5 ng/ml in plasma.[84] Cross-reactivity of 41 cannabinoids and non-cannabinoid phenolic constituents of cannabis to the antibody used in the Abuscreen RIA for Cannabinoids was determined; the antibody was found to exhibit high selectivity for the 9-carboxy-THC metabolite while none of the non-cannabinoid phenols from the cannabis plant exhibited any cross-reactivity, and Δ^9-

---

80. *See* Peel & Boynton, *Analysis of LSD in Urine Using Radioimmunoassay-Excretion and Storage Effects*, 13 CAN. SOC. FORENSIC SCI. J. 23 (1980).

81. *See* Michiels, Hendriks & Heykants, *A Sensitive Radioimmunoassay for Fentanyl Plasma Levels in Dog and Man*, 12 EUROPEAN J. CLINICAL PHARMACOLOGY 153 (1977).

82. *See* Gross, *supra* note 24.

83. *See*, Hanson, Buonarati, Baselt, Wade, Yep, Biasotti, Reeve, Wong & Orbanowsky, *Comparison of ^{3}H and ^{125}I-Radioimmunoassay and Gas Chromatography/Mass Spectrometry for the Determination of Delta9-Tetrahydrocannabinol and Cannabinoids in Blood and Serum*, 7 J. ANALYTICAL TOXICOLOGY 96 (1983).

84. Law, Mason, Moffat, and King, *Confirmation of Cannabis Use by the Analysis of* Δ^9-Tetrahydrocannabinol Metabolites in Blood and Urine by Combined HPLC and RIA, 8 J. ANALYTICAL TOXICOLOGY 19 (1984).

THC cross-reacted at 13%.[85] Five methods for analysis of the major urinary Δ^9-THC metabolite were compared experimentally on urine samples from 29 subjects using Abuscreen RIA, enzyme immunoassay, GC/MS, HPLC and GC/EC methods; the immunoassay methods showed higher concentrations of urinary metabolites that the other methods.[86] The Abuscreen RIA procedures for barbiturates, cocaine metabolite, opiates and phencyclidine were routinely used for screening tests on 4355 whole blood specimens, and confirmation of positive RIA results was attempted by gas chromatography/mass spectrometry. The respective confirmation rates of the RIA assays during 1981-84 were: Cocaine/benzoylecgonine 57%; opiates 79%; phencyclidine 49%; and barbiturates 58%. Nonspecific binding to the RIA antibodies was found and putrefaction of blood samples caused false positive RIA results.[87] When 100 urine samples positive for cannabinoid presence by EMIT enzyme immunoassay were tested by RIA with the ^{125}I Urine THC Direct Kit (Immunalysis Corporation), results identical to those by the EMIT HEIA were obtained, with only one RIA-positive sample being negative by gas chromatography/mass spectrometry analysis.[88] In a high volume urine testing operation for Δ^9-THC metabolites using EMIT d.a.u. tests with a 100 ng/ml cutoff and Abuscreen RIA tests with a 100 ng/ml cutoff, the EMIT and RIA results agreed for 91% of 667 samples. The data, including gas chromatography/mass spectrometry confirmation, indicated a 4% false positive and a 10% false negative result rate for field testing with the EMIT test; and presence of the 9-carboxy-THC urinary metabolite was confirmed in 99.7% of RIA-positive urine samples (100 ng/ml cutoff) by gas chromatography/mass spectrometry using a 20 ng/ml cutoff. No fixed relationship for quantitation of cannabinoids by RIA and GC/MS was found.[89]

---

85. Jones, ElSohly and ElSohly, *Analysis of the Major Metabolite of in Urine.V.Cross-Reactivity of Selected Compounds in a Radioimmunoassay*, 8 J. ANALYTICAL TOXICOLOGY 252 (1984).

86. Jones, ElSohly, Arafat & ElSohly, *Analysis of the Major Metabolite of Δ^9-Tetrahydrocannabinol in Urine. IV. A Comparison of Five Methods*, 8 J. ANALYTICAL TOXICOLOGY 249 (1984).

87. Spiehler & Sedgwick, *Radioimmunoassay Screening and GC/MS Confirmation of Whole Blood Samples for Drugs of Abuse*, 9 J. ANALYTICAL TOXICOLOGY 63 (1985).

88. Verebey, Mulé, Alrazi & Lehrer, *One Hundred EMIT Positive Cannabinoid Urine Samples Confirmed by BPA/TLC, RIA, and GC/MS*, 10 J. ANALYTICAL TOXICOLOGY 79 (1986).

89. Abercrombie & Jewell, *Evaluation of EMIT and RIA High Volume Test*

There has also been spirited debate between manufacturers of competing drug-use screening tests concerning the merits and validity of their respective test systems. An example of this appears in a decision of the Comptroller General of the United States, dated August 22, 1985 covering procurement of drug test systems by the Defense Logistics Agency, a U.S. Department of Defense component, relating to drug testing systems based on homogeneous enzyme immunoassay ("E-method") and radioimmunoassay (R-method).[90] The decision contains the following statement:

> DLA responds that this procurement was limited to drug testing systems employing the R-method because systems employing the E-method are not reliable. As evidence, it points to a quality control report prepared by the Armed Forces Institute of Pathology for the period of January through March 1985. This report showed that CompuChem Laboratory, an outside contractor which, during this period, performed the initial drug screening tests using the E-method, had only 49.1 percent correct rate on positive blind samples, while during the same period the three military laboratories being reviewed, all of which used tests employing the R-method, had correct rates of 93.2, 99 and 99.2 percent. DLA further states that the Coast Guard procurement called for drug testing systems employing the E-method only because, prior to the procurement, the Coast Guard had purchased services from different laboratories, a great majority of which used this method, and it followed its previous experience. In actuality, DLA learned that the Coast Guard did not consider the E-method reliable because it had a 58.1 percent correct rate on positive samples in fiscal year 1984 and similarly poor results in fiscal year 1983 and the first half of fiscal year 1985, and it relied on its confirmatory testing for discharge procedures.[91]

The reference to "positive blind samples" is to proficiency test specimens with a known added drug concentration which are submitted to a testing facility disguised as routine test specimens. This is done to assess the reporting facility's performance of the indicated tests in routine operations. As previously noted, it should be remembered that

---

Procedures for THC Metabolites in Urine Utilizing GC/MS Confirmation, 10 J. ANALYTICAL TOXICOLOGY 178 (1986).

90. *See* VAN CLEVE, DECISION OF THE COMPTROLLER GENERAL OF THE UNITED STATES File No. B-218359.2 (Aug. 22, 1985).

91. *Id.*

drug-use screening tests are periodically reformulated with different reagents, and that the test performance and characteristics of current tests and testing schemes are not necessarily the same as those of earlier versions of the same brand of test.

G. *Gas Chromatography*

The most commonly used methods for confirmatory testing in drug-use analysis are currently gas chromatography, high performance liquid chromatography, and gas chromatography/mass spectrometry. All three basic procedures can be used to produce qualitative results merely identifying drugs and drug metabolites present in a biological specimen, or to yield quantitative results providing information on the identity and concentration of individual target analytes. Methods suitable for confirmatory testing can, of course, also be used as primary screening test methods under appropriate circumstances of case load. When they are so used, however, the need for confirmatory testing by an adequate alternate method remains. The following criteria have been proposed recently for evaluating nonquantitative assays - those tests that simply indicate the presence or absence of one or more specified target analytes in a given specimen:[92]

Table 5. Criteria for Technical Assessment of Nonquantitative Assay Techniques[93]

* Determination of analytical sensitivity
* Determination of imprecision near limits of detection
* Validation of analytical specificity
* Validation of accuracy over a wide range of analyte concentrations
* Evaluation of potential interferents
* Assessment of technical ease of performance

These criteria correspond closely to several of those included in Table 3; determination and publication of these characteristics for candidate

92. *See* Delfert, Rea, Kessler, Siegfried & Valdes, *Criteria for Evaluating Nonquantitative Assays: Application to Choriogonadotropin*, 33 CLINICAL CHEMISTRY 150 (1987).

93. *Id.*

methods will allow rational selection of suitably valid analysis methods and recognition of any limitation.

Gas chromatography (GC) is also interchangeably called gas-liquid chromatography (GLC) when the separating column which is the heart of a gas chromatograph is loaded or coated with a liquid phase. Like other chromatographies, GLC is primarily a separational technique for isolating an analyte from its containing medium, and adequate sample preparation is required for biological specimens to be subjected to GLC. The basic principle of GLC is use of an inert "carrier" gas such as nitrogen or helium as the mobile phase to transport a vaporized analyte (e.g., drug or metabolite) through a glass or metal column containing a stationary liquid phase to a detector at the far end of the column which signals presence of the analyte by an electrical signal. Physical and chemical interaction of the analyte and other components of the injected sample with the column packing or coating, under the instant operating conditions, determines how long it will take that component to emerge from the column outlet and be recognized by the detector after its introduction into the gas chromatograph and into the column inlet (its "retention time"). Operational parameters such as pressure and flow rate of the carrier gas, sample inlet, column oven and detector temperatures, and chemical and electrical detector conditions are optimized and then closely controlled and monitored to achieve reproducible results. The column and the detector are the major variants in GLC. Packed columns are typically 1-2 meters long, about 2-5 mm in diameter, and often coiled or curved to fit into a small oven. The packing consists of finely divided inert granular materials such as polymers, graphitized carbon black, or diatomaceous earth as a support of large surface area, coated or "loaded" with polar or nonpolar liquids serving as the stationary phase which may be bonded to the support.

Selection of appropriate packing and liquids from among the several hundred combinations commercially available, and column preparation and conditioning are very much an art as well as science. Most laboratories now use commercially prepared columns whose performance has been well characterized and published. Because of superior resolution capability for complex mixtures, in less time and with much smaller analyte quantities, capillary columns have made substantial gains over conventional packed columns in the past several years. They consist of glass or quartz tubing of about 0.5 mm outside diameter and 0.2 to 0.4 mm internal diameter, usually about 10-50 meters long and coiled. The inside column surface is usually modified, as by etching, and then coated with a uniform thin film of partitioning liquid to form

a wall-coated open tubular column or bonded with a support (e.g. microcrystals of barium chloride) to form a support-coated open tubular column.

Detectors fulfill three functions in gas chromatography: 1) they signal the presence of substances to which they are sensitive; 2) they provide electrical signals which can be made proportional, within limits, to the quantity of detectible analytes reaching the detector over a finite measured time interval; and 3) by appropriate modifications of construction and operating conditions, they can be made highly selective for certain compounds, such as those containing phosphorus or nitrogen (e.g., phencyclidine or cocaine) or halogens like chlorine. The four GC detectors commonly used for drug analyses are: flame ionization which responds to nearly all classes of chemical compounds; alkali flame ionization, often called a nitrogen-phosphorus (N-P) detector because of its much greater sensitivity by a response factor of almost 50,000:1 to compounds containing these elements than to the typical carbon compound lacking nitrogen or phosphorus; electron capture detectors which are sensitive to compounds with a high affinity for electrons such as pesticides containing chlorine or compounds with a carboxyl (=C=O) group such as diazepam; and mass spectrometers operated in the selected ion monitoring mode, functioning essentially as a very selective GC detector. When appropriate and necessary, the sensitivity and selectivity of detection can be increased by preparing a derivative of an analyte by chemically coupling it with such elements as fluorine or phosphorus to which some GC detectors are especially sensitive. All GC detectors respond to the presence of detectible substances by an alteration in electrical signals from a baseline condition, usually an increase, but for the EC detector a decrease, in current flow. The signals are electronically amplified and presented in quantitative terms as a function of time using electronic strip-chart recorders or electronic integrators. The typical gas chromatogram is a graph consisting, ideally, of a series of sharp symmetrical spikes departing momentarily from the baseline, each of which represents a particular component of the injected sample mixture. The primary identification is made by the "retention time" of the peak associated with a given compound of interest, measured in minutes to the nearest 1/100, from the time of injection of the sample into the GC to the appearance of the peak. To compensate for variations in analysis conditions from occasion to occasion and the associated changes in retention time, it is common practice to establish a relative retention time, that is, the retention time of the analyte in question relative to that of a reference compound included in

the injected sample.

Even more universal for identification is the concept of the retention index which uses a homologous series of n-paraffins to provide reference points on a scale. For any given set of column stationary phase and operating conditions, the elution times of the members of the series are assumed to increase by an index of 100 for each additional methylene ($CH_2=$) unit. On this scale, H_2 has an index of zero, methane an index of 100, ethane of 200, and so on up to the paraffins scale. The unknown peak is compared to the reference scale, and variations in retention time thus minimized. Applications of this scheme to drug-use testing has been described.[94]

Quantitation of analytes of GC is performed by comparing the magnitude of the analyte detector response, as indicated by either peak height or peak area measurements, with that of an appropriate added internal standard. When a mass spectrometer is used as the detector, the ideal internal standard is a ^{13}C analogue of the drug in question. Calibration is accomplished by plotting or calculating the ratio of peak height (or peak area) of target drug to that internal standard versus concentration of the target analyte. This relationship is a straight line through zero with most detectors under proper analysis conditions and over a limited concentration range. Use of internal standards is indispensable in quantitative gas chromatography to compensate, among other factors, for unintended and uncontrolled variation in the injected sample volume. Because gas chromatography is an analysis technique requiring vapor or gas state of the analyte, sample preparation, which may be extensive, must precede the actual GC instrumental analysis. Typically, it involves extraction of the drug and metabolites of interest from the matrix specimen, such as urine, under controlled pH and other conditions, usually using liquid-liquid extractions with immiscible solvents or liquid-solid extractions in which the specimen is exposed to separating columns of solid sorbents which are then successively washed to free them of specimen remains and contaminants and stripped of retained tagged analytes with eluting solvents. Concentra-

94. *See* Moffat, *Use of SE-30 as a Stationary Phase for the Gas-Liquid Chromatography of Drugs*, 113 J. CHROMATOGRAPHY 69 (1975); Bogusz, Wijsbeek, Franke & deZeeuw, *Impact of Biological Matrix, Drug Concentration, and Method of Isolation on Detectability and Variability of Retention Index Values in Gas Chromatography*, 9 J. ANALYTICAL TOXICOLOGY 49 (1985); Sharp, *A Rapid Screening Procedure for Acidic and Neutral Drugs in Blood by High Resolution Gas Chromatography*, 11 J. ANALYTICAL TOXICOLOGY 8 (1987).

tion of the solvent solution of analytes is usually accomplished by evaporation with heat and reduced pressure. Chemical derivatization may be necessary to make the analyte sufficiently volatile to move through a GC column at feasible operating temperatures, and to increase sensitivity and specificity of the analysis.

As with other forms of chromatography, such as TLC, gas chromatography involves substantial analyst judgment and skill in the manipulations and the interpretation of the results. Because of the universal use of electronic signal amplification of the detector response, GC is one analytical technique in which the "signal to noise" ratio is an appropriate term in describing method sensitivity. Particularly with very low concentrations of drugs or metabolites in the original specimen, it is important to differentiate clearly the detector response attributable to the analyte from the baseline "noise" fluctuations caused by instrumental conditions, column bleeding or other assay artefacts. To make such judgements, it is essential to have the full original chromatogram available for subsequent review, together with others obtained on the same occasion, rather than merely peak height or peak area values for the sample in issue, printed by electronic integrators.

Gas chromatography has high sensitivity, and can therefore be very useful in the analysis of drugs and metabolites present only in very low concentrations in body fluids. Many examples of published methods could be cited; among these are recent applications of GC to analysis of biological specimens for cocaine, fentanyl, and Δ^9-THC. Gas-liquid chromatography with a flame ionization detector was used to detect methylecgonine, a common urinary metabolite of cocaine in man, at a urinary concentration of 1 microgram/ml.[95] Presence of cocaine was confirmed in the saliva of human subjects who had received 15-40 mg of intravenously administered cocaine; gas-liquid chromatography was performed with a nitrogen-phosphorus detector with a linear range of 5-2000 nanogram/ml and a sensitivity limit of 5 ng/ml.[96] Fentanyl, a potent fast-acting narcotic analgesic and anesthetic agent, and its analogue sufentanil were measured in human plasma by gas-liquid chromatography with a nitrogen-phosphorus detector and a packed column; the method was sensitive to 0.1 ng/ml of either compound.[97] Analysis

95. *See* Clark and Hajar, *Detection and Confirmation of Cocaine by Chromatographic Analysis for Methylecgonine in Urine*, 33 CLINICAL CHEMISTRY 118 (1987).

96. Thompson, *supra* note 25.

97. Gillespie, Gandolfi, Maiorino & Vaughan, *Gas Chromatographic Determination of Fentanyl and its Analogues in Human Plasma*, 5 J. ANALYTICAL TOXICOLOGY

of saliva was performed for Δ^9-THC by gas-liquid chromatography, using a coated capillary column and a ^{63}Ni electron capture detector; the method was linear for Δ^9-THC concentrations of 5-250 nanograms/ml with a detection limit of 1 ng/ml.[98]

Modern gas chromatographs are sophisticated and reliable instruments. Certain aspects of GC assays, such as sample injection and detector response measurement can be automated and thus standardized. Because of its wide applicability to the analysis of many drugs, gas chromatography is an attractive and useful technique. For the analysis of volatile organic compounds, especially that of ethyl alcohol in biological samples, automated headspace gas chromatography is the method of choice.[99] However, gas chromatography is labor intensive, requires substantial instrument upkeep and careful attention to analysis conditions, and is subject to subtle changes such as column deterioration which can imperceptibly alter the analysis results over time. Further, gas chromatograms can only be "run" one at a time, sequentially, on any one instrument. These characteristics make GC very useful for analysis of single specimens, especially when many analytes are of interest, but decrease its usefulness as a primary technique for screening tests. It must also be recognized that the retention time (or index) of a GC peak is the principal (and often only) identifying criterion yielded by the technique and relied upon by the analyst. Like the spatial Rf criterion yielded by TLC, the retention time does not yield absolute and unequivocal identification of an unknown peak, even by comparison with authentic standards, controls, and internal standards. No one knows how many dozen, hundreds, or thousands of other chemical compounds can or will have an identical retention time, peak shape, and detector response if present in the sample and amenable to the extraction procedure used. Phrased differently, the identification of a presumed analyte by typical GC indices such as retention time or retention index is distinctly an assumption. The retention time is not a unique, reproducible physical characteristic of the chromatographed component under specified analysis conditions, but rather an experimental observation which is highly dependent upon the operating con-

---

133 (1981).

98. Maseda, Hama, Fukui, Matsubara, Takahashi & Akane, *Detection of* Δ^9-THC in Saliva by Capillary GC/ECD After Marijuana Smoking, 32 FORENSIC SCI. INT'L 259 (1986).

99. *See* K. DUBOWSKI, MANUAL FOR ANALYSIS OF ETHANOL IN BIOLOGICAL LIQUIDS Report No. DOT-TSC-NHTSA-76-4 (HS 802 208) (1977).

ditions and instrumental parameters of that particular analysis run.

The universe of possible identities of a given GC peak can be greatly reduced by several alternate approaches, at additional effort and/or time: simultaneous "splitting" of the injected sample onto two GC columns which contain different packings or coatings and hence result in significantly different retention times and altered order of emergence for a given series of analytes; chemical derivatization to yield altered chromatographic properties; trapping of GC effluents corresponding to peaks of interest and their examination by other chemical or physical means, such as infrared spectrometry or mass spectrometry. A recent review of drug-use screening by capillary column gas chromatography has been published.[100] The reviewers concluded by suggesting "caution against assigning identities on the basis of retention behavior."[101] A vast literature on gas-liquid chromatographic analysis of drugs has accumulated since introduction of the technique by James and Martin in 1951, and it is not feasible to address this further herein.

H. *High Performance Liquid Chromatography*

High performance liquid chromatography (HPLC) was originally called high-pressure liquid chromatography because its moving phase, a liquid, is typically under pressures of 0.2-15 mPa (29-2175 lb./in^2). The technique is quite analogous to gas-liquid chromatography, except that the drug or other analyte passes through the separating system while undergoing equilibration between two liquid phases rather than between a gas and a liquid phase as in GLC. Again, a separational column is the heart of the system. The primary system output is also the time it requires the drug to traverse the HPLC column under a given set of solvent pressure, solvent flow rate, temperature and other operating parameters and conditions. The principal characteristic sought for a given HPLC system is its high resolution, namely unequivocal separation of a solute mixture into its individual components. HPLC is an efficient separational procedure for liquids or substances which can be dissolved in liquids to become solutes. As in other chromatographies, there is a stationary phase, the inert packing in the column, and a mobile phase, the pressurized solvent liquid. A dissolved

100. *See* deZeeuw, Bogusz, Franke & Wijsbeek, *Drug Screening by Capillary Column Gas Chromatography*, ADVANCES IN ANALYTICAL TOXICOLOGY 41 (1984).

101. *Id.*

sample or other comparable liquid sample is forced to flow through the column under high pressure and upon arrival at the column outlet is detected by an appropriate detector. The elution time from sample injection to detector response signal is the identifying characteristic of the analyte. Under defined conditions and within certain limitations, the quantitative detector response, which can be optical or electrical, is a function of the concentration of the separated analyte causing the response. Thus, HPLC can be used as a qualitative or quantitative analysis technique. Interaction of the solute with the mobile and stationary phases can be manipulated through different choices of column packing, solvents, and operating conditions, making HPLC a very versatile separational procedure.

The essential components of a typical HPLC system are one or more pumps, an injector, a column, one or more detectors, and a readout device such as an electronic strip-chart recorder or electronic integrator. High pressures are required to move the mobile phase through the column because the stationary phase, the column packing, is composed of micron-sized (10^{-6} meter) particles which offer substantial resistance to fluid flow. As an injected sample moves from the column inlet through the column, interactions of the sample components occur with the stationary and moving phases, resulting in differential separation of the components as they elute from the column in a sequence which reflects their identity and chemical characteristics as well as those of the column and solvents. Often, changes in composition of the mobile phase are required during an analysis; and use of two or more solvents in changing proportions over time may be required, a technique called solvent gradient programming.

Optimization of the separations is achieved by fine-tuning of phase selection and manipulation of operating parameters. Four basic types of liquid chromatography are employed: 1) Separation of solute molecules based on size or shape differences, called size exclusion chromatography; 2) equilibration of solutes between mobile and stationary phases on the basis of differences in dissolving power of one phase over another, defined as partition chromatography, dependent on molecular polarity; 3) ion-exchange chromatography, interactions based on differences in electrical charge of molecules or ions; and 4) adsorption chromatography, a liquid-solid interaction of the solute components with polar surface alumina or silica gel column packings using nonpolar solvents. In theory, all molecules differ from one another in size or shape, polarity, or charge and one or another of the above four liquid chromatography approaches should be able to effect adequate

quires some pretreatment, although this can usually be simpler than that required for gas chromatography. Another advantage of HPLC, compared to GLC, is that polar drugs which require derivatization for GLC systems can be analyzed by HPLC with only minimal prior manipulation, such as direct extraction of analytes.

In general, HPLC applications to drug testing have been for analysis of a specific analyte rather than as screening tests for all drugs of interest, because analysis conditions need to be selected and optimized for a given drug or drug class, such as opiates. Recent drug analysis compilations include numerous HPLC procedures for many individual drugs of abuse.[102] Likewise, recent methodological compilations devoted to one class of drugs, the cannabinoids, include details of HPLC analyses for those drugs.[103] Among many examples, HPLC has recently been applied to determination of Δ^9-THC and its metabolites in urine. This was achieved by combining HPLC using an ultraviolet light detector with radio-immunoassay,[104] and to determination of the 9-carboxy acid of Δ^9-THC, its principal urinary metabolite, by HPLC with electrochemical detection.[105] In the latter study, HPLC with a cutoff of 20 nanograms/ml urine confirmed presence of cannabinoids in 92.1% of 63 urine specimens which had yielded positive results by homogeneous enzyme immunoassay with an EMIT d.a.u. test at a 75 ng/ml cutoff. Four of five unconfirmed EMIT positives were negative by all three confirmatory procedures used. Benzoylecgonine, a major metabolite of cocaine, was determined in urine by HPLC, using reversed-phase ion pair chromatography and an ultraviolet light detector at a 50 nanograms/ml cutoff concentration, with a 20 ng/ml lower detection limit.[106]

---

102. *See* R. BASELT, ANALYTICAL PROCEDURES FOR THERAPEUTIC DRUG MONITORING AND EMERGENCY TOXICOLOGY (1980); 3 METHODOLOGY FOR ANALYTICAL TOXICOLOGY (I. Sunshine ed. 1985).

103. *See* CANNABINOID ANALYSIS IN PHYSIOLOGICAL FLUIDS (J.A. Vinson ed. 1979); THE ANALYSIS OF CANNABINOIDS IN BIOLOGICAL FLUIDS, NIDA RESEARCH MONOGRAPH 42 (R. Hawks ed. 1982).

104. *See* Peat, Deyman & Johnson, *High Performance Liquid Chromatography-Immunoassay on Delta-9-Tetrahydrocannabinol and Its Metabolites in Urine*, 29 J. FORENSIC SCI. 110 (1984).

105. *See* Isenschmid & Caplan, *A Method for the Determination of 11-Nor-Delta-9-Tetrahydrocannabinol-9-Carboxylic Acid in Urine Using High Performance Liquid Chromatography with Electrochemical Detection*, 10 J. ANALYTICAL TOXICOLOGY 170 (1986).

106. Svensson, *Determination of Benzoylecgonine in Urine from Drug Abusers Using Ion Pair High Performance Liquid Chromatography*, 10 J. ANALYTICAL TOXI-

As these studies illustrate and because of the characteristics of HPLC discussed above, it is most useful as an analysis method for a given analyte in individual biological specimens or as a confirmatory technique. Further advances in HPLC technology, such as exploitation of a diode array visible/ultraviolet light spectral detector, which allows taking a complete UV-visible spectrum at several points on an eluting peak, may allow more universal application as initial drug-use screening tests.

I. *Mass Spectrometry*

Mass spectrometry (M/S) as a chemical analysis technique involves the electron or chemical ionization and subsequent fragmentation of molecules, and the determination of the mass to charge ratios (m/z) and of the relative abundances of the ions which are produced. From the known chemical structure of a molecule, especially its functional groups, it is possible to predict the fragmentation pattern likely to be produced under a given set of M/S conditions. Conversely, from the fragmentation pattern, it is possible to suggest a plausible structure of the original molecule. Under appropriate conditions, the molecular weight of the analyte can be determined and forms a key item of identifying information. In many, but not all, instances an unambiguous identification of an unknown substance can be made from a single adequate mass spectrum. Mass spectrometry is thus often highly selective, if not totally specific, and is capable of achieving sensitivity to the picogram (10^{-12} gram) level. Accordingly, mass spectrometry when combined with a suitable form of chromatography (e.g., gas chromatography or high performance liquid chromatography) is generally considered to be the most conclusive technique presently available for identifying drugs or metabolites in biological specimens.[107] However, the instrumentation required is complicated, complex, and expensive. Furthermore, the data handling and analysis components of a M/S system can also be very costly. Both routine operation and maintenance of a mass spectrometer, and especially M/S data interpretation and trouble shooting are distinctly specialized activities calling for a high order of technical competence and skill and extensive chemical knowledge.

Mass spectrometry can produce qualitative results, identifying the

---

COLOGY 122 (1986).

107. *See* DEPARTMENT OF HEALTH AND HUMAN SERVICES *supra* note 31; *see also* Williams v. Secretary of the Navy, 787 F. 2d 552, 555 (1986).

questioned analyte, or quantitative results, identifying it and establishing its concentration in the original biological specimen. A basic mass spectrometer consists of five major components, plus a data handling system which can be simple or complex and at present is most often, in essence, a dedicated micro or minicomputer: 1) A sample inlet splitter inclusive of high vacuum pumps; 2) a sample ionization source and chamber; 3) an ion separation system usually employing either a magnetic sector or a quadrupole filter; 4) an ion detection and signal amplification device; and 5) an output display and recorder. Each component can take many forms and alternatives and is subject to limitations imposed by operating conditions such as the reduced pressure required, typically 10^{-6} torr, temperature, etc. Depending upon its ability to separate analytes into groups of ions of different mass to charge (m/z) ratio, a mass spectrometer can be of low, medium or high resolution. The two principal means of producing ionization for drug-use testing are electron impact ionization and chemical ionization. In the former, the vaporized sample is bombarded with a stream of high energy electrons and the excess energy absorbed causes fragmentation of the molecule to produce both positive and negative ions in predictable patterns. In the latter, the vaporized sample is mixed with a large excess of a reagent gas such as methane or isobutane and then bombarded with high energy electrons. The reagent gas undergoes preferential ionization and produces chemically reactive ion species, such as CH_5^+ in the case of methane, which subsequently react with the sample molecules to produce new ions predominantly with a mass one unit greater than the original molecular weight. These quasi-molecular ions become the most prominent ion in the spectrum — the so-called base peak. Electron impact and chemical ionization techniques are complementary, and the trend is toward employing both in critical identifications. Separation of analyte ions is accomplished by one of several alternate means such as acceleration and deflection along a circular path, and ions with a particular m/z value are thus collected and their identity and abundance are recorded.

Many different modes of operation are possible in mass spectrometry. One can record a "full scan" mass spectrum which provides a complete mass spectrum for each sample component which enters the M/S inlet. If there is a sufficiently high quantity of analyte present, the complete mass spectrum will yield the most conclusive identification in a pattern essentially unique for every compound and hence often referred to as a "chemical fingerprint." It provides data on the kind, size, and stability of structural groups in the parent molecule from presence of

the parent (base) ions and dissociation fragments produced from the base molecule by the ionization process along cleavage lines which usually occur at a few weak chemical bonds. A mass spectrometer can also be operated in the selected ion monitoring mode in which the mass spectrometer monitors the ion currents at only a few peaks which are characteristic of the drug or metabolite of interest. This mode is often used as a highly selective form of gas chromatographic detector; it has much higher sensitivity than the full scan spectrum mode, but provides a correspondingly less specific pattern for identification.

In practice, all mass spectrometric operations are technical compromises. Electron impact ionization (EI), for example, provides a more complex and complete mass spectrum than chemical ionization and hence can be more useful and more certain for identification of analytes. Chemical ionization (CI), on the other hand, is often more sensitive and can thus detect and measure lower concentrations of analytes at some sacrifice in specificity because CI mass spectra contain fewer peaks and are, therefore, generally less unique than EI mass spectra. Some methods of chemical ionization are relatively selective with respect to what compounds are ionized, resulting in reduction of potential interference from other components of the original biological sample or other contaminants. Another variant, negative ion chemical ionization mass spectrometry, can form negative clusters of ions, for example (Molecule + Cl)$^-$ with certain classes of compounds with high electron affinity such as those detectible by electron capture gas chromatography. An increase in mass spectrometric sensitivity of several orders of magnitude[108] over positive ion techniques is thus possible, and is particularly useful when the sample quantity is limited.

The recording and presentation of mass spectrometric analysis results and the interpretation of such data is a complex undertaking. The basic procedure is detection of ions during a scan and measurement of their intensities. The signals obtained are proportional to the number of ions (abundance) of the particular mass to energy (m/z) ratio. Interpretation involves comparison of the instant experimental data with those obtained under supposedly identical instrumental conditions with known compounds, reaching educated conclusions, based on experience, on the chemical entities which yield the kind of pattern obtained in the instant analysis. Many manipulations of data are possible with modern data storage and transformation systems and procedures, e.g., subtrac-

108. An *order of magnitude* is a range of values which extends from any value to 10 times that value. For example, 1000 is 2 orders of magnitude greater than 10.

tion of background to yield "clean" mass spectra, reconstruction of total ion current traces as a function of time (analagous to a gas or liquid chromatogram), and weighted abundance ratio computations for various peaks and peak pairs characteristic of a target analyte.

Because mass spectrometry requires a relatively clean sample separated from undesired matrix components and in gaseous forms, gas chromatography is a very useful preliminary sample separation step before mass spectrometry. The resulting instrumental combination called gas chromatography/mass spectrometry efficiently combines the separating capabilities of GC with the high sensitivity and relative specificity of mass spectrometry. The GC/Ms combination is, therefore, at present the leading analysis technique combination when certainty of identification is at issue. Other instrumental combinations are feasible, for example, HPLC sample cleanup and separation can usefully precede mass spectrometry, with appropriate interfacing of the two instruments to accommodate the high vacuum and solvent discard conditions. It is also evident that an analysis method as sensitive as mass spectrometry places great demands upon proper sample preparation and pretreatment steps to extract the target analytes from biological specimens as completely and cleanly as possible.

Proposals have been made to combine mass spectrometry with mass spectrometry — to perform tandem mass spectrometry (MS/MS) using mass separation in lieu of chromatographic separation, followed by a second step of mass spectral analysis.[109] That proposal became viable with the development of a triple quadruple mass spectrometer capable of operating in three modes — neutral scan loss, daughter scan, and selected reaction monitoring. The system allows initial indication of presence of analytes in a given drug class, followed by acquisition of complete daughter spectra for confirmation of drug identity.

Once again, a massive technical literature exists on mass spectrometry applied to forensic science applications including drug analysis.[110] Many of the references previously cited in this article include data obtained by mass spectrometry for a variety of drugs, including

---

109. *See* Brotherton & Yost, *Determination of Drugs in Blood Serum by Mass Spectrometry/Mass Spectrometry*, 55 ANALYTICAL CHEMISTRY 549 (1983).

110. *See, e.g.* Finkle, Foltz & Taylor, *A Comprehensive GS-MS Reference Data System for Toxicological and Biomedical Purposes*, 12 J. CHROMATOG. SCI. 304 (1974); R. MARTZ, DRUGS AND RELATED COMPOUNDS (1977); CRC HANDBOOK OF MASS SPECTRA DRUGS (I. Sunshine & M. Caplis ed. 1981); AN EIGHT PEAK INDEX OF MASS SPECTRA OF COMPOUNDS OF FORENSIC INTEREST (R. Ardrey ed. 1983); CLARKE'S ISOLATION AND IDENTIFICATION OF DRUGS (A. Moffat 2d ed. 1986).

amphetamines,[111] cannabinoids,[112] cocaine,[113] opiates,[114] phencyclidine,[115] and other drugs. A recent comprehensive review of analysis of cannabinoids in biological specimens by gas chromatography/mass spectrometry has also been published.[116] Among other useful data, it documents lower detection limits of GC/MS assays for cannabinoids in plasma at concentrations down to 0.1 nanograms/ml for the 9-carboxyl metabolite of Δ^9-THC and 0.2 ng/ml for Δ^9-THC, using electron capture negative ion chemical ionization mass spectrometry.[117] More typically, a GC/MS lower detection limit of 0.5 ng/ml for the 9-carboxyl metabolite of Δ^9-THC in urine is found at a signal-to-noise ratio of 3:1.[118] A practical review of the application of GC/MS assays to abused drugs in body fluids was published in 1980 and briefly, but usefully presents the state-of-the-art at that time, most of it still pertinent.[119] In addition to GC/MS assay of the drugs listed immediately above, that review also covers assay of diazepam and its metabolites, mescaline, methadone, methaqualone, and phencyclidine.

Because a special mythology has arisen around mass spectrometry, especially gas chromatography/mass spectrometry, some cautionary closing comments seem indicated. Mass spectrometry and its GC/MS and HPLC/MS applications are indeed powerful and effective analytical tools for drug-use testing. Their complexity is mirrored in the great demands these methods make on analysts and interpreters of the data output. These analysts and interpreters must possess high levels of skill, competence, attention to detail, experience with these techniques and the particular instrument systems in use. Furthermore, these analysts

---

111. *See* Suzuki, *supra* note 20.

112. *See, e.g.* INTRODUCTION TO FORENSIC TOXICOLOGY, *supra* note 4; U.S. DEPARTMENT OF DEFENSE, *supra* note 5; O'Connor & Regent, *supra* note 53; Frederick, *supra* note 89; Hanson, *supra* note 83; Spiehler & Sedgwick, *supra* note 87; Vereby, *supra* note 88.

113. *See* Thompson, *supra* note 25; Spiehler & Sedgwick, *supra* note 87.

114. *See* Spiehler & Sedgwick, *supra* note 87.

115. *Id.*

116. *See* Foltz, *Analysis of Cannabinoids in Physiological Specimens by Gas Chromatography/Mass Spectrometry*, ADVANCES IN TOXICOLOGY 125 (R. Baselt ed. 1984).

117. *Id.*

118. McBurney, Bobbie & Sepp, *GC/MS and EMIT Analyses for Delta-9-Tetrahydrocannabinol Metabolites in Plasma and Urine of Human Subjects*, 10 J. ANALYTICAL TOXICOLOGY 59 (1986).

119. *See* GC/MS ASSAYS FOR ABUSED DRUGS IN BODY FLUIDS, NIDA RESEARCH MONOGRAPH 32 (A. Fentiman & R. Foltz ed. 1980).

must be aware of pitfalls and shortcomings of the techniques in general and the instant analysis in particular. The competence of the analyst and interpreter are thus both indispensable and nonmodifiable components of every GC/MS or HPLC/MS analysis. The adequacy of such assays can only be assessed, upon subsequent review, when full and complete disclosure is made of all pertinent instrument parameters and analysis conditions, results of positive and negative control analyses contemporaneous with those of any unknown sample(s), and full mass spectra, together with the applicable chromatograms, calibration data, and related analysis details. When an analysis for drugs and/or metabolites in biological specimens is competently and properly performed in all respects by adequately experienced and competent personnel and with appropriate instrumentation in good working order, that analysis represents the pinnacle of current technology applicable to this problem. In a January 27, 1987 letter to manufacturers of devices for drugs of abuse screening tests, the Food and Drug Administration included the following statement: "All positive tests should be confirmed by an independent and more specific method. Gas chromatography/mass spectrometry (GC/MS) is the confirmatory method of choice."[120]

V. Technology: Quality Assurance Practices

"Quality assurance" is the umbrella term often used in laboratory practice, especially in clinical laboratories and chemical laboratories, for programs of activity designed to control the identifiable and measurable factors which can affect laboratory test results, in order to ascertain and enhance the laboratory's performance and related aspects such as specimen collection. Two of its major components are quality control and quality assessment, and each will be briefly considered. Most of the concepts and techniques discussed below were originally developed and highly refined for clinical chemistry laboratories. Such laboratories regularly produce large amounts of data, chiefly quantitative data on the identity and concentration of designated target analytes such as normal or abnormal components of body fluids. Those activities are quite similar to drug-use testing in many regards and the pertinent quality assurance literature compiled for clinical chemistry and toxicology applications will also be largely applicable to drug-use

120. Letter of K. Mohan, Ph. D., Office of Device Evaluation, Food & Drug Administration (Jan. 27, 1987).

testing.[121] Quality assurance activities do entail substantial costs and efforts, but are indispensable for proper laboratory management and control. Ordinarily, about 20% of a laboratory's total efforts should be devoted to quality assurance activities, and 10% is probably the lowest acceptable level of such activities.

A. *Quality Control*

Quality control encompasses all systems, techniques, and procedures used to promote and assure validity and reliability of the laboratory work output. The laboratory work output generally takes the form of information. In drug-use testing, that information is ordinarily the absence or presence, identity and concentration of commonly abused drugs and/or their metabolites in human biological fluid specimens. Effective quality control requires stringent compliance with written protocols developed in advance on all relevant aspects of laboratory involvement with the specimen, not merely the analysis method. Clearly, sampling, specimen treatment and storage, actual analytical procedures and measurements, calibration, raw data observation and recording, subsequent data treatment, and result formulation and analysis interpretation are one key set of elements of those protocols. More general details on such subjects as records and reports, maintenance of apparatus and instruments, quality control testing, internal verifications, and laboratory safety together constitute the basis of good laboratory practices (GLP) in a formal sense. GLP standards have been promulgated for some laboratories subject to Federal regulation, such as those engaged in conducting chemical studies under the Toxic Substances Control Act and regulated by the U.S. Environmental Protection Agency[122] and those engaged in non-clinical laboratory studies of drugs under the Federal Food, Drug and Cosmetic Act and regulated by the Food and Drug Administration under its Toxicology Laboratory Monitoring Pro-

121. *See* QUALITY ASSURANCE PRACTICES FOR HEALTH LABORATORIES (S. Inhorn ed. 1978); QUALITY ASSURANCE IN HEALTH CARE: A CRITICAL APPRAISAL OF CLINICAL CHEMISTRY (R. Rand ed. 1980); Field, *Quality Assurance and Proficiency Testing*, INTRODUCTION TO FORENSIC TOXICOLOGY 182 (R. Cravey & R. Baselt ed. 1981); Taylor, *Quality Assurance of Chemical Measurements*, 53 ANALYTICAL CHEMISTRY 1588A (1981).

122. *See* ENVIRONMENTAL PROTECTION AGENCY *Toxic Substances Control: Good Laboratory Practice Standards (Final Rule)*, Fed. Reg. 48, 53922-53944 (Nov. 29, 1983).

gram.[123] These and other GLP standards adopted by some professional and trade groups in the laboratory field[124] are broadly applicable to drug-use testing laboratory operations, with some indicated modifications concerning personnel qualifications. Typically, they deal with such subjects as organization of the laboratory, personnel, operational procedures, facilities, laboratory instrumentation and calibration, reference samples, records and reports, laboratory safety, specimen handling and storage, and laboratory regulation and control by government agencies.

Adequate documentation is the core requirement for all quality control activities, and is essential for any meaningful review of operations and performance capability. Such records can be general or specific. The former include, for example, personnel rosters with inclusive dates of employment, title, and assignment for all laboratory personnel. Such records are essential, in combination with time-off and leave data, to establish what analysts and assistants were associated with or in a position to be associated with or have access to a given specimen, if subsequent challenge requires that determination. Specific record keeping extends to details such as instrument maintenance and repair logs with brief but meaningful entries reflecting problems and actions taken in response to them, and preparation and expiration dates for all reagents, usually by appropriate labeling of all stock reagent containers. An up-to-date methods manual covering all aspects of the analysis process for any given analyte or set of analytes is indispensable. For every method in use, the documentation should include procedural details, calibrations, reagent stability, use of blanks, standards and controls, literature references to the method, performance characteristics of the type listed in Tables 3 and 5 as determined within the laboratory, and data on other relevant performance issues such as recoveries of added analytes and interferences. Changes in any of the foregoing information, such as modifications or updates, should be dated and signed by the responsible laboratory supervisors and director.

The issue of laboratory results recording is more difficult. A complete records retention system should entail retention for the usual legal retention period, commonly seven years, of all "raw" data worksheets,

---

123. *See* FOOD AND DRUG ADMINISTRATION, *Good Laboratory Practice Regulations (Proposed Rule)*, Fed. Reg. 49, 43530-43537 (Oct. 29, 1984).

124. *See* AMERICAN COUNCIL OF INDEPENDENT LABORATORIES, QUALITY ASSURANCE: A LABORATORY MANAGEMENT PRACTICE MANUAL (1986); ASSOCIATION OF OFFICIAL ANALYTICAL CHEMISTS, QUALITY ASSURANCE PROCEDURES FOR ANALYTICAL LABORATORIES (F. GARFIELD ED., 1984).

including the first written or instrument-printed record of instrument readout values, analyst observations and measurements. Many modern instruments only yield final result values, after internal raw data treatment, and computerized data collection and treatment without permanent raw or intermediate data storage is common. Whatever original records do exist should be retained for a reasonable time period. A separate, permanent set of records should be maintained on results obtained in all internal and external proficiency testing. For all instances showing inadequate performance in such proficiency testing or in the analysis of known control specimens, the documentation should also reflect remedial or corrective actions taken and subsequent adequate performance.

One very pertinent example of such quality control records is the so-called control chart. It is basically a graphical record, over a fixed time span such as one month, of the laboratory's results in planned repetitive (say, daily) analyses of a homogeneous, stable pool of control samples for any given analyte. By comparison of daily results with the precision data for the particular analysis, one can readily see developing trends such as drift of the result values, and can at once note excursions beyond the control limits. The latter are usually the mean of the pool specimen concentration plus and minus 2 standard deviations of the mean, constituting the limits within which the measurement values are expected to lie 95% of the time for an analysis with Gaussian distribution of deviations. Upper and lower limits of 3 standard deviations from the mean represent the 99.7% confidence level. Individual result departures from the former are warning of possible trouble, consistent or frequent departures from the former indicate problems needing attention; and result departures beyond the latter ± 3 standard deviations limits signal need for immediate corrective action. Modifications of the limits on the basis of actual measurement experience with the method and incorporating routine results is permissible.

B. *Quality Assessment*

Quality assessment denotes all systems, techniques and procedures used as the mechanism to determine how the laboratory performs its functions, especially with respect to production of its routine laboratory test results. Because of the methods and procedures generally available for this purpose, such as open internal and external proficiency testing on readily recognizable specimens, the information typically produced in quality assessment activities tends to document only the best per-

formance of which a laboratory is capable. That is so because activities involving proficiency testing are perceived by laboratory personnel to be tests of their own and their analytical systems' competence and capabilities, and they devote extra care and attention to such proficiency tests and to other control analyses — often to the extent of additional or unique tests or procedures not used with routine specimens. Clearly then, if the results of proficiency tests are unsatisfactory, routine tests are not likely to have been carried out better during the interval under examination. Conversely, satisfactory performance in open proficiency testing, that is, the analysis of specimens clearly identified as proficiency test or quality control materials, does not in itself assure that routine testing performance was equally acceptable.

There are a variety of methods which can be used for quality assessment of laboratory performance. Some of them are replicate analysis of split specimens within a given analysis run or between different analysis runs, interchange of analysts, instruments and methods or combinations of these with comparison of the results thus obtained, periodic inspections, and, of course, internal and external proficiency testing programs. The term proficiency testing (PT) has come to be applied, in clinical and forensic laboratory practice, to routine participation by a number of laboratories in a program of analyzing, on a pre-established regular calendar basis, sets of specimens whose composition and target analysis values are established by an external organization or unit and are unknown to the individual participant laboratories or unit until after their respective results have been obtained and reported.

The programs are sometimes mandated by governmental agencies as part of licensure schemes and provided free of cost to participant laboratories or, more often, are conducted on a subscription basis by or under the sponsorship of professional organizations such as the American Association for Clinical Chemistry, the College of American Pathologists, the American Association of Bioanalysts, and the Forensic Sciences Foundation. The specimens, each containing one or more target analytes, are typically mailed quarterly in sets of four to eight, with results required to be submitted by participant laboratories within one or two weeks, followed by compilation and statistical data treatment of all submitted results and distribution of these compilations, often accompanied by critiques of the analysis methods reportedly used and the results obtained.

The target values and statistically valid acceptability limits for participant results are usually determined by one or both of two meth-

ods. A sufficiently large group of qualified referee laboratories performs analyses of identical specimens in parallel with the participant laboratories and the statistically acceptable referee laboratory results are used to establish target values and limits. Alternatively, when the participant laboratories group is sufficiently large and diverse, the test results from all reporting laboratories are combined and subjected to statistical data treatment, such as elimination of "outlier"[125] values,[126] with final results means and precision limits (e.g., mean ± 2 standard deviations to include 95% of all expectable values) established from the remaining data base. Each laboratory can then compare its independently obtained results with those of the group, and with those of other individual laboratories when the participant group is small enough to allow reporting of all reported result sets as well as the combined result statistics.

There are, of course, many technical considerations in developing and operating proficiency testing programs. Examples are deciding on natural versus synthetic matrices for drugs, specimen stability problems inclusive of chemical preservatives which can potentially interfere with some analysis procedures, establishment of lower drug concentration limits to separate negative from positive reports on some uniform basis, and problems of unintentional drug contaminants in a natural human urine matrix pool which includes drug-containing urine.

The sources of external proficiency testing programs for drug-use testing are diverse. Some long-standing specialized programs have been operated for blood-alcohol analysis by several states as part of their laboratory licensure activities and by the Transportation Systems Center of the U.S. Department of Transportation. The Centers for Disease Control (CDC) of the U.S. Department of Health and Human Services conducted a proficiency testing program for drugs-of-abuse screening laboratories from 1972 through 1981.[127] The College of American Pathologists has sponsored a series of toxicology "survey" programs since 1971. Beginning originally with programs using urine specimens for drugs-of-abuse testing and serum specimens for clinical

---

125. An *outlier* can be intuitively defined as an observation in a set of observations which deviates so greatly from the rest as to arouse suspicion it was generated by a different mechanism, as judged by its failure to fit within statistically established limits.

126. D. HAWKINS, IDENTIFICATION OF OUTLIERS (1980).

127. *See* Boone, Guerrant & Knouse, *Proficiency Testing in Clinical Toxicology: Program Sponsored by the Centers for Disease Control*, 1 J. ANALYTICAL TOXICOLOGY 147 (1977).

toxicology (overdose) testing, the current (1987) CAP surveys program includes a quantitative Blood-Alcohol Survey, a Urine Toxicology Survey designed for proficiency testing of qualitative urine screening tests for commonly abused drugs and drugs encountered in overdose situations, and a Toxicology Survey which includes both clinically oriented urine and serum samples with simulated patient information. The American Association for Clinical Chemistry sponsors a series of Laboratory Improvement Programs, or Survey Plus Programs, which include proficiency testing in both therapeutic-drug monitoring, and toxicology with urine and serum specimens. Typically such programs enroll several hundred laboratories, although the number of clinical laboratories which engage in one or more aspects of toxicological analysis has been estimated at several thousand. A special proficiency testing program for drug-use testing laboratories was under development in early 1987 and was to be operated by or on behalf of the National Institute on Drug Abuse, or with its approval, as part of a Federal Government initiative for accreditation of drug testing laboratories.[128]

The data base obtained from these several proficiency testing programs in toxicology is now very large. Simple estimates based on the frequency of shipment and number of PT samples per shipment distributed, the typical number of target analytes included (4-8 per specimen) and the number of participants in the major programs for the past 15 years or so indicate that several million individual results have been reported by the participant laboratories. The usual quarterly reviews or critiques of these surveys or proficiency testing programs distributed to all participants for more than 15 years now make interesting reading. They reveal trends and progress in drug-use testing as well as in other areas of toxicological analysis, show continued overall improvement in the accuracy, precision, sensitivity, and specificity of toxicological analyses and reflect the changes attributable to the introduction and use of new analysis technologies and of commercially available reagents and test systems. They also continue to demonstrate problems and pitfalls, and a consistent residue of false-positive and false-negative results, as well as sometimes unacceptably wide variation in the reported drug concentrations in the quantitative surveys. No single analysis technique or method has a monopoly on errors or omissions or is excluded from them — all can yield incorrect or unacceptable results in some hands,

128. *See* NATIONAL INSTITUTE ON DRUG ABUSE, DRAFT STANDARD FOR ACCREDITATION OF LABORATORIES ENGAGED IN URINE DRUG TESTING (1987).

and all methods and techniques have yielded incorrect results.[129]

The general trends and some specifics of the findings in open proficiency testing of laboratories performing drug-use tests and other toxicological analyses have been reported periodically.[130] Because of the impact of advances and changes in analytical toxicology, availability of new and additional standards and control materials and related factors, reports of laboratory performance several years old cannot readily be extrapolated to reach valid conclusions concerning the current scene, much less the recent or current performance of any given laboratory or its individual analysts. The best source for such evaluations of the overall field and state-of-the-art is the current PT programs critiques issued after each survey by the American Association for Clinical Chemistry LIP Program, the College of American Pathologists Toxicology Resource Committee, and other proficiency test sponsors. All program subscribers receive those critiques and usually keep them on file for educational purposes.

For documented information concerning a given laboratory's best performance capabilities at a given time, an excellent source is that laboratory's file of its proficiency testing reports to the sponsors of the PT programs in which that laboratory participated at the time. The PT programs usually acknowledge the reports received by the program by a dated official notification to the participating laboratory, which may also contain the target values for the specimens concerned, or by incorporating them by code number into a list of all participants and referee laboratory results received by the program, together with the statistical data treatment summaries. All drug-use testing laboratories should

---

129. A complication in proficiency test result assessment is that incorrect reports cannot be distinguished from errors in analysis or in interpretation. The explanation is, therefore, often advanced that an erroneous PT report merely reflected an inadvertent reporting error, such as a misplaced decimal point or incorrect identification entry by analyte number. The end result of such errors is the same - an incorrect report. There is every reason to believe that such reporting inadvertences are not limited to proficiency testing.

130. *See, e.g.*, Dinovo & Gottschalk, *Results of a Nine-Laboratory Survey of Forensic Toxicology Proficiency*, 22 CLINICAL CHEMISTRY 843 (1976); Gottheil, Caddy & Austin, *Fallibility of Urine Drug Screens in Monitoring Methadone Programs*, 236 J.A.M.A. 1035 (1976); Shoemaker, Klein & Sideman, *Drug Abuse Proficiency Testing in Pennsylvania 1972-1976*, 1 J. ANALYTICAL TOXICOLOGY 130 (1977); Mason, *Some Realities and Results of Proficiency Testing of Laboratories Performing Toxicological Analyses*, 5 J. ANALYTICAL TOXICOLOGY 201 (1981); Peat, Finnigan & Finkle, *Proficiency Testing in Forensic Toxicology: A Feasibility Study*, 28 J. FORENSIC SCI. 139 (1983).

maintain and retain readily available files of this information. Acceptable performance capability can thus be easily demonstrated at a relevant time in the event of subsequent inquiry or challenge.

Absence of this information justifiably raises the suspicion that the laboratory was not performing acceptably or did not participate in any relevant proficiency testing program. Either situation is, in itself, cause for concern. Certainly, laboratories involved in drug-use testing should be participating in such external PT programs for their evaluation and educational uses, given the ready availability and modest cost of such programs. Failure to participate successfully in available pertinent external proficiency testing programs in each laboratory specialty or subspecialty in which a laboratory offers and is approved to perform tests, for example toxicology activities such as drug-use testing, is also a violation of Federal licensure requirements for those laboratories operating in interstate commerce and regulated under the Clinical Laboratory Improvement Act of 1967 or those approved for Coverage of Services under the Social Security Administration's Medicare Program.[131] It may also be a violation of state regulatory requirements which exist in about twenty states.

The recognized shortcomings of "open" proficiency testing on identified PT specimens have brought about suggestions that "blind" proficiency testing be instituted[132] because of suppositions that some laboratories are not subjecting open PT samples to the same testing procedures as their routine samples. Pilot studies on blind proficiency testing of drug-use testing laboratories were carried out by the Centers for Disease Control in 1973 and 1975 and the findings compared with results on identical PT specimens openly mailed to the same laboratories.[133] Additional blind PT studies of drug-use testing laboratories

---

131. *See* Conditions for Coverage of Services of Independent Laboratories, 42 C.F.R.§ 405.1310-405.1317 (1986); Clinical Laboratories Improvement Act of 1967, 58 Stat. 702 (1967); Clinical Laboratories, 42 C.F.R. § 74, subpart E "Proficiency Testing" (1986).

132. *See* Mason, *supra* note 130; Jain, Sneath & Budd, *Blind Proficiency Testing in Urine Drug Screening: The Need for an Effective Quality Control Program*, 1 J. ANALYTICAL TOXICOLOGY 142 (1977); La Motte, Guerrant & Lewis, *Comparison of Laboratory Performance with Blind and Mail-Distributed Proficiency Testing Samples*, 92 PUBLIC HEALTH REP. 554 (1971); Boone, Hansen & Hearn, *Laboratory Evaluation and Assistance Efforts: Mailed, On-Site, and Blind Proficiency Testing Surveys Conducted by The Centers for Disease Control*, 72 AMERICAN J. PUBLIC HEALTH 1364 (1982).

133. *See, e.g.*, La Motte, Guerrant & Lewis, *supra* note 132; Boone, Hansen &

were conducted by the Centers for Disease Control in 1978, 1980, and 1981 and by a university medical center in 1976. Such studies are difficult to design, conduct and evaluate because of the need to involve one or more surrogate "client" sources to introduce the blind PT samples into the laboratory among routine specimen submissions without the tested laboratory's knowledge, and because these PT specimens must be both well characterized and not readily recognizable. Optimal study design will also provide for open PT testing of the same laboratories, at the same time, with identical but labeled PT samples, so that the respective performances on open and blind proficiency testing can be compared.

In 1985, the Centers for Disease Control published the results of the six 1973-1981 blind PT surveys mentioned above, involving the testing of a total of 53 laboratories, a sample constituting about 12% of the 450 toxicology laboratories enrolled in the CDC/NIDA proficiency testing programs operated 1972-1981 for drug-use testing laboratories mainly serving methadone treatment centers.[134] The results of an elaborate blind proficiency testing study conducted by the CDC in 1981 and included in the above report are particularly interesting and striking. It remains the single largest relevant study on blind proficiency testing of drug-use testing laboratories, with the possible exception of routine blind proficiency testing of military laboratories. The military laboratories' results have not been published. Because of space limitations, only two sets of excerpted data are shown in Table 6 and Table 7, on the laboratory performance of 13 laboratories, serving a total of 262 methadone treatment centers, in analyzing both drug-positive and drug-negative samples from blind and open PT surveys.

Hearn, *supra* note 132.

134. *See* Hansen, Caudill & Boone, *Crisis in Drug Testing: Results of a CDC Blind Study*, 253 J. A.M.A. 2382 (1985).

Table 6. Comparison of Reported Laboratory Performance Drug-Positive and Drug-Negative Samples in Open and Blind Proficiency Testing Surveys Conducted by CDC in 1981.[135]

	Drug-Positive PT Samples				Drug-Negative PT Samples			
	Open Survey		Blind Survey		Open Survey		Blind Survey	
Drug or Drug Class	Mean CRR %	CCR Range %	Mean CRR %	CCR Range %	Mean CRR %	CCR Range %	Mean CRR %	CCR Range %
Amphetamines	96	92-100	31	0-81	99	97-100	97	63-100
Barbiturates	98	92-100	41	6-89	100	98-100	100	94-100
Cocaine	98	87-100	36	0-100	100	98-100	99	94-100
Codeine	91	68-100	45	0-100	99	95-100	99	93-100
Methadone	100	97-100	88	67-100	100	98-100	88	34-100
Morphine	89	69-100	38	0-95	98	92-100	98	90-100

CRR = Correct Response Rate

The average number of challenges per laboratory was 28-61 for a given drug class and all laboratories surveyed were able to detect the drug analytes at the minimum reporting concentrations established by the CDC/NIDA program, as evidenced by their performance in the openly-mailed surveys. The most striking and troubling contrasts are those appearing in columns 2 and 4 of Table 6, and the data in column 9. For whatever reason, the overall average reported performance in analyzing drug-positive samples was greatly inferior in the blind survey to that in the open survey. However, the overall average reported performance in analyzing drug-negative samples was only slightly inferior in the blind survey to that in the open survey. Even so, any unrecognized false-positive result is unacceptable in drug-use testing if actions affecting individual tested subjects are to be taken on the basis of those results. Further, substantial rates of false-negative results, such as the 0-100% rates shown in Table 6, are also unacceptable failures, in the public interest, for a system designed to differentiate drug presence from drug absence.

135. *Id.*

As is expectable, the CDC blind proficiency testing report[136] has been greeted with dismay, disbelief, and skepticism by the laboratory community. However, the pattern of findings is similar for all reported blind PT studies, in such respects as the magnitude of error rates found by CDC and other investigators. The CDC investigators concluded on the basis of the statistical design of the 1981 blind PT study that only 0-50% of the surveyed laboratories had demonstrated acceptable performance in the analysis of drug-containing samples shown in Table 7 for each of the six drug classes tested.

Table 7. Laboratories with Acceptable Performance† in Analyzing Drug-Positive Samples in the 1981 CDC Blind Proficiency Testing Survey.[137]

Drug or Drug Class	Number of Laboratories	Per Cent of Laboratories with Acceptable Performance
Amphetamines	12	0
Barbiturates	11	9
Cocaine	11	9
Codeine	13	15
Methadone	12	50
Morphine	13	8

†Acceptable performance (with P $\geqq$ 95%) was considered a false-negative rate of 5% or less; unacceptable performance (with P $\geqq$ 90%) was considered a false-negative rate of 25% or more (both in laboratories subjected to at least 29 positive challenges for a given drug or drug class)

136. *Id.*
137. *Id.*

A possible explanation for the much higher false-negative than false-positive percentages with the open and blind PT samples is the apparent failure of CDC to include appropriate metabolites together with the corresponding parent drug in the PT specimens, causing some laboratories to render negative reports because of the absence of the expected metabolite indications on thin-layer chromatographic tests. On the open PT survey, the laboratories may also have been further influenced by the PT program policy of penalizing a false positive report more heavily than a false negative report. It is a matter of further interest and concern that little change occurred in the reporting patterns on PT samples over nearly a decade, despite the obvious advances in analytical toxicology which had occurred. It is troubling that the data in Table 6 indicated false-positive error rates from 6 to 66% in some laboratories for the six drugs or drug categories listed, on blind PT samples, and from 2 to 8% even on open PT samples.

It is difficult to escape three conclusions, based on the reported blind PT studies: 1) That routine drug-use testing was far from universally adequate and acceptable during the period covered by those studies; 2) that laboratories appear to have treated open and blind PT samples differently; and 3) that blind proficiency testing is an indispensable, practical, and objective tool for monitoring the performance of drug-use testing laboratories. At least the last two conclusions remain equally binding today. In the writer's opinion, periodic on-site inspections by trained and qualified inspectors are also a necessary part of any regulatory and accreditation scheme for drug-use testing laboratories. From the foregoing information and considerations, it is evident that even some of the most highly motivated and most conscientious laboratories and laboratorians can and do produce erroneous results on occasion. Consequently, any given routine drug-use test cannot be regarded as infallible at today's state-of-the-art and practice. Only a full program of effective and comprehensive quality assurance practices can be expected to reduce the number, frequency, and magnitude of laboratory errors. Thus, both economic and technological factors are involved in improving the practice of drug-use testing to bring routine performance closer to the best feasible testing.

VI. Significance and Interpretation of Test Results

Interpretation of the results of drug-use testing is a multi-stage process. At minimum, the process includes the following elements:

* Verifying the actual laboratory findings
* Establishing the validity of the findings.
* Determining the significance of the findings.
* Resolving inconsistent results or findings.

These activities constitute the "payoff" of the entire preceding drug-use testing process and carry with them correspondingly greater responsibility.

The interpretation of drug-use testing results differs in several key aspects from that of the more familiar clinical laboratory tests. The testing process is often arcane and can in many respects be essentially unique to the testing laboratory rather than a set of standard, widely used and understood procedures and methods with well-established characteristics. Intermediate testing stages, observations and findings in drug-use testing are often undocumented. The results are not predictably within relatively narrow physiological limits for the sex, age, and race of the tested subject, as is true in clinical laboratory testing, in which "abnormal" findings are usually well correlated with the known diagnosis and clinical picture. Most clinical chemistry test results, for example, are highly predictable. Every living person will have a serum potassium or blood pH value within relatively narrow limits, with admittedly meaningful but narrow fluctuations. That is not so in drug-use testing. The analyst cannot predict whether a urine specimen will or will not contain the drugs or drug metabolites being searched for, or other relevant (or irrelevant) drugs. The ultimate user of drug-use testing results is commonly not familiar with the testing methodology used, or with its limitations and pitfalls, or with alternative causes for certain results, or with the statistical probabilities of reaching false-negative or false-positive results by any given analysis technique or testing method.

For these reasons, and others, the proper interpretation of the results of drug-use testing requires a particular expertise which is not widely available at present. The interpreter must have proper qualifications and experience in the pertinent areas of analytical toxicology inclusive of drug-use testing. Furthermore, the interpreter must possess an adequate understanding of the physiology and clinical chemistry of biological specimens, knowledge of the pharmacology and pharmacokinetics of abused drugs, and an adequate working knowledge of the relevant forensic science and legal aspects. Few persons possess these combined qualifications, because the need for such individuals and the opportunities for such professional activities have in the past

been limited. Most forensic toxicologists certified by the American Board of Forensic Toxicology would qualify, as would most persons certified in Toxicological Chemistry by the American Board of Clinical Chemistry. Beyond these few hundred persons, qualified interpreters will have to come from the ranks of otherwise qualified biomedical scientists and physicians whose basic knowledge and experience in their primary field has been supplemented adequately by training and experience in the remaining areas enumerated above. Doctor Irving Sunshine's frequent exhortation "Caveat Interpretor!"[138] is especially well placed in the interpretation of drug-use testing results.

A. *Validity and Accuracy of the Analytical Results*[139]

It is clearly helpful in assessing the validity and reliability of drug-use testing as analytical findings to know what the laboratory can expect to find with reasonable frequency and regularity. Direct, published data on this subject are scarce and should be supplemented by the analysis experience currently being gained by laboratories engaged in such testing on a large scale. Meanwhile, the data included in a 1985 article are useful. The support laboratory of a manufacturer of drug-use testing products analyzed approximately 1000 urine specimens received between September 1983 and January 1984 from 29 clinical laboratories which submitted up to 76 consecutive urine specimens which had been found to be positive for substances other than caffeine and nicotine. The total number of drugs detected in 1000 urine specimens was 3014, and 100 different drugs were identified by thin-layer chromatography, homogeneous enzyme immunoassay and a few other procedures.[140] Table 8 shows the 30 drugs most commonly detected in that study.

---

138. METHODOLOGY FOR ANALYTICAL TOXICOLOGY 7 (I. Sunshine ed. 1975).

139. *See St. Matthew* 5:37 ("But let your communication be, Yea, yea; Nay nay: For whatsoever is more than these cometh of evil.").

140. Jones, Adams, Martel & Rousseau, *Drug Population in One Thousand Geographically Distributed Urine Specimens*, 9 J. ANALYTICAL TOXICOLOGY 125 (1985).

Table 8. The 30 Drugs Most Commonly Detected in 1000 Urine Specimens from 20 Submitting Clinical Laboratories, 1983-84.[141]

Rank	Substance	Number of Detections	Rank	Substance	Number of Detections
1	Nicotine	498	16	Codeine	40
2	Benzodiazepines	293	17	Cimetidine	37
3	Acetaminophen	293	18	Methadone	37
4	Cannabinoids	187*	19	Doxepin	35
5	Salicylates	164	20	Phenytoin	34
6	Caffeine	156	21	Quinine	34
7	Opiates	129	22	Meprobamate	29
8	Phenothiazine Metabolites	92	23	Triamterene	29
9	Ephedrine	88	24	Desipramine	26
10	Triptylines	86	25	Butalbital	24
11	Phenylpropanolamine	76	26	Hydroxyzine	23
12	Phenobarbital	67	27	Flurazepam Metabolites	19
13	Diphenhydramine/ dimenhydrinate	59	28	Phenolphthalein	19
14	Benzoylecgonine/cocaine	43	29	Meperidine	18
15	Propoxyphene	42	30	Imipramine	16

*886 Urines Tested

The specimen sources, largely from clinical laboratories, and the analytical methodology employed (e.g., a lower detection limit of 25 ng/ml of urine for cannabinoids and omission of tests for ethyl alcohol) imposed some limitations and special features on these findings. However, it is interesting to compare them with the data in Table 1 supra, to match the identities and frequencies of the drugs encountered with the urine drug-test results. The 30 drugs and metabolites listed in Table 8 constitute 86.8% of total drug identifications in the above study, and the most commonly detected 50 drugs covered 95% of total identifications; cannabinoids were found in 21% of the tested urine speci-

141. *Id.*

mens.[142] Other studies and this author's experience in the analysis of urine specimens from trauma patients in hospital emergency rooms/trauma centers indicate that about 25-28% of those specimens will yield positive results for cannabinoids at a cutoff concentration of 25 ng/ml.[143]

Quantitative result statements and the use of cutoff values to establish a threshold for the positive/negative result decision deserve separate consideration. Drug-use testing does not subscribe to the categorical "zero level" approach which has been used, for example, for deciding upon acceptability of food additives which have been shown to be capable of inducing cancer in man or experimental animals. Under that approach, there is no permissible concentration or quantity of such an additive. In an analogous drug-use testing approach, a valid and correct finding of even one molecule (or in practice the minimally detectible number of molecules) of a target drug or drug metabolite would constitute a positive result. Instead, drug-use testing employs a "bright-line" threshold of impermissible target analyte concentration as the discriminative value; often it is very arbitrarily arrived at in a given drug-testing program. For some drugs, the detectability limits and corresponding cutoff values are at present in the microgram (10^{-6} grams)/ml range, for others in the nanogram (10^{-9} grams)/ml range. By some state-of-the-art techniques, picograms (10^{-12} grams) or femtograms (10^{-15} grams) of specific analytes can be detected. These are truly needle-in-the-haystack searches. Trying to detect a target analyte at concentration of 1 microgram per milliliter (i.e., one millionth of a gram/ml) is equivalent to trying to locate one particular inch in a total distance of 15.8 miles, or to trying to isolate one particular second in a total elapsed time of 11.6 days. Detecting a target analyte at a concentration of 1 nanogram per milliliter (i.e., one billionth of a gram/ml) is equivalent to seeking one particular inch in a total distance of 15,783 miles (or about 63% of the earth's circumference), or isolating one particular second in a total elapsed time of 31.8 years. One can readily calculate the distance and time analogies for the picogram/ml (trillionth of a gram/ml) concentrations of, say, fentanyl and fentanyl analogues detectible in plasma after administration of those compounds to human subjects.[143.1] They border on the incomprehensible.

---

142. *Id.*

143. *See* Peat, *supra* note 53.

143.1 Gillespie, *Gas Chromatographic Determination of Fentanyl and its Analogues in Human Plasma*, 5 J. ANALYTICAL TOXICOLOGY 133 (1981).

Establishing the analytical validity, i.e., correctness or accuracy, of a quantitative or semi-quantitative result or other numerical analysis outcome of a drug-use test, therefore, requires consideration not only of what it is possible to achieve under ideal analysis conditions, but also what was probable to the requisite degree of certainty under the actual conditions of the sample analysis under consideration. One reasonable approach would be to calculate the range of concentrations which 95% of a sufficiently large number (20 or more) of replicate analyses at the nominal cutoff value would have yielded. That range corresponds to the mean of those replicate results plus and minus two standard deviations of the mean, for results which follow a Gaussian distribution obtained by an analysis method with zero bias. If the analysis result of the unknown sample numerically exceeds the nominal cutoff value by at least two standard deviations and if the mean of the cutoff value replicates coincides with the nominal cutoff value, one can validly state that (1) the unknown sample concentration did exceed the results which would have been yielded by 95 out of 100 samples identical to the cutoff; (2) that the unknown sample concentration of the target analyte was, therefore, greater than the cutoff value to a 95.4% probability; and (3) that the result is positive to a 95.4% probability. Put differently, 4.6 samples of 100 thus designated as positive should properly have been called negative. If one wants statistical assurance that only 3 out of 1000 identical samples (99.7%) which would yield analysis results equal to or greater than the cutoff value have concentrations below the nominal cutoff value, the unknown analysis result must equal or exceed the nominal cutoff value by 3 standard deviations, in addition to absence of systematic error analysis bias in the test used. Hence, 3 samples of 1000 thus designated as positive by the established cutoff value criterion should really have been designated as negative. If the analysis method does have a positive or negative bias, i.e., a systematic error, the corresponding correction must first be applied to the unknown analysis result by subtracting or adding a value reflecting the analysis bias (difference between the actual target concentration and the mean result) before subtracting the value equal to two (or three) standard deviations of the mean. However, these simple projections apply only to Gaussian result distributions following the well-known bell-shaped pattern.

To illustrate application of these principles, consider the data on analysis of diazepam (a widely used and abused benzodiazepine prescription drug) in serum in a recent routine proficiency test conducted by the College of American Pathologists. Of the 193 responding par-

ticipant laboratories, 148 (76.7%) correctly identified diazepam in the serum sample, and 77 of these laboratories reported quantitative analysis results as follows (in micrograms/ml): Mean = 0.52; S.D. of the mean = 0.19; Range = 0.2-1.1.[144] To simplify matters, also assume that the target value (weighed-in drug concentration) was approximately 0.5 mcg/ml and that the participant mean result of 0.52 mcg/ml was the actual diazepam concentration, meaning that the analysis methods employed had no systematic error or bias at that concentration. If we then designate 0.5 mcg/ml (=500 ng/ml) as the positive/negative cutoff value, which is feasible because diazepam is detectible in serum by several methods at concentrations of 0.3 mcg/ml or less, the reported laboratory result data yielded the following picture.

The diazepam concentration which exceeds the 0.50 mcg/ml cutoff by 2 standard deviations is 0.8 mcg/ml; and only 6 of the 77 reported quantitative results should have been called positive for diazepam with a 95.4% probability of conforming to the 0.5 mcg/ml cutoff value. The number of participant results reported as equal to or greater than 0.5 mcg/ml was 50 of the 77 reported results. The participant laboratories thus reported 27 results at less than the cutoff concentration, which would presumably have been called negative relative to a 50 mcg/ml cutoff, whereas by appropriate statistical data treatment 71 of those reported results should have led to a "negative" report for diazepam. In this example, only 35.0% of all results would have been "negative" by simple matching to the cutoff value, whereas 92.2% should have been designated as negative at the 95% confidence level. Of the 77 reported quantitative results, 57 (or 74%) were in the range of 0.4-0.6 mcg/ml, i.e., within approximately 20% of the overall mean result. That is commendable performance for clinical toxicology purposes, but does not warrant the universal or nearly-universal practice of designating as positive all samples whose instrument response in a single screening test exceeds the response of a single calibrator at the nominal cutoff concentration. Reported data for other drug tests are comparable.

These considerations call for endorsement of the requirements incorporated into the "Draft Standards for Accreditation of Laboratories Engaged in Urine Drug Testing" promulgated by the National Institute on Drug Abuse in January 1987[145] that accredited laboratories

144. TOXICOLOGY RESOURCE COMMITTEE: SET T-A TOXICOLOGY 1986 SURVEY 6-7 (1986)(College of American Pathologists).

145. DRAFT STANDARDS FOR ACCREDITATION OF LABORATORIES ENGAGED IN

state the cutoff concentrations employed for all positive/negative result reporting and report the actual drug concentrations found by confirmatory methods for all positive results in a mandatory proficiency test program. The statistical evaluation process described above for deciding upon the analytical validity of a positive/negative result designation is comparable to the "systematic approach to detection limits" and the so-called "critical level" or "criterion of detection" described in a recent symposium on detection limits held by the American Chemical Society.[146] It deserves emphasis that even in an analysis by a method which has no systematic error or bias, every result can be either higher or lower than the stated result by virtue of the random variance associated with experimental error or fluctuation of the analysis precision. The confidence interval[147] approach discussed above, in much simplified manner, guides the positive/negative result decision making in the light of the actual performance characteristics of the test method used and also indicates the amount of uncertainty which still cannot be ruled out. If the latter is large enough to be unacceptable, different decision criteria must be used, e.g., an actual cutoff equal to the nominal cutoff concentration plus three deviations of the mean for replicate analyses at the nominal cutoff to yield a 99.7% probability of the result exceeding the nominal cutoff. For many routine decisions, confidence levels of 95% or 99% are commonly used, but these limits may be inadequate for drug-use testing results, depending upon their consequences.

Similar considerations should apply to use of Rf values for determining the identity of an analyte in thin-layer chromatography, but the actual calculation of Rf values for unknown samples and standards is rarely performed in initial drug-use testing by TLC. Instead, analysts most often simply rely upon pattern recognition by visual inspection of the chromatogram, using the position of a spot or spots yielded by the unknown sample and their appearance after one or more visualizing treatments as the criteria for putative identification. After-the-fact review of such analysis results by the interpretor is difficult and limited by the continuing changes, such as color changes and/or fading, which thin-layer chromatograms undergo. The reviewer must consider presence or absence of the expectable TLC patterns produced by the me-

---

URINE DRUG TESTING (National Institute on Drug Abuse, Jan. 1987).

146. S.A.B.: *Detection Limits* 58 ANALYTICAL CHEMISTRY 986A (1986).

147. The *Confidence Interval* is a range of values, the extremes of which are termed confidence limits, within which - with a specified degree of confidence - the true value of a population parameter is believed to lie.

tabolites of the suspected drug, the extent and degree of interference by normal physiological sample components which co-extract with the target drugs, the appearance and masking effect of incidental TLC manifestations by such irrelevant drugs as caffeine or nicotine, and many other factors. Any doubts thus arising should be resolved in favor of a negative result report, or lead to reanalysis of the unknown sample by other methods of adequate selectivity, or specificity, for the suspected analyte.

Putative confirmation of presence and identity of a target analyte in, say, a urine specimen by an alternate analysis method is a required step in drug-use testing. However, this is in itself not a guarantee of a correct final result. Documentation of the actual incidence of misidentifications and otherwise incorrect result reporting in routine testing is difficult to obtain. Hence, recourse is usually had to the results of proficiency testing to indicate such problems, with the recognized limitation that open proficiency testing generally indicates only the best performance of which participating laboratories are capable. A few findings abstracted from a 1986 Urine Toxicology Survey (i.e., proficiency test) conducted by the College of American Pathologists for voluntary subscribers are interesting and pertinent. Three synthetic urine specimens containing, in total, 13 drugs or drug metabolites and openly identified as PT specimens were sent to the participants. The number of participants responding varied from 148 to 502 for different drugs or drug categories; there were 541 subscribers to the UT Survey series. For these three samples with their 13 challenges, there were 203 false positive reports overall, many of which had reportedly been confirmed by methods using different analytical principles than the initial (screening) tests, including gas chromatography, high performance liquid chromatography, and gas chromatography/mass spectrometry. False positive reports and misidentifications within a drug group, reportedly confirmed by GC/MS, included nortriptyline and other tricyclic antidepressants, propoxyphene, quinine, butalbital, pentobarbital, phenobarbital, glutethimide, pentacozine, methaqualone, nordiazepam, and codeine. These and other drugs such as cannabinoids were also incorrectly reported as present by participants using other confirmation techniques than GC/MS. Most false positives and misidentifications were, in fact, obtained by laboratories using TLC or commercial TLC kits. If all 502 respondents had submitted one report for each of the 13 challenges (which they did not), a total of 6,526 results would have been reported. Hence, the least false positive result percentage for this

survey[148] would be (203/6,526) x 100 = 3.1%. Obviously, the actual proportion of false positives among the results reported is different, but its magnitude is not readily apparent because of overlaps and gaps in result reporting by participants. False negative results were more frequent than false positives, and were method-dependent, with TLC yielding the highest proportion of false negatives.

The assessment of the accuracy and validity of the analytical results relies partly upon establishing whether the several required quality control procedures accompanying the test of the unknown sample yielded satisfactory results. Negative and positive controls should yield unequivocally negative and positive results, respectively, for the target analyte. Blank results should be within pre-established limits of acceptability for the instrument response involved, e.g., nonspecific RIA count, or other analysis outcome, and so spaced between unknown specimens as to assure absence of "carry over" contamination from a preceding positive sample. If the analysis is quantitative, the several calibrators should yield instrument responses or final results which are mutually consistent and are linear beyond the lowest and highest values for unknown specimens included in the run. Replicate analyses on the same sample should yield acceptably coincident results, e.g., within 5% of each other. Overall, there should be documentation showing all relevant test parameters to be within the allowable tolerances, and absence of recognized abnormalities of the sample or the testing system which could cause test aberrations.

Validation of findings also calls for examining the key specimen characteristics which should have been observed, measured, and recorded as a preliminary to the chemical analysis. For urine specimens, these examinations are designed to detect evidence of dilution, adulteration by additives such as salt or bleach, or decomposition. The commonly observed urine specimen characteristics are its color, appearance (transparency or cloudiness), odor; those measured routinely are its pH, and specific gravity. The findings should be within expectable physiological limits if the sample is unadulterated and suitable for analysis. The pH (a measure of the hydrogen ion concentration and hence acidity or basicity) of fresh urine normally varies from 4.8 to 8.0, the mean being about 6. Stale urine is alkaline as the result of ammoniacal fermentation or bacterial decomposition of urea. The specific gravity (i.e., ratio of the density of urine to that of water at the same temperature)

148. TOXICOLOGY RESOURCE COMMITTEE: SET UT-C URINE TOXICOLOGY 1986 SURVEY 1-6 (1986).

of random specimens of urine from subjects with normal fluid intake normally varies from 1.010 to 1.025. With deprivation of fluids, a specific gravity of 1.030 is attainable; with consumption of large volumes of fluids, a specific gravity of 1.001 can be reached. Values higher than 1.030 to 1.040, corrected for temperature, suggest presence of increased amounts of solutes, which could be physiological substances such as glucose or protein, or deliberately added adulterants such as sodium chloride. If there is doubt that the specimen is urine or is undiluted, its osmolality or creatinine concentration can be readily measured; normal urine specimens typically have an osmolality of 500-900 mOsm/kg (in the fasting morning urine) and a creatinine concentration of about 0.55 to 2.5 mg/ml with 1.0 to 1.5 mg/ml as typical mean values. Thus, a urine osmolality much below 500 mOsm/kg or a urine creatinine concentration much less than 0.5 mg/ml can signify dilution of urine with water. If necessary in order to authenticate or identify a urine specimen, many other physical and chemical examinations can be performed in qualified hands. Measurement of the temperature of a urine specimen has been suggested at the time of initial collection to indicate recency of voiding and absence of dilution. Obviously, this is not a useful procedure for laboratory use on urine specimens received after collection elsewhere.

Technical details of "doping-control analyses" for the 1984 Los Angeles Olympic Games were recently published.[149] Aspects of quality control, analytical methodology, sample validation, verification of analysis results, and interpretation of drug-use testing results are described in detail. The procedures for verification of analysis results included repetition of the complete analysis of all samples positive for presence of prohibited drugs, simultaneous recheck of the analysis data on control samples, and confirmation of all positive results by gas chromatography/mass spectrometry. Less than 2% of the 1510 samples examined for over 200 analytes were found to contain substances banned by the International Olympic Committee.

Such a low prevalence (i.e., frequency of occurrence) of drug-positive results is typical of large-scale drug-use testing programs, and it affects the predictive value of positive and negative results when the test procedures are not perfect. If sensitivity and specificity of a test[150]

149. Catlin, Kammerer, Hatton, Sekera & Merdink, *Analytical Chemistry at the Games of the XXIIIrd Olympiad in Los Angeles, 1984*, 33 CLIN. CHEM. 319 (1987).

150. *See supra* note 40 and accompanying text.

were perfect, i.e., each is 100%, all positive results would be true positives and all negative results would be true negatives. However, as documented in this article and elsewhere, test results in practice usually have sensitivities and specificities less than 100% and are thus subject to error. In a population with low prevalence of drug use, few of the tested specimens will actually contain the drug searched for and many positive test results are likely to be false-positives. The probability that a positive result is a true positive increases with increased prevalence of drug presence in the tested specimens. The effect of the statistics of sensitivity and specificity on the predictive value of a positive result for several drug-use prevalences has been recently illustrated.[150.1] For a given drug-use test with 95% sensitivity and 95% specificity which is applied to specimens from a population with a 1.0 prevalence of use of the target drug, the predictive value of a positive result is only 16%; it rises to 28% for a population with a 2.0% prevalence of use of the target drug and to only 50% when the prevalence is 5.0%.[150.2] Increasing the specificity at the expense of the sensitivity will proportionately reduce the predictive value of negative results. These considerations call for thoughtful and conservative interpretation of the significance of both positive and negative test results.

B. *Significance of Test Results*

Adequate and competently performed verification of the analytical findings will yield, in general, unequivocal test results. They can then be reported, for example, as follows (some required report elements are omitted):

* The urine specimen identified above was tested for the following drugs and/or drug metabolites as the respective cutoff concentration (criterion for positive/negative result reporting) listed.

[Alphabetical list of analytes with corresponding cutoff concentrations]

The urine specimen was found to be negative for all above-listed drugs and/or drug metabolites, based on the cutoff concentrations listed above.

150.1. *See* Lundberg, *Mandatory Unindicated Urine Drug Screening: Still Chemical McCarthyism*, 256 J. AM. MED. ASSOC. 3003 (1986).

150.2 *Id. See also* Rosner, FUNDAMENTALS OF BIOSTATISTICS 51 (2d ed. 1986).

Initial (presumptive) testing was performed by (technique and method used) and confirmatory testing was performed by (technique and method used).

or

* The urine specimen identified above was tested for the following drugs and/or drug metabolites at the respective cutoff concentration (criterion for positive/negative results reporting) listed.

[Alphabetical list of analytes with corresponding cutoff concentrations]

The urine specimen was found to be positive for (alphabetical listing of all drugs and/or drug metabolites found present), based on the cutoff concentrations listed above.

Initial (presumptive) testing was performed by (technique and method used) and confirmatory testing was performed by (technique and method used).

The first-listed (negative) report exemplifies the simplest situation — none of the drugs and/or drug metabolites tested for were detected and the test results or urine specimens were, therefore, negative. Most, if not all, large-scale drug-use testing is carried out on batches of samples by using one of the screening test methods discussed above, and specimens thus found to yield negative initial or presumptive (screening) test results are usually not submitted to other testing. Such a testing scheme does not eliminate the presence of drugs or drug metabolites of interest, in the specimen or in the subject, with 100% certainty because of the limitations of the test methods, and because of the possible effects of physiological and pharmacological variables such as volume and pH of the biological fluid (especially urine), or drug dose, route, and time of administration. It does, in essence, establish that there is no indication to pursue any further the search for the contemplated analytes in the specimen under consideration. Therefore, a negative test result can arise from any of the following situations (assuming the tested specimen did originate from the designated subject):

* The subject did not use a drug encompassed in the testing scheme, or
* The subject did use a drug encompassed in the testing scheme, but the drug was not detected in the tested specimen, because
  * the dose of the drug taken was too small, or
  * the drug was used or last used too long ago, or
  * the drug was present in too low a concentration to be detectible by the tests used because of specimen dilution from high fluid intake, or pH effects or other physiological or pharmacological factors; or was present at less than the stipulated cutoff concentration, or
  * the tested specimen (e.g., urine) had been adulterated, diluted, tampered with, decomposed, or otherwise altered from its original neutral state, so as to produce negative results.

On its face, the second-listed (positive) report seems equally simple: Such and such a drug, or metabolite which a priori indicates intake of a given drug, was present in the specimen, as judged by preestablished analysis criteria, and was analytically confirmed. When an adequate and appropriate testing scheme works perfectly, such positive results will correctly reflect the presence of the drug or drugs indicated, within the limitations of the testing scheme and the statistical considerations discussed above. But the extension of that finding, however valid on its face, does not ipso facto equate with knowing and voluntary use of the drug(s) indicated by the positive test results. At least three situations can account for such positive results: 1) Actual use of the drug indicated by the test; 2) inadvertent, unintended, or even unknown consumption of or exposure to the identified drug (or a drug in that category); and 3) presence in the tested specimen of a substance, other than the identified drug or drug metabolite, to which the tests responded. The last-listed situation represents either a false-positive result if the substance responsible for the result was a physiological body fluid component or other non-drug entity; or at best a misidentification if the substance responsible for the result was a drug among the target analytes but not that drug identified by the drug test in issue, because of unrecognized cross-reactivity of an immunochemical test or other factors.

Testing which is limited to drug categories cannot ordinarily distinguish between actual drug misuse and the effects of medically indi-

cated prescription drugs in the same category. A common example is inability of initial immunochemical tests for opiates to distinguish between illicit use of heroin or morphine and prescribed use of codeine as a medical or dental analgesic. Even a validly confirmed test result for conjugated morphine can simply reflect metabolism of codeine.[151] Other examples abound. Likewise, some assays for the amphetamines group respond unintendedly to phenylpropanolamine, a common over-the-counter decongestant drug, and to phentermine, a prescription anorectic drug (appetite suppressant), among others. Such possibilities underlie the recommendation that all positive initial or screening test results be appropriately confirmed before a report is rendered. Suitably specific confirmatory testing will eliminate such interference phenomena from further consideration.

The second explanation for a correct positive test result is more complex. Detectible concentrations of target analytes in urine can result from unintended drug intake or exposure, if the cutoff concentration for positive/negative results is set low enough. Four examples of such "innocent" explanations for correct positive drug-test results will be described. The most widely debated such event is "passive" inhalation of marihuana smoke containing cannabinoids by a person not actively smoking marihuana, but inhaling ambient air in a confined environment, e.g., a small automobile, in the presence of persons who are actively smoking marihuana. Since the first publication of the finding of test results positive for cannabinoids following only "passive" inhalation of marihuana smoke,[152] a number of other investigations and studies of this phenomenon have been carried out. Substantial literature now exists on this topic, in addition to other extensive studies supported by and reported to the National Institute on Drug Abuse, the findings of which remain unpublished so far. The initial 1977 study involved a single "passive" marihuana smoker who achieved cannabinoids concentrations between 50 and 269 ng/ml in urine while living for several weeks in a closed research hospital ward in the presence of five regular heavy marihuana smokers. Measurable excretion of urinary cannabinoids began one week after the onset of the smoking period and peaked 15 days later, coincident with a "contact high" reported by the passive inhaler. Other studies have yielded varying results. Two of 80 urine

151. *See* Baselt, *supra* note 57.

152. Zeidenberg, Bourdon & Nahas, *Marijuana Intoxication by Passive Inhalation: Documentation by Detection of Urinary Metabolites*, 134 AM. J. PSYCHIATRY 76 (1977).

samples collected in the ensuing 24 hours from two nonsmoking subjects confined in a small area in the presence of four marihuana smokers yielded homogeneous enzyme immunoassay results exceeding the response of a 20 ng/ml calibrator.[153] Concentrations of Δ^9-tetrahydrocannabinol between 2.0 and 2.2 ng/ml were found in the plasma of a subject passively exposed to marihuana smoking, reaching a peak about 20 minutes after initiation of smoking.[154] Urine collected up to 6 hours after passive inhalation of marihuana smoke showed presence of cannabinoid metabolites at post-exposure concentrations of 0.4 to 6.8 ng/ml; the study authors commented that "this experiment clearly demonstrates that passive inhalation of cannabis smoke, under conditions similar to those met in social cannabis use, will lead to significant urinary cannabinoid concentrations of about 5 ng/ml."[155] In five healthy subjects who had previously never used marihuana, passive inhalation of marihuana smoke for 30 minutes in an automobile produced Δ^9-tetrahydrocannabinol concentrations in the blood higher than 13 ng/ml in four of the subjects.[156] Cannabinoids were also detected in the urine of these subjects by RIA and HEIA assays above 13 and 20 ng/ml, respectively.[157] These authors concluded that "the demonstration of cannabinoids in blood or urine is not unequivocal proof of active cannabis smoking."

Five men were passively exposed under controlled conditions to sidestream smoke for 4 and 16 marihuana cigarettes (containing 2.8% Δ^9-THC) for one hour each day for 6 consecutive days. The subjective efforts produced by the 16 cigarette exposure conditions were similar to those observed after active smoking of one 2.8% Δ^9-THC cigarette. Daily mean plasma concentrations of Δ^9-THC ranges from 2.4 to 7.4

---

153. Perez-Reyes, DiGuiseppi & Davis, *Passive Inhalation of Marijuana Smoke and Urinary Excretion of Cannabinoids*, 249 J. A.M.A. 475 (1983).

154. *See* Mason, Perez-Reyes, McBay & Foltz, *Cannabinoids in Plasma after Passive Inhalation of Marijuana Smoke* 249 J. A.M.A. 475 (1983); Perez-Reyes, DiGuiseppi, Mason & Davis, *Passive Inhalation of Marihuana Smoke and Urinary Excretion of Cannabinoids*, 34 CLIN. PHARMACOL. & THERAP. 36 (1983); Mason, Perez-Reyes, McBay & Foltz, *Cannabinoid Concentrations in Plasma after Passive Inhalation of Marijuana Smoke*, 7 J. ANALYT. TOXICOL. 172 (1983).

155. Law, Mason, Moffat, King & Marks, *Passive Inhalation of Cannabis Smoke*, 36 J. PHARM. PHARMACOL. 578 (1984).

156. Morland, Bugge, Skuterund, Steen, Wethe & Kjeldsen, *Cannabinoids in Blood and Urine after Passive Inhalation of Cannabis Smoke*, 30 J. FORENSIC SCI. 997 (1985).

157. *Id.*

ng/ml with an individual high of 18.8 ng/ml for the 16 cigarette conditions. HEIA cannabinoid assays of urine were positive with a 20 ng/ml cutoff for 4.6 ± 2.2 and 35.2 ± 3.8 urine specimens collected during the passive smoking exposure to 4 and 16 cigarettes, respectively. After passive inhalation exposure to 16 marihuana cigarettes, a mean of 6.5 ± 5.5 urine specimens were positive by HEIA at a 100 ng/ml cutoff.[158] The authors urged caution in interpreting results of urinary cannabinoid screening tests and concluded that "with sufficient time and high marijuana smoke exposure conditions, it becomes difficult to distinguish between active smoking and passive inhalation." Although there has also been denial that "passive" smoking or inhalation of marihuana smoke can yield measurable concentrations of cannabinoids in blood and urine, the foregoing and other studies[159] unequivocally document that cannabinoids can and do occur in blood and urine, in readily detectible concentrations, in subjects who have had only passive exposure to marihuana smoke. Accordingly, the possibility of passive marihuana smoke inhalation yielding a positive result for cannabinoids in blood or urine cannot be lightly dismissed, and alternative explanation for such positive results should receive appropriate consideration.

Claims are also occasionally made that positive urine cannabinoid test results were caused by inadvertent ingestion of cannabis or hashish in brownies or some other food. Several studies have established that such ingestion of marihuana or hashish can produce detectible concentrations of cannabinoids in body fluids and can produce the subjective effects of cannabis on the oral consumer of cannabis. Since the main excretory route for Δ^9-THC in man is via the bile, differences in the metabolism, effects, and elimination patterns of cannabinoids can be expected after ingestion of cannabinoids, compared to the usual route of administration by inhalation. Oral administration of 20 mg of Δ^9-THC in a chocolate cookie to 11 subjects produced distinctly individual patterns of cannabinoids concentrations in plasma as a function of time; some peak concentrations exceeded 10 ng/ml of plasma with peaks occurring typically about one hour after ingestion.[160] After inges-

158. Waterhouse, *A Passive Inhalation Study of Cannabis*. Reported at American Academy of Forensic Sciences Meeting, Cincinnati, Ohio (Feb. 18, 1983).

159. *Id.*

160. Agurell, Lindgren, Ohlsson, Gillespie & Hollister, *Recent Studies on the Pharmacokinetics of Delta-1-Tetrahydrocannabinol in Man* in THE CANNABINOIDS: CHEMICAL, PHARMACOLOGIC, AND THERAPEUTIC ASPECTS 165 (ed. S. Agurell, W. Dewey & R. Willette 1984).

tion, Δ^9-THC was detectible for more than 10 hours, and subjective "highs" were perceived by the subjects at about 120 to 240 minutes after the oral intake of Δ^9-THC, compared to those perceived a few minutes after intravenous administration or by smoking. Early studies indicated that the effects of ingestion of Δ^9-THC appear more slowly and last longer than those produced by smoking.[161] Following oral intake of a 5 mg dose of Δ^9-THC, urine cannabinoids concentrations in excess of 100 ng/ml were observed by HEIA tests, with a peak reached within 8-10 hours and reduction of the urine cannabinoids concentration below a 100 ng/ml cutoff within 24 hours in some subjects, while the urinary cannabinoids of others remained at or above a 100 ng/ml cutoff for more than one day.[162] After ingesting a dose of 20 mg of Δ^9-THC in the form of marihuana cooked in brownies, the urine of one of 5 subjects was positive for 2 days by HEIA testing for cannabinoids at a 100 ng/ml cutoff, and remained positive at the 20 ng/ml cutoff concentration for 5 days. Another subject who received 40 mg of Δ^9-THC orally in this form remained above a 100 ng/ml cutoff concentration for 5 days. All of the subjects felt and demonstrated notable effects from both the 20 and 40 mg doses of Δ^9-THC.[163] It is evident that ingestion of cannabis or cannabinoids, whether recognized by or unknown to the subject, can produce significant concentrations of cannabinoids in blood plasma and urine, comparable to those which result from smoking of marihuana. Such results are, of course, not false-positives but true positive results for cannabinoids from unanticipated sources.

Intake of such opiates as heroin, morphine, and codeine results in excretion of free and conjugated morphine in the urine. However, abuse of opiates has been denied by subjects whose urine specimens yielded positive test results for opiates, and the alternate explanation offered that these results were attributable to the eating of poppy seed. Poppy seeds and poppy seed oil are commonly used in food preparation, pastries, and various breads and rolls in the United States and Southern Europe. These seeds of the opium poppy (Papaver Somniferum) do

---

161. Ohlsson, *Plasma Concentrations of Delta-9-Tetrahydrocannabinol and Clinical Effects Following Three Routes of Administration*, 28 CLIN. PHARMACOL. THERAP. 409 (1980).

162. Law, *Forensic Aspects of the Metabolism and Excretion of Cannabinoids Following Oral Ingestion of Cannabis Resin*, 36 J. PHARM. PHARMACOL. 284 (1983).

163. E. Cone & R. Johnson, Personal Communication, *cited in* Willette, *Interpreting Cannabinoid Assay Results*, 4 SYVA MONITOR 1-6 (1986).

contain residual opiates; the morphine content was found to range from 4 to 200 mg/kg depending upon geographical origin, processing method, age, and perhaps other factors.[164] In one study 7 subjects ate one or two poppy seed cakes each of which contained about 5 mg of morphine. The urine was found to contain both free and conjugated morphine 3 and 15 hours after ingestion of the poppy seed cake; the total morphine concentrations in urine were 0.19 ± 0.04 mcg/ml at 3 hours and 0.08 ± 0.01 mcg/ml at 15 hours after ingestion of two poppy seed cakes.[165] When 9 persons ate poppy seed cake or freshly ground poppy seeds, maximum total morphine concentrations in urine of approximately 18 mcg/ml was found using RIA, HEIA, GC, and GC/MS procedures for analysis. The subjects all excreted maximal concentrations of urinary morphine between 3 and 5 hours after eating the poppy seed cake; after eating poppy seeds, they reached morphine concentrations of 18 mcg/ml and approximately 0.3 mcg/ml was still detectible 60 hours after the poppy seed ingestion. Codeine as well as morphine was detected in the urine.[166] These investigators concluded that "urinary morphine levels up to 5 mcg/ml due solely to poppy seed are realistically possible given the proper circumstances."[167] Three or four subjects who had eaten one poppy seed bagel yielded urine screening test positive for opiates by HEIA testing with a 300 ng/ml (0.3 mcg/ml) cutoff at 4¼, 5¼, and 6 hours after eating the bagel. All four subjects yielded positive screening test results at 2½, 3, 4½, and 6 hours after eating two poppy seed bagels and one subject's urine was positive at 12 hours; all positive results were confirmed by gas chromatography.[168] The urine morphine concentrations found in these studies after both minimal and substantial consumption of poppy seed-containing foods are at or up to 60 times higher than the typical 300 ng/ml cutoff concentration of morphine used to differentiate positive from negative results in screening tests for opiates using immunochemical assays. Attempts to identify opiates in urine which only originate from poppy seed ingestion have so far not been successful. These facts man-

---

164. Fritschi & Prescott, *Morphine Levels in Urine Subsequent to Poppy Seed Consumption* 27 FORENSIC SCI. INT'L 111 (1985).

165. Bjerver, Jonsson, Nilsson, Schuberth & Schuberth, *Morphine Intake from Poppy Seed Food*, 34 J. PHARM. PHARMACOL. 798 (1982).

166. Fritschi, *supra* note 164.

167. *Id.*

168. Chedekel, DePace & Patel, *Opiate Positive Urines Following Ingestion of One or Two Poppy-Seed Bagels*, ABSTRACTS OF THE 39TH ANNUAL MEETING OF THE AMERICAN ACADEMY OF FORENSIC SCIENCES 138 (1987).

date caution in attributing even properly confirmed drug-use testing results for morphine in urine solely to the taking of morphine or other opiates in conventional drug form. They also re-emphasize the need to include the cutoff concentrations used for positive/ negative result decisions for all target analytes in every drug-use test report.

Cocaine was termed in 1984 "currently the drug of greatest national concern, from a public health point of view,"[169] presumably because it has in recent years showed the highest continuing rate of increase in DAWN (emergency room visit data) mentions, overdose deaths, and serious clinical problems. Positive tests for cocaine or its major metabolite benzoylecgonine in urine are generally considered as indications of use of cocaine administered by the routes of nasal administration, inhalation by smoking, or parenteral administration by injection. However, positive test results for benzoylecgonine can also be produced by drinking of coca leaf tea. A product marketed in the U.S. under the trade name "Health Inca Tea"[170] has been available in many so-called health food stores. Although its ingredients are listed as "decocainized coca leaves," analysis of "Health Inca Tea" showed an average cocaine content of 4.5 mg per bag and analysis of "Mate de Coca" tea a mean cocaine content of 5.7 mg per bag.[171] When one cup of tea brewed from the first-named product was consumed by a volunteer subject, benzoylecgonine was detectible in the urine by gas chromatography/mass spectrometry for 29 hours after ingestion of the tea and a maximum urine benzoylecgonine concentration of 1274 ng/ml was reached two hours after ingestion.[172] Some immunochemical assays for cocaine metabolite employ benzoylecgonine concentrations of 100 or 300 ng/ml as the cutoff value. Both of those concentrations were exceeded in the urine of the coca leaf tea drinkers for more than 18 hours after ingestion, and the lower value was exceeded for more than 29 hours. These findings have been confirmed in studies by other investigators. Although "Health Inca Tea" is supposedly no longer actively marketed in the United States, these findings indicate that confirmed positive test results for cocaine metabolite in urine can be caused by

169. COCAINE: PHARMACOLOGY, EFFECTS AND TREATMENT OF ABUSE vii (J. Grabowski ed. 1984) (NIDA Research Monograph 50).

170. Note that the initials spell "HIT".

171. Siegel, ElSohly, Plowman, Rury, & Jones, *Cocaine in Herbal Tea*, 225 J. A.M.A. 40 (1986).

172. ElSohly, Stanford, & ElSohly, *Coca Tea and Urinalysis for Cocaine Metabolites*, 10 J. ANALYT. TOXICOL. 256 (1986).

ingestion of a commercial food product.

The foregoing examples of passive or unintended exposure to commonly abused drugs, or to those drugs in unconventional form in foods, serve to reinforce the point that even accurate positive test results for a given target drug or metabolite do not invariably indicate "drug use" in the conventional sense by the tested subject. The foregoing examples of findings are, of course, true positives for the respective drugs or metabolites. It is safe to assume that comparable sources for positive drug-test results will be discovered for other drugs if diligent searches are carried out.

Apart from these true-positive test results from unrecognized or unintended sources of the drugs involved, there are also many allegations that false-positive test results represent interference in initial or confirmatory tests by normal or abnormal physiological components of the tested biological fluids, most commonly urine. Some of these alternative explanation claims are quite ingenious. However, they are usually advanced in the news media without meaningful documentation.

One such allegation is the "melanin defense" for positive cannabinoids test results. Melanins are dark pigments responsible for the dark color of human skin and of hair, feathers and fur in animals. They are produced by certain tumors. Chemically they are derivatives of indole carboxylic acids. The claim is that blacks have more melanin and melanin degradation products than caucasians and other non-blacks and that, therefore, blacks excrete more melanin in their urine than non-blacks. One frequent witness for persons accused of marihuana use by virtue of positive urine tests for cannabinoids is quoted as claiming that such tests are biased against black persons, because according to him: "(1) blacks have more melanin, the chemical responsible for skin pigmentation, in their urine than whites; (2) melanin closely resembles the marijuana metabolite found in urine, THC-carboxylic acid — so closely, in fact, that it looks like THC even on a gas chromatograph coupled with a mass spectrometer, a highly accurate methodology known as GC/MS; (3) therefore, a drug test may be positive for a black only because he has a certain amount of melanin in his urine."[173]

The claims of interference with tests for cannabinoids by melanin and urinary serotonin metabolites were investigated by adding 5-hydroxy-indole-3-acetic acid, 5-hydroxy-indole-2-carboxylic acid, indole-

173. *The Melanin Defense, Debated by Woodford and McBay*, SUBSTANCE ABUSE REPORT, Dec. 1, 1986 at 3. Dr. Woodford advanced this melanin defense approach. Dr. McBay challenged the validity of Woodford's claim.

3-acetic acid and indole-3-butyric acid in concentrations up to 40 mcg/ml to urine specimens and subjecting them to previously published RIA, GC, and GC/MS procedures for cannabinoids analysis. None of the tested compounds showed any significant cross-reactivity to cannabinoids antibodies in the Roche Abuscreen Cannabinoid Assay, nor were the gas chromatographic or gas chromatograph/mass spectrometry analyses affected by the tested compounds.[174] The study authors concluded that "the concern that certain indole carboxylic acids, particularly melanin and serotonin metabolites, might interfere in the screening and/or confirmation of the THC-COOH in urine is totally unjustified."[175] Urine samples obtained from black subjects who claimed not to be cannabis users, and blank urine samples to which a maximal concentration of 40 mcg/ml of the first three indole compounds listed immediately above had been added, were tested with the EMIT d.a.u. Cannabinoid 100 ng, Cannabinoid 20 ng (MDH enzyme), and Cannabinoid 20 ng (G6PDH enzyme) Assays. All tests produced results considered negative in comparison to the respective 100, 20, and 20 ng/ml cannabinoids calibrators used to establish cutoff values, and none of the urine specimens obtained from the 12 black volunteers were found to be positive for cannabinoids by these assays.[176] The author concluded that "the relatively higher concentration of melanin compounds in the urine of black or darkly pigmented individuals will not result in false positive results when using any of the Syva EMIT d.a.u. Cannabinoid Assays.[177] In the absence of credible affirmative evidence in the scientific literature that melanins or other indole carboxylic acids interfere with any screening or confirmatory procedure for analysis of cannabinoids in urine, and in view of the cited published information to the contrary, such interference claims should be rejected at present.

A frequently avowed purpose of drug-use testing in industry is the detection of unacceptable drug effects — principally drug-induced impairment by psychoactive drugs which presumably creates workplace hazards to the drug user, other workers, property and other elements of the workplace environment. Such testing is often initiated when drug

---

174. ElSohly, Jones, ElSohly & Stanford, *Analysis of the Major Metabolite of Delta 9-Tetrahydrocannabinol in Urine. VI. Specificity of the Assay with Respect to Indole Carboxylic Acids*, 9 J. ANALYT. TOXICOL. 190 (1985).

175. *Id.*

176. ElSohly, *Melanin and EMIT Cannabinoid Testing*, 4 SYVA MONITOR 5 (1986).

177. *Id.*

involvement is recognized or reasonably suspected in association with the apparent impairment or intoxication of a worker while on the job, or when accidents occur involving personal injuries to the tested person or other parties or consequential property damage. Such accidents or events are said by some to constitute the "reasonable suspicion" of drug involvement which supposedly justifies probable-cause drug-use testing. In certain specific circumstances, such as train accidents or aviation accidents, post-accident toxicological testing may also be mandated by Federal regulations[178] or other statutory authority. There are also, of course, state and Federal laws[179] prohibiting the operation of motor vehicles by persons who are under the influence of alcohol or other drugs[180] or whose blood or breath concentrations equals or exceeds a given threshold. These laws and regulations and the situations to which they pertain are outside the scope of this article.

The following generalizations apply, with rare exceptions, to interpretation of the results of drug-use testing in the context of this article. Under the best of circumstances and with valid test results, the absence or presence and identity of those drugs for which appropriate testing has been performed can be established, in the tested specimen, with "reasonable scientific certainty" (in the legal usage sense of that term) and to some definable level of statistical probability. Presence or absence of drugs or drug metabolites in drug-use testing, as previously discussed and for practical reasons, is nearly universally not an absolute, but rather a relative pronouncement conforming to a pre-established set of decisional criteria for drug identity and concentrations. The concentration of any drug present in a tested specimen, at the time of the analysis, can also be determined to the same extent of certainty,

---

178. *See, e.g.*, Federal Aviation Administration, Use of Alcohol or Drugs, 50 Fed. Reg. 15,376-15,380 (1985): Federal Railroad Administration, Control of Alcohol and Drug Use in Railroad Operations; Final Rule and Miscellaneous Amendments, 50 Fed. Reg. 31,508-31,579 (1985); Federal Aviation Administration, Control of Drug and Alcohol Use for Personnel Engaged in Commercial and General Aviation Activities, 51 Fed. Reg. 44, 432-44, (1986).

179. *See, e.g.*, Anti-Drug Abuse Act of 1986; Subtitle T - Common Carrier Operation Under the Influence of Alcohol or Drugs; Title XII - Commercial Motor Vehicle Safety Act of 1986, Section 12008(a), Pub. L. 99-570 (1986).

180. The term "under the influence of drugs" is defined as follows in P.L. 99-570, the Anti-Drug Abuse Act of 1986 approved Oct. 27, 1986: "An individual shall be conclusively presumed to be under the influence of drugs if the quantity of the drug in the system of the individual would be sufficient to impair the perception, mental processes, or motor functions of the average individual." (Title 18 U.S.C., Chapter 17A §343).

if the appropriate analyses are performed. These are essentially factual findings of definable validity. Their significance is not equally clearcut and is greatly, or sometimes totally, dependent upon the reason for seeking the information and its contemplated use. If the mere presence or absence of any of a specified list of drugs, or their metabolites, in a given biological specimen and above significant concentration thresholds, is to be established as an announced acceptability/nonacceptability criterion in considering applicants for employment or candidates for promotion, the existing technology for drug-use testing is fully adequate and the interpretation is simple and clearcut. By expending the necessary effort, time, and money one can also establish conclusively whether any specified drug or drug metabolite is present in a biological specimen at the time of analysis at or above any presently detectible concentration.

Except for ethyl alcohol in blood, breath, or saliva, drug concentrations have not been extensively and validly correlated experimentally and in operational practice with their effects on large groups of subjects under a variety of conditions and circumstances and according to clear and pertinent criteria. Hence, it is the consensus of informed opinion that the data base is lacking, with rare exceptions, to make adequately valid judgments concerning the effects, e.g., on combined cognitive and motor functions, of a given concentration or concentration range of psychoactive drugs and/or their psychoactive metabolites in the tested body fluid, on a given person under given circumstances. Presence of other psychological, physiological, or pharmacological factors (e.g., anxiety, fatigue, hypoglycemia or other biochemical abnormality, presence of other drugs or toxic substances, etc.) adds further confounding elements to the difficulties of interpreting the drug-use test findings. Lack of information concerning these other factors adds uncertainty to any interpretation. Habituation and tolerance to drugs and to the effects of drugs develop with chronic use and are highly variable among different individuals, further complicating interpretations, especially those based on individual drug-use testing results. Therapeutic drugs, even if medically indicated and prescribed, can have ambiguous effects with respect to on-the-job safety or impairment of individuals. Some are psychoactive and can potentially cause impairment for a given task or responsibility or have other adverse effects. However, as pointed out by a consensus panel on drug concentrations and driving impairment, in certain persons and conditions the adverse effects of psychoactive drugs in therapeutically effective concentrations are deemed to pose much less risk than the disorders they treat. The examples cited were

chronically anxious, preoccupied, and irritable persons treated with antianxiety drugs; schizophrenic or depressed persons treated appropriately with antipsychotic or antidepressant medications; and persons with epilepsy treated with anticonvulsant drugs.[181] These considerations apply equally to workplaces and environments other than a motor vehicle.

The foregoing generalizations apply to the interpretation of qualitative and quantitative results in any biological specimen. Additional specific limitations on the significance of drug-use testing results apply to tests on hair or on urine. Hair serves as a depository for certain drugs and toxic substances (e.g., heavy metals). Its analysis, however valid and sophisticated, can only at best provide a retrospective historical record of exposure to drugs. Such an analysis can provide some indication of when and in what kind of pattern the person used or was exposed to the drugs. Negative test results can represent threshold situations and do not conclusively eliminate prior drug intake or exposure. Positive results do not lend themselves to meaningful estimates of the drug doses taken or intensity of exposure, at least not with currently available information. At present, the most useful application of drug analyses in hair might be to resolve a question of recent one-time use of or exposure to drugs, as differentiated from intermittent or continuous chronic use over a prolonged past period of time.

Urine is widely tested for drugs despite its many limitations discussed above and summarized in Table 2. The lack of close correlation between blood and urine alcohol concentrations and between urine-alcohol concentrations and driving impairment has been so thoroughly established and recognized that only 33 of the 50 states now allow urine to be analyzed for alcohol in connection with the investigation of alcohol-related traffic offenses. Impairment of the ability safely to carry out any given task or responsibility cannot be established or even presumed from the results of drug tests in urine, whether qualitative or quantitative. Neither can absence of drug-related impairment be established from the results of drug tests in urine, regardless of the analysis procedures used. Nor is there a consistent and predictable relationship between the quantity (dose) and time of administration or exposure to drugs and the resultant drug or drug metabolite concentrations in urine, especially in single random urine specimens. Moreover, many drug metabolites found in urine are pharmacologically inactive, and the

181. *See* Blanke, *supra* note 7.

active present drug species are either not present in urine or only occur in concentrations too low to be readily and reliably measured. This is the usual situation after use of marihuana or cocaine, for both of which the primary urinary metabolites are pharmacologically inactive. The widely variable period of urinary excretion of such metabolites after last use of a drug adds a further uncertainty element and constraint on meaningful interpretation of positive or negative urine drug test results for other purposes than simply to document presence or absence of drugs of interest or their metabolites in the particular urine specimen analyzed. The significance of drug determinations in urine was well summarized by the 1983 Consensus Development Panel on Drug Concentrations and Driving Impairment. Its statement on that subject, quoted in its entirety, follows:

> Testing of drugs or drug metabolites in urine is only of qualitative value in indicating some prior exposure to specific drugs. Inferences regarding the presence or systemic concentration of the drug at the time of driving or impairment from drug use are generally unwarranted. The presence of an illicit substance in urine that may indicate prior illegal action can, however, add a dimension to probable cause of observed driving performance.[182]

That statement is equally applicable to the issue of drug-related impairment for tasks other than driving. Documentation of the tenuous nature of the relationship between urine drug concentrations and impairment or other effects on the subject is afforded by the outcome of a recent comprehensive evaluation of existing data on concentrations of cannabinoids, diazepam, diphenhydramine, methaqualone, and secobarbital in blood, saliva, and urine with respect to their applicability to the detection of drug-impaired driving.[183] The study used pharmacokinetic methods for the attempted correlation of urine and saliva drug concentrations to those in blood which were presumably related to presence of behavioral impairment in laboratory tasks. The study concluded that

> marijuana was the only drug for which sufficient data were available to suggest the use of urine tests to establish the need to obtain

182. *Id.*

183. R. WILLETTE, FEASIBILITY ASSESSMENT OF CHEMICAL TESTING FOR DRUG IMPAIRMENT: FINAL REPORT (National Highway Traffic Safety Administration 1985) (DOT HS 806 920).

> or analyze a blood specimen for THC. Data from numerous studies support the proposal that testing for THC metabolites in urine or at above the 100 ng/ml concentration will provide better than a 50% probability of detecting levels of THC in the blood that may be associated with impairment. . . . At the present state of knowledge, blood is the only body fluid that may serve in a limited manner to relate drug levels to impaired driving.[184]

A 50% probability, of course, indicates identical likelihood that the contemplated event (cannabinoids concentration in blood associated with impairment) will occur or not occur; a coin flip or yes-no guess would have that same probability of producing the correct answer. The study report does not address how much better than 50% the probability for the associated events is, but simply states that "this preliminary assessment suggested that the measurement of THC-9-acid concentrations in urine might provide a better than even chance to predict levels of THC that could be associated with impairment."[185]

There is also the question of the prolonged effects or consequences of alcohol and other drug use after discontinuation of acute drug intake. Hangover and withdrawal syndromes and carry-over effects can be present and affect a subject even if no drugs are detectible in the urine (or other biofluids). One recent study of pilot performance on flight-simulator landing tasks showed measurably impaired performance in these tasks up to 24 hours after 10 subjects had each smoked one marihuana cigarette containing 19 mg of Δ^9-THC, although the pilots reported no significant subjective awareness of impaired performance at 24 hours.[186] A comparable study of 10 pilots under simulated flying conditions after use of alcohol instead of cannabis showed continued impairment 14 hours after alcohol consumption and after the alcohol had disappeared from the blood, despite general failure of the pilots to note subjective hangover effects.[187] Clearly, absence of detectible drugs in urine (or other biological fluids) and lack of subjective perceptions of impairment do not per se establish the absence of drug-induced impairment or of the after-effects of drug use.

Separate and somewhat special considerations apply to the use of

---

184. *Id.*

185. *Id.*

186. Yesavage, *Carry-Over Effects of Marijuana Intoxication on Aircraft Pilot Performance: A Preliminary Report*, 142 AM. J. PSYCHIATRY 1325 (1985).

187. Yesavage & Leirer, *Hangover Effects on Aircraft Pilots 14 Hours After Alcohol Ingestion*, 143 AM. J. PSYCHIATRY 1546 (1986).

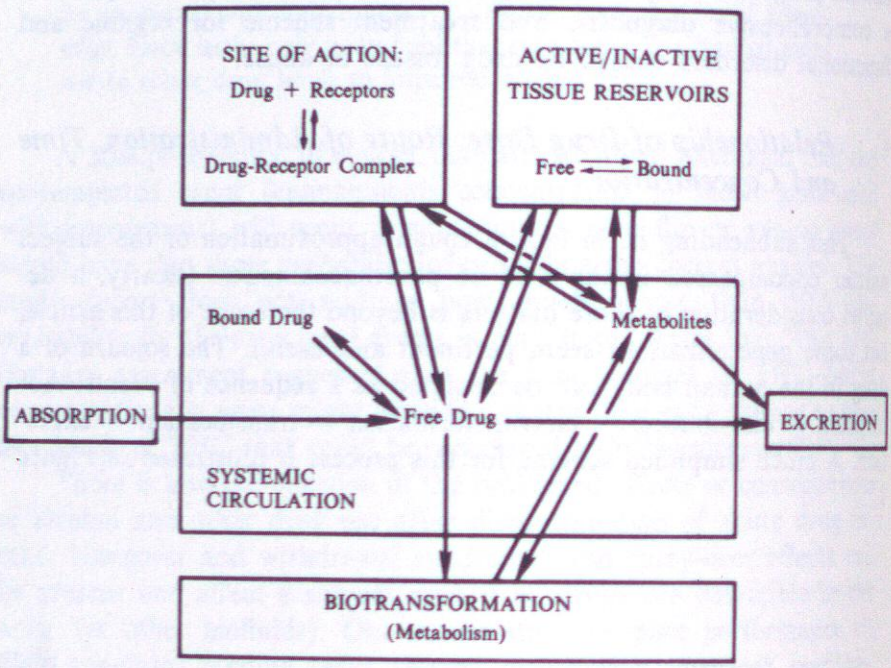
drug-testing in connection with the medical diagnosis and the psychiatric or other medical treatment of drug abuse. Such testing can often assist in the differential diagnosis and serve as an objective monitor of patient progress. Drug-use testing, therefore, has an important place in a comprehensive diagnostic and treatment scheme for organic and functional disorders caused by drug misuse or abuse.[188]

C. *Relationship of Drug Dose, Route of Administration, Time and Concentration*

This subheading is, in fact, a rough approximation of the subject matter encompassed in the field of pharmacokinetics. Clearly, a detailed consideration of these matters is beyond the scope of this article, but some generalizations seem pertinent and useful. The sojourn of a drug in the human body can be depicted as a sequence of events: Absorption → distribution → biotransformation → translocation → excretion. A much simplified scheme for this process is illustrated in Figure 1.

188. Gold & Dackis, *Role of the Laboratory in the Evaluation of Suspected Drug Abuse*, 47 J. CLIN. PSYCHIATRY 17 (1986); Kamerow, Pincus, & MacDonald, *Alcohol Abuse, Other Drug Abuse, and Mental Disorders in Medical Practice: Prevalence, Costs, Recognition, and Treatment*, 255 J. A.M.A. 2054 (1986).

FIGURE 1. Simplified Scheme of the Interrelationships of Drug Absorption, Distribution, Biotransformation, and Excretion. Modified from Benet & Sheiner.[189]



Absorption: The drug, whether ingested, injected or absorbed through mucous membranes or other portals becomes freely absorbable at the site of administration. It reaches the systemic circulation either directly by injection, or indirectly by diffusion or active transport through cell membranes. The bioavailability of the drug partly controls the proportion of an administered dose which eventually reaches the systemic circulation; injection and inhalation are more efficient in this respect than oral intake.

Distribution: The free drug which has reached the systemic blood can remain dissolved in the plasma water, and/or be shifted into blood cells, or bound reversibly to plasma proteins. The systemic circulation carries the free or bound drug to all tissues and organs of the body, where the free drug can exert effects, or be stored, excreted, and metabolized or otherwise biotransformed, depending upon the organ, tis-

189. Benet & Sheiner, *Pharmacokinetics: The Dynamics of Drug Absorption, Distribution, and Elimination*, in GOODMAN & GILMAN'S THE PHARMACOLOGICAL BASIS OF THERAPEUTICS 3-34 (A. Gilman, L. Goodman, T. Rall & F. Murad ed. 1985).

sue and drug. Some tissues and organs merely act as passive, unaffected reservoirs, thus influencing the equilibrium concentration of the drug in plasma. Other organs, such as the lungs and especially the liver, convert the parent drug into chemically different metabolites or biotransformation products, in which forms it can be stored, or eliminated by excretion in feces, urine, saliva, and sweat or reabsorbed from the bile and other sites into the systemic circulation for distribution to all tissues and organs. The metabolites can be pharmacologically inert, or possess activity which is less than, equal to, or greater than the parent drug. This interative process can continue, with production of additional biotransformation products, until all of the drug has been eliminated from the body. All of the foregoing processes are time dependent, with rates — sometimes interrelated — which control the respective concentrations of free and bound drug in the plasma and tissues at any given time after administration of a given drug dose.

Effects: Taken together, the foregoing processes and the excretion and elimination of the drug produce a pattern of concentration versus time course which can be represented by simple linear or by very complex nonlinear mathematical models. These features control, in large measure, the quantity of a drug which reaches accessible tissue sites of drug action in target organs such as the brain. There, in competition with other drugs or biochemical compounds, the drug binds to or combines reversibly or nonreversibly (depending on the drug) to general or specific receptors. This process, in essence, causes the particular pharmacological actions and effects of the drug which are part of its inherent characteristics, doing so in concentration- and rate-related fashion which governs the speed of onset, duration, and intensity of the drug effects.

Elimination and Excretion: Drug disposition occurs primarily through metabolism or biotransformation into active or inert substances that can either take part in other biochemical events in the body in their altered form, or be excreted; and through excretion of the parent drug through such organs as the kidneys, intestines, lungs, and skin. It follows that unaltered parent drugs can be excreted in urine, feces, breath, and sweat depending upon the drug. Some drugs, e.g., ethanol, are predominantly disposed of through extensive metabolism in the liver, while others are not completely metabolized and are chiefly excreted in body waste products. In general, metabolites are more polar substances than the parent drug, thus facilitating their excretion through aqueous channels as in urine, in distinction to the less polar parent drugs which tend to be lipophilic and thus preferentially parti-

tioned into adipose (fatty) tissues in the brain and elsewhere. The renal excretion process for drugs and their metabolites involves filtration, secretion, and reabsorption in various combinations and at different rates for different drugs. These processes are affected by the bound and free drug proportions, polarity of metabolites, the pH and flow rate of urine and many other factors. Only unbound drugs and metabolites are filtered by the undamaged kidneys and, in general, are concentrated in the urine leaving the kidneys. These several factors and processes, together with other important factors such as the drug concentration in the plasma, affect the ultimate concentration of drugs and metabolites in ureteral urine. The bladder urine concentrations of drugs and metabolites, and hence those of the voided urine, are further affected by accumulation of drug-free urine before and after the period of urinary drug/metabolite excretion. There are also frequent and wide fluctuations in the concentration of some drugs, such as amphetamines and cocaine, in urine or saliva, resulting from pH changes and other factors. These events and biological and chemical factors combine to make urine concentrations of drugs and metabolites as a function of time a highly variable phenomenon, which does not necessarily closely reflect the body burden of a given drug, or its dose.

Combinations and permutations of these processes and the underlying drug intake patterns can, therefore, result in absence, or presence at varying concentrations, of drugs in urine and in other biological fluids after supposedly identical drug intake in different persons at the same time, and in the same person on different occasions. Many of these matters are considered and discussed in detail in a recent monograph on the pharmacokinetics and pharmacodynamics (mode of action) of psychoactive drugs.[190]

D. *Limitations of Drug-Use Testing of Urine*

Although urine as a specimen for drug tests and the nature and probative value of drug-use testing results on urine have been discussed in relation to various topics already considered in this article, it seems useful to summarize what can and cannot be learned from drug testing in urine. That subject is widely misunderstood and the facts are occasionally misrepresented by parties with special interests or points of view. With few, if any, exceptions, testing for drugs in urine presents

190. PHARMACOKINETICS AND PHARMACODYNAMICS OF PSYCHOACTIVE DRUGS (G. Barnett & C. Chiang ed. 1985).

no unique technical difficulties. In many instances, drugs or metabolite concentrations in urine are, in fact, higher than those of the same drug in other accessible biological fluids, such as plasma or saliva.

Urine is subject to biological and chemical change and decomposition at room temperature and even under refrigeration at 4°C unless chemically treated; and those changes can affect the result of some tests. However, analysts and laboratories generally prefer that no chemical preservatives be added to urine, because such additives can also add an uncertainty element to test performance and test results, especially to testing by immunochemical methods. At most, steps should be taken to keep the urine at or below a pH of 7.0, so as to prevent ammoniacal decomposition. When feasible, keeping urine frozen at -20°C or lower temperatures will minimize or altogether prevent changes in chemical composition. Storage in the frozen state is recommended practice for the remaining portions of tested urines which have yielded results positive for presence of drugs, with precautions to prevent container rupture through expansion of specimens as they reach the frozen state.

The absence or presence of target drugs or drug metabolites in urine can be established with adequate validity, using reasonable preestablished cutoff values or threshold concentrations appropriate for each target drug or metabolite as a major criterion for designating the test results as negative or positive. Individual positive results, even when properly confirmed in analytical terms, and with rare exceptions, cannot be used to establish what dose of the drug in issue was taken, or when it was taken, or the time lapse since last intake of or exposure to the drug, nor to determine whether the drug was taken chronically and, if so, for how long prior to the collection of the tested urine specimen. For a variety of drugs, it has been demonstrated that "passive" exposure, e.g., by inhalation of ambient air by a nonsmoking person in the vicinity of heavy marihuana smokers in a confined environment or small space, can cause positive drug test results in urine which cannot be readily differentiated from those produced by active use of the drug. The same situation holds for inability to differentiate positive results in urine for cannabinoids, cocaine, or morphine yielded by ingestion of foods or drink containing those drugs from those results yielded by active, intentional taking of low doses of those drugs in conventional drug form. It is very likely that further studies will reveal other instances of "innocent" or unknowing consumption of drugs in food or drink which lead to positive drug-use testing results in urine mimicking low dose deliberate drug intake, like those documented for morphine from opium

poppy seeds in baked goods and other foods.

Some drugs and or drug metabolites are prone to long-term storage in body tissues, for weeks or months. As exemplified by the cannabinoids from marihuana, drugs so stored can continue to be excreted for days, weeks, and even months after the last drug intake. Because of the concentrating effect of the usual renal excretion process for drugs, some such drugs can reach readily detectible concentrations for a prolonged period after assured abstention. Hence, presence of detectible concentrations of cannabinoids, and some other drugs, in single or even in serial urine specimens does not per se equate with recent use of the drug.

Lastly, drug-induced intoxication, impairment,[191] or other effects on a person at any given time cannot be established or even validly presumed from a urine test result, or a series of such results. These limitations arise from the nature of urinary drug excretion, which is often in the form of pharmacologically inactive drug metabolites, from the well-documented absence of correspondence between drug effects on the person and urine concentrations of psychoactive drugs, and from the low correlation of these variables.

E. *Typical Periods of Drug Detectability After Use*

Many of the factors affecting the length of time, after use or last use, during which a drug is detectible in biological tissues and fluids have been discussed earlier in this article. Because urine is at present the most frequently and most commonly selected specimen for drug-use testing, this consideration of the length of time for which a drug remains detectible will be limited to its presence in urine. The ultimate controlling variables are the nature and identity of the drug and/or metabolites and the concentration of those analytes in the urine specimen; and those two variables are the outcome of all other biological, chemical and pharmacokinetic factors and events.

For simplicity and brevity, the information on the duration of drug detectability after last use is presented in tabular form. Commonly

---

191. In the context of this article, the author considers that *intoxication* is inability or unfitness safely to perform the task in issue, as the result of the acute effects of drugs upon the central nervous system and/or other body organs and functions; and that *impairment* is a decrease in fitness safely to perform the task in issue, as the result of the acute effects of drugs on the central nervous system or other body organs and functions.

used and typical operational limits of sensitivity and cutoff concentrations are listed. It is understood that higher sensitivities are attainable for many drugs under special conditions, and that the lower detection limits could extend the time period of drug detectability after last use. The data appearing in Table 9 are approximate and are subject to change or modification in the light of additional and newer information which is certain to accrue from further studies and additional experience. Those data are excerpted from references cited in this article and other sources believed to be authoritative; but individual references have been omitted for reasons of expediency. A widely used reference on the disposition of toxic drugs and chemicals in man was published in 1982 and includes some literature citations through 1981.[192] Finally and once more, the data in Table 9 relate only to the detectability of drugs as a function of time by typical currently available drug-use testing procedures; they have no relation to existence or manifestations of impairment or other drug effects.

192. R. BASELT, DISPOSITION OF TOXIC DRUGS AND CHEMICALS IN MAN (2d ed. 1982).

Table 9. Typical Duration of Drug Detectability in Urine After Last Use

Drug, Drug Group or Drug Metabolites	Typical Detection Threshold, ng/ml	Approximate Duration of Detectability (Days)
Amphetamines	300 - 1000	1 - 3
Barbiturates	200 - 500	
Short-acting		1 - 3
Intermediate-acting		2 - 4
Long-acting		7 - 21
Benzodiazepines	100 - 1000	3 - 10
Cannabinoids	20 - 100	2 - 21
Cocaine metabolites	300	2 - 5
Ethyl alcohol	100 (mcg/ml)	1/2 - 1
Lysergic acid diethylamide (LSD)	0.5	1
Methadone	300	2 - 3
Methaqualone	300 - 1000	2 - 7
Opiates		1 - 3
Phencyclidine (PCP)	25 - 75	3 - 8
Propoxyphene	300	1/4 - 2

The foregoing data reflect typical values for drug detection thresholds and duration of drug detectability and do not include reported extremes, e.g., cannabinoids detection in urine 77-81 days after assured last cannabis use by chronic heavy marihuana smokers.[193] The ranges in threshold concentrations cover commonly used tests of differing sensitivity or with different cutoff values. The range in duration represents well-documented data from experimental studies, and reflects the many factors previously discussed which affect the ultimate urine concentration of a given drug or drug metabolite, including the variable doses of

193. Ellis, Mann, Judson, Schramm & Taschian, *Excretion Patterns of Cannabinoid Metabolites After Last Use in a Group of Chronic Users*, 38 CLIN. PHARMACOL. & THERAP. 572 (1985).

these drugs which are taken by different persons, and differences in excretion patterns. Certain factors are obviously closely interrelated, e.g., the drug test cutoff concentration or detection threshold and the detectability period. Other controlling factors may be obscure, unknown, or unrecognized. "Normalizing" drug concentrations in urine for urine creatinine concentration in experimental studies of drug metabolism and excretion would have greatly improved consistency of these data, but was almost never done. For these reasons, the data in Table 9 should be considered only a general and tentative guide. It cannot replace expert interpretation of drug-use testing results based on other pertinent information, and is not intended to substitute for or replace such expert evaluation of individual results.

VII. Regulation of Drug-Use Testing

For an activity which has affected millions of persons in a most direct way and will obviously continue to affect many more millions, especially those in the active private work force or in governmental employ, drug-use testing has been almost uniquely unregulated or underregulated. A Federal licensure scheme for clinical laboratories and clinical laboratory personnel, performing functions and tests very comparable to drug-use testing, has been in operation for twenty years, since passage of the Clinical Laboratories Improvement Act of 1967. The Congress mandated in that act that the Secretary of Health and Human Services promulgate standards for clinical laboratories operating directly or indirectly in interstate commerce, and provided that such standards shall be designed to assure consistent performance by the laboratories of accurate laboratory procedures and services, and shall include, among others, standards to assure:

> (i) Maintenance of a quality control program adequate and appropriate for accuracy of the laboratory procedures and services;
>
> (ii) Maintenance of records, equipment and facilities necessary to proper and effective operation of the laboratory;
>
> (iii) Qualifications of the director of the laboratory and other supervisory professional personnel necessary for adequate and effective supervision of the operation of the laboratory (which shall include criteria relating to the extent to which training and experience shall be substituted for education); and
>
> (iv) Participation in a proficiency testing program established by

the Secretary.[194]

Substantial improvements in clinical laboratory test performance have been documented, by proficiency testing and/or other means, since these nationwide standards became effective. Substantially the same standards and comparable implementing regulations have been mandated by the federal government for hospital and independent clinical laboratories as a condition of their eligibility for coverage of services under Medicare and other elements of the Social Security Act. Thus, it has been recognized that the public interest requires regulation of facilities and personnel engaged in the production of information by "examination of materials derived from the human body." Further, the principles and practice of such governmental regulation at the Federal, state, and local level are long established and widely understood. To be sure, these existing regulatory schemes were imposed only on "clinical laboratories" which are facilities carrying out examinations of human biological specimens to provide information "for the diagnosis, prevention, or treatment of any disease or impairment of, or the assessment of the health of, man."[195] There is, however, no reason to omit comparable regulation of drug-use testing laboratories and activities.

A. *Lack of Universal Accreditation or Licensure Systems*

The vagaries and limitations of the governmental regulatory schemes applicable to clinical laboratories have resulted in excluding from that regulation those facilities engaged only in drug-use testing for nonmedical purposes and the nonmedical drug-use testing activities of clinical laboratories which are regulated in other respects. Hence, there is no nationwide licensure system in place at the federal level to control and regulate drug-use testing establishments, their personnel, activities, operations, or performance. Neither have the several states so far enacted licensure or accreditation laws for the persons and establishments engaged in nonmedical drug-use testing. It is clear that drug-use testing for medical purposes is encompassed under the general federal and state regulatory umbrellas for biological, chemical, biophysical or other examinations on human biological specimens for diagnostic and therapeutic or other medical purposes. These medical applications

194. Pub. L. No. 90-174, § 5, Clinical Laboratories Improvement Act of 1967, 58 Stat. 702, 42 U.S.C. 353.

195. *Id.*

of drug-use testing include emergency toxicology for drug overdose diagnosis and treatment, and the diagnosis and treatment of drug addiction and dependency and of other drug-related ailments and infirmities which are medically and legally recognized. Clearly not covered by existing clinical laboratory licensure laws is drug-testing carried out for exclusively nonmedical, forensic applications such as tests for alcohol and other intoxicating substances for traffic law enforcement. That situation has been well settled by administrative and judicial decisions and by statutory enactments which preempt regulation of such forensic drug-testing activities, but which apply only to the narrow purposes stated in those statutes, predominantly land, water and air traffic law enforcement.

The drug-use testing field is not, however, entirely unregulated. Specific occupational and some nonoccupational activities are the basis for regulated drug-use testing under federal laws. That regulation does not, however, as a rule include licensure or accreditation of laboratories or laboratory personnel. Examples of activities covered by such federally regulated testing are railroad operations, commercial and noncommercial aviation, the military services which have their own extensive set of Department of Defense-wide policies and procedures, and, of course, drug-use testing of Federal employees in sensitive positions and under other defined circumstances under authority of Executive Order 12,564 issued by the President of the United States on September 15, 1986.[196] There is also the extensive set of private-sector policies for drug-use testing in connection with intercollegiate athletics under the jurisdiction of the National Collegiate Athletic Association (NCAA).[197] Those policies deal with such details as listing of 75 proscribed drugs including anabolic steroids, and specimen collection procedures; but they do not address the qualifications of the testing laboratories or laboratory personnel.[198] The NCAA list of "banned" drugs is a prime example of unselective overkill. It includes anachronisms such

196. Drug-Free Federal Workplace, Executive Order No. 12,564 of September 15, 1986, 51 Fed. Reg. 32,889-32,893 (1986).

197. *See* THE NCAA DRUG-TESTING PROGRAM 1986-87 (NCAA Publishing 1986). A major deficiency of the NCAA "Executive Regulations" and implementing guidelines on drug-use testing is permitting repetition of an initial screening test instead of required confirmation of positive results by an adequate method based on different chemical principles from that used for initial testing. The pertinent procedural guideline states: "7.1.1. — Positives for a banned substance will be reaffirmed with another sample from Specimen A before it is determined to be a positive." *Id.*

198. *Id.*

as the listing of strychnine, and misspellings, but it omits altogether hallucinogens such as LSD and PCP as well as opiates, sedatives, and analgesics. Further, the gratuitous addition of "AND RELATED COMPOUNDS" to each drug category except "Street Drugs" where the term "OTHERS" is added, renders the prohibitions so vague and indefinite as to prevent any person affected by these rules from reasonably concluding whether any given drug or medicament would fall within the intended prohibitions. Because the NCAA "Banned Drug List 1986" is new, extensive and unusual, it is included herein as Table 10, verbatim, for ready reference.

Table 10. NCAA Banned Drugs List 1986[199]
(With Examples)

A. Psychomotor stimulants:

amphetamine
benzphetamine
chlorphentemine
cocaine
diethylproplon
dimethylamphetamine
ethylamphetamine
fencamfamine
meclofenoxate
methylamphetamine
methylphenidate
norpseudoephedrine
pemoline
phendimetrazine
phenmetrazine
phentermine
pipradol
prolintane
AND RELATED COMPOUNDS

B. Sympathomimetic amines:

chlorprenaline
ephedrine
etafedreine
isoetharine
isoprenaline
methoxyphenamine
methylephedrine
phenylpropanolamine
AND RELATED COMPOUNDS

C. Miscellaneous central nervous system stimulants:

amiphenazole
bemigride
caffeine[1]
cropropamide
crolethamide
doxapram
ethamivan
leptazol
nikethamide
picrotoxine
strychnine
AND RELATED COMPOUNDS

199. *Id.*

D. Anabolic Steroids:

clostebol
dehydrochlormethyl-testosterone
fluoxymesterone
mesterolone
methenolone
methandienone
nandrolone
norethandrolone
oxandrolone
oxymesterone
oxymetholone
stanozolol
testosterone[2]
AND RELATED COMPOUNDS

E. Substances banned for specific sports:
Rifle:

alcohol
atenolol
metoprolol
nadolol
pindolol
propranolol
timolol
AND RELATED COMPOUNDS

F. Diuretics:

bendroflumethiazide
benzthiazide
bumetanide
chlorothiazide
chlorthalidone
cyclothiazide
ethacrynic acid
flumethiazide
flurosemide
hydrochlorothiazide
hydroflumethiazide
methyclothiazide
metolazone
polythiazide
quinethazone
spironolactone
tramterene
trichlormethiazide
AND RELATED COMPOUNDS

G. Street Drugs:

amphetamine
cocaine
heroin
marijuana[3]
methamphetamine
THC (tetrahydrocannabinol)[3]
OTHERS

Definition of positive depends on the following:

[1]for caffeine — if the concentration in urine exceeds 15 micrograms/ml.

[2]for testosterone — if the ratio of the total concentration of testosterone to that of epitestosterone in the urine exceeds it.

[3]for marijuana and THC — based on a repeat testing.

H. Substances Given Special Consideration:

[Note: Usage of these substances may or may not be permissible, depending on limitations expressed in the following guidelines and/or quantities used of these substances.]

1. **Blood Doping.** The practice of blood doping (the intravenous injection of whole blood, packed red blood cells or blood substitutes), as well as the use of growth hormone (human, animal or synthetic), is prohibited and any evidence confirming use may be cause for punitive action.
2. **Local Anesthetics.** The NCAA Executive Committee will not be opposed to the limited use of local anesthetics under the following conditions:
   (a) That procaine, xylocaine, carbocaine without epinephrine, or any other vaso-constrictor may be used, but not cocaine;
   (b) That only local or topical injections can be used (i.e., intravenous injections

are not permitted);

(c) That use is medically justified only when permitting the athlete to continue the competition without potential risk to his health.

The NCAA crew chief in charge of testing must be advised in writing by the team physician if the anesthetic has been administered within 24 hours of the competition. He must also be advised of time, route and dose of administration.

3. **Asthma or Exercise-Induced Bronchospasm.**
The use of three beta-agonists, Terbutaline, Salbutamol and Biltolterol, for the treatment of asthma are approved under the following condition: The team doctor must notify the crew chief beforehand of which athletes in his team are asthmatics and are using, or may require the use of, either one or all of these drugs. Requests must be in writing identifying the drugs, dose and frequency of administration. All other sympathomimetic amines are banned. Drugs such as Cromolyn Sodium, Aminophyline and Theophylines, Beclomethasone and Atropine Sulfate may be used.

4. **Corticosteroids.** The NCAA has become increasingly concerned by the misuse of corticosteroids in some sports.

The Executive Committee therefore has decided that the use of these drugs at NCAA championships or certified football bowl games must be declared. A doctor using them must state in writing to the crew chief the name of the competitor being treated; the name, dose and route of administration of the drug; the reason for this use; the date of administration; the time of administration, and the name and signature of the doctor.

It seems likely that the series of recent federal government policies and regulations concerning drug-use testing of certain federal employees under defined conditions will ultimately result in more pervasive regulation in at least three ways: 1) The federal regulations themselves are certain to be extended to currently unregulated aspects of drug-use testing such as accreditation or licensure of laboratories; 2) the states and some localities will enact laws and ordinances modeled after the federal regulations or key aspects thereof; and 3) marketplace competition, litigation and arbitration, and other external forces will combine to shape the practices of drug-use testers into rough conformity to those mandated by law for other tested populations such as the federal workforce. The federal initiatives so far involve four separate elements: 1) A Presidential Executive Order; 2) Office of Personnel Management Guidelines for testing and counseling programs of federal agencies; 3) Department of Health and Human Services Scientific and Technical Guidelines for Drug Testing Programs; and 4) Draft Standards for Accreditation of Laboratories Engaged in Urine Drug Testing, issued by the National Institute on Drug Abuse.

The President's Executive Order on the "Drug-Free Federal

Workplace"[200] among other directives mandated that each executive agency establish a program to test for the use of illegal drugs[201] by employees in "sensitive positions" and a program for voluntary employee drug-testing. It also authorizes drug-use testing of executive agency employees when there is reasonable suspicion that any employee uses illegal drugs, or in an examination authorized by the agency regarding an accident or unsafe practice, or as part of or as a follow-up to counseling or rehabilitation for illegal drug use through an Employee Assistance Program; and it allows testing of any applicant. The Office of Personnel Management was mandated to issue Government-wide guidance on the implementation of the terms of the Executive Order. Executive agencies were mandated to conduct their drug-testing programs in accordance with scientific and technical guidelines to be promulgated by the Secretary of Health and Human Services. A specific mandate is that "procedures for providing urine specimens must allow individual privacy, unless the agency has reason to believe that a particular individual may alter or substitute the specimen to be provided."[202] Alcohol misuse or abuse is not addressed in this Executive Order. Executive Order 12,564 became effective upon proclamation on 15 September 1986.

The Office of Personnel Management (OPM) on November 28, 1986 issued its "Government-wide Guidance" to executive agencies as FPM letter 792.[203] Among other provisions, the OPM guidance document provides, with regard to applicant testing, that "Agencies should include notice of drug testing on vacancy announcements for those positions where drug testing is required."[204] The OPM guidance also provides that notices concerning drug-use testing be given to employees in a "testing designated position" and that they include "[a]ssurance that the quality of testing procedures is tightly controlled, that the test used to confirm use of illegal drugs is highly reliable, and that test results

200. *See* Executive Order *supra* note 196.

201. The term "illegal drugs," as defined in the Executive Order, means a controlled substance included in Schedule I or II of the Controlled Substances Act, as defined in Section 802(6) of Title 21 of the United States Code, the possession of which is unlawful under Chapter 13 of that Title. The term "illegal drugs" does not mean the use of a controlled substance pursuant to a valid prescription or other uses authorized by law. *See* Executive Order *supra* note 196.

202. *Id.*

203. Office of Personel Management, FPM Letter 792 — Establishing a Drug-Free Workplace (Nov. 28, 1986).

204. *Id.*

et al.: Nova Law Review Full Issue

will be handled with maximum respect for individual confidentiality, consistent with safety and security."[205] The OPM guidance defines "reasonable suspicion" of drug use as "an articulable belief that an employee uses illegal drugs drawn from specific and particularized facts and reasonable inferences from those facts" and exemplifies the latter as follows:[206]

* Observable phenomena, such as direct observation of drug use and/or the physical symptoms of being under the influence of a drug
* A pattern of abnormal conduct or erratic behavior
* Arrest or conviction for a drug related offense; or the identification of an employee as the focus of a criminal investigation into illegal drug possession, use, or trafficking
* Information provided either by reliable and credible sources or independently corroborated
* Newly discovered evidence that the employee has tampered with a previous drug test.

The initial HHS guidelines entitled "SCIENTIFIC AND TECHNICAL GUIDELINES FOR DRUG TESTING PROGRAMS" were prepared by the Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA) of the Department of Health and Human Services and are dated February 13, 1987.[207] They are too lengthy and detailed to be fully summarized in this article, but several aspects of the four Sections of Part I of the document (The Drugs, Specimen Collection Procedures, Laboratory Analysis Procedures, and Reporting and Review of Results) are worth noting briefly. Executive agency drug-use testing programs must test for marihuana and cocaine. They may also test routinely for amphetamines, opiates and phencyclidine, and may also test for any drug listed in Schedule I or II of the Controlled Substances Act when conducting reasonable suspicion testing. Urine collection procedures are detailed. They provide, that a minimum of 60 ml of urine is to be collected, that the time from urination to delivery of the sample should in no case exceed four minutes, that the temperature of

205. *Id.*
206. *Id.*
207. Alcohol, Drug Abuse, and Mental Health Administration, Scientific and Technical Guidelines for Drug Testing Programs, February 13, 1987.

the urine specimen is to be measured immediately and if outside the range of 32.5 - 37.7°C will give rise to reasonable suspicion of adulteration/substitution, and that toilet bluing agents are to be placed in toilet tanks and urinals as a precaution against unrecognized dilution of a urine specimen. Urine specimens are to be refrigerated upon arrival at the laboratory if not initially tested within two days. All specimens yielding confirmed positive test results must be retained in properly secured freezer storage for at least 365 days. Initial testing to eliminate drug-negative specimens is to be conducted with an immunoassay method meeting the requirements of the Food and Drug Administration for commercial distribution, or by thin-layer, high pressure liquid or gas chromatography if immunoassays are unavailable for specific drugs of concern. All specimens yielding positive initial test results must be subjected to confirmatory testing using quantitative gas chromatography/mass spectrometry. The following initial and confirmatory cutoff concentrations are mandated for determining whether the test results are positive or negative:

Drug	Initial Test Cutoff Concentration, ng/ml	Confirmatory Test Cutoff Concentration, ng/ml
Amphetamines	1000	300
Cocaine Metabolites (Benzoylecgonine)	300	150
Cannabinoids	100	
Δ^9-THC-9-carboxylic acid		20
Opiates	300	300
Phencyclidine	25	25

Confirmation of drugs is to be by means of an accepted quantitative GC/MS procedure; if none exists for a given drug of interest, preference will be given to confirmation by a full-scan GC/MS analysis and quantitation by an alternate chromatographic method. All methods must meet "commonly accepted analytical standards." Only specimens with positive results upon confirmation are to be reported as positive for a given drug. Verbal telephone reports are not permitted. All records pertaining to a given urine specimen must be retained by the laboratory for at least two years. In regard to the retesting of specimens, it is stated that "some analytes deteriorate or are lost during freezing and/

or storage." All laboratories must have the capability and facilities for performing both screening and confirmatory tests for each drug or metabolite for which service is offered. Comprehensive quality assurance and quality control procedures are mandated. These must include analysis of QC specimens blind to the analyst. A minimum of 10 per cent of all test samples must be QC specimens.[208] Participation in internal and external proficiency testing surveys is required. Participation in an ADAMHA/NIDA-recognized accreditation and proficiency testing program for drugs of abuse is mandatory. The HHS Guidelines also contain mandated requirements for qualifications of laboratory directors, certifying scientists, and analysts. Among other requirements, a laboratory director must have documented scientific qualifications comparable to those of a person certified by the American Board of Forensic Toxicology or certified in Toxicological Chemistry by the American Board of Clinical Chemistry.

The NIDA Draft Standards for Accreditation of Laboratories Engaged in Drug Testing[209] were under final review by NIDA in March 1987. These standards cover laboratory facilities, personnel, quality assurance and quality control, documentation of the testing process, and reports. Appendices pertain to a proposed laboratory inspection program and a proposed proficiency testing program for accredited laboratories. It was the NIDA plan to make accreditation under these standards a voluntary act at the discretion of drug-use testing laboratories, rather than to accomplish it through licensure or registration by a federal regulatory agency. The purpose of the draft standards was described thus: "The National Institute on Drug Abuse proposes to establish minimum requirements to be met by any program designed to accredit laboratories engaged in urine drug testing for legal, regulatory, safety, employment or other non-medical purposes."[210] Among key provisions of these draft standards were four relating to proficiency testing: 1) Positive results of initial (screening) tests must be confirmed by acceptable quantitative confirmatory procedures; 2) no false-positive drug

---

208. This requirement of the HHS Guidelines coincides with recommendation made by the author at a December 13, 1983 White House/Department of Defense/National Institute on Drug Abuse Conference on Military Drug Testing Programs that a ratio of at least 1 to 9 or 1 to 10 be maintained for quality control versus unknown specimens in urine drug-use testing. *See* Office of the Assistant Secretary of Defense, Minutes of the White House, DoD, NIDA Conference on Military Drug Urinalysis Program 13 December 1983, Old Executive Office Building, at 12.

209. *See* Draft Standards, *supra* note 145.

210. *Id.*

identifications are acceptable; 3) at least 90% of all drugs for which service is claimed must be detected, i.e., a false-negative result rate of more than 10% is not acceptable in proficiency testing; 4) laboratories may be subject to blind proficiency testing. When these NIDA draft standards are promulgated in final form, they are likely to become the operational criteria or yardstick against which drug-use testing laboratories and drug-use testing activities will be measured, whether or not the laboratories seek accreditation under that program. All testing of federal employees will, of course, have to be performed in accredited laboratories, under the HHS Guidelines.[211]

A potentially troublesome issue is whether, how, and what extent to accredit or regulate drug-use testing operations conducted "in-house" by industrial organizations and other private parties on persons within their respective organizations and enterprises. To the extent that drug-use testing is said by such parties to be at least partly justified by considerations of workplace safety and security and the public interest, one might analogize a requirement for conformity of such internal drug-use testing activities and programs to the existing statutory requirements for compliance with national fire protection codes, electrical codes, with regulations concerning procurement, storage, use and disposal of controlled dangerous substances or otherwise hazardous substances, and with the laws governing medical services provided within such private organizations. The choice of whether to engage in drug-use testing should be left to the private entities concerned, unless otherwise controlled by applicable law, regulations, contracts or other preemptive authority. However, if any such private party (actually many "private" parties are quasi-public in many respects by virtue of size, impact on the public interest, welfare, or safety, number of persons affected, or other attributes) elects to engage in drug-use testing it should be required by law to conform to statutory or other recognized and equivalent standards. That requirement for conformance should apply equally to testing conducted "in-house" and to testing externally conducted by others on behalf of the private party. This is one instance where exception from regulation and scrutiny because of small testing volume or other characteristics of the operation is no more justified than is exemption from child labor or minimum wage laws or from medical quarantine.

211. *See* Scientific and Technical Guidelines, *supra* note 207.

B. *Criteria for Laboratory Accreditation or Licensure*

Regulation of drug-use testing can take various forms. Among these are accreditation and licensure, which would apply to laboratories and other establishments engaged in drug-use testing. Other mechanisms are available to evaluate personnel engaged or proposing to become engaged in drug-use testing, but it seems unlikely that in today's anti-regulatory climate schemes other than voluntary certification of personnel would succeed. For clarity, the three enumerated processes are defined as follows in the context of drug-use testing:

Accreditation — The process by which a governmental agency or nongovernmental organization evaluates a laboratory or other establishment engaged in drug-use testing, or a program of drug-use testing, and recognizes ("accredits") those entities which voluntarily seek accreditation and which meet predetermined qualifications, criteria or standards.

Licensure — The process by which a governmental agency grants permission to a laboratory or other establishment to engage in drug-use testing upon satisfaction of predetermined conditions and requirements. (A corollary to success of licensure programs is that the licensure legislation must prohibit conduct of the licensed activity by other than licensed establishments.)

Certification — The process by which an independent nongovernmental body grants recognition ("certification") to voluntary applicants who have met predetermined qualifications and requirements for such status in such respects as education, training, experience, and satisfactory performance on written and/or practical examinations.

It is obvious that interlocking relationships can develop between these different forms of recognition for all or some segments of a system meeting societal needs. Some current examples of entities somewhat related to the field of drug-use testing which are encompassed by these three processes are: Qualifying educational programs for several scientific, biomedical (e.g., clinical chemistry) and medical professions are accredited by nongovernmental bodies; certain clinical laboratories are accredited by the College of American Pathologists under its Laboratory Accreditation Program, conferring "deemed status" equivalent to government licensure in some regards; and hospitals are accredited by the Joint Commission on Accreditation of Hospitals. Clinical laboratories, especially "independent" clinical laboratories (i.e., those not operating as an integral part of a hospital) are licensed by federal agencies and by certain states; licensure also exists in all states for phy-

sicians and certain other health-care practitioners and in some states for clinical laboratory personnel at various levels of responsibility. Certification is a widespread form of credentialing for health-care practitioners, including physician-specialists, medical technologists, bioanalysts, clinical chemists and other clinical laboratory scientists, as well as for such forensic scientists as forensic toxicologists, and for forensic pathologists.

Whatever form of professional or governmental regulation evolves for drug-use testing laboratories, it should have certain features if it is to be adequately effective in safeguarding the public interest and the interests of both the tested persons and those who utilize and rely upon drug-use testing in industry and elsewhere. First and foremost, the regulatory system should encompass essentially all drug-use testing, wherever performed. An exception could be made for drug-use testing performed exclusively for medical purposes, to the extent that it is equivalently regulated under other existing federal and state coverage of clinical laboratory activities. To regulate only some drug-use testing programs and laboratories and to exempt from regulation others on such grounds as location, test volume, testing technology, or initial use to be made of the results is to invite endless trouble, strife, inequalities, and litigation over such issues as denial of due process and denial of equal protection of the laws. Next, the universal regulatory system should be imposed and required by law, preferably by federal law analogous in applicable regards to the Clinical Laboratories Improvement Act of 1967[212] and its implementing regulations.[213] Licensure or other authority to engage in drug-use testing should be conditioned upon documented initial compliance with a comprehensive and rigorous set of qualifications and requirements and upon documented continuing compliance with those criteria. Periodic inspections should be required at intervals of one year or less, carried out by qualified inspectors with appropriate professional qualifications, suitable training for those specialized inspections, and established absence of conflicts of interest. Deficiencies thus discovered must be promptly and fully remedied. Continued participation in one or more approved proficiency testing programs should be required for licensure, as should continued satisfactory PT performance accordance to preestablished and periodically reviewed or revised criteria. Blind proficiency testing, as previously discussed in this article, should also be a required part of the PT program.

---

212. *See* Clinical Laboratories Improvement Act, *supra* note 131.
213. *See* Clinical Laboratories, 42 C.F.R. § 74 (1986) *See supra* note 131.

Essentials for drug-use testing laboratories were recently proposed by Dubowski and McBay.[214] They comprise requirements, qualifications, guidelines, and safeguards in six categories: Facilities, personnel, methodology, quality assurance, documentation, and interpretation of analysis results. Together, these essentials constitute a set of acceptability criteria for drug-use testing laboratories and operations and for the results they produce. The specifics include laboratory director qualifications (DABFT or equivalent status) and mandatory confirmation of all presumptive tests and all immunoassay results by methods employing different chemical principles. The proposed essentials require the capability to perform both presumptive (screening) and confirmatory tests in the same laboratory facility, retention of all specimens yielding positive test results under proper storage conditions (e.g., in the frozen state at -20°C or lower temperature), access to all confidential information limited to a "need to know" basis, and result verification and interpretation carried out by persons with stipulated qualifications. These essentials could form the basis for qualifications, requirements, and procedures for governmental licensure or for nongovernmental accreditation of drug-use testing laboratories.

A national voluntary laboratory accreditation program (NVLAP) for private and public testing laboratories which serve regulatory and nonregulatory product evaluation needs was first established by the U.S. Department of Commerce effective February 25, 1976[215] and is currently administered by the National Bureau of Standards. The organizational, administrative and technical details set forth in the current version of the Federal regulations pertaining to NVLAPs[216] afford a useful overview of many aspects of the organization and conduct of voluntary accreditation for drug-use testing laboratories. Other voluntary laboratory accreditation programs are currently operated by nongovernmental organizations in such fields as industrial hygiene, blood banking, and many others.

Another set of useful guidelines to serve as a starting point for regulation of drug-use testing is the pair of positions adopted by the

---

214. Dubowski & McBay, Essentials for Acceptability of Drug-Use Testing Laboratories, ABSTRACTS OF THE 39TH ANNUAL MEETING, AMERICAN ACADEMY OF FORENSIC SCIENCES 142-43 (1987).

215. Office of the Secretary of Commerce, Title 15 — Commerce and Foreign Trade. Part 7 — Procedures for a National Voluntary Laboratory Accreditation Program, 41 Fed. Reg. 8163-8168 (1976).

216. 15 C.F.R. Part 7.

American Chemical Society, the American Association for Clinical Chemistry, and the American Institute of Chemists on "Principles of Legislation and Rule Making for Regulation of the Practice of Clinical Chemistry"[217] and "Principles of Proficiency Testing in Clinical Chemistry."[218]

The single most important aspect of any scheme for accrediting or regulating drug-use testing and drug-use testing laboratories is the element concerning laboratory staff and personnel. Because of their singular importance, standards for such personnel will be considered separately.

C. *Standards for Personnel of Drug-Use Testing Laboratories*

Drug-use testing, as currently performed, is a highly labor-intensive activity. The reliability of testing and the validity of the results are very dependent upon the qualifications, experience and judgment of the analyst and other professional and technical personnel concerned with a given biological specimen and with the testing system as a whole. To a far greater extent than in most commonly performed clinical chemistry laboratory tests, drug-use tests are non-automated and are performed individually or in sets or batches by partly or entirely manual methods which are often locally modified from their original published version, if any. The occasionally used term "urinalysis for drugs" is an unfortunate misappellation. Urinalysis is the performance of clinical laboratory tests of limited scope and complexity on urine specimens. A complete routine urinalysis typically consists of observation of the color, odor and appearance of the urine specimen, measurement of its specific gravity and reaction (pH), performance of simple tests for presence of excessive bile pigments, glucose, ketones or hemoglobin, and microscopic examination of the urinary sediment for evidence of blood cells, bacteria, crystals and other formed elements. Urinalysis is traditionally, if perhaps unfortunately, performed in clinical laboratories by the lowest ranking and least educated and trained laboratorians. More complex examinations on urine are never designated as "urinalysis," but are simply given the applicable microbiological, clinical, chemical or other designation pertinent to the analyte or procedure of interest, e.g.,

217. Principles of Legislation and Rule Making for Regulation of the Practice of Clinical Chemistry, Revision of May 1980 (American Chemical Society 1980).

218. Principles of Proficiency Testing in Clinical Chemistry. Revision of May 1980 (American Chemical Society 1980).

bacterial culture, hormone analysis, etc.; and they are performed in the corresponding clinical laboratory unit. The fact that the specimen most commonly used in drug-used testing at present is urine does not alter the status of these examinations as toxicological analyses and does not make such urine drug-use testing "urinalysis" in the traditional sense of that term. Hence, the applicable personnel standards are those for the former, not the latter kind of laboratory service.

Fortunately, the consensus of informed opinion on the necessary qualifications of laboratory personnel engaged in drug-use testing is coalescing. Several of the recently promulgated federal guidelines, i.e., the HHS Guidelines[219] and the NIDA Draft Standards,[220] incorporate substantially the same requirements for laboratory directors and result interpretors/certifying officials as have been proposed by the profession.[221] To obviate the need to delineate or reconcile minor differences in the necessary qualifications of laboratory personnel set forth in the several foregoing sources, the following material is represented only as this author's views of the necessary personnel standards for drug-use testing.

Director: The laboratory (scientific) director should (1) have an earned doctoral degree (Ph.D., or Sc.D.) in chemical science, pharmacology, or toxicology, from an accredited institution; and (2) hold current certification in Forensic Toxicology by the American Board of Forensic Toxicology or certification in Toxicological Chemistry by the American Board of Clinical Chemistry.

In lieu of the above certification,[222] the laboratory or scientific director must possess documented qualifications equivalent to those required for such certification by ABFT or ABCC, except that only two years of acceptable full-time professional experience in forensic toxicology, toxicological chemistry, or analytical toxicology (or the part-time equivalent thereof) should be required. The director must also possess adequate and appropriate training and/or experience in the forensic aspects of analytical toxicology. The professional experience should in-

---

219. *See* Scientific and Technical Guidelines, *supra* note 207.

220. *See* Draft Standards, *supra* note 145.

221. *See* Dubowski & McBay, *supra* note 214.

222. The two leading certifying bodies in relation to drug-use testing, which are enumerated in the Federal HHS Guidelines and NIDA Guidelines, are The American Board of Forensic Toxicology (225 South Academy Blvd., Colorado Springs, CO 80910) and The American Board of Clinical Chemistry (c/o Dr. William H. Porter, Department of Pathology, University of Kentucky Medical Center, Lexington, KY 40536) with respect to its certification program in Toxicological Chemistry.

clude at least two years of experience in the analysis of biological specimens for drugs of abuse.

Supervisor: Supervisors of analysts should have (1) an earned baccalaureate or higher degree in chemical science from an accredited institution; and (2) at least two years of acceptable full-time training and experience in analytical toxicology, toxicological chemistry or forensic toxicology (or the part-time equivalent thereof); and (3) theoretical and practical training in the technology of drug-use testing in use in the employing laboratory, together with an adequate understanding of quality assurance and quality control concepts and procedures.

In lieu of qualifications (1) and (2), supervisors must (1) possess an earned baccalaureate or higher degree in medical technology or in physical or biological sciences, and hold current registration as a Registered Medical Technologist, MT(ASCP), by the American Society of Clinical Pathologists, or hold current certification as a Clinical Laboratory Scientist, CLS, by the National Certification Agency for Medical Laboratory Personnel, or hold formal recognition which is the documented equivalent of the foregoing; and (2) have had at least two years of acceptable full-time experience in clinical chemistry or other relevant clinical laboratory discipline (or the part-time equivalent thereof).

Analyst: Other laboratory analysts or technicians should possess education, training and skills commensurate with the tasks performed. Those tasks and functions should involve only limited exercise of independent judgment, and should not be performed by analysts or technicians in the absence of a qualified supervisor.

The personnel of drug-use testing laboratories should also possess documented good moral character and appropriate professional or technical competence, and be eligible for the appropriate level of access to controlled dangerous substances under applicable federal and state laws and regulations. To maintain and enhance the skills of persons engaged in drug-use testing activities, adequate in-service training and continuing education programs of appropriate levels and frequency should be conducted within the laboratory for all such personnel or be otherwise available to them. Personnel files containing complete records should be maintained within the laboratory and should include at least the following information: Full identification (name, social security number, photograph), record of education (with degrees) and prior experience, certifications or licenses, references, detailed job description, pertinent health and job safety records, chronological record of performance evaluations, advancements and promotions, results of tests for color

blindness,[223] and pertinent incident reports.

Whether to perform or require drug-use testing of laboratory personnel engaged in drug-use testing is a delicate problem on which there is no unanimity at present. It has unfortunately been documented that drug abuse, drug misuse, and diversion or drugs and controlled substances from the workplace occur occasionally among the staff of clinical and forensic laboratories, as they do among health care practitioners. If these laboratory personnel are subjected to drug-use testing, it should be carried out with all necessary safeguards and the testing itself should be performed in a laboratory other than that in which the person is employed. Interpretors of the results of such tests should be aware that legitimate occupational exposure to drugs of abuse under some circumstances can lead to inadvertent intake, for example by inhalation of cocaine dust and other atmospheric contaminants during the handling of large quantities of controlled substances by inadequately-protected analysts.

VIII. Conclusions and Recommendations

The foregoing information and considerations and this author's experience in drug-use testing give rise to the following conclusions and recommendations. For ready future reference, they have been numbered; but the numerical order does not necessarily indicate relative importance or priority.

A. *Conclusions*

1. Drug-use testing for non-medical purposes is a large and growing field which is presently largely unregulated, but which should be subject to universal and uniform national regulation.

2. Non-medical drug use testing is, in essence, a forensic science activity.

3. The existing technology for analysis of drugs and drug metabolites of interest in drug-use testing is, under proper conditions, capable of yielding correct analysis results validly reflecting the absence, or

223. Color blindness tests are indicated for personnel involved in analysis and verification aspects of drug-use testing because recognition and differentiation of the color of specimens, spots on thin-layer chromatograms, etc. play an important role in the testing process and affect the analysis outcome. Abnormal color vision occurs in about 8% of males and about 0.4% of females. Analysts and their supervisors need to be aware of instances of color blindness.

presence, identity and concentration, of target analytes. However, all procedures and methods for drug analysis are subject to error, especially occurrence of random errors.

4. The interpretation of the results of drug-use testing is less advanced than the best analytical procedures, especially with respect to establishing the relevance and significance of those results.

5. In general, drug-use testing as currently practiced, when urine is the tested biological specimen, does not provide information about past or present patterns of drug use, abuse, or drug-dependence, or about drug-related mental or physical impairment, or other effects, at any given time.

6. There is urgent need for up-to-date, authoritative and comprehensive information about non-medical drug-use testing and the analytical methodology available for that purpose. Periodic updating of such information will also be needed.

B. *Recommendations*

1. A comprehensive and universal nationwide system of regulation of non-medical drug-use testing should be established forthwith, preferably in the form of federal licensure with provisions for alternative accreditation under standards identical to those for federal licensure. All non-medical testing in the public and private sectors should be subject to this regulatory system. Regulation of drug-use testing should specifically apply to both laboratories and other establishments engaged in drug-use testing and to personnel; and it should include adequate and appropriate proficiency testing, inclusive of blind proficiency testing.

2. Non-medical drug-use testing activities should be conducted under established standards applicable to other forensic science activities.

3. Both medical and non-medical testing should include appropriate testing for ethyl alcohol.

4. All persons subjected to non-medical drug-use testing should be informed of the fact beforehand, and be provided with full information concerning the nature and extent of the tests to be conducted (including enumeration of all target analytes) and the testing technology employed. A copy of all results obtained and provided to any other party should also be promptly provided to the tested person. Surreptitious and clandestine testing of biological specimens for drugs and/or metabolites should be prohibited statutorily; and all drug-use testing should

be conditioned upon properly obtained informed consent, except as otherwise provided by law or ordered by a court of competent jurisdiction.

5. Records and reports of the results of non-medical drug-use testing should exclude incidental information arising in the course of the testing, whether sought or fortuitously discovered, on such matters as the state of health of the tested person, apparent existence of disease or infirmity, presence and identity of drugs and medicaments other than those on the official preestablished list of analytes, oral contraceptives, or any other personal information.

6. All biological specimens which have yielded positive results for drugs and/or drug metabolites should be retained in the laboratory, under conditions adequate to prevent substantial change or deterioration, for at least one year or until final disposition of any proceedings arising from such results, whichever is later.

7. At the time of initial collection of urine or other biological specimens for drug-use testing, a separate specimen aliquot should be obtained, properly identified, and suitably and securely stored. It should be of adequate quantity and quality for any subsequent independent analysis in the event of challenge to the results of drug-use testing to be performed upon the main specimen. This reserve aliquot is in addition to and is not a substitute for retention of the remaining portion, if any, of any specimen which yields positive results in drug-use testing. It provides a separate safeguard against intentional or unintentional use, or loss of, the entire main specimen during the course of drug-use testing. Its collection and retention is probably the single most important safeguard in the entire drug-use testing process.

8. Laboratory reports of the results of drug-use testing should state, at a minimum: (a) Information uniquely identifying the specimen to which the report pertains, whether by number, name or otherwise; (b) the drugs, drug metabolites or other target analytes encompassed in the testing process; (c) the type, analytical principle, and methods of all tests conducted for initial (screening) and for confirmatory testing; (d) the cutoff concentration or other quantitative test criterion employed, for each substance encompassed among the target analytes, used to establish whether the result is positive or negative; (e) the results or findings for each test conducted; (f) the respective dates of receipt and analysis of the specimen; (g) the name(s), title(s) and other necessary identifying details for the persons who conducted the testing of the specimen and the review and validation of the reported findings; (h) the date of issue of the laboratory report. In the event of actual or suspected inadequacy of the specimen noted (e.g., evidence of decomposi-

tion or change since collection, or of adulteration of or tampering with the specimen), the report should also contain appropriate details of that information.

9. All non-medical drug-use testing should mandatorily require adequate and appropriate independent confirmation of all positive findings of initial, preliminary, presumptive, or screening tests, by confirmatory tests which employ different chemical principle(s) from that used for initial testing and which possess specificity and sensitivity (as defined herein, supra) at least equal to those of the initial testing methods. In selected situations, negative initial test results should also be comparably confirmed.

10. Cutoff concentrations or other qualitative and quantitative analysis criteria used to establish whether results of testing or analysis for a given drug and/or drug metabolite are to be considered positive or negative, should be nationally standardized. This will promote uniformity of reporting of the results of drug-use testing and foster the use of identical or at least comparable means of assessing the significance of the analysis findings. Ideally, the same reported result should mean the same thing, wherever the testing took place or the results were interpreted.

11. The pertinent characteristics of analysis methods set forth in Table 3, especially those affecting the reliability of the method, should be experimentally determined in each laboratory for every analysis or test method in use in that laboratory, prior to initial use of any method and at appropriate intervals thereafter not exceeding one year. Complete records of the method evaluations should be maintained in the laboratory and be readily available upon request by any appropriately interested party.

12. The inherent limitations of urine as a specimen for drug-use testing should be widely publicized and be fully recognized and appreciated by persons responsible for establishing and conducting drug-use testing programs, for conducting tests and analyses upon urine specimens, and for interpreting the results of such tests. In particular, steps should be taken to achieve universal recognition of the fact that drug-related impairment or drug influence can neither be established nor presumed from the results of urine testing for drugs and/or drug metabolites, nor the dose and time of drug intake or exposure be established or presumed from such results with adequate validity and certainty for legal and quasi-legal purposes.

13. Whenever urine is used as a biological specimen for drug-use testing, all quantitative analysis results and all cutoff concentrations

should be "normalized" for the creatinine concentration of the urine specimen under examination. In practice, this means that all drugs or drug metabolite concentrations, or other numerical data for cutoff values or other purposes, should be determined and expressed in terms of the analyte concentration or other value per milligram of creatinine present in the urine specimen under examination (established by chemical measurement) instead of being expressed per milliliter of urine or other volume indicator.

14. Systematic and organized research efforts should be mounted to select, evaluate, and validate other biological materials to replace urine as a specimen for drug-use testing. In particular, both parotid and mixed saliva should be investigated as potentially preferable alternative specimens.

Urine Testing for Drugs

Karen Hudner*

Introduction

Early in May 1985, the ACLU made headlines in the sports pages of *The Boston Globe*. "ACLU Calls Drug Plan 'Invasion of Privacy'" shouted the caption from the top of the page.[1] Such noteworthy attention in the sports pages is probably a first for the organization.

Ira Glasser, baseball fan extraordinaire, Brooklyn Dodgers fanatic and ACLU national director, had assailed Peter Ueberroth's new drug testing plan as an invasion of privacy. Glasser noted that, "The question it raises is whether or not it is permissible to invade the privacy of thousands who are innocent of drug use in order to find a handful of drug users . . . . There's an old Southern song — if you hang 'em all, you get the guilty."[2]

Ueberroth's edict was a well-publicized part of a growing trend among employers to require urine tests for drugs as a condition of employment. In Massachusetts, the first most widely reported effort to institute a drug testing program occurred in the Spring of 1984. Boston Edison, an employer of approximately 4100 people, began requiring the tests as part of a pre-employment physical as well as a pre-condition to transfers or promotions.[3] Likewise, in New Jersey[4] and Arkansas,[5] school boards had voted to require blood and urine tests for students and on Long Island[6] teachers seeking tenure were required to submit urine samples. Furthermore, about 30 percent of all Fortune 500 com-

* Legislative Agent with the Civil Liberties Union of Massachusetts.

1. The Boston Globe, May 9, 1985, at 56.
2. *Id.*
3. The Boston Globe, July 24, 1984, at 29.
4. *See* Odenheim v. Carstadt-East Rutherford Regional School Dist., 211 N.J. Super. 54, 510 A.2d 709 (1986).
5. Judge Franklin Waters entered a judgment on July 12, 1985, and modified it on September 5, 1985, against the Arkadelphia School District's use of urine tests to determine whether to expel students suspected of using drugs. Judge Waters found the urine tests excessively intrusive. *See Arkadelphia School Dist.'s Use of Urine Test Ruled Unconstitutional*, 17 ACLU NEWSLETTER OF ARKANSAS 1 (1985).
6. Patchoque-Medford Conference of Teachers v. Board of Educ., 119 A.D.2d 35, 505 N.Y.S.2d 888 (App. Div. 1986).

panies have used some drug tests in 1985.[7]

The testing craze reached new heights when, on March 3, 1986, the President's Commission on Organized Crime proposed that all employees of the federal government, as well as all employees of private companies that have contracts with the federal government be regularly subjected to urine tests for drugs.[8] The nadir may have been reached when President Reagan provided his own specimen for testing. Vice-President Bush and his staff also complied voluntarily with this request. One wonders, if the President leads the way can the Vice-President voluntarily refuse? Who watches when the President gives his sample?

II. A Look At The Bigger Picture

Should urine testing of employees by employers be made illegal and be prevented altogether? Naturally, there are public safety considerations. No one wants to fly in a plane which is piloted by someone who has had a three-Martini lunch. No power company employee wants to share a job on a high voltage line with a fellow worker high on drugs.

However, public safety or concern for one's fellow workers should never justify mass screening of the innocent to find one or two drug users. Employee testing should be based on credible evidence of impairment. Furthermore, the impairment should present a clear and present danger to his own safety or the safety of others.

How far should testing reach out? Should we take urine samples for assembly line workers who make airplanes as well as the pilots who fly them? Is there a "clear and present danger" at the assembly line worker level? Clearly, it would be a cruel hoax to substitute urine testing for drugs for careful inspection of each airplane engine during several stages of manufacture. There is no substitute for testing the engine itself before it goes into the plane.

The urine tests most widely used are simple, easy to use and inexpensive. They can even be used on the worksite by personnel who are not lab technicians. But a growing number of toxicologists and pharmacologists characterize urine tests, both the simple and sophisticated, as

7. Marty, Miller, Cohn, Raine & Canoll, *Trying to Say No*, NEWSWEEK, Aug. 11, 1986, at 17.

8. *U.S. Panel Urges Testing Workers for Use of Drugs*, N.Y. Times, Mar. 4, 1986, at 1.

highly inaccurate and useless for confirmation of drug use.

For example, Dr. David Greenblatt, Chief of the Division of Clinical Pharmacology at Tufts-New England Medical Center submitted an affidavit in Suffolk Superior Court which declared the following:

> EMIT assays (the cheap, easy to use variety of urine testing) for substance of abuse in urine are of little or no value and should *never* be used as presumptive or definitive evidence that a person has or has not taken a particular drug. Definitive evidence should be based only on a *blood* test analyzed by a *specific* assay method.[9]

Simple and inexpensive urine tests became generally available in 1980-81. The EMIT test, produced by the Syva Corporation of Palo Alto, California, allows for the easy screening of large numbers of specimens. Such easy screening has made urine testing popular.

The EMIT testing kit comes in different styles to test for a variety of drugs. However, the most widely used test seems to be for marijuana. Each test costs about $10.00. This is a significant contrast to more sophisticated testing the cost of which varies between $60 to $200 per test.

Dr. Greenblatt has stated that the EMIT kit gives a "false positive" result in ten to forty percent of the tests.[10] A "false positive" means that a test for a particular drug is positive when that drug is not actually present in the urine. Dr. Greenblatt noted that the EMIT test may show amphetamines in the urine when non-prescription drugs like Contac and Sudafed are in use. Similarly, over the counter cough medicines which contain dextromethorephan often appear as heroin in such tests. Amoxicillin, an antibiotic, can appear as cocaine.[11] Syva admits that even aspirin may show up as marijuana.[12]

There is a growing body of scientific literature which suggests that the EMIT test or other *indirect* immunoassay urine tests are unwise. A

---

9. Affidavit of David J. Greenblatt, M.D., Suffolk Sup. Ct., Commonwealth of Massachusetts, filed July 13, 1983, at 4. The affidavit was filed in: Kane v. Fair, No. 136229 (Mass. Sup. Ct. Aug. 5, 1983).

In this precedent setting case, Judge Hillel Zobel ruled that the Department of Corrections could not use unconfirmed results of EMIT tests to discipline inmates.

10. *See* Affidavit, *supra* note 9.

11. *Id.*

12. Clark, *EMIT Cannaboid Assay: Clinical Study*, 74 PALO ALTO SUMMARY REPORT 22, 24 (1980).

recent study from the United States Centers for Disease Control[13] illustrated that an investigation of thirteen laboratories which serve 262 drug treatment centers had a false positive error rate of up to 66 percent when testing for methadone and up to 37 percent when testing for amphetamines.

The method used was not an EMIT field kit but an immunoassay laboratory test, radioimmunoassay (RIA). The authors of the article noted that the results reflect serious shortcomings in the laboratories. They further point out that a large portion of treatment program budgets spent on urine testing are a waste of the taxpayers' money and a danger to the success of a treatment program.

There are more accurate *specific* tests than immunoassay. For example, gas chromatography and mass spectroscopy (GC/MS) tests can *directly* measure concentrations of drugs in body fluids. Therefore, even the Syva Corporation recommends that the EMIT tests be confirmed by GC/MS. However, very few employers are likely to follow this advice because of the high costs involved with retesting.[14]

There is not a unanimous opinion among toxicologists that GC/MS, the more specific and sophisticated tests, can adequately indicate to a reasonable certainty that illegal drugs are present in a person's urine. Dr. Arthur McBay, Chief Toxicologist in the Office of the Chief Medical Examiner of the State of North Carolina, has stated, "Alleged 'confirmation' of immunoassays by gas chromatography (GC), high performance liquid chromatography (HPLC), or thin layer chromatography (TLC) add weight to positive immunoassays but there is not agreement among forensic toxicologists that any one of these methods are to be considered adequate enough for confirmation."[15]

Dr. Greenblatt believes that urine tests simply don't work to show recent drug use. Reports indicate that traces of marijuana may show up months after the person has smoked a single cigarette or even from passive inhalation, like at a rock concert.[16] Dr. Greenblatt reports that

---

13. Hansen, Caudill & Boone, *Crisis in Drug Testing*, 253 J. A.M.A. 2382 (1985).

14. The GC/MS procedure is more expensive ($69 to $100 per test), time consuming and difficult. The test involves about fifteen different steps. A well-trained technician can do only about six to ten tests per day, not a very useful rate for mass screening of urine.

15. A. McBay, Marihuana Testing and Litigation 2 (1984) (unpublished manuscript).

16. *Id.; see also* McBay, *Cannabinoid Testing: Forensic and Analytical Aspects*, 23 LABORATORY MANAGEMENT 36 (1985); and McBay, *Efficient Drug Testing: Ad-*

a single dose of valium might show up in a person's urine test several weeks later. He further states, "[a] urine test could be changed from positive to negative, or the reverse, simply by drinking more or less water."[17]

Not all companies respond to the fear of drug or alcohol abuse by employees with draconian measures. A recent New England Newspaper Association (NENA) Special Report on how newspapers respond to the problems showed the approaches were generally humane and sensible ones that did not violate the employee's privacy or due process rights. Most newspapers were not initiating drug-testing programs (the glaring exceptions are *The New York Times* and *The Boston Globe* which in 1985 began a drug testing program as part of a pre-employment physical). Employee assistance programs, so NENA reports, are having a good rate of success in rehabilitating workers dependent on alcohol or drugs. (In all fairness, *The Globe* also has an employee assistance program which employs a consulting clinical psychologist to help employees with all kinds of problems.) "When health insurance does not cover the cost of rehabilitation, a number of newspapers make up the difference, and consider hospitalization for treatment as sick leave," notes the NENA Special Report.[18]

Finally, urine testing can have sinister implications beyond the civil liberties concerns of privacy and due process. In April of 1986, the ACLU of Georgia filed a complaint on behalf of four employees of the Georgia Power Company which had implemented a drug policy at a nuclear power plant construction site. Under the plan, workers could phone in on a "hot line" anonymous reports of drug abuse by other workers.

The four plaintiffs in the case were victims of the "hot line." Three of the employees refused to take the test and were fired. One who took the test was fired for coming to work with drugs in her system. All were denied unemployment benefits by Georgia Power Company and were prevented from withdrawing their savings from the company savings plan program.

All four employees were workers with a history of making known their concerns regarding safety practices at the plant. One worker had contacted the Nuclear Regulatory Commission regarding the falsifica-

---

dressing the Basic Issues, 11 NOVA L. REV. 647 (1987).

17. *See* Affidavit, *supra* note 9, at 4.

18. *Special Report*, NEW ENGLAND NEWSPAPER ASSOC. BULLETIN, June 1986, at 1.

tion of soil density records in 1977 and the subsequent honeycombing in the concrete of a control building. Another had contacted the Commission with concerns about problems with concrete in the turbine building resulting from walls being backfilled too soon.

It is ironic that it was the employees who were concerned about protecting the public's safety who were silenced by a urine testing program in the name of public safety.

III. The Massachusetts Experience.

A growing number of major companies in Massachusetts have joined the ranks of Boston Edison in giving tests to detect drug use. In April of 1986, AT & T began screening all job applicants at their Merrimack Valley facility. West Lynn Creamery now tests its employees, as does the General Electric Company at its Lynn Plant and other Massachusetts facilities.

Increasing numbers of police and fire chiefs have won the right to limited testing of department employees through the collective bargaining process, often in cities and towns where there hasn't been a pay raise in three or four years. One Massachusetts firefighter testified at a legislative hearing that his town (strapped for funds because of a tax cap measure) needed to spend the money on new boots to protect the safety of its firefighters, rather than on urine testing. Presently, the Police Patrolmen's Association is challenging the Boston Police Department's regulations which require random drug testing of police officers and other department employees.[19]

The Civil Liberties Union believes this increasing popular practice is a threat to the most fundamental privacy rights of Americans. The tests are affronts to human dignity and violate the fourth amendment guarantee of citizens' personal privacy and security from unreasonable intrusion into their lives by authorities. Lastly, the questionable accuracy of many of the tests violates due process rights. Although the fourth amendment doesn't legally limit the power of private employers, we believe that the same principles of fairness and justice apply to their treatment of their employees under statewide civil rights and privacy laws.

Government workers are protected in their right to privacy by the Constitution (as more and more courts are beginning to recognize).

---

19. *See Justice Dept. Enters Boston Case to Support Random Drug Testing of Police*, N.Y. Times, Sept. 20, 1986, at 10.

The unions at Boston Edison have done a good job of protecting their workers' rights through arbitration. However, where these protections don't exist, the private sector worker often must depend upon the principles or good will of his employer. Private employer urine testing has not been challenged yet as a violation of state privacy or civil rights law.

The most vulnerable workers of all are job applicants. Few employers are going to provide a sophisticated $60-$100 urine test for someone they are only thinking about hiring. If the inexpensive, easy to use test shows "false positive," is any employer really going to check the results with an expensive confirmatory test? It appears more likely that the job application will instead go into the file or the waste basket.

It is important to remember that evidence of drug use is not the only thing that a urine test discloses. Urinalysis can tell a company whether a job applicant (or for that matter any employee) is being treated for a heart condition, diabetes, depression, epilepsy or even whether an employee is pregnant.

The worst scenario is that urine testing can be used to ignore Massachusetts' laws which protect job seekers from discrimination on the basis of sex, race, color, creed, national origin or handicap. It is quite simple to deny a person with diabetes (someone perfectly capable of performing the job) employment on the basis that there was evidence of a controlled substance in his or her urine. Racial discrimination could also be hidden by the excuse that a urine test showed positive evidence of drugs.

IV. The Civil Liberties of Massachusetts Approach

To protect the rights of Massachusetts' citizens, the Civil Liberties Union of Massachusetts has filed legislation which would allow requests for urine samples and samples of other bodily fluids or tissue only pursuant to strict regulations by the Department of Labor and Industries. We choose the regulatory route to allow for more flexibility. Clearly, there are jobs in which blood or urine samples are required to protect the health of a worker or the general public. For example, hospitals rightfully require blood tests for evidence of a contagious disease. No one would deny the necessity of checking the blood of a health care worker for rubella antibodies if that worker is going to be dealing with pregnant women. If the worker hasn't had rubella, then a vaccination will safeguard the patients.

We felt that it was important to put certain statutory conditions

on those regulations and we have proposed that the Massachusetts legislature follow the lead set by San Francisco's unique testing ordinance[20] and allow testing only if it is used as follows:

a. where there are scientifically accurate means;

b. where the employer has reasonable grounds, based on specific objective facts, that the employee's faculties are impaired on the job;

c. when the employee is in a position where impairment presents a clear and present danger to the physical safety of himself or others;

d. where the employer provides at his expense the opportunity for independent evaluation of the test; and

e. where the employer provides reasonable opportunity to rebut or explain the results of the test. The regulations would be adopted only after a public hearing.

Under our approach, employees would have the same right to bring a civil action for injunctive relief and to be awarded court costs and reasonable attorneys fees as they now have when an employer violates the Massachusetts statutory prohibition against giving lie detector tests. This would include treble damages for any loss of wages or benefits. We believe this right of private action in court is one of the strongest enforcement mechanisms available. Employers consider the threat of a lawsuit a serious matter.

At present, prisoners in Massachusetts have more protections against inaccurate and random testing than the average employee in the private sector. Massachusetts Superior Court Justice Hiller Zobel ruled in 1983 that a prisoner could not be disciplined for taking drugs merely upon the evidence of a positive EMIT test. He declared that a more accurate test was required to confirm the EMIT test. We believe the time is ripe for Massachusetts and other states to enact legislation which will likewise protect its citizens from the inherent abuses of random urine testing.

---

20. *See* Palefsky, *Corporate Vice Precedents: The California Constitution and San Francisco's Worker Privacy Ordinance*, 11 NOVA L. REV. 699 (1987).

Appendix

ACLU Proposed Legislation for the Commonwealth of Massachusetts

An Act Limiting the Testing of Employees

Be it enacted by the Senate and House of Representatives in General Court Assembled, and by the authority of the same, as follows:
SECTION 1. Chapter 149 of the General Laws is hereby amended by inserting after section 19C a new section as follows: —

Section 19D. It shall be unlawful, except in accord with regulations promulgated by the commissioner of labor and industries, for an employer or other person in authority (hereafter "employer") to require as a condition of employment or the receipt of any other benefit, that an employee, prospective employee or other person seeking a benefit (hereafter "employee") submit a sample of his urine, blood or other bodily fluid or tissue for analysis to determine consumption of drugs, including alcohol. Said regulations shall allow such testing only (1) by scientifically accurate means, (2) where the employer, pursuant to mandated procedures, determines there is probable cause, based on specific, objective facts and reasonable inferences drawn therefrom in light of experience, to believe that the employee's faculties are impaired on the job because of his consumption of such drugs, concerning which the employer has received no reasonable explanation, (3) where the employee is in a position such that the impairment presents a clear and present danger to the physical safety of himself or others, (4) where the employer provides the employee, at the employer's expense, the opportunity to have the sample tested or evaluated by an independent testing facility and (5) where the employer provides the employee with a reasonable opportunity to rebut or explain the results. Such regulations shall be adopted only after notice and public hearing pursuant to section 2 of chapter thirty A.

Any person aggrieved by a violation of this section shall have the remedies prescribed in subsection (4) of section nineteen B. Nothing herein shall be construed to abrogate or diminish the rights which an employee or applicant for employment has under section eleven I of chapter twelve, section seventy F of chapter one hundred and eleven or section one B of chapter two hundred fourteen.

Some Preliminary Thoughts on the Wisdom of Governmental Prohibition or Regulation of Employee Urinalysis Testing

Edward J. Imwinkelried*

I. A DESCRIPTION OF THE CURRENT CONTROVERSY OVER EMPLOYEE URINALYSIS . 565
A. *Action: The Initiation of Urinalysis Programs* 565
B. *Reaction: Legal Challenges to Urinalysis Programs* 568
II. THE MERITS OF PROPOSALS FOR GOVERNMENT PROHIBITION OR REGULATION OF PRIVATE EMPLOYERS' URINALYSIS TESTING PROGRAMS . 579
A. *Whether Government Should Intervene At All* 579
B. *Whether the Government Intervention Should Take The Form of a Complete Prohibition of Urinalysis Testing, a Partial Ban, or Limited Regulation of Testing* 583
1. *Complete Prohibition of Private Employers' Use of Urinalysis Testing* 584
2. *A Partial Prohibition Such as a Ban on Random Testing* 588
3. *Which Aspects of Employee Urinalysis Testing Should Government Regulate?* 594
III. CONCLUSION 602

* Professor of Law, University of California, at Davis. B.A., 1967, University of San Francisco. J.D., 1969, University of San Francisco. The author would first like to express his thanks to his colleague, Professor Martha West, who reviewed the Labor Law analysis in this article. The author would also like to thank Mr. Lorenzo Formoso, class of 1987, University of California, at Davis Law School. Mr. Formoso served as the author's research assistant on this article.

It has been said that ours is the most drug conscious society in history.[1] Some experts estimate that 60 million Americans have used marijuana and that 30 million do so regularly.[2] As many as six million Americans are currently using cocaine.[3] In the past, to combat drug abuse, we have vigorously prosecuted drug traffickers.[4] However, that strategy has failed to stem the rising tide of drug use in America. The Reagan Administration has announced a new strategy to reduce the demand for illicit drugs: "cracking down on users."[5] As we shall see, many government agencies are now subjecting their employees to drug tests, and a large number of private businesses are following suit. This new strategy has become a volatile issue in the United States.[6] In the words of Congressman Donald Edwards, the propriety of employee drug testing is "a major civil liberties issue of the 80's."[7]

The purpose of this article is to examine that issue. The first part of the article describes the present controversy over private employee urinalysis. As the first part notes, the genesis of the controversy has been a chain reaction: Many employers have come to the conclusion that drug abuse is a threat to the financial success of their businesses. To curtail the threat, these employers have implemented employee urinalysis testing. A large number of employees believe that the tests are not only unreliable but also invasive of their privacy; and based on that belief, employees are now suing to halt urinalysis and calling for governmental restrictions on urinalysis. The second part of the article evaluates the proposal for governmental restrictions. In particular, the article analyzes these questions: Is any government intervention warranted? If so, should the intervention take the form of prohibition or regulation? If the wisest strategy is regulation, what should be

---

1. A. Moenssens, F. Inbau & J. Starrs, Scientific Evidence in Criminal Cases § 6.01, at 328 (3d ed. 1986).
2. Zeese, *Marijuana Urinalysis Tests*, 1 Drug L. Rep. 25, 28 (1983).
3. Marcotte, *Drugs at Work: Employee Testing Challenged*, 72 A.B.A. J., Mar. 1, 1986, at 34 (citing Dr. Michael Walsh of the National Institute of Drug Abuse).
4. *Trying to say "No"*, Newsweek, Aug. 11, 1986, at 15.
5. *Id.*
6. Allen, *Side Effects*, Cal. Lawyer, Oct. 1985, at 21.
7. Edwards, *Mandatory Drug Testing in the Workplace*, A.B.A. J., Aug. 1, 1986, at 34.

the content of the regulation?

I. A Description of the Current Controversy Over Private Employee Urinalysis

A. *Action: The Initiation of Urinalysis Programs*

Employers have an understandable economic motivation for resorting to measures such as drug and polygraph testing. Private employers are facing a spiraling theft rate.[8] Further, according to one authority, "[w]orkers who have a drinking or drug problem have an absenteeism rate that is 16 times higher than their colleagues, have four times more work-related accidents, use a third more of their sickness benefits, and file five times as many compensation claims than the average worker . . . ."[9] Employees regularly using drugs probably function at only 65% of their potential for productivity.[10] The consequent economic losses are staggering. The Commerce Department estimates that worker theft alone may cost private employers fifty billion dollars each year.[11] By decreasing worker productivity and increasing health care costs, drug abuse may exact an annual toll as high as $80 billion.[12] Employee theft and drug abuse may be responsible for a third of all business bankruptcies[13] and failures[14] in the United States.

To protect their businesses, some employers have rushed headlong[15] to implement new security programs including drug-sniffing dogs

---

8. Ploss, *Truth by Ordeal: The Growing Acceptance of Polygraphy*, 6 FLA. ST. U.L. REV. 1373, 1379 (1978).

9. Kruchko, *Drug Testing in the Workplace*, THE COMPLEAT LAWYER, Sum. 1986, at 11.

10. *Guilt by Test*, INSIDE DRUG LAW, June 1985, at 20 (citing Ronald Buzzeo of the Drug Enforcement Agency's Office of Diversion Control).

11. Stack, *Polygraphs and Privacy*, FLA. B.J., June 1985, at 19 (citing Quade, *Use of Honesty Tests Raises Privacy Issue*, 68 A.B.A. J., 671 (June 1982)).

12. Stoebel, *Drugs Take Awesome Toll on Industry, Too*, DAVIS ENTERPRISE, Dec. 2, 1986, at 14; Kruchko, *supra* note 9, at 11.

13. Nagle, *The Polygraph in the Workplace*, 18 U. RICH. L. REV. 43, 63 (1983) (citing Note, *The Workingman's Nemesis — The Polygraph*, 6 N.C. CENT. L.J. 94, 101 (1974)).

14. Craver, *The Inquisitorial Process in Private Employment*, 63 CORNELL L. REV. 1, 6 (1977) (citing Spelfogel, *Surveillance and Interrogation in Plant Theft and Discipline Cases*, N.Y.U. 21ST ANN. CONF. ON LABOR 171 (1969)).

15. Edwards, *supra* note 7, at 34.

and undercover informants.[16] In particular, the use of polygraph and drug testing is burgeoning.

Ten years ago only 300,000 workers were subjected to polygraph tests in the course of their employment.[17] However, in the past decade private employers' use of polygraphs has "spread like wildfire."[18] Private industry's use of the polygraph is now widespread.[19] Twenty to thirty percent of the nation's largest corporations currently utilize polygraph testing,[20] and in 1985 as many as four million employees may have been asked to submit to a polygraph test at work.[21]

The use of drug testing is spreading at an even faster pace. In part, this phenomenon is due to the advent of a new type of drug test, immunoassays such as radioimmunoassay (RIA) and enzyme multiplied immunoassay technique (EMIT).[22] The immunoassays are particularly attractive to private employers because the tests are portable,[23] rapid,[24] and inexpensive.[25] An immunoassay test of a urine sample can cost an employer as little as five dollars.[26] The armed forces adopted immunoassay testing in the early 1980's, and they now conduct over two million tests each year.[27] Twenty percent of the federal civilian agencies currently administer drug tests to their employees.[28] The President's Commission on Organized Crime has recommended that all federal, state, and local agencies implement drug testing and, further, that

---

16. Bishop, *Drug Testing Comes to Work*, CAL. LAW., Apr. 1986, at 28, 29.
17. Stack, *supra* note 11.
18. Meyer, *Do Lie Detectors Lie? All Too Often*, SCIENCE, June 1982, at 27.
19. Stephens, *The Admissibility of Polygraph Results in Criminal Actions in Alabama State and Federal Courts: Must We Await Buck Rogers in the Twenty-Fifth Century Courtroom?*, 6 LAW. & PSYCH. REV. 69, 76 (1981).
20. Nagle, *supra* note 13, at 64.
21. Stack, *supra* note 11 (citing Tivman, *Truth or Consequences: What's Wrong with Lie Detector Tests*, NEW YORK, Mar. 12, 1984, at 49, 50).
22. For a general description of the immunoassay procedures, see P. GIANNELLI & E. IMWINKELRIED, SCIENTIFIC EVIDENCE § 23-2(E), at 955-61 (1986).
23. Zeese, *supra* note 2, at 25.
24. Budd, *Comparison of Methods of Analysis of Phencyclidine*, 295 J. CHROMATOGRAPHY 492, 494, 496 (1984) ("EMIT . . . can give a . . . result for a urine specimen in just a matter of minutes").
25. Smith, *Detection of Amphetamine in Bloodstains, Semen, Seminal Stains, Saliva, and Saliva Stains*, 17 FORENSIC SCI. 225 (1981).
26. Stille, *Drug Testing*, Nat'l L.J., Apr. 7, 1986, at 23.
27. Zeese, *supra* note 2, at 25.
28. Chineson, *Mandatory Drug Testing: An Invasion of Privacy?*, TRIAL, Sept. 1986, at 91.

they mandate testing by all private contractors they do business with.[29] On September 15, 1986, President Reagan signed an executive order decreeing mandatory testing for federal employees in "sensitive positions."[30] The use of drug testing in the private sector is also increasing at a spectacular rate. Three years ago only ten percent of the *Fortune 500* corporations had drug testing programs.[31] The estimate is that 26% of those businesses presently screen employees for drugs and that 29% subject job applicants to drug screening.[32] Within the next two years, another 19% of private industry is expected to initiate drug testing,[33] and five years from today, drug screening will likely be a standard requirement for job applicants.[34]

Some employers have adopted sophisticated, state-of-the-scientific-art testing systems. For example, although the armed forces use the immunoassays as preliminary screening tests, they commonly confirm immunoassay tests with GC/MS (gas chromatography-mass spectrometer).[35] When properly conducted, a GC/MS test yields a highly reliable identification of a drug.[36] However, many private employers rely on either unconfirmed tests[37] or tests confirmed by less trustworthy procedures than GC/MS.[38] There is a strong temptation to dispense with

---

29. *Id.*

30. *Drug Tests Ordered for Federal Workers*, THE DAVIS ENTERPRISE, Sept. 15, 1986, at 1. The Federal District Court for the Eastern District of Louisiana has invalidated the U.S. Customs Service's attempt to implement mandatory drug testing without individualized suspicion. National Treasury Employees Union v. Von Raab, 649 F. Supp. 380 (E.D. La. 1986). The Justice Department has announced that it will appeal the ruling. Cannizaro, *Justice Dept. Will Appeal Halt of Drug-Testing Plans*, Nat'l L.J., Dec. 8, 1986.

31. Rothstein, *Screening Workers for Drugs: A Legal and Ethical Framework*, 11 EMPLOYEE REL. L.J. 422, 423 (1985).

32. Chineson, *supra* note 28, at 91.

33. Gest, *Using Drugs? You May Not Get Hired*, U.S. NEWS & WORLD REP., Dec. 23, 1985, at 38.

34. Rothstein, *supra* note 31, at 423.

35. Imwinkelried, *Jackson v. Virginia: Reopening the Pandora's Box of the Legal Sufficiency of Drug Identification Evidence*, 73 KY. L.J. 1, 38 n.310 (1984-85).

36. *See generally* GIANNELLI & IMWINKELRIED, *supra* note 22, at § 23-3(C).

37. Chineson, *supra* note 28, at 91.

38. In disciplining prisoners, some correctional systems rely on two immunoassay tests without confirming those tests results by an alternative analytical procedure. *E.g.*, Storms v. Coughlin, 600 F. Supp. 1214, 1217 (S.D.N.Y. 1985). This method of confirmation is particularly suspect. On the one hand, running an immunoassay test reduces the chance of human error. On the other hand, if the reason for the false positive result is the presence of a drug with which the test is cross-reactive, conducting the test twice

confirmation by techniques such as GC/MS. Although an immunoassay screen may cost the employers only $5.00, a GC/MS confirmation may run $200.00.[39] Even less reliable confirmation procedures such as chromatography can cost between $40.00 and $80.00 per test.[40] Especially for smaller, less affluent businesses, reliance on a single, unconfirmed immunoassay test result is an attractive, cheap shortcut.[41] The expense of a first-rate confirmatory test seems prohibitive to many private employers.[42]

B. *Reaction: Legal Challenges to Urinalysis Programs*

Predictably, the widespread use of unconfirmed urinalysis drug tests has generated sharp opposition. The opposition revolves around two concerns: doubts about the reliability of the tests, and a civil libertarian[43] belief that measures such as drug and polygraph testing represent an intolerable infringement on privacy.

Doubts about the trustworthiness of the tests are well-founded. The immunoassay tests are nonspecific[44] in that they will yield positive test results with other substances; that is, they are "cross-reactive" with other substances.[45] Thus, an immunoassay test for marijuana can produce a positive test result even when marijuana is not present in the urine sample — a "false positive."[46] In a federal Center for Disease

---

will not reveal the false positive. As in the first test, the second test will yield a positive result because of the presence of the drug with which the procedure cross-reacts. Because of the problem of cross-reactivity, most scientists advise against confirmation by another immunoassay test. Many private employers confirm immunoassays with chromatographic procedures. Zeese, *supra* note 2, at 27. Standing alone, a chromatographic drug test is much less reliable than a GC/MS test. *See* GIANNELLI & IMWINKELRIED, *supra* note 22, at §§ 23-2(D), 23-3(C). In the words of one commentator, chromatography is "one of the quickest ways of getting the wrong answer . . . in qualitative analysis." D. AMBROSE, GAS CHROMATOGRAPHY 235 (1971).

39. *Guilt by Test*, INSIDE DRUG LAW, June 1985, at 20.

40. Chineson, *supra* note 28, at 91.

41. Rothstein, *supra* note 31, at 427.

42. Kogan, Razi, Pierson & Willson, *Confirmation of Syva EMIT and Roche RIA Abuscreen Urine Immunoassay Results by GC/MS and Qualitative TLC Alternative Methods of Assay*, in AMERICAN ACADEMY OF FORENSIC SCIENTISTS ANNUAL MEETING PROGRAM 114 (1985).

43. Ploss, *supra* note 8, at 1378.

44. Whiting & Manders, *Confirmation of a Tetrahydrocannabinal Metabolite in Urine by Gas Chromatography*, 6 J. ANAL. TOXICOLOGY 49 (1982).

45. *Id.*

46. Imwinkelried, *supra* note 35, at 9. *See also* I. SUNSHINE, METHODOLOGY FOR

Control study of the proficiency of laboratories conducting immunoassay tests, some laboratories had error rates exceeding 60%.[47] Another study was conducted at Northwestern University.[48] The Northwestern researchers discovered that one of the widely used immunoassay tests yielded 25% false positives.[49] Given the nonspecificity of the tests, many authorities recommend that the tests be used only as a preliminary[50] screening[51] procedure. According to these authorities, a positive immunoassay test should be treated as merely a presumptive identification[52] requiring confirmation. Eminent scientists have asserted that confirmation is "accepted chemical procedure"[53] and an "axiom of qualitative identification in . . . toxicology. . . ."[54] The Center for Disease Control,[55] the Food and Drug Administration,[56] the Air Force School of Aerospace Medicine,[57] and a 1986 National Institute of Drug Abuse Conference[58] all recommend confirmation — preferably by a nonimmunological procedure[59] such as GC/MS.[60] Federal regulations provide that immunoassay test results be confirmed before they may be

---

ANALYTICAL TOXOCOLOGY 404 (1975).

47. Gest, *Using Drugs? You May Not Get Hired*, U.S. NEWS & WORLD REP., Dec. 23, 1985, at 38. *See also* Hansen, Caudill & Boone, *Crisis in Drug Testing: Results of CDC Blind Study*, 253 J. A.M.A. 2382 (1985).

48. Edwards, *Mandatory Workplace Drug Testing: Liberties Lost By Increments*, LEGAL TIMES, Sept. 1, 1986, at 11.

49. *Id.*

50. Crouch, Peat, Chinn & Finkle, *Drugs and Driving: A Systematic Analytical Approach*, 28 J. FORENSIC SCI. 945, 947 (1983).

51. Wu Chen, Schaffer, Lin, Kurland, Donoghue & Stein, *The General Toxicology Unknown — I. The Systematic Approach*, 28 J. FORENSIC SCI. 392 (1983).

52. Peat, Deyman & Johnson, *High Performance Liquid Chromatography-Immunoassay of Tetrahydrocannabinol and Its Metabolites in Urine*, 29 J. FORENSIC SCI. 110, 118 (1984).

53. Howard, *Plenary Session: Part I — The Forensic Scientist in Civil Litigation*, 31 J. FORENSIC SCI. 337, 340 (1986).

54. Frederick, Green & Fowler, *Comparison of Six Cannabinoid Metabolite Assays*, 9 J. ANAL. TOXICOLOGY 116 (1985).

55. Jones v. McKenzie, 628 F. Supp. 1500, 1506 (D.D.C. 1986).

56. *Id.*

57. *Id.*

58. Stille, *supra* note 26, at 24.

59. Kogan, Razi, Pierson & Willson, *Confirmation of Syva Enzyme Multiple Immunoassay Technique (EMIT) d.a.u. and Roche Abuscreen Radioimmunoassay (RIA) Urine Cannabinoid Immunoassays by Gas Chromatographic/Mass Spectrometric (GC/MS) and Bonded-Phase Absorption/Thin-Layer Chromatographic (BPA-TLC) Methods*, 31 J. FORENSIC SCI. 494 (1986).

60. Higgs v. Wilson, 616 F. Supp. 226, 229 (W.D. Ky. 1985).

used as the basis for a disciplinary action against a federal prisoner.[61] Indeed, one of the leading manufacturers of EMIT test kits, Syva Corporation, affixes a label "warning that 'positive results should be confirmed by an alternate method.' "[62]

Like the doubt after the trustworthiness of unconfirmed immunoassay tests, the belief that the tests intrude upon privacy has merit. The belief reflects a human rights concern.[63] Some view mandatory polygraph and drug testing as "Orwellian regimens."[64] Drug testing in effect requires employees to furnish evidence that the employer may use against them. Further, the testing procedure involves a bodily function that is almost always performed in privacy. The intrusive nature of the procedure has fueled the opposition to testing.

The opponents of mandatory employee testing are no longer content to write and speak against the tests; they have begun to litigate. At this point, most of the published opinions involving immunoassay deal with mandatory testing in the prison and correctional setting.[65] However, the legal challenges to mandatory testing are spilling over into the private sector. Some labor lawyers report that they now receive more complaints about employer requirements for polygraph and urine testing than for racial discrimination.[66] More and more employees and job applicants are suing to halt testing programs implemented by employ-

---

61. 28 C.F.R. § 550.30 (1986); *see* Peranzo v. Coughlin, 608 F. Supp. 1504, 1514 (S.D.N.Y. 1985).

62. Jones v. McKenzie, 628 F. Supp. 1500, 1505 (D.D.C. 1986). A package insert prepared by Roche Diagnostics for one of its immunoassay products, Abuscreen, reads: "A positive test result should be confirmed by another generally accepted method." ROCHE DIAGNOSTICS, ABUSCREEN RADIOIMMUNOASSAY FOR CANNABINOIDS 5 (1983).

63. Craver, *supra* note 14.

64. *Id.* at 3.

65. *E.g.*, Spence v. Farrier, 807 F.2d 753 (8th Cir. 1986); United States v. Bell, 785 F.2d 640 (8th Cir. 1986); United States v. Penn, 721 F.2d 762 (11th Cir. 1983); Wykoff v. Resig, 613 F. Supp. 1504 (N.D. Ind. 1985); Higgs v. Wilson, 616 F. Supp. 226 (W.D. Ky. 1985); Pella v. Adams, 638 F. Supp. 94 (D. Nev. 1986); Peranzo v. Coughlin, 608 F. Supp. 1504 (S.D.N.Y. 1985); Storms v. Coughlin, 600 F. Supp. 1214 (S.D.N.Y. 1984); Jensen v. Lick, 589 F. Supp. 35 (D.N.D. 1984); Tucker v. Dickey, 613 F. Supp. 1124 (D. Wis. 1985); Kane v. Fair, 33 Crim. L. Rep. (BNA) 2492 (Mass. Super. Ct. Aug. 5, 1983); Vasquez v. Coughlin, 499 N.Y.S.2d 461 (App. Div. 1986); Jefferson v. Commonwealth, 506 A.2d 495 (Pa. Commw. 1986); Carver, *Drugs and Crime: Controlling Use and Reducing Risk Through Testing*, NAT'L INSTIT. JUST. REP., Sept.-Oct. 1986, at 2.

66. Silas, *Workers Challenge Polygraphs*, A.B.A. J., Feb. 1984, at 34.

ers.[67] Both government and private employees have brought suit.

When the employer imposing the drug testing requirement is a government entity or when government requires private employers to engage in employee drug testing, there is obviously sufficient state action to trigger constitutional guarantees such as the fourth amendment prohibition of unreasonable searches.[68] One state court has invalidated a similar requirement for polygraph testing on equal protection grounds,[69] but most of the reported decisions are federal cases focusing on fourth amendment challenges to drug testing programs. There is consensus that a requirement for urinalysis testing constitutes a search within the purview of the fourth amendment.[70] The principal controversy is whether government employers may test applicants and employees at random or, rather, whether the employer must have some individualized,[71] particularized[72] reason to believe that a specific applicant or employee is using contraband drugs. Must the government employer have specific,[73] articulable,[74] objective[75] facts creating a reasonable suspicion[76] of the person's drug abuse? The issues are so novel that the case law is still evolving. The courts may ultimately hold that a government employer may generally require job applicants to submit to a preemployment drug screening test.[77]

---

67. McKay, *Marihuana Testing: Litigation*, in AM. ACAD. & FORENSIC SCIENTISTS ANN. MEETING PROGRAM 69-70 (1985).

68. Stack, *supra* note 11, at 21.

69. Long Beach City Employees Ass'n v. City of Long Beach, 41 Cal. 3d 937, 719 P.2d 660, 227 Cal. Rptr. 90 (1986).

70. Allen v. City of Marietta, 601 F. Supp. 482, 488 (N.D. Ga. 1985); Storms v. Coughlin, 600 F. Supp. 1214, 1217 (S.D.N.Y. 1984); Note, *Dragnet Drug Testing in Public Schools and the Fourth Amendment*, 86 COLUM. L. REV. 852, 856 (1986).

71. Note, *supra* note 70, at 858.

72. Division 241 Amalgamated Transit Union v. Suscy, 538 F.2d 1264, 1267 (7th Cir. 1976), *cert. denied*, 429 U.S. 1029 (1976); Allen v. City of Marietta, 601 F. Supp. 482, 484 (N.D. Ga. 1985).

73. Capua v. City of Plainfield, 643 F. Supp. 1507 (D.N.J. 1986); McDonell v. Hunter, 612 F. Supp. 1122, 1132 (S.D. Iowa 1985), *modified*, 809 F.2d 1302 (8th Cir. 1987); Edwards, *supra* note 7, at 34.

74. Patchogue-Medford Congress of Teachers v. Board of Educ., 119 A.D.2d 35, 505 N.Y.S. 2d 888 (App. Div. 1986).

75. *McDonell*, 612 F. Supp. at 1132.

76. *Id.* at 1130; Lehr & Middlebrooks, *Work-Place Privacy Issues and Employer Screening Policies*, 11 EMPLOYEE REL. L.J. 407, 409 (1985).

77. McCleod v. City of Detroit, 83 C.V. 21630T (E.D. Mich. 1986) (discussed in Englade, *Who's Hired and Who's fired*, STUDENT LAW. Apr. 1986, at 20); *McDonnell*, 612 F. Supp. at 1132 (dictum). *See also* Higginbotham, *Urinalysis Testing Programs*

However, the validity of general, random testing of current employees is more questionable.[78] In a recent article attempting to synthesize the case law, Congressman Edwards concluded that with the exception of "pervasively regulated industries such as horse racing," testing employees is ordinarily impermissible absent "the particularized cause generally required under the Fourth Amendment for a search . . ."[79] At one extreme, in the heavily regulated[80] horse racing[81] and boxing[82] industries, the courts have sustained government regulations requiring random testing; these industries have a tradition of intensive

---

in Law Enforcement, F.B.I. LAW ENF. BULLETIN, Nov. 1986, at 26-27.

78. Note, *supra* note 70, at 872, contains a particularly cogent analysis of the fourth amendment policy question:

> As Professor LaFave notes, the Supreme Court has continued to emphasize [that] the government may conduct searches without articulating grounds on a case-by-case basis . . . only when the nature of the problem being dealt with is such that these grounds cannot be identified. For example, in *Camara*, the Court emphasized that most housing code violations, such as faulty wiring or plumbing, could not be detected from the outside. . . .
>
> On the other hand, in *Brignoni-Ponce*, the Supreme Court struck down a series of warrantless stops that were conducted by roving border patrols without any individualized suspicion. . . . "[T]he nature of illegal alien traffic and the characteristics of smuggling operations tend to generate articulable grounds for identifying violators. . . . In sum, if the nature of the problem generates articulable suspicious behavior, thereby enabling public officials to identify the persons most probably engaged in the activity, it is not reasonable under the fourth amendment to subject an entire class of people to a search.
>
> It is fair to assume that children under the influence of drugs generate at least the same level of articulable grounds for suspicion as do trans-border smugglers. A child under the influence of drugs exhibits familiar and easily recognizable physical characteristics: slurred speech, red or glassy eyes, problems with equilibrium and other gross motor coordination, drowsiness, or excessive rowdiness, and, with some narcotics, a distinctive odor.

Although this passage deals directly with urinalysis of students, the thrust of the argument is equally applicable to employee urinalysis.

79. Edwards, *supra* note 48; The court applied a similar standard in National Treasury Employees Union v. Von Raab, 649 F. Supp. 380 (E.D. La. 1986); Penny v. Kennedy, 648 F. Supp. 815 (E.D. Tenn. 1986); and Lovvorn v. City of Chattanooga, 647 F. Supp. 875 (E.D. Tenn. 1986).

80. Shoemaker v. Handel, 608 F. Supp. 1151, 1156 (D.N.J. 1985), *aff'd*, 795 F.2d 1136 (3d Cir. 1986).

81. *Shoemaker*, 608 F. Supp. at 1153.

82. *Id.* at 1158.

regulation, and there are grave risks of serious accidents and injuries in those industries.[83] The same result obtains with train operators.[84] At the opposite end of the spectrum, when the employee is a night janitor,[85] typist,[86] or a school bus attendant who merely helps students on and off the bus[87] — employees whose line of work does not present substantial safety concerns — the courts have been inclined to require individualized suspicion.[88]

Congressman Edwards takes issue with the assertion that "random testing of employees responsible for public safety is permissible" absent particularized cause,[89] and he correctly points out that in one case involving government employees handling hazardous high voltage, there were specific facts creating at least a reasonable suspicion of the tested employees' drug abuse.[90] Further, in one of the earlier cases upholding drug testing of bus operators, again there was a form of individualized suspicion; the only employees tested were those who had just been involved in a serious accident or were suspected of being under the influence.[91] However, at least in dictum, the most recent cases indicate that

---

83. *Id.* at 1157. *See also* McDonell v. Hunter, 809 F.2d 1302 (8th Cir. Jan. 12, 1987) (prison employees).

84. Division 241 Amalgamated Transit Union v. Suscy, 538 F. 2d 1264, 1267 (7th Cir.), *cert. denied*, 429 U.S. 1029 (1976).

85. Donegan & Anagrola, *Drug Testing in the Workplace: A Clash of Rights*, LEGAL TIMES, Aug. 4, 1986, at 30.

86. *Id.*

87. Jones v. McKenzie, 628 F. Supp. 1500 (D.D.C. 1986).

88. *Id.* at 1507.

89. Edwards, *Mandatory Workplace Drug Testing: Liberties Lost by Increments*, LEGAL TIMES, Sept. 1, 1986, at 11. *See also* Note, *Drug Testing: America's New Work Ethic*, 15 STET. L. REV. 883, 886 (1986).

90. The case is Allen v. City of Marietta, 601 F. Supp. 482 (N.D. Ga. 1985). Congressman Edwards comments:

> In that case, city employees who regularly worked around high voltage wires were terminated when urine tests were positive. The court agreed that the tests were a search and seizure within the Fourth Amendment, but found them not unreasonable. It must be noted, however, that the tests were given to employees who had been observed using marijuana on the job by an informant planted in the electrical division by the city. Personal observation of drug use certainly constitutes particularized cause for a search.

Edwards, *supra* note 89, at 11.

91. *Division 241 Amalgamated Transit Union*, 538 F.2d at 1267. Congressman Edwards adds: "Federal Railroad Administration rules allow urine and blood testing only after accidents or when supervisors have a reasonable suspicion that an employee

"public safety consideration" may justify subjecting government employees such as school bus drivers to random testing.[92] Even some commentators who are generally skeptical of drug testing concede the legitimacy of routinely screening employees in "safety specific" jobs.[93] In summary, although it is impossible to confidently forecast the final state of the decisional law, random testing required by government fiat will very possibly be upheld in pervasively regulated private industries and for public employees in safety specific positions.

The final denouement of the legal challenges to drug testing programs initiated by private employees absent government regulation is even more difficult to predict. Of course, it is clear that employees cannot invoke such constitutional provisions as the fourth amendment to strike down programs adopted by private employers; the state action needed to trigger the constitutional protections is lacking.[94] However, attorneys representing private employees have developed a variety of other theories — under state constitutional law, statutes, common-law causes of action, and arbitration — to attack employers' drug testing programs.

---

is under the influence of drugs or alcohol." Edwards, *supra* note 89.

92. Jones v. McKenzie, 628 F. Supp. at 1508. *See also* Donegan & Anagrola, *supra* note 85, at 89:

> The courts will undoubtedly further define the circumstances under which a government employee can be subjected to random testing. Based on court decisions to date, such tests most likely will be upheld for employees responsible for public safety or the operation of public transit vehicles or highly dangerous equipment, or for employees in positions of public trust.

See also 1 W. CONNOLLY & M. CONNOLLY, A PRACTICAL GUIDE TO EQUAL EMPLOYMENT OPPORTUNITY § 2.02[14], at 2-19 (1986) ("In New York City Transit Authority v. Beazer, 440 U.S. 568 (1979), [t]he Supreme Court held lawful the New York Transit Authority's policy not to hire current methadone users. The Supreme Court upheld the policy . . . on the ground that the safety and efficiency of the system was a valid business necessity").

93. Rothstein, *supra* note 31, at 425 ("a substantial-danger criterion"); *see also* Note, *Constitutional Law: Urinalysis and the Public Employer - Another Well-Delineated Exception to the Warrant Requirement?*, 30 OKLA. L. REV. 257, 271-72 (1986); Higginbotham, *Urinalysis Drug Testing Programs for Law Enforcement (Part I)*, F.B.I. L. ENF. BULL, at 25, 28.

94. Stack, *supra* note 11, at 21. It is true that some respected commentators have urged that the action of major corporations be treated as state action. *E.g.*, Friedman, *Corporate Power, Government by Private Groups, and the Law*, 57 COLUM. L. REV. 155 (1957). However, the Supreme Court has rejected that urging. Lugar v. Edmondson Oil Co., 457 U.S. 922, 925-26 (1982); Hurd, *Use of the Polygraph in Screening Job Applicants*, 22 AM. BUS. L.J. 529, 545-46 (1985).

In some jurisdictions, the state constitution includes a guarantee of privacy enforceable even against private parties.[95] The Montana Constitution recognizes a right to privacy,[96] as does the California Constitution.[97] In a landmark case, the California Supreme Court held that only "compelling" interests can override the right to privacy in the state constitution.[98] One private employee has already sued under the California right-to-privacy provision to recover damages for her termination when she refused to submit to urinalysis testing.[99] That suit is currently pending in state Superior Court in San Francisco.

There are also statutory theories for attacking private employers' urinalysis programs. Under the National Labor Relations Act, the implementation of a drug testing program is in all probability a mandatory subject for collective bargaining.[100] Employers covered by the Act may even have a duty to bargain over urinalysis for job applicants.[101] If so, the employer must negotiate in good faith with labor before imposing the requirement;[102] the employer may not unilaterally institute the program, since its institution constitutes a change in working conditions.[103] However, the N.L.R.A. protection is limited; and if management and labor reach an impasse in negotiations over urinalysis, the employer may then implement the program.[104] It is arguable that there is additional protection under the Rehabilitation Act of 1973.[105] The act prohibits discrimination against handicapped persons,

---

95. Kruchko, *supra* note 9, at 10.

96. Oberg v. City of Billings, 674 P.2d 494 (Mont. 1983).

97. CAL. CONST. art. 1, § 1. *See* Bishop, *supra* note 16, at 31.

98. White v. Davis, 13 Cal. 3d 757, 533 P.2d 222, 120 Cal. Rptr. 94 (1975); Bishop, *supra* note 16, at 31.

99. Luck v. Southern Pac. Transp. Co., C 84-3-230 (Cal. Super. Ct. 1986); Bishop, *supra* note 16, at 31; Stille, *supra* note 26, at 23.

100. Rothstein, *supra* note 31, at 430.

101. Lehr & Middlebrooks, *Work-Place Privacy Issues and Employer Screening Policies*, 11 EMPLOYEE REL. L.J. 407, 415 (1985).

102. Craver, *supra* note 14, at 32.

103. *Id.*; Donegan & Anagrola, *supra* note 85, at 31 n.29; Rust, *The Legal Dilemma*, A.B.A. J., Nov. 1, 1986, at 51, 54. *But see* Brotherhood of Maintenance of Way Employees, Lodge 16 v. Burlington N.R.R. Co., 802 F.2d 1016 (8th Cir. 1986) (If the collective bargaining agreement arguably permits tests but the union objects, the objection creates only a "minor" dispute under the Railway Labor Act, and the railroad may unilaterally implement testing).

104. Craver, *supra* note 14, at 32.

105. Donegan & Anagrola, *supra* note 85, at 29. Congress extended the coverage of the act to employees of state and local government agencies receiving federal revenue sharing funds. Zeese, *supra* note 2, at 29.

Nova Law Review, Vol. 11, Iss. 2 [1987], Art. 23

and the definition of handicapped persons seems broad enough to include drug users.[106] The only relevant statutory exception denies protection to "drug abuser[s] whose current . . . drug abuse . . . would constitute a direct threat to property or the safety of others."[107] The negative implication is that if the employee's drug abuse does not create that threat, the employee is entitled to the Act's protection.

Common-law theories for attacking urinalysis programs are also emerging.[108] In some cases, an employee can sue for breach of contract. Suppose, by way of example, that the employee's individual contract with the employer contains either a ban on urinalysis testing[109] or a requirement that the employer have "cause" for termination.[110] The employee can argue that the test violated the ban or that the test is so unreliable that it does not constitute just cause for a firing. Alternatively, the employee can sue for wrongful discharge.[111] Although at-will employees ordinarily cannot maintain this cause of action, increasingly courts are recognizing a public-policy exception to the general rule that at-will employees may not sue for wrongful discharge.[112] The court might be willing to recognize a public policy protecting persons from invasions of privacy such as urinalysis tests. Other employees have filed suits premised on theories of invasion of privacy,[113] infliction of emotional distress,[114] and defamation, if a report of a positive drug test is released to third parties such as other prospective employers.[115] Since the use of illicit drugs is a crime, even an oral report of drug use can

---

106. Rothstein, *supra* note 31, at 431.

107. *Id.* In *McCleod v. City of Detroit* in the Eastern District of Michigan, Judge Avern Cohn ruled that drug users are not handicapped persons within the meaning of the Act. *See* Englade, *Who's Hired and Who's Fired*, STUDENT LAWYER, Apr. 1986, at 20. However, the New Jersey and New York statutes are broader and may accord drug users some protection. *Special Report*, 24 GOVT. EMPLOYEES REL. REP. 1157 (Aug. 25, 1986).

108. *See generally* Hurd, *supra* note 94, at 542; Lehr & Middlebrooks, *supra* note 101, at 409.

109. Hurd, *supra* note 94, at 541. In one survey, the researchers discovered that 12% of the collective bargaining contracts surveyed contained restrictions on polygraph testing in pre and post-employment situations. *Id.* at 541 n.73.

110. Stack, *supra* note 11.

111. Kruchko, *supra* note 9, at 7.

112. *Id.* at 63; *see also* Stack, *supra* note 11, at 21.

113. Hartsfield, *Polygraphs*, LAB. L.J., Nov. 1985, at 817, 822.

114. *Id.* at 819.

115. Kruchko, *supra* note 9, at 63.

amount to slander per se.[116] Finally, some employees have sued the laboratories conducting the urinalysis tests for negligence.[117]

Even these common-law theories do not exhaust the possibilities. Roughly 25% of the labor force is covered by collective bargaining agreements and can resort to the arbitration process.[118] In reaching their decisions, labor arbitrators are not bound by strict principles of law; they may factor equitable considerations into their decisions.[119] There is already a large number of arbitral decisions restricting polygraph testing that employees attacking urinalysis tests can cite by analogy.[120] As previously noted, the protections of the Bill of Rights in the United States Constitution do not directly apply to private employers due to the absence of state action. Yet, to a surprising degree, labor arbitrators have generally afforded private employees protection against unreasonable searches,[121] compulsory self-incrimination,[122] and employee interrogation in the absence of a union representative.[123] More specifically, arbitrators have taken a closer look at employee polygraph testing. There is admittedly a division of sentiment among labor arbitrators.[124] However, many arbitrators exclude polygraph test results,[125] will not treat an employee's refusal to submit a polygraph test as evidence against the employee,[126] and hold that the employee's refusal is an insufficient basis for discipline against the employee.[127] Analogizing to these polygraph decisions, several employees who have been discharged on the basis of urinalysis tests have already won their jobs

---

116. Zeese, *supra* note 2, at 29.

117. Stille, *supra* note 26. *See* Nygren v. Predovich, 637 F. Supp. 1083 (D. Colo. 1986).

118. Letter from Professor Charles Craver to author (Sept. 4, 1986).

119. Craver, *supra* note 14, at 5.

120. *Id.* at 4.

121. *Id.* at 43-45. Arbitrators have sometimes required probable cause for searches. *Id.* at 49. In addition, they have often excluded evidence seized in unreasonable searches. *Id.* at 56.

122. *Id.* at 11. They have barred involuntary confessions as evidence, *id.* at 12, and sometimes refused to consider an employee's silence as evidence against the employee. *Id.* at 13.

123. *Id.* at 16-17.

124. Nagle, *supra* note 13, at 74; Note, *Lie Detectors in the Employment Context*, 35 LA. L. REV. 694, 697 (1975).

125. Craver, *supra* note 14, at 34.

126. *Id.* at 37-38.

127. *Id.* at 40; Hartsfield, *supra* note 113, at 828.

back in arbitration.[128]

Although private employees have been "increasingly successful"[129] in challenging programs such as polygraph and urinalysis testing, some commentators have already come to the conclusion that employees' protection under the current state of the law is "obviously inadequate."[130] These commentators assert that, as a practical matter,[131] employees have little or no protection.[132] These commentators point to specific weaknesses in some of the existing theories available to employees. For instance, it is difficult for employees to prevail in defamation actions because there is a qualified tort privilege for good faith communications between employers.[133] Similarly, the critics claim that it is misleading to rely on labor arbitration decisions as a source of protection. To begin with, roughly three-quarters of the work force is not covered by collective bargaining agreements and, hence, cannot resort to arbitration.[134] Further, unlike opinions of common-law courts, labor arbitrators' decisions do not bind other arbitrators — labor arbitration law does not follow the traditional precedential system.[135] According to the critics, in the short term, employees will have considerable difficulty obtaining any relief against polygraph and urinalysis testing programs;[136] and even in the long run, the existing legal remedies for employees are not promising.[137]

Since they believe that the existing remedies are inadequate, the critics are calling for government intervention[138] — a blanket[139] or partial prohibition of the use of urinalysis tests by private employers. Twenty-one states have already enacted statutes completely or partially banning private employers' use of polygraphs.[140] The state legislatures

---

128. *Urinalysis Update*, 1 DRUG L. REP. 71, 72 (1983).

129. Raskin, *The Polygraph in 1986: Scientific, Professional, and Legal Issues Surrounding Application and Acceptance of Polygraph Evidence*, 1986 UTAH L. REV. 29, 29-30, 69.

130. Stack, *supra* note 11.

131. Note, *supra* note 124, at 703.

132. Stack, *supra* note 11.

133. Lehr & Middlebrooks, *supra* note 101, at 410.

134. Letter from Professor Charles Craver to author (Sept. 4, 1986).

135. Craver, *supra* note 14.

136. Gardner, *Wiretapping the Mind: A Call to Regulate Truth Verification in Employment*, 21 SAN DIEGO L. REV. 295, 319 (1984).

137. Stack, *supra* note 11.

138. *Id.*

139. Chineson, *supra* note 28, at 94; Silas, *supra* note 66, at 35.

140. Nagle, *supra* note 13, at 67 n.134 (listing in the statutes).

in California, Maine, Maryland, and Oregon are considering similar legislation for urinalysis tests.[141] The City of San Francisco has adopted an ordinance restricting employer urinalysis programs.[142] Would government intervention be a step in the right direction?

II. The Merits of Proposals for Government Prohibition or Regulation of Private Employers' Urinalysis Testing Programs

The previous section of this article described the current controversy over employee urinalysis. As we have seen, private employers' resort to urinalysis testing has triggered a chain reaction leading to employees' pleas for government intervention. This section of the article undertakes a critical evaluation of the merits of the proposed government intervention.

A. *Whether Government Should Intervene At All*

The threshold question is whether any government intervention is warranted. Negotiation between management and labor is ordinarily a preferable, more flexible method of accommodating conflicting interests in the private sector.[143] It is silly to assume that private employers want

---

141. Donegan & Anagrola, *supra* note 85, at 31 n.4.

142. San Francisco, Cal., Ordinance No. 527-85 (1985). The ordinance adds §§ 3300A.1-A.11 to the San Francisco Police Code. The key provision is § 3300A.5:

> No employer may demand, require, or request employees to submit to, to take or undergo any blood, urine, or encephalographic test in the body as a condition of continued employment. Nothing herein shall prohibit an employer from requiring a specific employee to submit to blood or urine testing if:
>
> (a) the employer has reasonable grounds to believe that an employee's faculties are impaired on the job; and
>
> (b) the employee is in a position where such impairment presents a clear and present danger to the physical safety of the employee, another employee or to a member of the public; and
>
> (c) the employer provides the employee, at the employer's expense, the opportunity to have the sample tested or evaluated by State licensed independent laboratory/testing facility and provides the employer with a reasonable opportunity to rebut or explain the results. Under no circumstances may employers request, require or conduct random or company-wide blood, urine, or encephalographic testing.

See Palefsky, *Corporate Vice Precedents: The California Constitution and San Francisco's Workers Privacy Ordinance*, 11 NOVA L. REV. 699 (1987).

143. Craver, *supra* note 14, at 64.

to rely on unreliable tests or indiscriminately violate their employees' privacy. After all, it is in the employers' best financial interest to retain good employees and, therefore, to use only tests that are accurate.[144] Further, most employers appreciate the importance of high employee morale.[145] They should have enough common sense to realize that blatantly disregarding their employees' privacy interests will have a deleterious effect on employer-employee relations.[146] Thus, employers have powerful motivations to cooperate with their employees to develop urinalysis programs that are reliable and intrude upon privacy only to the extent absolutely necessary. At first blush, it might seem that these motivations make government intervention unnecessary. There are good reasons for believing that the private sector itself will resolve the current controversy and develop sound urinalysis programs that balance the competing interests.

However, the counterargument is that although private employers have every motivation to choose only accurate testing procedures, they lack the technical competence to make an informed choice. A businessperson may be expert at manufacturing or marketing automobiles. Yet she may lack the scientific background to read a laboratory report of an immunoassay test in a discerning fashion or to make a discriminating selection among competing laboratories bidding for her company's business.

In another context, the courts have repeatedly expressed doubt about the ability of laypeople to critically evaluate scientific data. In most jurisdictions, the courts will follow the hoary *Frye* test for determining the admissibility of scientific evidence.[147] By the terms of that test, as part of the foundation for an offer of scientific proof, the proponent of the scientific evidence must show that the scientific technique in question has gained general acceptance within the relevant technical field.[148] In large part, the courts have imposed this extraordinary barrier to the admission of scientific evidence because they assume that most lay jurors attach exaggerated weight to scientific evidence.[149] In

144. Comment, *Regulation of Polygraph Testing in the Employment Context: Suggested Statutory Control on Test Use and Examiner Competence*, 15 U.C. DAVIS L. REV. 113, 126 (1981).

145. Note, *supra* note 124, at 696.

146. Craver, *supra* note 14, at 40.

147. GIANNELLI & IMWINKELRIED, *supra* note 22, at §§ 1-5.

148. *Id.*

149. Imwinkelried, *The Standard for Admitting Scientific Evidence: A Critique from the Perspective of Juror Psychology*, 28 VILL. L. REV. 554, 562 (1983).

the words of the California Supreme Court, some species of scientific evidence can "cast a spell" over lay jurors.[150] Other courts have declared that lay jurors routinely attribute "mystic infallibility"[151] to scientific testimony and that in the jurors' minds, a "misleading aura of certainty . . . often envelops a . . . scientific process . . . ."[152] There is a deep-seated fear that lay jurors will uncritically accept scientifc evidence at face value.[153]

Some have questioned whether the courts' fear is well-grounded.[154] However, even if the fear of trial jurors' misevaluation of scientific evidence is overstated, there is a much greater danger that the private employer will attach undue weight to a laboratory report of a urinalysis test. In the trial where *Frye* applies, one attorney is striving to make the scientific testimony as comprehensible as possible for the trier of fact, while the other attorney should be prepared to expose every deficiency in the testimony. Further, the trier of fact understands that the attorneys are partisans. The jurors appreciate that the attorneys are paid advocates, and jurors are naturally skeptical of the attorneys' statements during the trial.[155] In summary, at trial there are several factors at work helping to ensure that the jurors understand the testimony and its weaknesses.

Those factors are largely absent when a private employer attempts to evaluate a laboratory report of a urinalysis test and completely lacking when the employer is trying to decide which laboratory to hire. If the employer is contemplating discipline against a particular employee for drug abuse, there may be a hearing on the matter, but it is unlikely that the hearing will be as adversarial or formal as a judicial trial. The dangers are heightened earlier when the employer is contacting the various laboratories conducting urinalysis tests to decide which laboratory to contract with. The businessperson decision-maker may lack the scientific training to judge the validity of the laboratories' quality claims. And precisely because he or she cannot independently evaluate the

---

150. People v. Collins, 68 Cal. 2d 319, 320, 438 P.2d 33, 66 Cal. Rptr. 497 (1968).

151. United States v. Addison, 498 F.2d 741, 744 (D.C. Cir. 1974).

152. People v. Kelly, 17 Cal. 3d 24, 32, 549 P.2d 1240, 1245, 129 Cal. Rptr. 144, 146 (1976).

153. Imwinkelried, *supra* note 149, at 563.

154. *See generally* Imwinkelried, *supra* note 149 (summarizing the results of the relevant empirical studies of jury performance).

155. Dombroff, *Jury Instructions Can Be Crucial in Trial Process*, LEGAL TIMES, Feb. 25, 1985, at 26.

quality claims, the businessperson will often choose a laboratory primarily on the basis of price considerations.[156]

There is certainly no guarantee that the laboratory offering the most attractive price for its services will be either the most competent laboratory, or even minimally competent. The urinalysis industry is a booming,[157] $100 million a year business,[158] projected to soon grow to $200 million annual volume.[159] The sales of one drug-testing firm skyrocketed 450% in 1985, and the company president forecast a further 300% increase in 1986.[160] The industry is becoming fiercely competitive,[161] and patent battles are under way.[162] Dr. Harold Bates, a chemist with one of the leading firms, Metpath Laboratories, commented:

> A company will decide to start a drug-testing program and they'll come to Metpath and say, "We are going to screen 12,000 employees a year. How much can you do it for?" We tell them we can do it for $700,000 a year. They go to another lab that tells them that they can do it for $500,000 at the same level of quality. And maybe they can. But the company will take it a step further and go to a third lab. Finally they find a lab that in order to get the business tells them they can do it for $250,000. Now when you reach a certain rock-bottom price they simply have to cut corners and compromise results. When you start going for price that way, you're going to get a lot of false positives.[163]

If the laboratories report "a lot of false positives" and employers take disciplinary action based on those reports, there will be a severe social impact. Even a one percent error rate will significantly affect society.[164] The number of employees tested annually may soon reach

---

156. Comment, *supra* note 144, at 127.
157. Stille, *supra* note 26, at 24.
158. Rothstein, *supra* note 31, at 426.
159. Chineson, *supra* note 28, at 91.
160. *Id.*
161. Stille, *supra* note 26, at 24.
162. American Hosp. Supply Corp. v. Damon Corp., 597 F. Supp. 445 (N.D. Ill. 1984); Syva Co. v. Miles Laboratories, 566 F. Supp. 1066 (N.D. Ill. 1983).
163. Stille, *supra* note 26, at 26. Ted Schramm, the president at Behaviour Research, Inc., has cautioned that some testing laboratories are all too eager "to make a quick buck," *Special Report*, 24 Gov't. Employees Rel. Rep. (BNA) 1157 (Aug. 25, 1986).
164. Zeese, *supra* note 2, at 25.

five million.[165] Many companies automatically discipline or fire employees who test positive.[166] Even if the false positive rate is merely one percent, 50,000 innocent employees may be wrongfully penalized or terminated.[167] The number of possibly erroneous personnel actions is so large that the matter is no longer of purely private concern; such a large number of erroneous actions by private employers would exact a huge social cost in welfare payments, unemployment benefits, and embittered workers.

This potential social cost justifies government intervention in urinalysis testing. The possible impact of erroneous tests on society makes urinalysis testing an appropriate subject for the exercise of government's police power to prescribe rules for the public health, safety, and welfare.[168] As previously stated, many states have already enacted statutes restricting private employers' use of polygraph tests. In numerous cases, employers have challenged the constitutionality of these statutes on due process grounds.[169] The courts have uniformly rejected these challenges.[170] The courts have reasoned that polygraphs are so unreliable and invasive of privacy that employers' use of the polygraph can generate industrial conflict.[171] It is in the public interest to prevent that conflict, and the public interest, therefore, sustains the polygraph statutes. The same reasoning applies to government intervention in the urinalysis industry.

B. *Whether the Government Intervention Should Take the Form of a Complete Prohibition of Urinalysis Testing, a Partial Ban, or Limited Regulation of Testing*

Once we decide that government should step into the controversy over urinalysis testing, the next question to be addressed is the basic type of intervention. There are three possibilities. Government could

---

165. Stille, *supra* note 26, at 24.

166. Chineson, *supra* note 28, at 91 ("Twenty-five percent of companies with testing programs automatically fire employees who use drugs").

167. Stille, *supra* note 26, at 24.

168. *See* Annotation, *Validity and Construction of Statute Prohibitng Employers from Suggesting or Requiring Polygraph or Similar Tests as Condition of Employment or Continued Employment*, 23 A.L.R. 4th 187, 189 (1983); *see also* Note, *supra* note 124, at 701.

169. *E.g.*, State v. Century Camera, Inc., 309 N.W.2d 735 (Minn. 1981).

170. Annotation, *supra* note 168, at 187.

171. *Id.*

Nova Law Review, Vol. 11, Iss. 2 [1987], Art. 23

altogether prohibit urinalysis testing, adopt a partial ban such as a prohibition of random testing, or content itself with limited regulation of the testing.

1. *Complete Prohibition of Private Employers' Use of Urinalysis Testing*

It is important to understand the nature of the decision whether to prohibit employee urinalysis testing. The testing procedure is simply one of the means available to employers to investigate their employees' background and behavior. To the extent that we deny employers the technique of urinalysis testing, we force them to rely on other investigative techniques. Thus, rather than assessing urinalysis in absolute terms, we must make a comparative judgment: Is urinalysis so much less reliable or so much more intrusive, than other means, that government should single it out for prohibition?

Employers are shifting to novel investigative techniques such as urinalysis and polygraph in large part because the traditional background investigation is no longer effective.[172] Ours is a transient society. Employees move from job to job and from city to city. Consequently, a former employer may know less about the employee than the employer would have 20 years ago.[173] Further, because of modern privacy and defamation laws, former employers are more reluctant to divulge adverse information in their possession.[174] They know that the disclosure may expose them to tort liability. Employers are resorting to new procedures, such as urinalysis, out of legitimate business necessity. A comparison of urinalysis with other new procedures leads to the conclusion that an outright prohibition of urinalysis testing would be too drastic.

The opponents of urinalysis frequently compare that technique to polygraphy. As previously noted, twenty-one states have already enacted statutes prohibiting private employers to some extent from using polygraph tests.[175] The analogy suggests that if urinalysis is as objectionable as polygraph, urinalysis should also be forbidden. However, in any dispassionate comparison with polygraph, urinalysis fares well:

---

172. Dickson, *Pre-Employment Polygraph Screening of Police Applicants*, F.B.I. L. Enf. Bull., Apr. 1986, at 7.
173. *Id.*
174. *Id.*
175. Nagle, *supra* note 13, at 67.

Urinalysis is more reliable, less intrusive, and less subjective than polygraph testing.

There is a substantial error rate in polygraph testing.[176] After conducting a comprehensive survey of the scientific literature, Congress' Office of Technology Assessment concluded that "the polygraph test detects deception better than chance, but with significant error rates."[177] In most of the published experiments, the reported accuracy rate ranges from 70% to 90%.[178] Worse still, most of the errors are false positives; polygraphists more often diagnose innocent, truthful persons as being deceptive than vice versa.[179] Even the 70 to 90% accuracy figures overstate the validity of polygraph in the employment context. In most of the validity studies of polygraphy, the polygraphists were attempting to determine whether the subject was lying about a specific fact or event. Polygraphy is most reliable when the goal is to determine the truthfulness of statements about discrete events.[180] However, when employers use polygraph tests to screen employees, the employer often asks the polygraphist to make general inquiries about the employee's personality traits.[181] The general nature of the questions may further reduce the technique's reliability.[182] In stark contrast, the Center for Disease Control has found that when immunoassay tests for drugs are conducted under tightly controlled conditions, the tests are 97 to 99% accurate.[183]

Urinalysis testing is not only more trustworthy than polygraphy, but it is also less intrusive. In the typical polygraph test for employee screening, the polygraphist interrogates the employee about dishonesty, prior work record, mental and physical problems, family difficulties, and often even political activities.[184] Moreover, many polygraphists use

---

176. Kleinmuntz, *Trial by Polygraph: A Costly and Destructive Way of Detecting "Truth"*, TRIAL, Sept. 1985, at 32, 36.

177. Note, *The Presidential Polygraph Order and the Fourth Amendment: Subjecting Federal Employees to Warrantless Searches*, 69 CORNELL L. REV. 896, 905 (1984).

178. Hurd, *supra* note 94, at 522.

179. Meyer, *Do Lie Detectors Lie? All too Often*, SCIENCE, June 1982, at 26; Raskin, *supra* note 129, at 42.

180. Meyer, *supra* note 179, at 72; Comment, *supra* note 144, at 124.

181. Note, *supra* note 177, at 905.

182. *Id.*

183. Jensen v. Lick, 589 F. Supp. 35, 38 (D.N.D. 1984).

184. Gardner, *supra* note 136, at 307.

the so-called control question test.[185] In this type of test, the polygraphist asks the subject about similar but unrelated misconduct.[186] Thus, if the polygraphist is attempting to determine whether the employee stole certain property missing from inventory, the polygraphist might ask the employee about other thefts from department stores as well as the theft under investigation. The rule of thumb is that the test indicates the employee's guilt of the latter theft if the employee's reaction to the relevant questions is more pronounced than the reaction to the control questions.[187] Thus, the polygraphist makes a wide-ranging inquiry about the employee's innermost[188] beliefs and thoughts.[189] The inquiry is probing in the extreme.[190] The intrusion involved in urinalysis testing pales in comparison; the nature and extent of the intrusion are less offensive. A urinalysis test analyzes physical specimens without attempting to search the human mind.[191] It is true that like the polygraph test, a urinalysis procedure can yield some data that is not directly relevant. According to Dr. Bates, the procedure can disclose "whether an employee is being treated for a heart condition, manic-depression, epilepsy, diabetes or schizophrenia."[192] The drugs disclosed in the test may be medications used only or normally for the treatment of those conditions. However, all those conditions are essentially medical problems,[193] and a urinalysis test can never impinge on the numerous non-medical privacy areas often probed in polygraph screening.

Next, urinalysis testing is more objective than polygraphy. Numerous factors inject subjectivity into a polygraph test. Subjects vary in their degree of psychological responsiveness.[194] Some persons are unduly nervous (hyperreactive), while others are abnormally calm (hy-

---

185. *Id.* at 316.

186. Craver, *supra* note 14, at 41.

187. GIANNELLI & IMWINKELRIED, *supra* note 22, § 8-2(B).

188. Hurd, *supra* note 94, at 539.

189. Craver, *supra* note 14, at 39.

190. Comment, *supra* note 144, at 117. Some states have gone to the length of forbidding polygraph questioning about particular subjects, such as political and sexual activity. Nagle, *supra* note 13, at 68 (Virginia and Wisconsin).

191. Gardner, *supra* note 136, at 323.

192. Stille, *supra* note 26. *See also Special Report*, 24 GOV'T EMPLOYEES REL. REP. 1157 (Aug. 25, 1986) (Summarizing remarks of Cliff Palefsky that the tests reveal "medical problems the employees may want to keep confidential").

193. *Id.*

194. Lester, *Polygraph Evidence: Are the Courts Failing to Keep Abreast of Modern Technology?*, 5 CRIM. JUST. J. 33, 46 (1981).

poreactive).[195] Further, one of the key physiological reactions analyzed in polygraph is the subject's electrodermal response.[196] The response is the change in flow of electrical current in the subject's skin.[197] Persons differ in their electrodermal lability, that is, the frequency with which their EDR changes.[198] In addition, some persons have mastered countermeasures such as self-hypnosis and biofeedback that may affect polygraph readings.[199] Lastly, many polygraphists still use the global method for evaluating the test; they closely scrutinize the subject's nonverbal demeanor during the test, and consider that demeanor as well as the readings registered on the polygram chart.[200] The cumulative impact of these factors is that polygraphists often disagree.[201] The leading studies indicate that in as many as 15% of the cases, even veteran polygraphists are likely to disagree over the interpretation of the same polygram.[202] There are fewer variables in urinalysis testing, and the interpretive standards for evaluating urinalysis test results are less subjective. Urinalysis testing is comparatively innocent on every count of the indictment against polygraphy.

Urinalysis also seems superior to most of the other novel investigative techniques to which private employers are now resorting. Some employers are utilizing electronic eavesdropping devices[203] and undercover agents.[204] These covert surveillance techniques are unquestionably more offensive to privacy interests. Other employers have considered using truth serum[205] and the psychological stress evaluator (PSE) which measures micro-tremors in a speaker's voice.[206] Both of these techniques have been roundly criticized in scientific circles, and most courts have refused to admit testimony based on these techniques.[207] Alternatively, the employer can rely on other employees' reports of

---

195. Kleinmuntz, *supra* note 176, at 37.
196. Waid & Orne, *The Physiological Detection of Deception*, 70 AM. SCI. 402, 403 (1982).
197. GIANNELLI & IMWINKELRIED, *supra* note 22, § 8-2(A), at 233 n.4.
198. Waid & Orne, *supra* note 196, at 407.
199. *Id.*; Hartsfield, *supra* note 113, at 830.
200. Raskin, *supra* note 129, at 37.
201. *Id.* at 39-40; Kleinmuntz, *supra* note 176.
202. Abrams, *Polygraphy*, in SCI. AND EXPERT EVIDENCE 755, 798-99 (2d ed. 1981).
203. Craver, *supra* note 14, at 54.
204. *Id.* at 52.
205. *Id.* at 29.
206. *Id.* at 30.
207. GIANNELLI & IMWINKELRIED, *supra* note 22, § 8-6-7.

misconduct and her own evaluation of the value of the employee in question to the company. However, the employee reports at best are nothing more than lay eyewitness testimony, and there are literally hundreds of psychological studies demonstrating that lay eyewitness testimony is prone to a high degree of error.[208] Urinalysis testing is demonstrably more reliable.[209] The employer's personal evaluation of the employee is intensely subjective[210] — much less objective than a urinalysis test.

After reviewing the relative merits of urinalysis and the other investigative techniques at employers' disposal, it becomes clear that a blanket prohibition of urinalysis testing would be wrong-minded.[211] Most of the other techniques are less reliable and more subjective. Many of those techniques represent a greater violation of privacy. A complete ban on employee urinalysis would be unsound.

2. *A Partial Prohibition Such as a Ban on Random Testing*

There are two types of testing systems that employers commonly use: random testing and for-cause testing when the employer already has evidence that the employee has been drug impaired on the job. Virtually all commentators concur that the employer is justified in conducting for-cause tests. There are numerous labor arbitration decisions announcing that as a general proposition, an employer may discharge an employee for using drugs on the job.[212] This proposition is sensible. If the employee holds a safety specific position, the employee's drug impairment on the job poses a threat to the safety of co-workers and other third parties. Given the doctrine of *respondeat superior*, the employee's impairment also exposes the employer to tort liability.[213] Even

---

208. Imwinkelried, *supra* note 149, at 565 ("In one experiment, fewer than fifteen percent of the lay witnesses to a simulated crime correctly identified the perpetrator.").

209. *Cf.* Craver, *supra* note 14, at 35 (comparing direct lay testimony with polygraph testing).

210. Hurd, *supra* note 94, at 535, 540; Nagle, *supra* note 13, at 76.

211. *Cf.* Hurd, *supra* note 94, at 541; Stack, *supra* note 11, at 22.

212. Dobbs Houses, Inc., 78 Lab. Arb. (BNA) 749 (1982) (Tucker, Arb.); Cascade Steel Rolling Mills, Inc., 78 Lab. Arb. (BNA) 753 (1982) (Axon, Arb.); Casting Engin'r, 71 Lab. Arb. (BNA) 949 (1978) (Petersen, Arb.); Combustion Eng'g, Inc., 70 Lab. Arb. (BNA) 318 (1978) (Jewett, Arb.); S.W. Shattuck Chem. Co., 67 Lab. Arb. (BNA) 773 (1976) (Wiggins, Arb.); S.F. Kennedy-New Prod., Inc., 64 Lab. Arb. (BNA) 880 (1975) (Traynor, Arb.).

213. W. PROSSER & R. KEETON, THE LAW OF TORTS § § 69-70 (5th ed. 1984).

when the employee does not have a safety-specific job, the employer has a legitimate reason for testing. Drug impairment can "affect employee work performance," and the employer has a right to ensure "the efficient performance of the work functions" of her business.[214] Although the commentators agree on the justifiability of for-cause testing, the propriety of random testing is being hotly debated.

The opponents of random testing advance this argument. They point out that, although the employer has a right to oversee employee conduct on the job, the employer ordinarily may not discipline an employee for conduct off the business premises during non-duty hours. The employer has no general right to control "what an employee does on his own time and off the employer's premises."[215] The opponents next contend that a positive urinalysis test result has limited probative worth. The test cannot prove that the employee was impaired at the time of the test or shortly before the test; at most, the test shows that at some indefinite prior time, the employee ingested drugs. A positive test result on the job may therefore be a result of the use of drugs off the job, and that use may not at all have impaired the employee on the job. If the employer cannot regulate drug use off the job and if the test cannot prove impairment on the job, the opponents argue, there is no legitimate reason for a random test. The argument seems plausible — convincing enough to have persuaded the City of San Francisco to ban random testing in its ordinance.[216]

There are large elements of truth in the argument of the opponents of random tests. They are correct in asserting that employers have no general right to regulate employees' off-duty conduct.[217] Employers may do so only when the off-duty conduct has or is likely to have a clear, adverse effect on the employer's business.[218] The effect cannot be speculative. [219] More to the point, in several decisions labor arbitrators have found that, standing alone, proof of an employee's off-

---

214. B. Green Co., 65 Lab. Arb. (BNA) 1233, 1236 (1975) (Cushman, Arb.).

215. Movielab, Inc., 50 Lab. Arb. (BNA) 632, 633 (1968) (McMahon, Arb.).

216. Section 3300A.5 reads that "Under no circumstances may employers request, require or conduct random . . . blood, urine or encephalographic testing." San Francisco, Cal., Ordinance No. 527-85 (1985). *See* Palefsky, *Corporate Vice Precedents: The California Constitution and San Francisco's Workers Privacy Ordinance*, 11 NOVA L. REV. ___ (1987).

217. F. ELKOURI & E. ELKOURI, HOW ARBITRATION WORKS 616-18 (3d ed. 1973).

218. *Id.*

219. *Id.* at 617.

duty drug use does not justify employer discipline against the employee.[220]

The opponents' point about the limited probative value of a positive drug test is also well taken. It would be ideal if the test could prove that the employee is presently impaired due to voluntary ingestion of drugs. However, the test cannot prove that. The test does not establish impairment or intoxication.[221] The test does not detect the drug the employee was originally exposed to; rather, it measures a metabolite formed later by the chemical processes of the employee's body.[222] However, the metabolite is not the psychoactive or intoxicating ingredient of the original drug. By the time the metabolite forms, the intoxicating ingredient has disappeared.[223] The metabolite's presence does not even support an inference that the employee was recently impaired. The available data indicates that the metabolite can remain in the person's body between two weeks and a full month after initial ingestion.[224]

For that matter, the employee's voluntary ingestion of the drug is not the only possible explanation for the metabolite's presence. Several experiments have shown that if a person stays in a small,[225] closed,[226] poorly ventilated room[227] with an individual smoking marijuana, that person can passively inhale[228] enough of the drug to turn up positive on the test days or perhaps even weeks later.[229] Thus, a positive drug test result may be indicative of only prior exposure to the drug.[230] It is true that this last weakness in urinalysis testing seems remediable. Although

---

220. Movielab, Inc., 50 Lab. Arb. (BNA) 632, 633 (1968) (McMahon, Arb.); Linde Co., 37 Lab. Arb. (BNA) 1040 (1962) (Wyckoff, Arb.); F. ELKOURI & E. ELKOURI, *supra* note 217, at 616.

221. Rothstein, *supra* note 31, at 424.

222. *Id.*

223. Comment, *Admissibility of Biochemical Urinalysis Testing Results for the Purpose of Detecting Marijuana Use*, 20 WAKE FOREST L. REV. 391, 397 (1984).

224. Harmon v. Auger, 768 F.2d 270, 276 (8th Cir. 1985) ("30 days"); Zeese, *supra* note 2, at 26 ("from 14 to 36 days").

225. SYVA CO., EMIT URINE CANNABINOID ASSAYS: ACCURACY, PASSIVE INHALATION, AND DETECTION TIME STUDIES 3 (1984).

226. Zeidenberg, Bourdon & Nahas, *Marijuana Intoxication by Passive Inhalation: Documentation by Detection of Urinary Metabolites*, 134 AM. J. PSYCH. 76 (1977).

227. *Id.*

228. Note, *supra* note 70, at 855.

229. Zeidenberg, Bourdon & Nahas, *supra* note 226.

230. ROCHE DIAGNOSTICS, ABUSCREEN; RADIOIMMUNOASSAY FOR CANNABINOIDS 5 (Jan. 1983).

passive inhalation can produce detectable quantities of metabolite, inhalation typically produces quantities much lower than those resulting from ingestion.[231] The laboratory can adopt a cutoff value — a quantitative standard for reporting positive tests — and that value can be set high enough to differentiate between quantities resulting from inhalation and those produced by ingestion.[232] However, even if the cutoff technique for reporting positive test results is valid, at most a positive result demonstrates the employee's earlier ingestion of a drug. Without more, the test result proves neither impairment nor ingestion on the job.

Yet we should not leap to the conclusion that random testing is unjustifiable. On further scrutiny, it becomes apparent that random testing serves several legitimate purposes. For-cause testing occurs after the fact — after the employer has an indication that the employee has been impaired on duty. In contrast, random testing serves a deterrent or preventive function: If the employee realizes that he or she can be subjected to a random test, the realization itself deters the use of drugs on or shortly before duty. When the government contemplates intruding upon a privacy interest protected by the fourth amendment, it ordinarily needs an antecedent justification.[233] However, we should pause before opting for a wholesale application of fourth amendment jurisprudence to the private sector. One of the keys to success as a businessperson is the ability to foresee problems and take preventive measures. As previously stated, employee theft plays a major role in approximately a third of the business failures in America.[234] One of the reasons employee theft takes such a toll is that employers have been unable to devise a successful preventive strategy. Most employee thieves are detected well after the fact. One estimate is that, on the average, an employee can steal from the employer for three years before detection.[235]

Urinalysis testing is a promising preventive technique. As one commentator has observed, "Data . . . indicate that drug testing programs can dramatically reduce accidents and injuries in the work-

---

231. M. Perez-Reyes & K. Davis, Passive Inhalation of Marihuana Smoke and Urinary Excretion of Cannabinoids 8 (1982).

232. *Id.* at 2; Whiting & Manders, *supra* note 44; Comment, *supra* note 223, at 407.

233. *See generally* E. Imwinkelried, P. Giannelli, F. Gilligan & F. Lederer, Criminal Evidence 211-12, 214-15 (1979).

234. Craver, *supra* note 14, at 6.

235. Nagle, *supra* note 13.

place."[236] The Southern Pacific Railroad has reported that after initiating drug and alcohol screening, it experienced a 71% reduction in accidents and injuries attributable to human error.[237] Before implementing its drug screening program, the Georgia Power Company had 5.4 accidents per 200,000 workhours at its Vogtle plant.[238] The year after the company implemented the program, the rate fell to 0.49.[239] After the Pacific Gas & Electric Company began screening job applicants for drugs, the number of injuries among its newly hired construction workers fell 40%.[240] There is hard evidence that "random drug testing . . . [can] produce tangible benefits . . . ."[241]

The preventive function is not the only justification for random testing; the test result itself can be useful information. The opponents of random testing argue that since the test result is insufficient to prove impairment on the job, the testing is illegitimate. However, closer scrutiny reveals that the opponents' argument is classic *non sequitur* reasoning. It is true that, standing alone, the test result is insufficient to prove impairment on duty; but it does not follow logically that the testing is unjustifiable. The test can yield admissible evidence of disciplinable misconduct even if it is not sufficient evidence of impairment on the job.

For example, the test can produce admissible evidence of drug addiction or dependence. While the labor arbitrators have generally held that off-duty drug use is not disciplinable, some have held[242] and others have indicated[243] that full-fledged drug addiction is a different matter. The reasoning is simple: If the employee has an addiction, it is foreseeable that sooner or later the addiction will affect work performance.[244] Thus, one arbitrator upheld a discharge based on addiction even when the record contained no evidence of drug impairment on duty.[245]

The result of an urinalysis test could be admissible evidence of

---

236. Donegan & Anagarola, *supra* note 85, at 27.
237. *Id.* at 31 n.6.
238. *Id.*
239. *Id.*
240. Gest, *supra* note 47.
241. Stille, *supra* note 26.
242. Chicago Pneumatic Tool Co., 38 Lab. Arb. (BNA) 891, 893 (1961) (Duff, Arb.).
243. Center Fuel Co., 65 Lab. Arb. (BNA) 1291 (1976) (Gratz, Arb.); Linde Co., 37 Lab. Arb. (BNA) 1040, 1043 (1962) (Wycoff, Arb.).
244. Chicago Pneumatic Tool Co., 38 Lab. Arb. (BNA) at 1291.
245. *Id.*

addiction. An addict is a person who habitually uses a drug.[246] In the argot of the drug subculture, an addict has "a habit." Formal evidentiary rules do not directly apply in arbitration proceedings;[247] but even if they did, the test result would be admissible proof of addiction. Under contemporary evidentiary rules, when the question is whether a person has a habit for particular conduct, an accepted method of proof is establishing specific instances on which the person engaged in the conduct.[248] Hence, to demonstrate an employee's addiction, it would be relevant for an employer to prove other instances of drug use, even instances occurring off duty and off the business premises.

Furthermore, while the test result alone is insufficient proof to establish on-duty impairment, the result could be useful corroboration in a disciplinary proceeding for impairment on the job. The employer could use the test result on a "character" theory; since the employee performed the act once — admittedly perhaps off duty — that act is relevant to show the employee's propensity for performing the act. In turn, the propensity increases the probability that the employee acted "in character" on the occasion in question. The formal evidentiary rules ordinarily forbid "character" reasoning at judicial trials.[249] However, there have been recent attacks on the character evidence prohibition by respected evidence authorities.[250] These authorities stress that in common, everyday reasoning, people regard character as probative circumstantial evidence of a person's conduct. There is an intuitive appeal to the belief that a person's character can help predict his or her conduct, and psychological studies show that at least some people tend to act consistently "in character."[251] Moreover, as previously stated, the technical evidentiary rules do not strictly apply in arbitration.[252] Courts have specifically approved an employer's use of character rea-

---

246. WEBSTER'S NEW COLLEGIATE DICTIONARY 10 (7th ed. 1972).

247. Craver, *supra* note 14, at 5 n.16.

248. R. CARLSON, E. IMWINKELRIED & E. KIONKA, MATERIALS FOR THE STUDY OF EVIDENCE 352 (1983).

249. *Id.* at ch. 24.

250. Kuhns, *The Propensity to Misunderstand the Character of Specific Acts Evidence*, 66 IOWA L. REV. 777 (1981); Uviller, *Evidence of Character to Prove Conduct: Illusion, Illogic, and Injustice in the Courtroom*, 130 U. PA. L. REV. 845 (1982).

251. Sherman & Fazio, *Parallels Between Attitudes and Traits as Predictors of Behavior*, 51 J. PERSONALITY 308, 312 (1983); Snyder, *Self-Monitoring of Expressive Behavior*, 30 J. PERSONALITY & SOCIAL PSYCH. 526 (1974).

252. Craver, *supra* note 14, at 5 n.16.

soning in discharge proceedings.[253] In one case,[254] the employer hired a person as a bellman at a hotel. The employer later learned that the employee had a prior theft conviction. The employer discharged the bellman and used quintessential "character" reasoning as the justification: The employee had stolen before, the prior theft tended to show that the employee had a propensity to steal, and the propensity increased the likelihood that the employee would steal personal effects and luggage from the hotel guests. The court upheld the discharge and accepted the employer's reasoning.

In a similar vein, an employer could use a positive urinalysis test result in "character" reasoning to corroborate other evidence of the employee's on-duty drug impairment. The employer has a special need for corroborating evidence. When the employer alleges that an employee has engaged in conduct with criminal overtones, many arbitrators demand clear and convincing proof of the misconduct.[255] Arbitrators are "loathe to find" that an employee has used drugs on duty.[256] In one arbitration proceeding, even though the employer's private investigator gave direct testimony that the employee had used drugs on duty, the arbitrator refused to uphold the discipline; and the arbitrator cited the lack of corroboration as the reason for his refusal.[257] If employers must satisfy such a rigorous standard to establish on-duty drug impairment, it is only fair that they be entitled to resort to probative corroboration such as a prior test result.

3. *Which Aspects of Employee Urinalysis Testing Should Government Regulate?*

If government ought to intervene but the intervention should not take the form of a total or partial prohibition of urinalysis testing, process of elimination leads to the conclusion that the intervention should be regulatory. Even after reaching this conclusion, several thorny questions of form and substance remain: Should the regulation be adopted

253. Richardson v. Hotel Corp. of Am., 332 F. Supp. 519 (E.D. La. 1971), *aff'd*, 468 F.2d 951 (5th Cir. 1971); 1 W. CONNOLLY & M. CONNOLLY *supra* note 92, § 3.03 [2][e], at 3-42-43.

254. *Richardson*, 332 F. Supp. at 519.

255. F. ELKOURI & E. ELKOURI, *supra* note 217, at 616-18; Rothstein, *supra* note 31, at 430.

256. Inland Steel Container Co., 60 Lab. Arb. (BNA) 536, 540 (1973) (Marcus, Arb.).

257. General Portland Inc., 62 Lab. Arb. (BNA) 709 (1974) (Autrey, Arb.).

at the federal or state level? Should it take the form of a statute or an administrative regulation? Substantively, which aspects of the testing process should the government regulate, and should the government regulate employers as well as laboratories? The balance of this article addresses those questions.

The Form of the Government Intervention. Implementing the government intervention through a federal administrative regulation would probably be optimal. There are several reasons cutting in favor of attempting a solution at the federal level.[258] Many of the affected businesses engage in interstate commerce and, from a business perspective, it would be preferable to have a single, uniform rule with which these companies must comply. The adoption of a federal rule would also be advisable from a legal perspective. If states and localities intervene, employees who decide to challenge the rules could conceivably argue that federal legislation such as the Rehabilitation Act has already preempted the field. Action at the federal level will moot the preemption issue.

The federal action should take the form of an administrative regulation rather than a statute. It is true that San Francisco opted for legislative action when it adopted its ordinance and that several state legislatures are considering statutes. However, as we shall soon see, one of the primary thrusts of the federal intervention should be regulating the caliber of the scientific analyses conducted by the drug testing laboratories. The federal action should address such aspects of laboratory operations as the training of analysts, the laboratories' quality control measures, and the cutoff limits. There is ongoing research that may affect these aspects of the laboratories' operations. The research may point the way to better quality control and more reliable cutoff limits. It would be a grave mistake for Congress to attempt to "freeze" science in a statute. A sounder approach would be to create an administrative agency, with substantial representation from the scientific community, to prescribe rules for these aspects of laboratory operations. An administrative regulation can be revised more readily than a statute. The agency could quickly respond to new scientific developments and amend its regulations to keep pace with the progress achieved in the ongoing scientific research.

The Substance of the Government Intervention. There seems to be general agreement that if government is to intervene, at the very least

258. Hurd, *supra* note 94, at 548.

it should regulate several critical aspects of the operations of the drug testing laboratories. For example, the primary focus of Assembly Bill No. 4242, pending in the California legislature, is regulation of the laboratories.

Any federal regulation that is adopted should prescribe some requirements to ensure the competency of the personnel conducting the drug anslyses. In an analogous setting, 28 states have adopted licensing requirements for polygraphists.[259] It is widely assumed that many persons holding themselves out to the pubic as polygraphists are incompetent,[260] and one of the state legislatures' purposes in adopting the licensing requirements has been to drive unqualified polygraphists out of the market.[261] There is a strong parallel between the polygraphy business and the drug testing industry. Commenting on the high error rates reported in some of the immunoassay studies, Richard Hawks of the National Institute of Drug Abuse attributed part of the problem to "testing . . . done by untrained people."[262] The competency requirements imposed should be fairly rigorous; lax standards might "provide laboratories with more legitimacy than they deserve."[263]

The regulation should speak to the laboratories' procedures as well as personnel standards. The regulation ought to mandate that each laboratory establish internal quality control procedures and perhaps require that the laboratory engage in external proficiency testing. In one of the leading Centers for Disease Control studies of drug testing laboratories, the researchers identified the lack of these procedural safeguards as a primary contributing factor to high error rates.[264] The researchers also studied the impact of the implementation of quality control and proficiency testing on error rates. The researchers found that initiating such safeguards can lead to "remarkable, substantial im-

259. Nagle, *supra* note 13, at 67.

260. Note, *supra* note 124, at 702 n.49 (One of the foremost authorities on and commercial proponents of the lie detector, Professor Fred Inbau of Northwestern University Law School, conceded before the Moss Subcommittee that approximately 80% of all polygraph operators were incompetent). MOENSSENS, INBAU & STARRS, *supra* note 1, § 14.04, at 700, asserts that "[t]here are, unfortunately, relatively few persons holding themselves out as polygraph examiners who have the required qualifications . . . ."

261. Nagle, *supra* note 13, at 53.

262. Gest, *supra* note 47.

263. Letter from Professor Charles Craver to author (Sept. 4, 1986).

264. Hansen, Caudill & Boone, *Crisis in Drug Testing: Results of CDC Blind Study*, 253 J. A.M.A. 2382 (1985).

provement in laboratory performance."[265]

In addition to announcing general requirements for quality control and perhaps external proficiency testing, the federal regulation should specifically empower the agency to supervise the laboratories' cutoff limit procedures. Employers have a legitimate interest in obtaining immunoassay test result information only when the results are probative of the employee's ingestion of the drug, rather than mere passive inhalation. The cutoff limit must be high enough to ensure that the only tests reported positive to employers are tests probative of ingestion.

Finally, the regulation should require that the laboratories disclose to employers enough information about their operations to permit them to make an intelligent selection of a testing laboratory. At the bare minimum, the laboratories should have to reveal the following: the qualifications of their analysts, the precise screening and confirmatory tests used at the laboratory, quality control safeguards, the level of accuracy attained in proficiency testing, and their cutoff limit. The most fundamental justification for government intervention is that employers may lack the scientific expertise to choose a quality laboratory and properly evaluate the significance of test results. The laboratories must disclose the listed items of information to enable employers to make intelligent choices and evaluations.

Although there appears to be a consensus that government should regulate some aspects of the drug testing laboratories' operations, there is a sharp division of sentiment over the question of whether government should directly regulate employers' acquisition and use of drug test information. A case can be made that the only proper objects of regulation are the laboratories. As reiterated in the last paragraph, the basic justification for government intervention is the employers' presumed lack of scientific expertise. Beginning with that justification as a premise, it is arguable that once the laboratories have disclosed enough information to employers to allow the employers to make discriminating choices and evaluations, there is no further need for government regulation. After the employers are armed with that data, they should be free to pursue their enlightened self-interest.

The case against government regulation of employers is appealing. To some extent, the analysis thus far in this article upholds that case. For example, the analysis of the wisdom of a total prohibition of urinalysis concluded that a complete ban would be inadvisable and that em-

265. *Id.* at 2387.

ployers should be permitted to conduct some urinalysis tests. In addition, the analysis of the merits of a partial ban on random testing reached the conclusion that employers have a legitimate interest in administering random as well as for-cause tests. Hence, the case is sound in the sense that there should be few, if any, restrictions on conducting employee urinalysis.

However, it is a quite different matter to leave the employers' use of drug testing information unregulated. Although the foregoing analysis points to the conclusion that private employers should generally be free to administer tests, the analysis also suggests appropriate limitations on the employers' use of the information generated by the tests.

One defensible limitation would be requiring employers to have positive immunoassay test results confirmed before taking disciplinary action based on the result. In concluding that government intervention is warranted, we noted the justification for intervention: the social impact of employers' use of suspect, unconfirmed immunoassay test results as the sole basis for punitive action against an employee. If even one percent of the positive test results are false positives, tens of thousands of innocent employees might be improperly demoted or terminated in a given year. Based on the available studies, it appears probable that the error rate will greatly exceed one percent if employers are permitted to premise disciplinary actions on unconfirmed tests. Hence, as a corollary to the rationale for government intervention, private employers should be permitted to use only confirmed tests as a basis for punitive personnel actions.

Although government should impose such a restriction on employers, the restriction has a narrow scope. As stated, the restriction comes into play only when the employer contemplates using the test as a basis for disciplinary action. An employer might well use the test for other, perfectly legitimate purposes. For example, the employer might be conducting a statistical survey of her employees to determine whether there is a need for a company drug rehabilitation program.[266] Alternatively, the employer might plan to use the test results as a basis for including particular employees in a rehabilitative program. There certainly is no need for confirmation when the employer is using the test results for purely survey purposes, and it is debatable whether the need is compelling if the contemplated personnel action is rehabilitative rather than disciplinary.

---

266. *See* Zeese, *supra* note 2, at 31.

When the contemplated action is disciplinary, in principle, confirmation should be required; but the confirmatory method need not be the scientific method of choice and, incidentally, the most expensive technique, gas chromatography-mass spectrometry (GC/MS). On the one hand, it would be insufficient "confirmation" to merely repeat the same immunoassay test. Immunoassay tests for particular drugs are cross-reactive with other substances.[267] Repeating the test will help "correct for human error in the testing process,"[268] but a retest is no insurance against cross-reactivity. If the sample contains another drug with which the test cross-reacts, both tests will yield positive results. The employer should have positive immunoassay tests confirmed by a nonimmunological procedure.[269] Ideally, that procedure would be GC/MS.[270]

On the other hand, a flat requirement that employers use GC/MS may be too harsh. Some laboratories using chromatographic methods as the confirmatory technique have attained impressive accuracy levels.[271] In prisoner cases challenging the reliability of immunoassay tests, several federal courts have decided to uphold the reliability of immunoassay tests confirmed by chromatographic methods.[272] That decision seems particularly apt in light of the United States Supreme Court's 1984 decision in *California v. Trombetta*.[273] In *Trombetta*, the Court brushed aside an attack on the reliability of breathalyzer evidence of intoxication. The Court made it clear that even when the government is prosecuting a defendant and the standard of proof is beyond a reasonable doubt, "the legal system [does] not mandate procedures which will assure absolute scientific accuracy . . . ."[274] With *Trombetta* as a benchmark, it is frivolous to urge that there must be a categorical legal requirement for GC/MS confirmation.

Another requirement worth consideration would be a rule that a private employer may not base a disciplinary action solely upon a posi-

---

267. Storms v. Coughlin, 600 F. Supp. 1214, 1222 (S.D.N.Y. 1984).

268. *Id. But see* McCleod v. City of Detroit, 83 C.V. 2163DT (E.D. Mich. 1986) (holding that RIA is a sufficient confirmation for an EMIT test); Rust, *The Legal Dilemma*, A.B.A. J., Nov. 1, 1986, at 51, 52.

269. Kogan, Razi, Pierson & Willson, *supra* note 59, at 494.

270. Whiting & Manders, *supra* note 44.

271. *Id.*

272. *E.g.*, Platshorn v. Quinlan, 85 Civ. 6847 (S.D.N.Y. Jan. 10, 1986) (enzyme immunoassay confirmed by high performance thin layer chromatography).

273. 104 S. Ct. 2528 (1984).

274. Peranzo v. Coughlin, 608 F. Supp. 1504, 1508 (S.D.N.Y. 1985).

tive immunoassay test even when the test result has been confirmed. If the laboratory uses a high cutoff limit for reporting positive results, a positive, confirmed test is persuasive evidence that the employee earlier ingested the drug. However, even a confirmed test has limited protective value; and standing alone, the test result does not support a rational, permissible inference that the employee either used drugs on the job or was drug-impaired on duty. As we have seen, it is a widely accepted principle among labor arbitrators that an employer has no right to penalize an employee for off-duty conduct unless the conduct has or is likely to have a clear, adverse effect on the employer's business.

This principle is sound. Although some people act consistently "in character,"[275] the dominant psychological theory of personality since the late 1960's has been situationism or specificity.[276] As explained by its leading proponent, Walter Mischel, the theory holds that the primary determinant of a person's behavior is the situation in which he finds himself.[277] A corollary of the theory is that "the more dissimilar the evoking situations, the less likely they are to lead to similar or consistent responses from the same indivdiual."[278] There are marked dissimilarities between the off-duty and on-duty situations. The on-duty work environment is characterized by publicity and order, while the off-duty situation is usually characterized by privacy and freedom. The latter situation is suitable for recreational drug use, but the work environment is hostile to drug use. Under the situationism theory, it is at

---

275. Sherman & Fazio, *supra* note 251, at 312; Snyder, *supra* note 251. Mr. Ted Schramm of Behaviour Research, Inc., has commented that "you can draw no conclusions that have anything to do with impairment from recent use" of drugs. *Special Report*, 24 GOV'T EMPLOYEES REL. REP. 1157 (Aug. 25, 1986). In contrast, a blood test would permit an inference of recent use. "Only a blood test can detect on-the-job drug use. Urine retains a trace of drugs for a period of days, sometimes even weeks, long after the drug has ceased to affect mental capacity. But drugs remain in the blood for only hours, so blood tests can reveal the recent ingestion of drugs." Rust, *The Legal Dilemma*, A.B.A. J., Nov. 1, 1986, at 51, 52.

276. Bowers, *Situationism in Psychology: An Analysis and a Critique*, 80 PSYCH. REV. 307 (1973).

277. W. MISCHEL, PERSONALITY AND ASSESSMENT 146, 177 (1968). The most recent refinement of the theory is situational trait interactionism — suggesting that the situation and the trait interact to produce conduct. Under this theory, the more similar the situation, the greater is the probability that the person will act "in character."

278. *Id.* The theory is supported by numerous behavioral studies showing a lack of cross-situational consistency in persons' behavior. *See generally* H. HARTSHORNE, CHARACTER IN HUMAN RELATIONS 209 (1932); 1 H. HARTSHORNE & M. MAY, STUDIES IN THE NATURE OF CHARACTER — STUDIES IN DECEIT (1928).

least dubious to assume that an employee using drugs off-duty will repeat the same conduct on-duty. Permitting employers to base disciplinary actions solely on positive tests thus represents a questionable intrusion into the employees' privacy.

Even given the questionable character of the intrusion, the proposed requirement would probably be unnecessary if the only employees affected were those already protected by the arbitration process. In the course of analyzing the merits of a partial prohibition of random testing, we noted that in the past, labor arbitrators have accorded those employees substantial protection against unjustified employer intrusions upon their privacy[279] and that several arbitrators have already invalidated disciplinary actions resting solely on urinalysis tests.[280] These employees have existing protection for their privacy. In the portions of the private sector where arbitration is operative, the proposed requirement appears unnecessary. In the arbitration process, labor and management should be able to reach a just accommodation of the competing interests.

However, less than 25% of the work force can resort to grievance-arbitration proceedings.[281] Most employees work "at [the] will" of the employer. Since they work for private employers, these employees cannot invoke any constitutional guarantees to protect their privacy. Further, "[i]t is not clear the degree to which courts might be willing to create broader public policy exceptions to the traditional employment-at-will doctrine which might protect [these] employees against excessively intrusive testing . . . ."[282] The traditional at-will doctrine permits a private employer to fire a worker for "a good reason, a bad reason, or no reason at all."[283] That rule has been subjected to severe criticism within the past 15 years.[284] In response to the criticism, many jurisdictions have recognized a public policy exception to the traditional rule; these courts assert the power to invalidate terminations when, in their judgment, the employer's conduct is contrary to some overriding public interest.[285] Although support for the traditional rule has eroded, the

279. *See generally* Craver, *supra* note 14.
280. *Urinalysis Update*, 1 DRUG L. REP. 71, 72 (1983).
281. Letter from Professor Charles Craver to author (Sept. 4, 1986).
282. *Id.*
283. Baxter & Wohl, *Wrongful Termination Lawsuits: The Employers Finally Win a Few*, 34 DEF. L.J. 205, 206 (1985).
284. Power, *A Defense of the Employment At Will Rule*, 33 DEF. L.J. 199 (1984).
285. *Id.*; Baxter & Wohl, *supra* note 283.

case law is in flux; the propriety and scope of the public policy exception are two of the most volatile issues in modern labor law.[286] It may be years before the courts settle the rules for resolving these issues.[287] In the interim, existing legal doctrines may provide only minimal, undependable protection for the privacy interests of at-will employees.[288] In the long term, if and when the courts evolve the public policy exception to furnish adequate, reliable protection for employees' privacy, it may be possible to phase out all administrative regulations governing employee urinalysis. However, in the short term, given the unsettled nature of the decisional law, it seems prudent to turn to a regulation forbidding employee discipline based solely on positive immunoassay test results.

Forbidding discipline based solely on the test results has the necessary effect of requiring independent corroboration of the employee's on-duty misconduct. However, that requirement does not impose an undue burden on private employers. If the test in question was conducted for cause, there is probably already some evidence of on-duty misconduct. If the test was conducted at random, there may be no antecedent evidence of on-duty misconduct; but the employer can then resort to other investigative techniques to gather the requisite corroboration.

III. Conclusion

This article calls for cautious reform. Reform in the vein of limited regulation is desirable. Government should regulate the urinalysis testing industry to ensure reliable testing and to enable private employers to make an intelligent choice of a laboratory to test their employees. That much is clear. There are also plausible arguments for requiring employers to have positive immunoassay tests confirmed and for forbidding employers from basic disciplinary actions solely on immunoassay test results. The case for regulation of employers' use of drug test information is weaker than that for regulation of laboratories; but on balance, the case is strong enough and the stakes high enough to legitimate government regulatory information.

However, this article not only stops short of calling for a total or partial prohibition of employee urinalysis; it also cautions against such

---

286. Power, *supra* note 284; Baxter & Wohl, *supra* note 283. *See also* Turner & Laporte, *Remaking the Law of Wrongful Discharge*, CAL. LAWYER, Mar. 1987, at 20.
287. Baxter & Wohl, *supra* note 283, at 219.
288. Letter from Professor Charles Craver to author (Sept. 4, 1986).

prohibitions. The advocates of employees' privacy should realize that in the present political climate, demanding a total or complete ban on employee urinalysis may well backfire. The public opinion polls conducted to date show that there is solid support among the citizenry at large for employee urinalysis. In a poll conducted by the Gallop Organization, the researchers found that "most Americans favor testing all workers for drug use."[289] In a similar survey administered by Yankelovich, Clancy, and Shulman, 69% of the employees responding indicated that they favor periodic drug testing by their company, and 81% are willing to submit to a test even "[i]f given a choice" to refuse.[290] In the face of this widespread public support for employee urinalysis, advocating a total or partial prohibition of testing is probably not only futile; it may also be counterproductive. By concentrating their efforts on unsuccessful calls for bans, the advocates of employee privacy may be wasting time and effort that could be better spent lobbying for limited, reasonable regulations. Urging limited regulation appears to be the path of political realism.

Limited regulation also seems to be the sounder approach to balancing the pertinent competing interests. Intelligent employers do not want to lose productive employees. Nor do they want to demoralize their work force by seeming indifferent to legitimate employee complaints about invasions of privacy. For their part, as the above polls indicate, most employees are sophisticated enough to realize that their co-workers' drug abuse can pose a serious threat to their livelihood. If their co-workers' drug abuse lowers productivity, increases the number of industrial accidents, and raises the employer's health insurance costs, the employer may soon be out of business; and the innocent employees may be out of work.[291] By and large, government should respect the autonomy of private employers and their workers.[292] There is evidence that the majority of unions are cooperating with management to develop sensible urinalysis programs.[293]

A decision-maker's status as a government employee is no guaran-

---

289. *Down on Drugs: A Newsweek Poll*, NEWSWEEK, Aug. 11, 1986, at 16.

290. Lamar, *Rolling Out the Big Guns: The First Couple and Congress Press the Attack on Drugs*, TIME, Sept. 22, 1986, at 26; *Most Favor Mandatory Testing, Poll Concludes*, THE DAVIS ENTERPRISE, Sept. 15, 1986, at 2.

291. Craver, *supra* note 14, at 33.

292. Hurd, *supra* note 94, at 539.

293. Note, *Drug Testing: America's New Work Ethic?*, 15 STETSON L. REV. 883 (1986); *Special Report*, 24 GOV'T EMPLOYEES REL. REP. (BNA) 1157 (Aug. 25, 1986)(summarizing the comments of Stephen Pepe).

tee of business acumen or scientific expertise.[294] It is sobering to realize that some of the organizations now vociferously calling for wholesale government intervention to ban urinalysis were among the first to criticize the urinalysis program the government initiated in the armed forces. The point is not that the criticism was unjust; quite to the contrary, the criticism was well-founded. The point is that when the basic questions are issues of science and business policy, government may not have the best answers to the questions.

294. Stack, *supra* note 11, at 22.

Fourth Amendment Implications Of Public Sector Work Place Drug Testing

Paul R Joseph*

I. INTRODUCTION 605
II. IS DRUG TESTING A "SEARCH" OR "SEIZURE"? 607
A. *Early Search and Seizure Theory* 607
B. *Modern Search and Seizure Theory* 616
1. *Is Drug Testing a Search under the Theory of Katz?* 619
2. *Is Drug Testing a Seizure under Modern Theory?* 625
3. *Private Search/Government Action* .. 627
C. *Summary: Search and Seizure* 628
III. WHEN IS DRUG TESTING "REASONABLE"? 629
A. *The Need to Intrude* 631
B. *The Degree of Intrusion* 635
C. *Rejecting False Analogies* 636
D. *Summary: Reasonableness* 641
IV. CONCLUSION 641

I. Introduction

Imagine yourself as a public employee: perhaps a clerk in a social security office, a customs officer, a city police officer, fire fighter, or even a professor in a state supported law school. One morning you are informed that mandatory drug testing has been instituted by your employer — the government. Unless you are prepared to urinate in an offered bottle (perhaps in front of your supervisor in order to insure that the urine is your own), you will be immediately fired.[1] Does such

* Associate Professor of Law, Nova University Center for the Study of Law. B.A., 1973, Goddard College; J.D., 1977, University of California, Davis; LL.M., 1979, Temple University. The author wishes to thank his research assistant, Jeff Peters, for his assistance in the preparation of this article.

1. The particular scenario is hypothetical and has several variants in real life. At

testing violate any rights guaranteed by the fourth amendment?[2]

Because the protection of the fourth amendment is applicable only against the government,[3] it will not limit the independent actions of private employers. Therefore, the scope of this article is limited to drug tests administered by government employers. The legal and policy issues involved with drug testing in the private sector work place will not be addressed here.

The fourth amendment protects against unreasonable government searches and seizures.[4] The opinions in most of the cases to date have focused the bulk of their analysis on whether or not drug testing was reasonable under the facts presented. There has been less examination of whether drug tests are searches or seizures at all.[5]

Whatever one may feel about drug testing, the unexamined as-

---

times, the implementation of a drug testing program is announced in advance, but this is not always the case. Occasionally, set times for particular tests are given but often they are not. In some programs all employees are tested, while in others a sample of employees are chosen at random for testing. Not all programs require that the urine sample be collected while a supervisor observes but this is often recommended in order to determine that the sample tested actually was obtained from the employee subject to the test.

Although this article discusses "drug testing," its focus is upon testing conducted through the collection of bodily fluids, and in particular with urinalysis. Similar issues arise with blood sample testing. Although somewhat analogous, this article will not discuss the issues involved in the use of the polygraph to ask workers about drug use. This article is also particularly concerned with mass testing. Such testing appears in two forms, blanket testing (testing all workers in particular job categories or places of employment) and random testing (the selection of only some workers for testing based upon criteria *other* than individualized suspicion of work place drug use).

2. The right to be free from unreasonable searches and seizures contained in the fourth amendment has been held fundamental, "incorporated" into the fourteenth amendment's due process clause, and thus is applicable to the states. Wolf v. Colorado, 338 U.S. 25 (1938). *See also* Mapp v. Ohio, 367 U.S. 643 (1961). For convenience, reference will be made to the fourth amendment throughout this article.

3. *See, e.g.*, United States v. Jacobsen, 466 U.S. 109 (1984).

4.

> The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.

U.S. CONST. amend. IV.

5. *Compare, e.g.*, City of Palm Bay v. Bauman, 475 So. 2d 1322 (Fla. 5th Dist. Ct. App. 1985) *with* Division 241 Amalgamated Transit Union (AFL-CIO) v. Suscy, 538 F.2d 1264, 1267 (7th Cir.), *cert. denied*, 429 U.S. 1029 (1976).

sumption that such testing constitutes a search may lead to a nasty surprise when this issue eventually reaches the United States Supreme Court. Although drug testing would seem on its face to be a serious invasion of personal privacy, it does not meet the most common paradigm of a search and seizure. The government employer does not, itself, *take* the sample but rather, requires the employee to *give* the sample to the employer. Is this difference fatal to the fourth amendment claim?

Similarly, even if drug testing is found to be a search or seizure, under what conditions will testing be found to be reasonable? While several courts have considered this question, their conclusions have been inconsistent.[6]

Since it is clear that the issue of drug testing will be with us for some time, it is crucial that these fundamental questions receive early consideration so that the basic constitutional framework can be clearly understood.

II. Is Drug Testing a "Search" or "Seizure"?

A. *Early Search and Seizure Theory*

The conceptual framework for fourth amendment analysis begins with *Boyd v. United States*.[7] *Boyd* is a case with some very close parallels to the facts of drug testing situations. In *Boyd*, the government attempted to have the owner of goods alleged to have been imported fraudulently, forfeit the goods to the United States. The plaintiff in error claimed that no fraud had taken place and demanded return of the goods. The key to the case was comparing the true value of the imported goods to the value reported by the importer. In its attempt to show the true value, the government wanted to show the value of other glass previously imported. To do this, the government obtained a court order requiring the claimants to surrender the invoices of the previously imported glass. The invoices were submitted but the demand was objected to as being unconstitutional.[8]

---

6. *Compare* Shoemaker v. Handel, 795 F.2d 1136 (3d Cir.), *cert. denied*, 107 S. Ct. 577 (1986), holding random urine tests of jockeys reasonable in light of the status of horse racing as a pervasively regulated industry, *with* City of Palm Bay v. Bauman, 475 So. 2d at 1325, holding that drug testing of city police officers and fire fighters was unreasonable absent reasonable suspicion.

7. 116 U.S. 616 (1886).

8. *Id.* at 618-19. Failure to produce the documents without satisfactory explana-

The United States Supreme Court held that the order to produce the invoice and the statute upon which the order was based were unconstitutional.[9] A new trial was ordered where the information contained in the invoice would not be available to the government.[10]

The importance of *Boyd*, for the purposes of this discussion, rests not only on the decision, but also on the theory of the decision. The Court explicitly rejected the notion that no search had occurred because the government had not, itself, taken the papers. Instead, the Court declared that such forced compulsion was controlled by the fourth amendment in cases in which the amendment would govern if the conduct had been done by government agents themselves. As the Court stated:

> It is our opinion, therefore, that a compulsory production of a man's private papers to establish a criminal charge against him, or to forfeit his property, is within the scope of the Fourth Amendment to the Constitution, in all cases in which a search and seizure would be; because it is a material ingredient, and effects the sole object and purpose of search and seizure.[11]

The issue addressed in this passage appears to be whether the government's conduct is a search or seizure under the fourth amendment. This analysis does not appear to be limited to private papers and can be viewed as distinct from the question of the reasonableness or unreasonableness of the conduct.[12] This is significant, because much of *Boyd* has been rejected by later Supreme Court decisions. In particular, the *Boyd* court's attempt to find protections in the fourth and fifth amendments,[13] which are not found in either amendment alone, has been re-

---

tion permitted the matters claimed by the government to be contained in the records to be "taken as confessed." *Id.* at 620.

9. *Id.* at 638.

10. *Id.*

11. *Id.* at 622.

12. This has, seemingly, been recognized before. After quoting the key passage, one author states "This being a search and seizure then, was it an unreasonable search and seizure within the prohibition of the Constitution?" N. LASSON, THE HISTORY AND DEVELOPMENT OF THE FOURTH AMENDMENT TO THE UNITED STATES CONSTITUTION 108 (1937) (De Capo reprint ed. 1974).

13. Perhaps significantly, the Supreme Court seemed to recognize the fourth amendment basis of *Boyd* in Andresen v. Maryland, 427 U.S. 463 (1976), a case rejecting the notion that a search warrant for papers violated the fifth amendment because nothing was compelled from the petitioner himself. The Court quoted the

jected by the Supreme Court.[14] Furthermore, the sweeping protection of a person's papers under the fifth amendment has been rejected.[15] If these rejected premises were the basis of the holding quoted above, then it too would be suspect. Specifically, the Court held that conduct will be considered to be a fourth amendment search and seizure if it has the "sole object and purpose of search and seizure,"[16] and would be a search and seizure if done by the government directly.[17]

Yet, it is only when the Court in *Boyd* turns to the question of the reasonableness of the conduct that the now famous "blending" of fourth and fifth amendment principles appears to take place.[18] In its

---

"linkage" language from *Boyd* ("we have been unable to perceive that the seizure of a man's private books and papers to be used in evidence against him is substantially different from compelling him to be a witness against himself"), *Boyd*, 116 U.S. at 633, labelled it, apparently in the fifth amendment context, *dicta* and went on to explain that the true basis for *Boyd* was the fourth amendment.

> We recognize that the continued validity of the broad statements contained in some of the Court's earlier cases has been discredited by later opinions. In those earlier cases, the legal predicate for the inadmissibility of the evidence seized was a violation of the fourth amendment; the unlawfulness of the search and seizure was thought to supply the compulsion of the accused necessary to invoke the Fifth Amendment.

Andresen, 427 U.S. at 472.

14. Schmerber v. California, 384 U.S. 757 (1966).

15. *See Andresen*, 427 U.S. at 463 and Fisher v. United States, 425 U.S. 391 (1976).

16. *Boyd*, 116 U.S. at 622.

17. By contrast, the fifth amendment stands which *Boyd* took have not fared well. The notion that papers are absolutely protected from production by the self-incrimination clause has been repudiated, and the broad implication that the forced production of any evidence, as opposed to testimonial communications, violates the fifth amendment has also not survived. Further, the entire notion that the fourth and fifth amendments act together to create a zone of privacy larger than either would provide alone has been repudiated. Therefore, if the discussion of the concept of "search" rested upon such concepts, it would also not survive. To the extent, however, that this discussion was severable from these discredited points, the analysis would still be viable.

18.

> If the Boyds were to prevail on fourth amendment grounds, several issues had to be resolved in their favor: (i) whether the forced production of papers was a search within the meaning of the fourth amendment; (ii) whether the protections of the fourth amendment extended to forfeiture proceedings; (iii) whether competent but illegally obtained evidence must be excluded. . . . But most significant for our present purposes is Justice Bradley's treatment of the third issue, 'the most creative, and most controversial feature of his opinion,' wherein he linked together the Fourth and

initial discussion of whether the conduct was cognizable under the Constitution at all, it is the fourth amendment alone that is relied upon.[19]

Fifth Amendments.

1 W. LaFave, Search and Seizure: A Treatise on the Fourth Amendment 6 (1978) (footnotes omitted). Thus, Professor LaFave suggests that the linkage of the amendments is aimed at the issue of exclusion. It can be argued that it is also aimed at the issue of the reasonableness of the conduct. Professor LaFave would appear to agree that the linkage of the fourth and fifth amendments was *not* aimed at the question pertaining to the *definition* of the terms "search" or "seizure," but rather to analytically severable concerns. *See also* Note, *Formalism, Legal Realism, and Constitutionally Protected Privacy Under the Fourth and Fifth Amendments*, 90 Harv. L. Rev. 945, 952 (1977), suggesting that "the subpoena at issue in *Boyd* clearly satisfied the requirements of the fourth amendment warrant clause," but "during the nineteenth century compliance with the warrant clause was not by itself sufficient to validate a search and seizure; the appellants' fourth amendment claim therefore required that the court also decide whether the seizure was 'reasonable.' " This supports the notion that the major part of the opinion, including the linkage of the two amendments, was part of a discussion of the reasonableness of the search and seizure and not whether one had taken place at all. The Harvard note also rejects the notion that the linkage was necessary to obtain a result which could not have been achieved by the use of either amendment alone.

> This statement [the linkage] did not mean, as many commentators have suggested, that the Court believed invocation of both amendments necessary to achieve a result which neither could have accomplished alone. It merely pointed to a significant overlap in the protections provided by the two amendments. That these two amendments should independently protect a person's books and papers was for Justice Bradley all the more reason to place the individual's private communications in a special position beyond the government's reach.

Id. at 955-56.

19.

> But in regard to the *Fourth Amendment*, it is contended that, whatever might have been alleged against the constitutionality of the acts of 1863 and 1867, that of 1874, under which the order in the present case was made, is free from constitutional objection, because it does not authorize the search and seizure of books and papers, but only requires the defendant or claimant to produce them, the allegations which it is affirmed they will prove shall be taken as confessed. This is tantamount to compelling their production; for the prosecuting attorney will always be sure to state the evidence expected to be derived from them as strongly as the case will admit of. It is true that certain aggravating incidents of actual search and seizure, such as forcible entry into a man's house and searching amongst his papers, are wanting, and to this extent the proceeding under the act of 1874 is a mitigation of that which was authorized by the former acts; but it accomplishes the substantial object of those acts in forcing from a party evidence against himself.

It is only after this principle is established that the Court in *Boyd* turned to the separate issue of whether the search and seizure was reasonable.[20] Thus, whatever erosion may have taken place as to the *Boyd* Court's analysis of the concept of "reasonableness" would not have a direct impact on their search and seizure analysis.[21]

Boyd, 116 U.S. at 621-22 (*emphasis added*). The Court then continued with the language quoted in the text.

Although the Court discusses the notion that evidence is forced from the defendant himself, this reference is within a discussion of the fourth and not the fifth amendment. This passage should not be read, therefore, as an attempt to invoke the privilege against self-incrimination. Rather the fourth amendment concepts of "search" and "seizure" are held to include the taking of evidence by the state directly or, in the alternative, procedures which have the effect of requiring the defendant himself to give the evidence up or face some government imposed sanction.

Under this analysis, requiring a worker to submit a urine sample or be fired would be a "search and seizure," leaving only the question of whether the requirement was "unreasonable."

20.

> The principal question, however, remains to be considered. Is a search and seizure, or, what is equivalent thereto, a compulsory production of a man's private papers, to be used in evidence against him in a processing to forfeit his property for alleged fraud against the revenue laws — is such a proceeding for such a purpose an '*unreasonable* search and seizure' within the meaning of the fourth amendment of the Constitution? [O]r, is it a legitimate proceeding?

Boyd, 116 U.S. at 622 (*emphasis in original*).

21. The bulk of the Court's opinion is addressed to the "reasonableness" question. The history of governmental searches and seizures is examined and it is in that context that considerations of the "property" interest in goods and papers is considered.

At the conclusion of its review of the historical permissibility of various searches and seizures, the Court invokes the "intimate relation between the two amendments," *Boyd*, 116 U.S. at 633, asserting that

> [t]hey throw great light on each other. For the 'unreasonable searches and seizures' condemned in the Fourth Amendment are almost always made for the purpose of compelling a man to give evidence against himself, which in criminal cases is condemned in the Fifth Amendment; and compelling a man 'in a criminal case to be a witness against himself,' which is condemned in the Fifth Amendment, throws light on the question as to what is an 'unreasonable search and seizure within the meaning of the Fourth Amendment.

Id.

It would appear, then, that this discussion, and the linkage of the two amendments, is made *not* to define the meaning of the terms "search" and "seizure," but rather to ascertain whether the search and the seizure were reasonable. It may well be that Boyd won his case because the Court viewed the scope of reasonable searches to be narrower than would the Court today. Specifically, the Court viewed the search and

For our purposes then, *Boyd* can be read to support the proposition that conduct which would be a search or seizure if performed by government agents is the equivalent of a search and seizure when performed under government threat of sanction to the holder of the evidence in question. Thus, it is included within the range of protection under the fourth amendment's "search" and "seizure" terms.[22] Fur-

---

seizure as violating the right against self-incrimination, which under the dual amendment analysis also reinforces the determination that the search is unreasonable. The fifth amendment analysis would fail today after cases like *Fisher* and *Andresen*. Similarly, today it is doubtful that conduct which violates the fifth amendment would, by virtue of that fact, be viewed as more unreasonable under the fourth amendment. However, none of this undercuts the Court's analytically severable and prior holding that the conduct amounted to a search and seizure. Only this issue is necessary to the drug testing issue.

Support for the existence of two distinct issues in *Boyd* comes from an unlikely source — Mr. Justice Miller's concurring opinion, in which he supports the majority based upon the fifth amendment, but specifically rejects the notion that any search or seizure has occurred under the fourth amendment. The concurrence argues that searches are only those things which lead to seizures and that since, under the statute, custody of the papers remained with the owner, no seizure, and hence no search, had taken place. "There is in fact no search and no seizure authorized by the statute. No order can be made by the court under it which requires or permits anything more than service of notice on a party to the suit." *Id.* at 639 (Miller, J., concurring). "Nothing in the nature of a search is here hinted at. Nor is there any seizure, because the party is not required at any time to part with the custody of the papers." *Id.* at 640.

> But what search does this statute authorize? If the mere service of a notice to produce a paper to be used as evidence which the party can obey or not as he chooses is a search, then a change has taken place in the meaning of words, which has not come within my reading, and which I think was unknown at the time the Constitution was made. The searches meant by the Constitution were such as led to seizure when the search was successful. But the statute in this case uses language carefully framed to forbid any seizure under it, as I have already pointed out.

Id. at 641. Drug testing involves a process of coercion designed to lead to a seizure of urine otherwise unavailable from the employee. Mere inspection of the urine is not the aim of such testing. Custody of it is taken by the government and it is not returned to the employee.

22. Let us suppose, for example, that government agents came to your home and told you that unless you allowed them to enter the house and take certain specified articles, they would beat you. The consent to search would not stand and the conduct would be an unlawful search. *Boyd* proposes that the situation would be no different for constitutional purposes if the police threatened to beat you unless you went into the house and returned with the articles in question. Similarly, requiring an employee to take and deliver to the government a urine sample, under pain of dismissal from employment, would be treated just as if the government, itself, had taken the sample. This

thermore, the *Boyd* Court appears to have recognized that this question is analytically distinct from the question of whether a particular search and seizure is reasonable.[23] Thus, under this analysis a governmental requirement to either surrender a urine sample or be fired amounts to a search and seizure[24] as those terms were understood by the Court in *Boyd*.[25]

Even if the undercutting of *Boyd* does not touch its analysis of the concepts of "search and seizure," do any later changes in fourth amendment doctrine destroy it? The procedure used in *Boyd* was essentially that of a *subpoena duces tecum*,[26] and it is to a consideration of that procedure that we now turn.

Here, too, it must be remembered that two very different questions are raised. The first is whether such a subpoena is a search or seizure? Secondly is the search or seizure reasonable? Only the answer to the

---

is significantly different than the "private search" situation where a private person, without government prompting, conducts a "search" and, on his own, turns evidence over to the government.

23. Or, as Professor LaFave suggests, the issue of whether illegal evidence should be subject to exclusion. 1 W. LAFAVE, *supra* note 18, at 6.

24. Or its constitutional equivalent.

25. This discussion attempts to rehabilitate that part of *Boyd* which arguably still exists, and which may have been over-looked as other parts of *Boyd* were rejected. That *Boyd* (even after the rejection of the linkage of the fourth and fifth amendments, the demise of the mere evidence rule, the constriction of the scope of the fifth amendment, and the shift to privacy values in Katz v. United States, 389 U.S. 347 (1967)) still contains some important insight into fourth amendment values may help to explain why the case has not been overruled.

An alternate and gloomier analysis is also viable. An excellent examination of the case, Note, *The Life and Times of Boyd v. United States (1886-1976)*, 76 MICH. L. REV. 184 (1977) traces the theory of *Boyd* from its start as the great protector of property rights, to a shift to privacy as the fundamental right to be protected, to a belief that privacy rights are relative rather than absolute to a radical narrowing of privacy rights as the values of crime control gained dominance over values protecting self-incrimination. The author states,

> In light of *Andresen* and *Fisher*, *Boyd* is dead. No zone of privacy now exists that the government cannot enter to take an individual's property for the purpose of obtaining incriminating information. In most cases, the zone can be entered by the issuance of a subpoena; in the rest it can be breached by a search warrant. . . . [a]ccordingly, *Boyd* is dead.

Id. at 211-12. *See also*, Note, *Formalism, Legal Realism, and Constitutionally Protected Privacy Under the Fourth and Fifth Amendments*, 90 HARV. L. REV. 945 (1977).

26. Note, *Formalism, Legal Realism, and Constitutional Privacy Under the Fourth and Fifth Amendments*, *supra* note 25, at 952.

first of these questions is relevant to our consideration of drug testing.

The answer to the questions, while not entirely clear, seems to be that there are search and seizure aspects even to such subpoenas sufficient to bring them within the ambit of the fourth amendment. However, the differences between warrants and subpoenas allow the latter to be upheld as reasonable without meeting many of the requirements of the former.[27] Moreover, since the actual demand for the production of the invoice at issue in *Boyd* might be held to be reasonable today, the Court has retreated from *Boyd's* holding in the context of subpoenas. This is distinguishable, however, from the threshold question of whether the conduct is controlled by the fourth amendment.

A subpoena to appear before a grand jury was held not to constitute a seizure of the person in *United States v. Dionisio*.[28] This was largely based upon the unique historical role of the grand jury and the duty of citizens to appear before it when asked.[29] At the same time, the Court appeared to acknowledge that the fourth amendment was not wholly inapplicable even to grand jury subpoenas. "The Fourth Amendment provides protection against a grand jury *subpoena duces tecum* too sweeping in its terms 'to be regarded as reasonable.' "[30]

Quoting with approval *United States v. Doe (Schwartz)*,[31] the Court pointed out other differences:

> The latter is abrupt, is affected with force or the threat of it and often in demeaning circumstances, and, in the case of arrest, results in a record involving social stigma. A subpoena is served in the same manner as other legal process; it involves no stigma whatever; if the time for appearance is inconvenient, this can generally be altered; and it remains at all times under the control and supervision of a court.[32]

The relation between drug testing and the subpoena process is

---

27. "By contrast, the Fourth Amendment protections, while not nonexistent, fall far short of the limitations which that Amendment imposes upon the use of search warrants. However, this is not to suggest that what Fourth Amendment protections do exist are unimportant." 1 W. LAFAVE, *supra* note 18, at 189.

28. 410 U.S. 1 (1973).

29. "There are recent reaffirmations of the historically grounded obligation of every person to appear and give his evidence before the grand jury." *Id.* at 9.

30. *Id.* at 11 (quoting Hale v. Henkel, 201 U.S. 43, 76 (1906)).

31. 457 F.2d 895 (1972).

32. *Dionisio*, 410 U.S. at 14 (quoting United States v. Doe (Schwartz), 457 F.2d 895, 898 (2d Cir. 1972), *cert. denied*, 410 U.S. 941 (1973)).

practically nil. Drug testing is much closer to a traditional search than to a subpoena. Although drug testing involves the threat of sanctions other than the immediate use of force, it is demeaning. It requires the employees to expose the most private and intimate part of his or her body and the surrender of bodily fluids. The manner of conducting a drug test is nothing like simply handing a piece of paper to a person. The time and place of the test is chosen by the employer and cannot be altered by the employee since this would defeat the surprise element of the test and reduce its effectiveness in discovering drug residues in the body. Furthermore, the entire procedure is solely under control of the government agents conducting it. Prior to the test, there is no control and supervision of these tests by a court.

The *Dionisio* court also rejected the contention that the compelled production of a voice exemplar violates the fourth amendment. This is because the quality and nature of a person's voice is so generally exposed to the public, one can have no reasonable expectation of privacy in it. In contrast, the Court has held that there is a constitutionally protected reasonable expectation of privacy in bodily fluids.[33] Also, urine is not exposed to the public. Rather, it is stored within the body until eliminated in private. This strongly supports the view that a government order to produce such fluids would have to meet the requirements of the fourth amendment.

Not everyone would agree that the fourth amendment applies to subpoenas. For example, Judge Friendly suggested that the real basis for control of a subpoena might be the due process clause rather than the fourth amendment.[34] Yet, it seems that the fourth amendment has not been definitively ruled out even of the subpoena process. Its special nature and the limited intrusion which usually accompany it actually address the issue of the *reasonableness* of the subpoena under the fourth amendment.[35] Subpoenas which are reviewable by the court

---

33. Schmerber v. California, 384 U.S. 757 (1966).

34. *In re* Grand Jury Subpoena Served Upon Simon Horowitz, 482 F.2d 72 (2d Cir.), *cert. denied*, 414 U.S. 867 (1973).

35. Oklahoma Press Publishing Co. v. Walling, 327 U.S. 186 (1946), a case decided well before Katz v. United States, 389 U.S. 347 (1967), at a time when physical trespass into a constitutionally protected area was required for a search, states that no actual search or seizure is involved with a subpoena but only a "figurative" or "constructive" one. Yet, the Court went on to balance interests, concluding that the issue was one of reasonableness, establishing three guidelines (legitimate investigatory purpose, relevance, and some degree of specificity linked to the purpose of the investigation and making it possible to figure out what documents are being demanded). *See gener-*

before anything must be produced are in many ways less instrusive than more traditional searches and seizures[36] and require less to be reasonable. In *In re Nwamu*,[37] a demand that subpoenaed items be handed over at once violated the fourth amendment. Arguably, this was because the manner of its execution took on more of the characteristics of a traditional search, lacking only the actual entry by the government agent. Similarly, drug testing is much more intrusive than a subpoena. No delay is permited and there is no mechanism for "before the fact" judicial review.

It appears that the fourth amendment extends even to intrusions as limited as subpoena's. Drug testing, moreover, is significantly more intrusive than a subpoena. Except for the lack of physical government taking of the sample, it appears to be much closer to the degree of intrusion found in a traditional search and seizure. Even though portions of *Boyd* have been rejected, the portion relevant to the drug testing issue appears to be undisturbed by later cases. When a defendant is forced to hand over evidence by government agents and under a threat of sanction for refusal, a search and seizure under the fourth amendment has occured. This narrow point is all that is required to find that mandatory drug testing is a search and seizure.

B. *Modern Search and Seizure Theory*

The most important modern change in the theory of the fourth amendment followed the decision in *Katz v. United States*[38] and its progeny. Have the theoretical changes in the fourth amendment analy-

---

ally 2 LaFave, *supra* note 18, at 195-206. Arguably, this is consistent both with *Boyd*'s view and with recent Supreme Court cases in which it is suggested that when a warrant is not necessary, due to the special nature of the search or seizure involved (often involving either an exaggerated need on the part of the government to search, a limited intrusion, or an already reduced expectation of privacy), the only limitation upon the conduct is "reasonableness" determined by an ad-hoc balancing process. *See* New Jersey v. T.L.O., 469 U.S. 325 (1985); United States v. Montoya de Hernandez, 469 U.S. 1204 (1985); and United States v. Villamonte-Marquez, 462 U.S. 579 (1985). Thus, with the usual subpoena situation, the intrusion is much less than with a more traditional search, rendering a warrant unnecessary. Further, the balancing approach leads to the discarding of many traditional requirements which would accompany a warrant, but still requires that the scope and purpose of the demands be reasonable.

36. 2 LaFave, *supra* note 18, at 209.
37. 421 F. Supp. 1361 (S.D.N.Y. 1976).
38. 389 U.S. 347 (1967).

sis supported or undermined the portion of *Boyd* relied upon here?

In *Katz*, FBI agents placed electronic devices on the exterior of a public phone booth. Petitioner made calls from the booth which were overheard and recorded.[39] Not only was there no physical trespass into the telephone booth, but the agents did not force petitioner to do anything. Instead, they merely provided themselves with the ability to hear and record if the unknowing petitioner decide to use the booth. Rather than entering a private area already controlled by petitioner, the government arranged to monitor an area and waited until petitioner attempted to use it as a private area at a later time. Thus, *Katz* itself was not the typical or paradigm search pattern.

The Court rejected the notion that a physical trespass was required for a search or seizure to have taken place.[40] Stating that the amendment safeguards the protection of "people, not places,"[41] the Court determined that a search and seizure had taken place because the government's activities had violated petitioner's reasonable expectation of privacy.[42]

The widely followed concurrence by Justice Harlan explained the majority opinion as a "two-prong" test: "My understanding of the rule that has emerged from prior decisions is that there is a twofold requirement, first that a person have exhibited an actual (subjective) expectation of privacy and, second, that the expectation be one that society is prepared to recognize as 'reasonable.' "[43]

In recent years, the Supreme Court has often begun its analysis with the Harlan test.[44] This is combined with part of the majority language which states: "[w]hat a person knowingly exposes to the public, even in his own home or office, is not a subject of Fourth Amendment

---

39. *Id.* at 348.

40. "We conclude that the underpinnings of Olmstead [v. United States, 277 U.S. 438 (1928)] and Goldman [v. United States, 316 U.S. 129 (1924)] have been so eroded by our subsequent decisions that the 'trespass' doctrine there enunciated can no longer be regarded as controlling." *Katz*, 389 U.S. at 353.

41. *Id.* at 351.

42. "The Government's activities in electronically listening to and recording the petitioner's words violated the privacy upon which he justifiably relied while using the telephone booth and thus constituted a 'search and seizure' within the meaning of the fourth amendment. The fact that the electronic device employed to achieve that end did not happen to penetrate the wall of the booth can have no constitutional significance." *Id.* at 353.

43. *Id.* at 361 (Harlan, J., concurring).

44. *See, e.g.*, United States v. Knotts, 460 U.S. 276, 280-81 (1983); Hudson v. Palmer, 468 U.S. 517 (1984).

before anything must be produced are in many ways less instrusive than more traditional searches and seizures[36] and require less to be reasonable. In *In re Nwamu*,[37] a demand that subpoenaed items be handed over at once violated the fourth amendment. Arguably, this was because the manner of its execution took on more of the characteristics of a traditional search, lacking only the actual entry by the government agent. Similarly, drug testing is much more intrusive than a subpoena. No delay is permited and there is no mechanism for "before the fact" judicial review.

It appears that the fourth amendment extends even to intrusions as limited as subpoena's. Drug testing, moreover, is significantly more intrusive than a subpoena. Except for the lack of physical government taking of the sample, it appears to be much closer to the degree of intrusion found in a traditional search and seizure. Even though portions of *Boyd* have been rejected, the portion relevant to the drug testing issue appears to be undisturbed by later cases. When a defendant is forced to hand over evidence by government agents and under a threat of sanction for refusal, a search and seizure under the fourth amendment has occured. This narrow point is all that is required to find that mandatory drug testing is a search and seizure.

B. *Modern Search and Seizure Theory*

The most important modern change in the theory of the fourth amendment followed the decision in *Katz v. United States*[38] and its progeny. Have the theoretical changes in the fourth amendment analy-

ally 2 LaFave, *supra* note 18, at 195-206. Arguably, this is consistent both with *Boyd*'s view and with recent Supreme Court cases in which it is suggested that when a warrant is not necessary, due to the special nature of the search or seizure involved (often involving either an exaggerated need on the part of the government to search, a limited intrusion, or an already reduced expectation of privacy), the only limitation upon the conduct is "reasonableness" determined by an ad-hoc balancing process. *See* New Jersey v. T.L.O., 469 U.S. 325 (1985); United States v. Montoya de Hernandez, 469 U.S. 1204 (1985); and United States v. Villamonte-Marquez, 462 U.S. 579 (1985). Thus, with the usual subpoena situation, the intrusion is much less than with a more traditional search, rendering a warrant unnecessary. Further, the balancing approach leads to the discarding of many traditional requirements which would accompany a warrant, but still requires that the scope and purpose of the demands be reasonable.

36. 2 LaFave, *supra* note 18, at 209.
37. 421 F. Supp. 1361 (S.D.N.Y. 1976).
38. 389 U.S. 347 (1967).

sis supported or undermined the portion of *Boyd* relied upon here?

In *Katz*, FBI agents placed electronic devices on the exterior of a public phone booth. Petitioner made calls from the booth which were overheard and recorded.[39] Not only was there no physical trespass into the telephone booth, but the agents did not force petitioner to do anything. Instead, they merely provided themselves with the ability to hear and record if the unknowing petitioner decide to use the booth. Rather than entering a private area already controlled by petitioner, the government arranged to monitor an area and waited until petitioner attempted to use it as a private area at a later time. Thus, *Katz* itself was not the typical or paradigm search pattern.

The Court rejected the notion that a physical trespass was required for a search or seizure to have taken place.[40] Stating that the amendment safeguards the protection of "people, not places,"[41] the Court determined that a search and seizure had taken place because the government's activities had violated petitioner's reasonable expectation of privacy.[42]

The widely followed concurrence by Justice Harlan explained the majority opinion as a "two-prong" test: "My understanding of the rule that has emerged from prior decisions is that there is a twofold requirement, first that a person have exhibited an actual (subjective) expectation of privacy and, second, that the expectation be one that society is prepared to recognize as 'reasonable.' "[43]

In recent years, the Supreme Court has often begun its analysis with the Harlan test.[44] This is combined with part of the majority language which states: "[w]hat a person knowingly exposes to the public, even in his own home or office, is not a subject of Fourth Amendment

39. *Id.* at 348.
40. "We conclude that the underpinnings of Olmstead [v. United States, 277 U.S. 438 (1928)] and Goldman [v. United States, 316 U.S. 129 (1924)] have been so eroded by our subsequent decisions that the 'trespass' doctrine there enunciated can no longer be regarded as controlling." *Katz*, 389 U.S. at 353.
41. *Id.* at 351.
42. "The Government's activities in electronically listening to and recording the petitioner's words violated the privacy upon which he justifiably relied while using the telephone booth and thus constituted a 'search and seizure' within the meaning of the fourth amendment. The fact that the electronic device employed to achieve that end did not happen to penetrate the wall of the booth can have no constitutional significance." *Id.* at 353.
43. *Id.* at 361 (Harlan, J., concurring).
44. *See, e.g.*, United States v. Knotts, 460 U.S. 276, 280-81 (1983); Hudson v. Palmer, 468 U.S. 517 (1984).

https://nsuworks.nova.edu/nlr/vol11/iss2/23

protection."[45]

Under the Court's recent analysis, the employee's mere desire for privacy is not sufficient to invoke fourth amendment protection. The expectation of privacy must be reasonable.

The "reasonable" prong of the test has come to mean two very different things. First, it has tested whether or not the person desiring privacy has taken steps to attempt to secure it. This might be called the "physicality" of the situation. Where were the observer and the observed? What physical barriers existed to prevent observation? Failure to take any steps to secure privacy has proved fatal to the fourth amendment claim.[46]

The second part of the "reasonable" prong has recently taken on increased importance. The question is whether the privacy expectation in the information sought to be concealed or in the area sought to be kept free from observation is worthy of fourth amendment protection. This involves an inquiry into what types of information and what areas society views as private, how society lives, what it values, etc.

The Court has recently held that some places, such as open fields and prison cells, do not warrant protection regardless of the steps taken to preserve privacy.[47] Additionally, some information itself is unworthy of privacy protection. The vehicle identification number of an automobile as held to be one such piece of information because of its important role in the pervasive regulation of motor vehicles.[48]

Contraband is similarly unworthy of protection.[49] If such information can be discovered without committing a search or seizure, the information itself is not private.[50] By contrast, the Constitution and case law specifically recognize the person as worthy of protection. The at-

---

45. *Katz*, 389 U.S. at 351.

46. *See, e.g.*, California v. Ciraolo, 106 S. Ct. 1809 (1986).

47. Oliver v. United States, 466 U.S. 170 (1984); *Hudson*, 468 U.S. at 517.

48. New York v. Class, 106 S. Ct. 960 (1986).

49. United States v. Jacobsen, 446 U.S. 380 (1984).

50. Even "non-private" information may be kept in a private place. Thus, a search of a suitcase to reveal drugs would not be permissible even though the information about drugs itself was not private. If, however, the information that there were drugs in the suitcase could be discovered *without* a search, say by use of a dog trained to sniff odors emanating from the bag, the acquisition of that information would not invoke any fourth amendment protection. United States v. Place, 462 U.S. 696 (1983). Similarly, when a private search put contraband in plain view of the police, a field test of the drugs which revealed only whether or not it was contraband was not a search. *Jacobsen*, 466 U.S. at 109.

tempt to find hidden aspects of a person, such as bodily fluids, has been recognized as a search.[51]

Boyd did not find it necessary to separately analyze the concepts of search and seizure. The analysis of the concept of "seizure" is still less well developed than that dealing with the concept of "search."[52] It may be said, however, that since the time of *Katz v. United States*,[53] a search has been understood as a governmental violation of one's reasonable expectation of privacy. Modern cases suggest that, at least where tangible items are involved, a seizure requires some interference with one's possessory interest in the item seized.[54] Furthermore, when dealing with seizures of the person, any interference with the right of a person to go about his business will qualify, even if the duration of intrusiveness is insufficient to amount to an arrest.[55]

1. *Is Drug Testing a Search Under the Theory of Katz?*

The question might be posed this way: Is focused governmental activity aimed at acquiring the employee's urine against the employee's will, by means of direct threats of sanctions imposed by government upon the employee, an invasion of the employee's legitimate privacy expectation?

The requirements of *Katz* would strongly suggest that the answer to this question is "yes." Private aspects of the person, particularly body fluids,[56] have been recognized as entitled to fourth amendment

---

51. Schmerber v. California, 384 U.S. 757 (1966). This would contrast with the lack of any privacy expectation in the physical characteristics of a person's face or voice since these things are constantly exposed to the public.

52.

> To be sure, the cases are somewhat at odds over whether the collection and subsequent testing of a urine specimen is a 'search,' a 'seizure,' or both. But while the precise characterization might vary, perhaps depending upon the details of the testing program, the cases uniformly hold that the Fourth Amendment does apply to the kind of testing about which you inquire.

71 Op. Att'y Gen. 6 [Maryland] (1986) [opinion No. 86-055, (Oct. 22, 1986)].

53. 389 U.S. 347 (1967).

54. This analysis is less helpful when dealing with the seizure of intangibles such as a voice or a visual image of something but that issue is beyond the scope of the present article. The seizures involved in drug testing are either of the person or of the urine (or blood) sample. Both are tangible.

55. *See* Terry v. Ohio, 392 U.S. 1 (1968).

56. *Schmerber*, 384 U.S. at 757.

protection.

It may be contended that urine is a waste product and that the employee holds it in his or her body specifically for the purpose of disposing of it.[57] While this is true, this contention fails to recognize that

---

57. In his special concurrance in National Treasury Employees Union v. Von Raab, 649 F.2d 380 (5th Cir. 1987), Judge Patrick E. Higginbotham questioned whether urinalysis was a search or seizure at all.

> There is a substantial question whether requiring the samples as a condition for hire for the three job categories is a search or seizure at all. . . . If the government has the right to insist upon proof that its policemen of drug dealers not be drug dealers, and surely it does, the reasonableness of any invasion of right and the correlative reasonableness of the expectation of privacy is a function of the relevance of the job requirement to the job to be done.

Id. This view is truly disturbing. Although the government's need for specific information is one part of the calculus to determine the reasonableness of a search or seizure (balanced against the severity of the intrusion to the citizen), if the need of the government for information alone can negate *any* reasonable expectation of privacy, then the government's acts are not searches at all. The assumption is that this position would be equally applicable to governmental demands to enter and rummage through the contents of a home or office. It is not disputed that the government has a legitimate interest in effective job performance of its employees. The question is what limits exist to the means by which the government can seek to insure this interest. Under Judge Higginbotham's analysis the answer would quickly be that there are no limits at all.

Judge Higginbotham also questions both whether there can be any reasonable expectation of privacy in a waste product and suggests that the privacy invasion involved is minor; "persons using public toilet facilities experience a similar lack of privacy." *Id.* While it is true that urine is a waste product, that does not end the inquiry. Trash is a waste product but this does not mean that police can enter a home to look for it. Similarly, it is suggested that the government can't force a citizen to dispose of his trash at a time and place convenient for police inspection. In drug testing programs, the government demands that the urine be eliminated at a time and place of the government's choosing and in a manner uncommon to societal norms. Naturally this defeats all attempts to keep the contents of the urine private.

Finally, Judge Higginbotham's analogy to a public rest room fails. Leaving aside for a moment the additional invasion of privacy which exists because the government seeks to control the time, place, and method of urination, something which on its face sounds grotesque, the analogy is still weak. While this author can't speak from experience about the social mores and customs attached to the use of women's public rest rooms, he can make some comments about those used by men. Stalls are equipped with doors and although urinals are not, there is an unspoken custom that men do not watch other men urinate.

It is crucial in discussing issues of privacy that the real world be taken into account. Although it may seem in questionable taste even to discuss the use of the urinal in a law review article, this author suggests that this too is a sign that such things are considered private.

such elimination has historically been viewed as a private activity by our society. Generally, private areas are provided for this function.

Privacy is expected during urination. Breaches of this expectation would be considered extremely rude. Some could be redressed in invasion of privacy actions. The structures built for waste elimination, moreover, are designed so that the waste is immediately mixed with water and carried away in a form which would be useless for testing and impossible to recover by means presently in use.

The current process of drug testing requires that people turn this private function into a public one. Most experts suggest that employees be watched during urination to insure that the sample received actually comes from the person tested. Other experts suggest that the room where the sample is taken be controlled and that other steps be taken to insure the integrity of the sample. The time and place of the elimination are selected by a person other than the individual and often against his will. Thus, drug testing makes the individual subject to the control and will of another during an activity generally considered personal to the individual. To most, the process of being so intimately controlled will seem demeaning, emotionally trying, and invasive of the bodily integrity and privacy so dear to us.[58] While no absolute measure of what makes a privacy expectation reasonable exists, surely so intimate an invasion must qualify.

Also, urine contains information worthy of protection. Even if it was held that there is no reasonable expectation of privacy in the knowledge that drug residue is in the body, a urine sample can test more than this. Urine tests can reveal pregnancy, diseases, etc.[59] In short, by requiring an employee to give a urine sample to the govern-

---

58. It is an insufficient answer that urine tests are sometimes conducted for legitimate medical purposes. A test which is administered at the request of a patient for his or her own reasons is significantly different than a test conducted against the will of the person being tested in order to uncover evidence of his or her wrongdoing.

59. Stille, *Drug Testing: The Scene is Set for a Dramatic Legal Collision Between the Rights of Employers and Workers*, Nat'l L.J., Apr. 7, 1986, at 1, reported the following:

> "A simple thing like urine can tell you a lot," says Dr. Harold M. Bates, a chemist with Metpath Laboratories of Teterboro, N.J., which performs drug test analysies. It can tell a company whether an employee is being treated for a heart condition, manic-depression, epilepsy, diabetes or schizophrenia. A company may be tempted to get rid of workers with medical problems, he says, "even though they may be doing a perfectly good job."

See also, e.g., McDonell v. Hunter, 612 F. Supp. 1122, 1127 (D. Iowa 1985), *modified*, 809 F.2d 1302 (8th Cir. 1987).

ment employer, the government is given the tool to discover many private facts about the individual.

The outcome should not be changed because the government agent has not physically seized the sample. Both *Boyd* and *Katz* suggest it is the breach of protected interests (whether property or privacy) that is key, and not the particular means employed by the government.[60] A visual or auditory acquisition of information can be a search under *Katz*.[61] Here, in a quest for information, government agents threaten a worker until the evidence is revealed. In *Katz* itself, agents took certain steps to obtain a hidden vantage point (devices were placed on the outside of the phone booth) and then waited until the defendant unwittingly revealed the information by speaking into the telephone. If this is a search, then it would seem incongruous to say that a situation where direct threats are applied to the defendant for the purpose of causing the exposure of evidence is not a search. In neither case is the paradigm of a search met. Yet, the Court in *Katz* had no trouble finding that a search had taken place. The same result should be found in the drug testing situation.[62]

The contention that the fourth amendment does not apply when the government acts as an employer rather than in a law enforcement capacity must also be rejected. In *New Jersey v. T.L.O.*,[63] the Court

---

60. *Compare*, Boyd v. United States, 116 U.S. 616, 630 (1886), where the Court stated:

> It is not the breaking of his doors, and the rummaging of his drawers, that constitutes the essence of the offence; but it is the invasion of his indefeasible right of personal security, personal liberty and private property, where that right has never been forfeited by his conviction of some public offense, it is the invasion of this sacred right which underlies and constitutes the essence of Lord Camden's judgment.

with Katz v. United States, 389 U.S. 347, 353 (1967),

> The government's activities in electronically listening to and recording the petitioner's words violated the privacy upon which he justifiably relied while using the telephone booth and thus constituted a 'search and seizure' within the meaning of the Fourth Amendment. The fact that the electronic device employed to achieve that end did not happen to penetrate the wall of the booth can have no constitutional significance.

61. 389 U.S. at 349.

62. The Attorney General of Maryland, Stephen Sachs, recently concluded that the fourth amendment applied to mandatory drug testing. 71 Op. Att'y Gen. (1986). *See also, e.g.*, Patchogue-Medford Congress of Teachers v. Board of Educ., 119 A.D.2d 35, 505 N.Y.S.2d 888 (App. Div. 1986). It appears to be the consensus of courts considering the question that drug testing is a search.

63. 469 U.S. 325 (1985).

held that the fourth amendment applies to searches of public school children by teachers and administrators. The Court stated: "[T]his Court has never limited the amendment's prohibition on unreasonable searches and seizures to operations conducted by the police. Rather, the Court has long spoken of the fourth amendment's strictures as restraints imposed upon 'governmental action' — that is, 'upon the activities of the sovereign authority.' "[64] The Court noted that "the individual's interest in privacy and personal security 'suffers whether the government's motivation is to investigate violations of criminal laws or breaches of other statutory or regulatory standards.' "[65] The same reasoning would apply to work rules set by government employers.[66]

---

64. *T.L.O.*, 469 U.S. at 335. The Court went on to note that the amendment had been applied to building inspectors, OSHA inspectors, and fire fighters.

65. *Id.* (partially quoting Marshall v. Barlow's Inc., 436 U.S. 307, 312-13 (1978)).

66. This same position was taken in *McDonell*, 612 F. Supp. at 1122, in which the government argued and the court rejected the notion that the fourth amendment did not apply because the testing in question was being conducted for reasons other than criminal investigation.

Although the district court's analysis of the reasonableness of urinalysis was modified by the court of appeal recently, that court agreed that urinalysis is a search under the fourth amendment. "We agree with those courts which have held that urinalysis is a search and seizure within the meaning of the fourth amendment." McDonell v. Hunter, 809 F.2d 1302 (8th Cir. 1987). A case suggesting the opposite result is Allen v. City of Marietta, 601 F. Supp. 482 (N.D. Ga. 1985). While reluctantly holding that urinalysis is a search, the court then appeared to hold that when government acted as an employer it could make any search which a private employer could make. Although couched as an analysis of "reasonableness," such a holding would have the effect of making the fourth amendment inapplicable to governmental employers. The case was decided before *T.L.O.*, and would seem to be inconsistent with it. Further, the actual facts of the case involved testing only of workers singled out by an undercover agent and for which there was ample reason to suspect drug use.

O'Connor v. Ortega, 107 S. Ct. 1492 (1987) (Plurality), decided when this article was at the printer, declined, in a footnote, to decide the issue of drug testing. Nonetheless, it did recognize that employees have a reasonable expectation of privacy in areas such as office desks and filing cabinets. The plurality stated that "investigations of work-related misconduct, should be judged by the standard of reasonableness under all the circumstances." *Id* at 1503. Reasonable suspicion of misconduct will meet this standard. The plurality also stated, however, "Because the petitioners had an 'individualized suspicion' of misconduct by Dr. Ortega, we need not decide whether individualized suspicion is an essential element of the standard of reasonableness that we adopt today." *Id*. Urinalysis, a much more intimate and personal search, and a search of an area not owned by the employer, logically must require no less a standard than that required for office searches and arguably would require more. Reasonable individualized suspicion would seem to be the minimum acceptable standard.

The fourth amendment applies to government workers. While the government employer can set terms of employment, there is no absolute right to negate the constitutional rights of workers as a condition of employment.[67] Similarly, the government cannot negate fourth amendment rights merely by announcing its intention to test.[68] This also suggests that attempts to twist mandatory drug testing into some form of "implied consent" on the part of the employee is unlikely to, and should not succeed.[69] This is especially true where the occupation in-

---

67. While there is no right to public employment, this does not mean that the governmental employer is totally free to set any conditions on the employment which it desires. Slochower v. Board of Higher Educ. of New York City, 350 U.S. 551 (1956), for example, invalidated the dismissal of a public school teacher for invoking the fifth amendment before a congressional committee. "To state that a person does not have a constitutional right to government employment is only to say that he must comply with reasonable, lawful, and nondiscriminatory terms laid down by proper authorities." *Id.* at 553. *See also, e.g.* United States v. Robel, 389 U.S. 589 (1967), and Pickering v. Board of Educ., 391 U.S. 563 (1968). As Stephen Sachs put it:

> Nor does the mere fact of State employment negate this legitimate expectation of privacy. A citizen who becomes a State employee does not — and may not be compelled to — give up his or her constitutional rights as the price of gaining that employment. Keyishian v. Board of Regents, 385 U.S. 589, 606 (1967). '[T]he government may not condition government employment upon compliance with unconstitutional conditions.' Shuman v. City of Philadelphia, 470 F. Supp. 449, 457 (E.D. Pa. 1979).

71 Op. Att'y Gen. 8 (1986). *See also infra* note 102.

Division 241 Amalgamated Transit Union (AFL-CIO) v. Suscy, 538 F.2d 1264 (7th Cir. 1976), appears to hold broadly that workers have no reasonable expectation of privacy to refuse blood and urine testing. Yet, the actual rules under review in that case involved testing only after a bus driver had been "involved in 'any serious accident,' or [was] suspected of being intoxicated or under the influence of any narcotics." *Id.* at 1266. Thus, despite the broad language used by the court, the actual issue appears to be not the applicability of the fourth amendment but rather the reasonableness of the conduct. It should be noted that the testing approved in the case was not random or mass testing but was testing based upon particular suspicion of drug intoxication.

68. If the subjective prong of the test means no more than this, then the fourth amendment is reduced to a nullity. Merely by announcing its intention to conduct an unlawful search, the activity would be rendered no search at all.

69. Consent, to be effective, must be voluntary. Schneckloth v. Bustamonte, 412 U.S. 218 (1973). To permit the government to find "consent" merely because the employee does not quit or because he seeks employment converts the notion of consent to the status of a legal fiction. It is asserted, rather, that the government is prohibited from demanding that a worker give up his constitutional rights merely because he seeks or holds government employment. Thus, the employee can require the government not to require him to agree to something it has no right to demand from him in the first place. "But if the choice to decline the search carries with it significant adverse conse-

volved is not pervasively regulated.[70]

2. *Is Drug Testing A Seizure Under Modern Theory?*

Two possible seizures exist in the drug testing situation. The first is a seizure of the person and the second is a seizure of the sample.

The employee is not merely requested to give a sample, he is ordered to do so and at a particular time and place of the employer's choosing. Although an employee may be "free to leave," he or she is made aware of the serious penalties exacted by the government (the loss of the job). Thus, when the employee does not leave, it is not because of a voluntary choice to stay but rather out of fear of the consequences which the government will impose.[71]

---

quences, then the alternative — submitting to the search — does not reflect voluntary consent." 71 Op. Att'y Gen. 17 (1986). Sachs quotes from Professor LaFave's treatise, a passage worth repeating to the same point:

> Consent, "in any meaningful sense," cannot be said to exist merely because a person (a) knows that an official intrusion into his privacy is contemplated if he does a certain thing, and then (b) proceeds to do that thing. Were it otherwise, the police would utilize the implied consent theory to subject everyone on the streets after 11 p.m. to a search merely by making public announcements in the press, radio and television that such searches would be undertaken.

2 LAFAVE, *supra* note 18 § 8.2, at 677 (1978) (footnotes omitted). *See also infra* note 102.

70. In Shoemaker v. Handel, 795 F.2d 1136 (3d Cir.), *cert. denied*, 107 S. Ct. 577 (1986), the court upheld random drug testing of jockeys. The court found that horseracing was a pervasively regulated industry which reduced the reasonable expectation of privacy of those engaging in it and made a random testing program reasonable. Significantly, even here, the court did not dispute that the fourth amendment applied to the conduct, but rather held that the administrative search doctrine applied and upheld the procedure as reasonable. *Id.* at 1142. There is no similar reduction in one's reasonable expectation of privacy merely because one is employed by the government.

By contrast, in Jones v. McKenzie, 628 F. Supp. 1500 (D.D.C. 1986), the court rejected analogies to testing of military personnel, prisoners, or those engaged in particularly hazardous work and held that a school bus attendant could not be tested absent "particularized probable cause." *Id.* at 1509.

Compare generally Donovan v. Dewey, 452 U. 594 (1981) and United States v. Biswell, 406 U.S. 311 (1972) *with* Marshall v. Barlow's Inc., 436 U.S. 307 (1978).

71. The employee is, in general, subject to the control of the employer. It might be argued, therefore, that no seizure of the person can take place because the employee has a pre-existing obligation to the employer. While this would certainly be true for all activities within the scope of the job, it cannot be a blanket principle applicable no

Threats of consequences less than serious bodily harm might not be sufficient to win a civil action for false imprisonment.[72] However, as the Supreme Court has reminded us in recent years, such external legal standards are not coextensive with the scope of the fourth amendment.[73] A threat of job loss is a serious one. In the context of drug testing it is clear that the one making the threat has the ways and means to carry it out. In such a situation, it should not matter that the employee could physically leave without physical violence.

The second possible seizure involves the sample itself. There is no doubt that the sample passes from the individual to the government, and that the individual loses further control over it. The argument will be made that there is no seizure because the sample is given by the employee rather than taken by the government agent. Here again, the issue of voluntariness is crucial. The sample is given only upon a threat of sanction. If the employee urinated into a bottle on his own and the government then entered the room and physically took the bottle over the most feeble of protests, clearly a seizure would have taken place.[74]

---

matter how demeaning or dangerous an employer's demands might be. When the governmental employee is required to go to a particular place to engage in demeaning probings into his most private places, it would not be unreasonable to suggest that the employee be considered seized. In the final analysis, however, whether drug testing will be found to be a seizure of the person is likely to rest on whether drug testing is found to be an acceptable part of everyday work place activity.

72. RESTATEMENT (SECOND) OF TORTS § 40A (1965) states that a civil action for false imprisonment can be based upon duress other than by physical force "where such duress is sufficient to make the consent given ineffective to bar the action." Section 892B states that "Consent is not effective if it is given under duress." The comment to the section, while acknowledging that the cases have rested on such things as threats of physical force against persons and property, notes "The cases, however, do not indicate that these are the limits of the duress that will render consent ineffective." RESTATEMENT (SECOND) TORTS § 892B, comment j. While tort principles do not control the fourth amendment, *see, e.g.*, Oliver v. United States, 466 U.S. 170 (1984), standards external to the fourth amendment can be useful guides in helping to articulate the meaning of its standards, *see, e.g.*, Rakas v. Illinois, 439 U.S. 128 (1978). Consent to search must be voluntary. Schneckloth v. Bustamonte, 412 U.S. 218 (1973). To be "voluntary," consent must not be the product of "duress or coercion, express or implied." *Id.* at 227. The consent must be the "product of an essentially free and unconstrained choice by the maker," *id.* at 225 (quoting Culombe v. Connecticut, 367 U.S. 568, 602 (1961)) as opposed to a situation where the "will was overborne." *Schneckloth*, 412 U.S. at 226.

73. *Oliver*, 466 U.S. at 170; Dow Chem. Co. v. United States, 106 S. Ct. 1819 (1986).

74. A seizure takes place when there is any significant interference with one's

It should not matter that the government is able to coerce the employee into handing over the evidence by threats of much more severe sanctions for failing to do so.[75]

If any one of the possible searches and seizures suggested here exist, then the activity is within the ambit of the fourth amendment and will be struck down unless found to be reasonable. If the initial seizure of the person is unreasonable then forcing the sample from him is a fruit of that poisonous tree. The same result is manifested if requiring the sample to be produced amounts to a search. Finally, if handing over the sample is itself an unreasonable seizure, then the government has no right to it and the results obtained by the test are fruits of that seizure.

3. *Private Search/Government Action*

Conduct performed by private individuals rather than by the government is not a search or seizure.[76] Yet, it is also true that a private person may become a government agent when the search or seizure is made at the urging or command of the government.[77]

Thus, in *Schmerber v. California*,[78] the extraction of blood from

---

possessory interest in an item. United States v. Jacobsen, 446 U.S. 380 (1984). In drug testing, the sample is removed from the employee's control and custody and subjected to tests designed to reveal private information about the employee. A seizure would seem to have taken place in this situation.

75.

> Urine, unlike blood, is routinely discharged from the body, so no governmental intrusion into the body is required to seize urine. However, urine is discharged and disposed of under circumstances where the person certainly has a reasonable and legitimate expectation of privacy. One does not reasonably expect to discharge urine under circumstances making it available to others to collect and analyze in order to discover the personal physiological secrets it holds, except as part of a medical examination. It is significant that both blood and urine can be analyzed in a medical laboratory to discover numerous physiological facts about the person from whom it came, including but hardly limited to recent ingestion of alcohol or drugs. One clearly has a reasonable expectation of privacy in such personal information contained in his bodily fluids. Therefore, governmental taking of a urine specimen is a seizure within the meaning of the Fourth Amendment.

McDonell, 612 F. Supp. at 1127.

76. United States v. Jacobsen, 446 U.S. 380 (1984).

77. *E.g.*, Schmerber v. California, 384 U.S. 757 (1966).

78. *Id.*

the petitioner by doctors at the hospital was a search[79] because the doctors acted under the direction of the police. The case suggests that when the private person becomes an instrument of the government, the search has ceased to be private. The cases upholding private searches are consistent with this view.[80]

In *Schmerber*, if the police threatened the doctors with sanctions if they refused to take the sample, clearly the search would not be private. In fact, the mere fact that the blood was taken by the doctors under the "direction" of the police was sufficient to make the extraction governmental activity. Why then should it be any different if the police compelled a person to take the sample himself by directly threatening him. Commanding a doctor to use a needle on a person would be considered a government search. A command to the same person to use a needle on himself ought no less to be considered a government search. The result should be no different if it is a compelled urine sample that is obtained. Essentially, this is the point that *Boyd* made so many years ago. In *Boyd*, the government had managed to transform a person *himself*, into a government agent. In the case of compelled drug testing, not only should the employee be viewed as a compelled governmental agent, but the taking of the sample should be viewed as governmental activity no less than if the compulsion was applied to a third party.

C. *Summary: Search and Seizure*

Under any one of several theories, mandatory drug testing by a government employer is a search and/or seizure. It fits the theory articulated in *Boyd*. It is consistent with the theoretical requirements of *Katz*. It is distinguishable from the private search situation.[81]

---

79. "Compulsory administration of a blood test . . . plainly involves the broadly conceived reach of a search and seizure under the Fourth Amendment." *Schmerber*, 384 U.S. at 767.

80. *See, e.g., Jacobsen*, 446 U.S. at 380.

81.

> While we recognize the importance of government's attempts to curb drug abuse, we are concerned that indiscriminate drug testing threatens traditional fourth amendment values. More perhaps than any other provision of the Bill of Rights, the fourth amendment expresses an essential quality of democracy — the defense of personal dignity against violation by the state. We ought not experiment with these rights. They are fragile. Once damaged they are not easily repaired. Once lost they are not easily recovered.
>
> Adherence to tested Fourth Amendment principles is particularly im-

III. When is Drug Testing "Reasonable"?

The fact that drug testing amounts to a search and/or seizure does not end the inquiry as to its constitutionality. The reasonableness of drug testing must be evaluated.[82]

There are many ways to approach the issue of reasonableness. Although some will debate fine lines of difference, for practical purposes, the real debate is between those who argue that mandatory drug testing is constitutional on a per se basis (either through blanket testing of all employees or through random testing of a portion of the work force) and those who argue that testing an employee is unconstitutional unless there is some level of individualized suspicion (either probable cause or reasonable suspicion) that the particular employee is impaired on the job due to drug intoxication.

In general, reasonableness is a matter of balancing the need of the government to intrude and the degree of that intrusion.[83] When a warrant is required, only probable cause will support its issuance.[84] Even when a warrant is not required, most searches for evidence still require probable cause.[85] Recently, in some limited situations, searches have

---

portant when, as now, there is widespread clamor for a simple solution to a serious social problem. The saddest episodes in American constitutional history have been those occasions, like the internment of Americans of Japanese descent during World War II, when we have bent our principles to the zealotry of the moment. A war on drugs is a good idea, but not if its first casualty is the Bill of Rights.

71 Op. Att'y Gen. 4-5 [Maryland] (1986).

82. U.S. CONST. amend. IV. "For what the Constitution forbids is not all searches and seizures, but unreasonable searches and seizures." Terry v. Ohio, 392 U.S. 1, 9 (1968) (quoting Elkins v. United States, 364 U.S. 206, 222 (1960).

83.

> In order to assess the reasonableness of Officer McFadden's conduct as a general proposition, it is necessary 'first to focus upon the governmental interest which allegedly justifies official intrusion upon the constitutionally protected interests of the private citizen,' for there is 'no ready test for determining reasonableness other than by balancing the need to search [or seize] against the invasion which the search [or seizure] entails.

Terry v. Ohio, 392 U.S. 1, 20-21 (1968) (quoting Camara v. Municipal Court, 387 U.S. 523, 534-35, 536-37 (1967).

84. U.S. CONST. amend. IV. "If this case involved police conduct subject to the Warrant Clause of the Fourth Amendment, we would have to ascertain whether 'probable cause' existed to justify the search and seizure which took place." *Terry*, 392 U.S. at 20.

85. "Ordinarily, a search — even one that may permissibly be carried out with-

been permitted with less than probable cause.[86] The cases which have approved these searches involved situations in which special factors existed. These special factors either greatly increased the government's need to search beyond the normal interest in crime prevention; or greatly lessened the degree of intrusion due to the limited nature of the search; or involved a situation in which the normal reasonable expectation or privacy was greatly reduced.[87] On rare occasions, a combination of these factors has resulted in a search (or seizure) being permitted on a per-se basis.[88]

---

out a warrant — must be based upon 'probable cause' to believe that a violation of the law has occurred. *See, e.g.*, Almeida-Sanchez v. United States, 413 U.S. 266, 273 (1973); Sibron v. New York, 392 U.S. 40, 62-66 (1968)." New Jersey v. T.L.O., 469 U.S. 325, 334 (1985).

86. *T.L.O.*, 469 U.S. at 325; United States v. Montoya de Hernandez, 105 S. Ct. 3304 (1985).

87. In *T.L.O.*, for example, the Supreme Court held that the fourth amendment applied to searches of school children by public school officials. Yet, the Court also recognized that the particular difficulty in maintaining order in schools, the need to closely supervise children to create the proper educational environment; and the importance of an informal teacher-student relationship. These factors justified dispensing with both the warrant requirement and the probable cause standard in favor of a lesser "reasonable suspicion" standard. "Where a careful balancing of governmental and private interests suggests that the public interest is best served by a Fourth Amendment standard of reasonableness that stops short of probable cause, we have not hesitated to adopt such a standard." *T.L.O.*, 469 U.S. at 341.

In *Montoya De Hernandez*, the Court noted the special power of a nation to control its borders and the resulting diminution of the reasonable expectation of privacy entailed by this right, and upheld routine border seizures and searches at will, and much more intrusive ones on a "reasonable suspicion" standard. *Montoya De Hernandez*, 105 S. Ct. at 3311.

88. In United States v. Villamonte-Marquez, 462 U.S. 579 (1983), the Supreme Court upheld the right of customs agents acting under statutory authorization to seize, board, and conduct a limited search of the ship's documents without any requirement of individualized suspicion. The Court stressed a series of reasons for the decision: The fact that similar statutes had been enacted by the First Congress (which also proposed the fourth amendment), the scope of the intrusion was limited and carefully tailored to serving the governmental interest in preventing smuggling, the impracticability in a water setting of establishing fixed check points at which all traffic would be stopped, etc. In an earlier case, Delaware v. Prouse, 440 U.S. 648 (1979), the Court struck down random vehicle stops away from the international border to check license and registration but, in *dicta*, indicated that a fixed check point would be constitutionally permissible. The reasons included the pervasive regulation of the automobile, the important interest in highway safety, and the limited nature of the intrusion, which involved merely a check of the drivers license and registration documentation.

A. *The Need to Intrude*

The government, like any other employer, has a legitimate interest in the job performance of its workers. Therefore, it has the right to prescribe reasonable rules and take reasonable steps to eliminate job impairment regardless of the cause. Although other factors besides the use of illegal drugs effect job performance (abuse of alcohol; illness; stress; marital problems; etc.), drug use on the job is a cause of job impairment and so falls within the realm of legitimate employer concern.

This is not to say, however, that an exaggerated government interest can be created, and drug testing approved, with a few generalized comments about the extent of drug abuse in our society and the need for corrective action. Not only might other problems in our society be similarly described,[89] but the scope of the employer's concern about

---

89. The problems of drunken driving, missing and abused children, and illegal hand guns come readily to mind. Although everyone agrees that drug use on the job is a problem which society must face, courts should be slow to accept without data or to take "judicial notice" of the level or seriousness of the problem. Assumptions based upon newspaper headlines may mean merely that a problem has begun to occupy the national attention and may not indicate the true level of its danger. Similar national attention was focused upon airline hijackings in the 1960's and 1970's. This has led to widespread acceptance of searches of airline passengers. It could not be disputed that airline hijackings were and continue to be a problem. Extensive coverage of a relatively small number of such incidents, however, may have created a climate of fear very similar to that being created about drug abuse on the job today. Without doubt, reasonable anti-hijacking measures were appropriate. Yet, the extreme reaction of mass searches may well have been an over-reaction to the problem. In a 1974 article which collected and evaluated data from 144 hijackings since 1961, the author was led by the data to state "hijacking has been among the least dangerous or costly of all crimes in America in the percentage of incidents resulting in injury or death to a victim, in the percentage of all victims injured or killed, and in the risk or injury which the crime poses for travelers." Andrews, *Screening Travelers at the Airport to Prevent Hijacking: A New Challenge for the Unconstitutional Conditions Doctrine*, 16 ARIZ. L. R. 657, 698 (1974). The data analyzed by Professor Andrews revealed that for the period 1961-1972, an airline traveler had "only a 1 in 325 million chance of being killed in a hijacking," while the chance of being murdered due to crime generally in 1972 was "1 in 11,236." *Id.* at 744. Yet, searches and seizures to prevent hijackings have been accepted which would certainly not be accepted if applied throughout society to stop murder generally. Similarly, when government argues for sweeping new powers to search and seize by drug testing workers, courts should demand exacting proof concerning the actual level of danger and the resulting need to intrude. Sweeping generalizations and a small number of well publicized incidents of drug related injuries should not substitute for carefully conducted research, and courts should be very slow to cir-

drug use is only the extent to which it impairs job performance.[90]

At present, the most commonly used drug tests do not measure current drug intoxication, let alone the degree of impairment.[91] Rather, the commonly used tests discover the presence of metabolites of various drugs. These are the residues of drugs existing after the actual active agent of the drug has been processed by the body.[92] Metabolites are not, themselves, evidence of current intoxication. However, they often remain in the body for days or even weeks after the ingestion of the drug.[93] In sharp contrast to the blood alcohol test used in *Schmerber v. California*,[94] which measured the actual blood alcohol content in the

---

cumvent the need for empirical proof by taking notice not only that a problem exists but that it is as serious as the government claims, but does not prove, that it is.

90. Although this author doubts the possibility that such a person could exist, the hypothetical situation of an employee who, although intoxicated by drugs, managed to perform his job *as well as* a non-intoxicated person and did not act as a distribution point for others seeking drugs (thus posing no danger to others and not resulting in defective job performance) would not fall within the scope of legitimate employer concern. The employer's legitimate concern about drug use is based not upon personal disapproval of drug use, but upon the disruption and danger caused by their use on the job. *See* Osterman v. Paulk, 387 F. Supp. 669 (S.D. Fla. 1974) (due process violation found in polygraph testing because marijuana use sometime within the prior six months was not rationally related to qualifications as a clerk).

91. Comment, *Your Urine or Your Job: Is Private Employee Drug Urinalysis Constitutional in California?*, 19 LOY. L.A.L. REV. 1451 (1986) [hereinafter cited as *Your Urine*]. The comment quotes extensively from material produced by Syva, the company which manufactures the popular "Emit" test, and notes that the test "does not determine the concentration of THC in one's body." *Id.* at 1456. It quotes from the Syva report to the effect that the test is "useful only as an indicator of recent use of marijuana and *not* as a measure of intoxication." *Id.* at 1458 (quoting Syva Company, Marijuana and the Emit Cannabinoid Assay (June 1981)). The author also cited a confirming telephone conversation with Ann Burton, from Syva, "[s]he specifically confirmed that the urine tests do not and are not expected to measure intoxication at the time of testing." *Id.* at 1457 n.40.

92. "Metabolites can be detected in the urine long after the impairment, or the 'high,' from the marijuana has ceased." *Id.* at 1456-57.

93. *Id.* at 1457 n.39, notes that the presence of metabolites of THC (the active ingredient in marijuana) may show up in testing more than thirty days after ingestion.

> Certain drugs metabolize more quickly than others. Alcohol is flushed out of the body within 12 hours, and cocaine within two or three days, while marijuana can be detected a couple of months after it was used. There is even an instance in which marijuana was detected 81 days after it was used, according to Professor Dubowski.

Stille, *Drug Testing: The Scene is Set for a Dramatic Legal Collision Between the Rights of Employers and Workers*, Nat'l L.J., Apr. 7, 1986, at 1, 24.

94. 384 U.S. 757 (1966).

blood, most drug tests do not show present intoxication or its level. Moreover, blood alcohol levels need to be tested quickly to show its presence whereas with drug testing what is tested does not quickly leave the body.

These facts lessen the intensity of the government's claim of its need to test. The test does not confirm what the employer really needs to know (present intoxication and level of intoxication) and there is no test-taking exigency.

Although the government will argue that there is some connection between drug use off the job and drug use on the job, the burden is on the government to prove the degree of such correlation. Absent such a showing, the discovery of "free time" drug use without more (for example, the employee used marijuana two weeks ago during a mountain vacation camping trip) is irrelevant or at most only slightly relevant to the employer's interst in a non-impaired worker.[95]

This problem can be analogized to the fourth amendment warrant requirement of "particularity."[96] For an employer to obtain a warrant to test an employee believed to be using drugs on the job, the evidence to be searched for would be "current intoxication." Furthermore, the search would have to be tailored to discover that information. Since drug testing, as commonly performed today, does not reveal current intoxication, it would be beyond the scope of the warrant. This is because the search would not be reasonably calculated to discover evidence of current intoxication.

It may well be that there is some degree of correlation between those who use drugs off the job and those who use them on the job. Again, it is the government's task to demonstrate the degree of correlation. Unless the correlation is shown to be very high, the government interest in knowing who uses drugs off the job, while perhaps not wholly irrelevant to the primary government interest in job impairment,

---

95.

> We would be appalled at the spectre of the police spying on employees during their free time and then reporting their activities to their employers. Drug testing is a form of surveillance, albeit a technological one. Nonetheless, it reports on a person's off-duty activities just as surely as someone had been present and watching. It is George Orwell's 'Big Brother' society come to life.

Capua v. City of Plainfield, 643 F. Supp. 1507, 1511 (D.N.J. 1986), striking down a city attempt to institute mass drug testing of city fire fighters. *See generally Osterman*, 387 F. Supp. at 669.

96. U.S. CONST. amend. IV.

et al.: Nova Law Review Full Issue

is still much reduced.

The government's interest is also reduced because commonly used tests have not yet been proved to be accurate. Although the details of the problems with the test are beyond the scope of this article, they include false positives and cross-reactivity.[97] Data challenging the accuracy of the test decreases the government's legitimate interest in using it since the chance that its use will accurately reveal relevant information is thereby reduced.

Other methods to spot impairment are available. These include training supervisors to recognize signs of such impairment, basic eye-hand coordination tests, etc.[98] This also lessens the governmental interest in using the particular search technique of drug testing. This is not to say that all such impairment would necessarily be found by such techniques. However, it is at least directed toward discovering the present state of the employee rather than his/her past acts or prior state.

If a test is eventually discovered which measured current drug intoxication only, the government interest in using such a test would be greater. It would probably be agreed by most that an employer has an interest in job performance and any factor which interferes with this is of some concern to the employer. The level of concern would depend to some degree on the nature of the work. When the work involves immediate risks to public safety, and when the drug use in question is likely to lessen the ability to do the job, the interest is higher. When the job does not involve public safety, the interest is still present (the interest in good work performance) but it is less.

Even here, however, it would be questionable whether the govern-

---

97. The problem is particularly acute when proper follow-up testing of initial Emit positives is not performed. It has also been reported that a wide variety of over the counter medications and some foods can cause a positive reading. Error rate estimates vary widely from 5% or less by the company or 25% or more by some medical people. A good review of the issue is provided in *Your Urine*, *supra* note 91, at 1455-61. Laboratory tests may be as bad or worse. *See* Hansen, Caudill, & Boone, *Crisis in Drug Testing: Results of CDC Blind Study*, 253 J. A.M.A. 2382 (1985), *reprinted* in 10 CHAMPION: OFFICIAL J. OF THE NAT'L A. OF CRIM. DEF. LAW. 20 (Jan./Feb. 1986).

98.

> The threat posed by the widespread use of drugs is real and the need to combat it manifest. But it is important not to permit fear and panic to overcome our fundamental principles and protections. A combination of interdiction, education, treatment and supply eradication will serve to reduce the scourge of drugs, but even a reduction in the use of drugs is not worth a reduction in our most cherished constitutional rights.

Capua, 643 F. Supp. at 1522.

mental interest involved is any higher than that of crime prevention generally. If police want to search for 100 pounds of a particular drug, probable cause and a warrant will generally be required. This is true even though the sale of the drug on the street will involve a certain number of deaths from overdoses, thefts to pay for the drug, and some drug use on the job. Yet, when only part of these results are at issue (the intoxication of some workers) the government asserts a higher interest allowing a search on less than probable cause and without a warrant. There is a logical incongruity here which has not yet been fully realized in the case law.

In summary, a governmental employer has a legitimate interest in discovering and eliminating job impairment including that caused by the ingestion of drugs on the job. The interest in discovering off duty drug use is either non-existent or significantly less. Tests commonly in use today do not test for current intoxication but actually reveal only drug use within a certain time in the past which may be days or weeks. The government interest in drug testing workers does not, therefore, appear to be compelling. It may or may not be as significant as the general governmental interest in crime prevention, depending on the test, but it will not be more than that crime prevention interest.

B. *The Degree of Intrusion*

Drug testing is very intrusive.[99] Earlier in this article, this intrusiveness was used to measure the reasonableness of the employee's privacy expectation, but many of those factors are also relevant here. Testing is deeply intrusive and humiliating. It requires an employee to convert a traditional private activity involving the intimate use of the body into a public one, often observed by an employment supervisor. It requires that one's bodily fluids be turned over to the control of the government for analysis. It provides an opportunity for an employer to ascertain many private facts about the employee beyond mere drug use.[100]

Mass testing is also intrusive because it treats presumptively innocent people as though they were guilty of drug use and requires them to *prove* their innocence by taking the test. When mass drug testing is

---

99. *Id.* at 1514. The Court of Appeal for the 8th Circuit, in McDonell v. Hunter, 809 F.2d 1302 (8th Cir. 1987), takes the opposite view without a thorough analysis of the issues involved.

100. *See supra* notes 56 to 59 and accompanying text.

et al.: Nova Law Review Full Issue

implemented, employees are required to submit to the test even though there is no reason to believe that they are or have been taking drugs. The habit of treating innocent citizens as if they were guilty will only serve to destroy the free society which we now enjoy.

> If we choose to violate the rights of the innocent in order to discover and act against the guilty, then we will have transformed our country into a police state and abandoned one of the fundamental tenets of our free society. In order to win the war against drugs, we must not sacrifice the life of the Constitution in the battle.[101]

C. *Rejecting False Analogies*

Those arguing for random or blanket testing without any requirement of individualized suspicion will point to two other situations where searches and seizures are allowed on that basis. On closer analysis, however, both analogies turn out to be false.

It is true that passengers boarding commercial air carriers in American cities are subject, on a blanket basis, to two types of searches, first an X-ray examination of carry-on luggage and secondly a metal detector scan of the person. Does this fact give authority for blanket drug testing of workers? The answer appears to be "no."

While it can be argued that the airport searches are closely linked to the asserted governmental interest, that is, to lessen the chance of airline hijacking by discovering those who are carrying weapons aboard airplanes. It must be remembered that the analogous governmental interest in the employment situation is the discovery of workers who are impaired *on the job* due to drugs. Drug testing, however, does not reveal only those who are under the influence of drugs at the time of the test but rather whether the individual has consumed drugs at some time in the past, a time-frame often days or weeks long. The true analogy would be to ask whether, on a blanket basis with no individualized suspicion, an airline passenger could be subjected to a search which revealed whether the passenger had handled a weapon within the last two weeks but not whether the weapon was currently in the possession of the passenger? The answer would be "no," because despite a high governmental interest, the proposed search and seizure would not be

101. *Capua*, 643 F. Supp. at 1522.

narrowly tailored to accomplishing the goal.[102] This would make it

---

102.

> With reference to air traveler screening, the first absolute can be expressed by a restatement of two well-known epigrams: an air traveler may have a constitutional right to be free from unreasonable searches and seizures, but he has no right to travel by air, and air travelers may board airplanes upon the reasonable terms laid down by the government. If they do not choose to board on such terms, they are at liberty to retain their rights of privacy and travel by other means. However, in a line of cases which now number at least 13, 'the theory that [a benefit] which may be denied altogether may be subjected to any conditions, regardless of how unreasonable, has been uniformly rejected.' Even if the benefit may be characterized as a privilege, the government's conditioning power is not absolute.

Andrews, *Screening Travelers at the Airport to Prevent Hijacking: A New Challenge for the Unconstitutional Conditions Doctrine*, 16 ARIZ. L. REV. 657, 668 (1974) (footnotes omitted).

Professor Andrews argues that the doctrine of unconstitutional conditions provides the proper approach to the airport question and stresses that the balancing of interests involved requires that the "least drastic means" be used to meet the governmental interest. Thus, by analogy, the overbroad nature of drug testing, as discussed previously in this article, seriously undercuts the claim of reasonableness asserted by the government employer.

> This least drastic means is the most selective system that can be constructed from available procedures. Such a system would use a large number of screening procedures arranged from the most minimally intrusive to the full search. This model system would effectively protect air travel from the dangers of hijacking with the least possible impact on the rights of air travelers. It would spare the vast majority any contact with even the mildest of the procedures amounting to a search.

Id. at 739.

In the present context, this approach would include training supervisors to recognize impaired behavior, education, and testing when circumstances indicated reason to believe that a particular employee was drug impaired. It would not permit bypassing all less intrusive measures and jumping directly to mass or random testing of employees. *See generally* Keyishian v. Board of Regents, 385 U.S. 589 (1967), Pickering v. Board of Educ., 391 U.S. 563 (1968); Connick v. Myers, 461 U.S. 138 (1983); and NOWAK, ROTUNDA, & YOUNG, CONSTITUTIONAL LAW 960-73 (2d ed. 1983). It is suggested that the older view, that because public employment was not a right it could be conditioned in any way the government desired including the abandonment of any and all constitutional rights, has been effectively repudiated and a more delicate balancing approach approved.

> For at least fifteen years, it has been settled that a state cannot condition public employment on a basis that infringes the employee's constitutionally protected interest in freedom of expression. . . . Our task, as we defined it in *Pickering*, is to seek 'a balance between the interests of the [employee], as a citizen, in commenting upon matters of public concern and the inter-

unacceptably intrusive.[103] So it is with drug testing.

Even those who accept the constitutionality of the airport searches[104] should be able to see that the parallel is fatally flawed. For

---

> est of the State, as an employer, in promoting the efficiency of the public services it performs through its employees.'

Connick, 461 U.S. at 142.

> Where the Court finds or assumes that a condition does affect a right, it may hold the condition unconstitutional solely on the ground that it is irrelevant, but without articulating such a strict test of irrelevance. In either case, the lack of relevance will render a condition unconstitutional at the outset. When some minimal relevance is found, however, the analysis proceeds to an assessment of the extent of the condition's effect, if any, on constitutional rights and the availability of less drastic means to protect the benefit. . . . Most decisive under the unconstitutional conditions doctrine is the requirement that a condition that infringes on a right be held unconstitutional if there is a less drastic means to achieve the same purpose.

Andrews, *supra* note 89, at 670-71 (footnotes omitted).

103. Professor Andrews argues that the unconstitutional conditions doctrine is an appropriate one for some fourth amendment situations and can help in gaining an analytical understanding of fourth amendment cases concerning pervasively regulated industries, border searches, and administrative searches. Often these cases involve situations in which the normal right to privacy has been previously reduced (something which is present in the pervasively regulated industry and border situation but cannot be said to be present merely because an individual becomes an employee). The lack of other effective means to meet the governmental interest has also been important. "In *Camara*, the Court said: 'There is unanimous agreement among those familiar with this field that the only *effective* way to seek universal compliance with the minimum standards required by municipal codes is through routine periodic inspections of all structures.' " Andrews, *supra* note 89, at 686 (footnote omitted and emphasis added by Andrews) (quoting in part, Camara v. Municipal Court, 387 U.S. 523, 535-36 (1967)). By contrast, there is considerable debate about the need to drug test and alternative measures have not fully been explored.

104. A number of commentators, while seeming to accept the need for anti-hijacking measures, expressed concern about the broad scope of the screening program. "If the airport security system is to maintain its validity, the principle espoused in this decision [Sibron v. New York, 392 U.S. 40 (1968)] must be applied with vigor and determination and the airport security system should be firmly re-directed to the accomplishment of the end for which it was created." Note, *Airport Security Systems and the Fourth Amendment*, 35 LA. L. REV. 860, 867 (1974). "Certainly aircraft hijackings endanger the public, but so do murder, rape, and armed robbery. The same reasoning that upholds warrantless magnetometer and carry on baggage searches could also support the installation of magnetometers on street corners in high crime areas." Cooke, *Airport Security Searches: A Rationale*, 2 AM. J. CRIM. LAW 128, 144 (1973) (footnote omitted). "The use of the system for fishing expeditions would be especially abusive in view of the vast number of citizens to which it is applied." Note, *The Con-*

others, who find the constitutional defense of airport searches dubious, it should be clear that such questionable practices should not be further extended.[105]

A second faulty analogy is to compare drug testing to the automobile roadblock situation which permits stopping all cars to check for license and registration without individualized suspicion. The doctrine comes from Supreme Court dicta in *Delaware v. Prouse*.[106]

Prouse actually dealt with stops of automobiles by mobile police units, and in the absence of individualized suspicion.[107] The practice was declared unconstitutional.[108] In dicta, the Court stated that a roadblack at which all cars were stopped could be acceptable for this purpose.[109]

The dicta in *Prouse* is not closely analogous to drug testing. Arguably, it had two analytical bases, neither of which are well suited to the drug testing situation. First, the dicta would appear to rest, at least in part, upon a reduced expectation of privacy while in an automo-

---

stituonality of Airport Searches, 72 MICH. L. REV. 128, 155-56 (1973). The author seems to approve of the establishment (probably by legislation) of a special exclusionary rule whereby evidence not connected to hijacking would be excluded from any subsequent criminal prosecution. The same proposal appears in Note, *Airport Searches and the Rights to Travel: Some Constitutional Questions*, 23 CLEV. ST. L. REV. 90, 108 (1974).

105. Searches of airline passengers began as a non-random process. Only those who met a "hijacker profile" were required to submit to metal detection and only those who triggered the metal detector were searched further. The mass search system was instituted in 1973. *See generally*, Comment, *The Airport Search and the Fourth Amendment: Reconciling the Theories and Practice*, 7 UCLA L. REV. 307 (1978).

> Anti-hijack searches have led to a large number of arrests at American airports: 6225 under the old Profile system, and more than 1300 in the first six months of the new system. Of the arrests made under the old system, fewer than 20% were for hijacking-related charges. More than 30% were for possession of drugs. As one judge noted: 'It is passing strange that most of these airport searches find narcotics and not bombs."

Note, *Airport Searches: Fourth Amendment Anomalies*, 48 N.Y.U. L. REV. 1043, 1046 (1973) (footnotes omitted and partially quoting United States v. Legato, 480 F.2d 408, 414 (5th Cir. 1973) (Goldberg, J., concurring)).

106. 440 U.S. 648 (1979).

107. *Id.* at 650-51.

108. *Id.* at 663.

109. "This holding does not preclude the State of Delaware or other States from developing methods for spot checks that involve less intrusion or that do not involve the unconstrained exercise of discretion. Questioning of all oncoming traffic at roadblock-type stops is one possible alternative." *Id.*

bile,[110] based both upon the uses to which automobiles are traditionally put and the extensive web of governmental regulation surrounding their use.[111] Secondly, the dicta is within the context of the minimal nature of the intrusion,[112] and the close connection between the small intrusion and the interests furthered by the regulation. The brief stop of each auto was only to examine those very documents required to be carried due to the extensive regulation.[113]

---

110. *Contrast* Carroll v. United States, 267 U.S. 132 (1925) and California v. Carney, 105 S. Ct. 2066 (1985) in which the Court stated:

> However, although ready mobility alone was perhaps the original justification for the vehicle exception, our later cases have made clear that ready mobility is not the only basis for the exception. The reasons for the vehicle exception, we have said, are twofold. "Besides the element of mobility, less rigorous warrant requirements govern because the expectation of privacy with respect to one's automobile is significantly less than that relating to one's home or office,"

Id. (citations omitted) *with* United States v. Chadwick, 433 U.S. 1 (1977).

111. "These reduced expectations of privacy derive not from the fact that the area to be searched is in plain view, but from the pervasive regulation of vehicles capable of traveling on the public highways." *Carney*, 105 S. Ct. at 2609.

112. The lack of discretion on the part of the officer and the resulting lessening in "subjective intrusion — the generating of concern or even fright on the part of lawful travelers — is appreciably less in the case of a checkpoint stop." United States v. Martinez-Fuerte, 428 U.S. 543, 558 (1976), *quoted in* Delaware v. Prouse, 440 U.S. 648, 656 (1978). This factor provides the only point of analogy to blanket drug testing. Yet, the level of intrusion justified by this factor was, factually, minimal, extending only to documents issued by the government and which drivers are required to carry. No search of the interior of the car is justified by such a checkpoint stop absent individualized suspicion or consent. United States v. Ortiz, 442 U.S. 891 (1975). Thus, the analogy to *Prouse* would not support a *search* of the person for anything as intimate as bodily fluids.

113. The rationale of the *Prouse* dicta has been extended in some states beyond the check for license and registration to *sobriety* checkpoints for drunk drivers. This extension to criminal drunk driving investigations is itself questionable and has had a mixed reaction. *See generally* Rogers, *The Drunk-Driving Roadblock: Random Seizure or Minimal Intrusion*, 21 CRIM. L. BULL. 197 (1984). Yet, even as extended by some courts, the use of roadblocks is limited to vehicles in which the expectation of privacy is reduced. Further, the stop entails only brief observation by the officer. No further search would be permissible unless the observations by the officers give rise to reason to believe that the driver is intoxicated. In the work place, the same observation can be conducted without any seizure of the person, with drug testing reserved for workers whose actions give rise to individualized suspicion of drug induced work impairment. Sobriety checkpoints do not give strong support for work place drug testing. *Prouse* cannot be read for the proposition that *any* intrusion no matter how intrusive is permitted as long as the government imposes the same intrusion on everybody.

By contrast, workers do not seriously reduce their reasonable expectation of privacy in their own bodies merely by accepting employment, there is no analogous history of pervasive government regulation, and the search sought to be made, an extraction of bodily fluids, is much more invasive of privacy than the inspection of documents issued by the government itself.

The conclusion logically following from a comparison of the drug testing situation and that of airport searches and automobile document checkpoints is that the latter two situations do not provide support for random or blanket drug testing.

D. *Summary: Reasonableness*

The above discussion demonstrates that work place drug testing is very intrusive upon the legitimate privacy expectation of workers in their persons. The governmental interest, while not non-existent, is usually not higher than that in crime prevention generally. To the extent that a higher or more pressing interest is asserted, it is balanced by the over intrusiveness of the proposed testing process, a process that is not narrowly designed to search only for current drug use, and so becomes only marginally related to the governmental interest in preventing worker intoxication on the job. Analogies to approved blanket/random checkpoint situations are very weak. Thus, drug testing is not reasonable absent some degree of individualized suspicion of work place drug impairment. Random or blanket testing is unreasonable under the fourth amendment.

IV. Conclusion

Drug testing is a search (and arguably a seizure) subject to the limitations of the fourth amendment. Such testing cannot be justified (it is unreasonable) absent some level of individualized suspicion (reasonable suspicion or probable cause) of drug induced job impairment.[114]

---

114. The first wave of drug testing cases has been decided at the district court level and a few have worked their way up to the courts of appeal. In general, the cases find drug testing to be a search and to require some degree of individualized suspicion before a test is permitted. The courts seem to be settling on a standard less than probable cause (reasonable suspicion) after balancing the various interests involved. Most of the decisions recognize the serious nature of the intrusion that drug testing entails and most reject the notion that a public employee can be required to check his constitu-

tional rights at the door upon entering into the employment relationship. Yet, the courts are also deciding that the government, as employer, has a legitimate interest in maintaining a work place free of drug impaired workers and that the problem is a serious one. The balancing of these factors has led to the lesser standard of suspicion for drug testing. A few cases have upheld blanket or random testing but these cases seem to be limited, in general, to narrow factual contexts in which governmental interests are particularly strong and privacy expectations are already reduced. These cases, involving pervasively regulated industries and prisons are, at present, the exception rather than the rule. To date, general claims that particular categories of workers must be randomly tested because they deal with the public or are involved in occupations involving safety (police and fire employees for example) have been properly rejected. General safety concerns, if alone held to be sufficient to uphold random testing, would quickly lead to generalized testing since almost all workers could be said to have some relation to safety or to the public. At the same time, the final verdict is not yet in, and hard fought appeals can be expected by the government. It can also be expected that new categories of workers, from air traffic controllers to railroad engineers will be considered candidates for mass testing programs. A review of some recent cases may prove useful.

In Capua v. City of Plainfield, 643 F. Supp. 1507 (D.N.J. 1986), the city imposed mandatory urinalysis on some of its employees. "On May 26, 1986, all fire fighters and fire officers employed by the defendant City of Plainfield were ordered to submit to a surprise urinalysis test. At 7:00 A.M. on May 26, the Plainfield Fire Chief and Plainfield Director of Public Affairs entered the city fire station, secured and locked all station doors and awakened the fire fighters present on the premises. Each fire department employee was required to submit a urine sample while under the surveillance and supervision of bonded testing agents employed by the city." *Id.* at 1511.

Federal district Judge Sarokin held that taking the sample was a search and seizure, and that the degree of intrusion was "relatively high," that precautions had not been taken to assure confidentiality of the test results, that government employees do not abandon their fourth amendment rights by becoming public employees, that such testing was unreasonable absent "reasonable suspicion," and so violated the fourth amendment. *Id.* at 1507.

Another plan for testing city fire fighters was struck down in Lovvorn v. City of Chattanooga, 647 F. Supp. 875 (E.D. Tenn. 1986). The court noted that "it seems clear that a urine test likewise amounts to a search and seizure from a person within the Fourth Amendment." *Id.* at 879. The litigants did not contest this. The court stated that while a city had "a compelling interest in having its fire fighters free from drugs," the test would be experienced as intrusive by many (even if not by all). *Id.* at 879. While governmental employees may not have a complete right to privacy while on the job, the fourth amendment is still applicable to them. Balancing the competing interests led the court to hold that testing was unreasonable in the absence of "reasonable suspicion." *Id.* at 883.

Less than ten days later, the Reagan administration's plan to require customs workers to undergo drug tests was dealt a serious blow in National Treasury Employees Union v. Von Raab, 649 F. Supp. 380 (E.D. La. 1986). District Judge Robert F. Collins enjoined the program, stating that such testing was a search and seizure and was, in fact, "even more intrusive than a search of a home." *Id.* at 386. The judge noted

that "This dragnet approach, a large-scale program of searches and seizures made without probable cause or even reasonable suspicion, is repugnant to the United States Constitution." *Id.* at 387. It was noted that urine is generally eliminated in circumstances where privacy is expected and that it can be used to determine many private things about the individual. *Id.* The court also held that "consent" to such searches and seizures as a condition for employment was coerced and not voluntary. *Id.* at 387-88. The Court of Appeal for the Fifth Circuit denied a stay of the injunction since oral argument was scheduled within three weeks. National Treasury Employees Union v. Von Raab, 808 F.2d 1057 (5th Cir. 1987). A motion for an expedited appeal was granted and was scheduled for the week of Feb. 2, 1987. National Treasury Employees Union, Acodta (Argent) v. Von Raab, No. Civ. A. 86-3522 (5th Cir., Jan. 21, 1987) (Lexis Genfed Library Ct. File).

The possible trend against blanket or random drug testing was noted recently in an order refusing to dismiss a challenge to a urinalysis program ordered for certain groups of civilian workers for the Department of Defense, and issuing an order temporarily enjoining the program. It was noted in American Fed'n of Gov't Employees (AFL-CIO) v. Weinberger, 651 F. Supp. 726 (S.D. Ga. 1986) that "a judicial trend is finally beginning to emerge clearly, and with each new decision on the subject of periodic drug testing it becomes more apparent that testing of civilians by urinalysis, absent some form of individualized suspicion, is in almost all cases offensive to the mandates of the fourth amendment." *Id.* at 732. The court also labelled arguments that urinalysis was not a search or seizure "entirely untenable." *Id.* This position is also in line with widely cited state cases including City of Palm Bay v. Bauman, 475 So. 2d 1322 (Fla. 5th Dist. Ct. App. 1985), in which the court held that drug testing of police and fire personnel was unreasonable absent reasonable suspicion. *Id.* at 1326. The same result (but called "particularized probable cause") as to bus attendants was had in Jones v. McKenzie, 628 F. Supp. 1500 (D.D.C. 1986). Patchogue-Medford Congress of Teachers v. Board of Educ., 119 A.D.2d 35, 505 N.Y.S.2d 888 (App. Div. 1986), agreed as to probationary teachers stating, "We conclude that such compulsory testing constitutes a search within the meaning of the Fourth Amendment to the Constitution of the United States, and that to compel a probationary teacher to undergo such a search without reasonable suspicion that such teacher is, or has ever been, a drug user is unconstitutional." *Id.* at 36, 505 N.Y.S.2d at 889. Turner v. Fraternal Order of Police, 500 A.2d 1005 (D.C. 1985) upheld testing for police officers after construing the regulation to require reasonable suspicion of drug use.

The cases contra are generally distinguishable. Probably it can be said that the leading case approving random testing is still Shoemaker v. Handel, 795 F.2d 1136 (3d Cir. 1986), which upheld testing of jockeys due to their participation in a pervasively regulated industry.

Division 241 Amalgamated Transit Union (AFL-CIO) v. Suscy, 538 F.2d 1264 (7th Cir.), *cert. denied*, 429 U.S. 1029 (1976), an early case which seems out of step with the emerging trend of the cases and which purported to validate an absolute right to test, actually did so in a factual context where regulations permitted testing only when a particular driver was involved in a serious accident or was otherwise suspected by two supervisors of being intoxicated. Although the broad language in the case seems wrong, its limited factual setting allows the case to be harmonized with the emerging requirement of particularized suspicion.

Another case which seems incorrect in theory but explainable on the facts is Allen v. City of Marietta, 601 F. Supp. 482 (N.D. Ga. 1985), a case which held, incorrectly it would seem, in light of New Jersey v. T.L.O., 469 U.S. 325 (1985), that as long as testing is administered by the government as an employer instead of as a law enforcement agency, the test would be reasonable. Factually, however, the case dealt with tests administered only to employees previously identified by an undercover officer as drug users and for whom there was ample reasonable suspicion to test.

Recently, the Court of Appeal for the Eighth Circuit, modified the district court's decision in McDonell v. Hunter, 612 F. Supp. 1122 (S.D. Iowa 1985), and allowed some random or blanket testing of correctional officers. The decision, which relied on the earlier Third Circuit decision in *Shoemaker*, stressed the special character of prisons including the heightened need for security which results in a reduced expectation of privacy. "While the prison officials have the same legitimate interest in maintaining prison security discussed supra, the infringement upon the privacy interest of correctional institution employees, already diminished, is lessened." McDonell v. Hunter, 809 F.2d 1302 (8th Cir. 1987). To the extent that this case is based upon a reduced expectation of privacy enjoyed by prison guards, it is not broadly applicable to other government workers. In fact, the permission to test randomly was limited to "those employees who have regular contact with the prisoners on a day-to-day basis in medium or maximum security prisons." *Id.* at 1308. Other testing required reasonable suspicion. "Urinalysis testing within the institution's confines, other than uniformly or by systematic random selection of those employees so designated, may be made only on the basis of a reasonable suspicion, based on specific objective facts and reasonable inferences drawn from those facts in light of experience that the employee is then under the influence of drugs or alcohol or that the employee has used a controlled substance within the twenty-four hour period prior to the required test." *Id.*

Although the actual scope of the opinion seems narrow, there is unfortunate language that suggests urinalysis is less intrusive in general than blood tests. This conclusion is arrived at with little or no analysis and without addressing the arguments for intrusiveness which have been outlined here. It seemed to be based on no more than the fact, pointed out in *Capua*, that drug testing did not require actual intrusion into the body. As noted here, there are many other elements of urinalysis which heighten the intrusive value of it. The well reasoned dissent of Chief Judge Lay notes "A search's intrusiveness does not hinge merely upon whether or not a person's skin is punctured or body touched in some way, but must be evaluated in terms of the individual's legitimate expectations of privacy in the context in which the search is conducted." *Id.* at 1311. There is great danger in concluding that an activity which does not seriously intrude upon privacy values without a very careful and complete examination of those values. This analysis was lacking in the majority opinion in *McDonell*. In this regard, the portion of the district court opinion which was modified is still a worthwhile read. In deciding that only reasonable suspicion would justify blood or urine samples, Chief Judge Vietor carefully balances the governmental interests and personal privacy interests involved and stated:

> Defendants urge in support of taking blood and urine samples of employees the same reasons urged for searching employees' cars parked outside the gates — identifying possible drug smugglers. So might searches of employees' homes and taps on their telephones. The possibility

of discovering who might be using drugs and therefore might be more likely than others to smuggle drugs to prisoners is far too attenuated to make seizure of body fluids constitutionally reasonable. Defendants also argue that taking body fluids is reasonable because it is undesirable to have drug users employed at a correctional institution, even if they do not smuggle drugs to inmates. No doubt most employers consider it undesirable for employees to use drugs, and would like to be able to identify any who use drugs. Taking and testing body fluid specimens, as well as conducting searches and seizures of other kinds, would help the employer discover drug use and other useful information about employees. There is no doubt about it — searches and seizures can yield a wealth of information useful to the searcher. (That is why King George III's men so frequently searched the colonists.) That potential, however, does not make a governmental employer's search of an employee a constitutionally reasonable one.

McDonell v. Hunter, 612 F. Supp. 1122, 1130 (S.D. Iowa 1985), *modified*, 809 F.2d 1302 (8th Cir. 1987).

Prisoners also can be randomly tested, the Eighth Circuit held in upholding a summary judgment for the defendants in a § 1983 action by prisoners. In Spence v. Farrier, 807 F.2d 753 (8th Cir. 1986), the court explicitly rested its decision both on the unique security needs of prisoners *and* on the already reduced expectation of privacy which prisoners have. A dissent by Chief Judge Lay reminded the majority that the record had not documented the need for such tests or that a reasonable suspicion standard for testing would not adequately protect the legitimate interest in prison security. "In its opinion granting summary judgment to the state penitentiary, the district court made no findings of fact that the prison officials had demonstrated actual past or present drug abuse by inmates which in fact threatened the security of the institution. Moreover, a review of the record yields little, if any, factual basis to support such findings." *Id.* at 758 (Lay, J., dissenting).

After this article was at the printer, the Fifth Circuit, by a 2-1 vote, reversed the district court and upheld a testing program for some customs workers in National Treasury Employees Union v. Von Raab, No. 86-3833 (5th Cir. Apr. 22, 1987) (Westlaw, Allfeds library). The majority opinion first held "that compulsory urine testing by the government constitutes a search for purposes of the fourth amendment," *Id.* The court then held the program under review to be reasonable, using a totality of the circumstances test.

The court stated that urinalysis was less intrusive than "an invasion of bodily integrity or of the home." *Id.* Only employees applying for certain sensitive job categories (which the court imperfectly analogized to pervasively regulated industries) would be tested. The test time and date was announced five days in advance. The employee was not observed while urinating (although a supervisor was to listen for the sounds of urination). Less intrusive means were deemed to be unavailable and the need to test was deemed to be great. The procedures included confirming tests and other safeguards. The court specifically distinguished *Capua* where many of the above safeguards were not present.

This case is a break from the cases discussed above. Although it stresses the narrowness of the program approved, it is significantly broader than previous cases approving mass testing and is not limited as those cases are. It remains to be seen whether this case will persuade other courts to abandon the trend against mass testing which seemed to be developing.

Efficient Drug Testing: Addressing the Basic Issues

Arthur J. McBay*

I. Introduction

Urine drug testing has become very popular. It has been suggested that such testing is necessary because of the widespread abuse of drugs that affects health, safety, and performance. The sudden increase in demand for drug testing has led to inadequate testing and the questionable interpretation of results. The questions which follow highlight some of the problems with urine drug testing programs.

II. Why is Urine Drug Testing so Important Now? Has the Drug Problem Become More Serious?

The attention recently given to drugs seems to suggest that the drug problem has changed dramatically. What facts are available to substantiate the need for increased emphasis on this perennial problem?

Although the use of drugs was greater in the '70's, it appears that the advent of a presumptive screen for marijuana metabolites initiated the testing demands of the '80's. Similar methods for some of the other drugs of abuse were available in the early '70's. For some reason this country is going to war on all people to find the small minority who use drugs excessively.

The deaths of two athletes in the summer of 1986 have been cited as evidence that drug testing is needed. Testing, it is suggested, might have prevented these deaths. Many transportation accidents have been blamed on "drugs" when alcohol was the drug involved or when close scrutiny of the facts revealed that there were other causes for the accidents.[1] There is no evidence that drugs other than alcohol are involved in a significant number of accidents. The number of deaths attributed

* Ph.D., DABCC, DBFT; Chief Toxicologist in the Office of the Chief Medical Examiner and Professor of Pathology and Pharmacy, University of North Carolina School of Medicine, Chapel Hill, N.C.

1. McBay, *Drug Concentrations and Traffic Safety*, 2 ALCOHOL, DRUGS, AND DRIVING 51 (1986). Control of alcohol and drug use in railroad operations, 50 Fed. Reg. 31,508-31,579 (1985).

to alcohol and other drugs has not changed significantly. Advocates of drug testing have produced no evidence that there is a significant problem with drugs other than alcohol in the workplace, schools, and armed services, or that testing will have a major impact on the problem.

III. What Does it Cost to Test Urine Properly?

Drug testing is being done correctly in some laboratories. The fact that the tests are being done correctly does not mean that a drug will be identified adequately. There is evidence that much of the large scale inexpensive testing is not adequate for the purpose for which it is being used and that many people are being punished for drug use without acceptable drug identification and proper interpretation of the results. Even when adequate testing is available, employers may decide not to pay the added costs. Testing each of the 100 million workers in this country once would cost about one billion dollars. This would be for unconfirmed analyses of less than ten of the many drugs which people use which might affect them. Large numbers of specimens can be screened for a very limited number of drugs inexpensively, about $10 to $25, if false positives and false negatives are acceptable. Adequate confirmatory tests cost two to five times more for each drug requiring identification.

It has been reported that the armed services spent one-half billion dollars in drug testing programs in 1983 to 1985.[2] Most of this testing was for marijuana. A recent survey of the military reported, "Marijuana-only users present a discipline problem for violation of laws, but experience relatively few serious negative effects."[3] There appears to be no evidence that the military's drug problem has improved.

The NCAA expects to test, either once or twice, urine samples of about 3,000 athletes. The samples will be tested for eighty-one of the hundreds of substances which can affect performance, and the first-year cost will be about $3 million (about $1000 per athlete).[4] None of these estimates include costs to the person whose career could be ruined or costs to the employer or employee for any litigation.

---

2. *Military Discharged 51,000 for Drug Use*, Raleigh News and Observer, Aug. 8, 1986.

3. Bray, Marsden & Guess, *1985 Worldwide Survey of Alcohol and Nonmedical Drug Use Among Military Personnel* at iv, vi, viii, June 1986, Research Triangle Institute, Research Triangle Park, N.C.

4. *Drug Testing to Start in November*, Durham Morning Herald, Sept. 25, 1986, at 1D.

IV. Does a Positive Result Mean that the Reported Drug Was in the Person?

A positive result does not indicate that the reported drug was actually in the person. Employers, the employees, and most attorneys are unable to interpret the data that a laboratory might furnish. Most laboratories are not certified or tested by outside agencies to establish the proficiency of the laboratory. The data from the presumptive tests (such as immunoassays, thin layer chromatography, gas chromatography, and high pressure liquid chromatography) may be presented as numbers, plates, or charts. These types of data are insufficient documentation for an expert to determine that an identification has been made. Positive drug identification requires sophisticated and expensive procedures and personnel. A procedure using a gas chromatograph mass spectrometer can produce the only kind of evidence that an expert can evaluate at the present time to determine that the drug was most probably identified correctly.

V. Can it be Established by Testing Urine that a Person was Impaired by Drugs?

Even if it was possible to test for all the hundreds of drugs that might affect a person, the concentrations of most drugs in urine, except for alcohol, cannot be correlated with blood concentrations or with impairment. The time that a drug was used cannot be established from urine concentrations. Most drugs can be found in urine for one day to one week after use. Marijuana metabolites may be found in urine three to eighteen days after light use (one use weekly or less often). This time is extended to one month or more with daily uses.[5] How long a drug will be detectible in urine depends on many factors. An expert cannot tell when a person last used the drug. The usual effects of most drugs persist for minutes to a few hours after use. Some drugs improve performance. Performance cannot be correlated with blood concentrations of most drugs but the finding of a drug in blood will generally indicate recent use.[6]

---

5. Ellis, Mann, Judson, Schramm and Tashchian, *Excretion Patterns of Cannabinoid Metabolites after Last Use in a Group of Chronic Users*, 38 CLINICAL PHARMACOLOGY AND THERAPEUTICS 572 (1985).

6. Blanke, Caplan, Chamberlain, Dubowski, Finkle, Forney, Hawks, Hollister, Jatlow, Maickel & McBay, *Consensus Report: Drug Concentrations and Driving Impairment*, 254 J. A.M.A. 2618 (1985).

VI. Is Random Drug Testing Efficient and Legal?

The answer to the question of whether random drug testing is efficient and legal depends on the status of the individual. The job seeker is in no position to refuse to provide a specimen for testing. The employer may use the least expensive unconfirmed test. He does not have to tell the applicant why he was refused employment. Members of the armed services, athletes, probationers, and prisoners have little recourse short of litigation.

Civilian employees have to rely on any contracts they have with the employer and on arbitration and litigation. Federal employees may be protected by the Civil Service Reform Act, which provides for disciplinary action against civil service workers for such cause as will promote the efficiency of the service.

All government workers may be protected by the fourth amendment of the Constitution. The courts will have to decide whether testing randomly or without probable cause is an unreasonable search and seizure, but private sector employers may not be constrained by the Constitution.

There appear to be no plans to test the unemployed who have most of the drug problems. The war on drugs cannot be won as long as these people use drugs excessively.

Random testing is inefficient and costly because of the large numbers of apparently healthy and normally functioning people who will be tested in order to discover the few symptom-free people in whom a drug might be found. Testing only when there is reason to do so would be relatively infrequent, could be done less expensively, more carefully, and more effectively.

VII. Are the Analyses Being Made for Substances that Impair the Most People?

The majority of urine analyses have been for marijuana metabolites. A minority of tests were for other controlled substances. Reports of testing for other prescription and non-presecription drugs are rare.

A 1984 survey of the "Economic Costs to Society of Alcohol, Drug Abuse, and Mental Illness," reported that alcohol abuse in this country costs about $117 billion and that drug abuse costs about $60 billion.[7]

---

7. H. Harwood, D. Napolitano, P. Kristiansen, J. Collins, Economic Costs to Society of Alcohol and Drug Abuse and Mental Illness, 1980 Research Triangle Institute,

More than half of the funds for drug abuse, about 33 billion, was for "reduced productivity." A correlation was found between reduced productivity and the positive response to the question, "If an individual ever smoked marijuana daily for a period of at least one month." The reduced productivity of current users and lifetime users of marijuana, and users of drugs other than alcohol was not statistically significant. Since testing for marijuana reveals only recent or current use of the drug, testing for it would be of questionable value based upon the findings of this survey. A fact known to those familiar with drug users, that the majority of drug users also use alcohol, was stated in this survey. Based on this survey, the economic costs of other drug use are about half that of alcohol. If corrected for the reduced productivity which cannot be determined by drug testing, the figure is less than 25% without correcting for those who would be discovered by testing for alcohol. In addition, many mental illnesses are related to alcohol abuse.

Alcohol is involved in 50 to 70% of murders, fatal accidents, fire deaths, and arrests, and in 35 to 49% of assaults, suicides, and drownings. In North Carolina in 1985, about 100 deaths were attributed to alcohol overdoses and about 3,000 more deaths were alcohol-related.[8] All other substances which caused overdose deaths in North Carolina numbered less than 150 and included antidepressants, opiates, propoxyphene, cocaine, barbiturates, aspirin, caffeine, antihistamines, and about 25 other substances. Documented deaths due to marijuana have not been found.

Alcohol is the drug most abused by workers, members of the armed services, as well as many others. Alcohol testing is much simpler than testing for other drugs and it can be non-invasive, inexpensive, and more accurate.[9] Breath can be tested by persons with minimal training. Furthermore, results are immediately available and inexpensive instruments can provide tests for less than one dollar each. Saliva can also be tested inexpensively. Confirmatory tests of urine and blood are relatively inexpensive. The concentrations of alcohol can be correlated with impairment.

Research Triangle Park, N.C. (1984).

8. McBay, North Carolina Poison Fatalities 1985, Office of the Chief Medical Examiner, Chapel Hill, N.C. 27514.

9. Dubowski, *Recent Developments in Alcohol Analysis*, 2 ALCOHOL, DRUGS AND DRIVING 13 (1986).

VIII. What Testing Could be Cost-Effective?

After testing for alcohol it would appear to be efficient to test for other drugs in the following order: antidepressants, opiates, propoxyphene, barbiturates, and antihistamines. These drugs are the ones most likely to impair performance. Cocaine and caffeine in small doses should not be impairing. If health, safety, productivity, performance and cost-effectiveness are criteria, testing for marijuana should have a very low priority. At the present time the concentrations of other drugs in urine and most drugs in blood cannot be correlated with impairment.

Advocates of urine drug testing programs should be able to give detailed documentation of the following: the extent of the drug problem; the need for testing; the substances and concentrations to be measured; the procedures used, including quality control; the certainty of identification; the frequency of testing; whether testing will be based on reasonable suspicion or be at random; safeguards, including preservation of an extra specimen; turnaround time; expert interpretation of the results; and cost to the employer and the employee.

IX. Conclusion

Evidence of an increased and immediate need for large-scale urine drug testing is not available. Much of the present testing is incorrect, inefficient, and not cost-effective. Testing for alcohol and other impairing drugs, only when there is a valid reason to do so, would protect the public, employers and employees and would be cost-effective.

Implementation of Drug and Alcohol Testing in the Unionized Workplace

Dennis J. Morikawa,* Peter J. Hurtgen, Terence G. Connor,*** and Joseph J. Costello******

I. Introduction

Society has long been troubled by illegal drug and alcohol abuse. Nowhere is the problem more apparent than in the workplace. The effects of substance abuse at work are well-documented, ranging from tardiness and absenteeism; decreased productivity, quality control, and employee morale; increased medical costs, workers' compensation and retraining expenses; to on-premises drug use, drug trafficking, and the associated risk of injury to employees, property damage and theft.[1]

* B.A., Denison University, 1968; J.D. Syracuse University College of Law, 1974. Mr. Morikawa is a partner in the Philadelphia office of Morgan, Lewis & Bockius, where he specializes in the area of labor relations representing management in such areas as employment discrimination and wrongful discharge litigation, collective bargaining, personnel administration and matters before the National Labor Relations Board and Occupational Safety and Health Administration. Mr. Morikawa is a member of the ABA Committee on Labor and Employment Law and Subcommittees on Occupational Safety and Health and Drugs and Alcohol in the Workplace. He is co-author of the book *Employee Dismissal Law: Forms and Procedures*, published by John Wiley & Sons in 1986.

** B.S., Georgetown University, 1963; J.D., Georgetown University, 1966. Mr. Hurtgen is a partner in the Miami office of Morgan, Lewis & Bockius. Mr. Hurtgen has lectured and taught widely on various aspects of labor law and labor management relations. He has also co-authored several publications dealing with specialized subjects within the general field.

*** A.B., Georgetown University, 1964; J.D., Seton Hall University School of Law; LL. M., Georgetown University Law Center, 1975. Mr. Connor is a partner in the Miami office of Morgan, Lewis & Bockius. He is member of the Executive Council of the Labor and Employment Section of the Florida Bar Association. Mr. Connor is also the liason with the Miami District Office from the ABA Labor and Employment Section.

**** B.A., Pennsylvania State University, 1978; M.I.L.R., Cornell University, 1980; J.D., Stanford University, 1985. Mr. Costello is an associate with the labor department of Morgan, Lewis & Bockius in Philadelphia, Pennsylvania.

1. A study performed by North Carolina's Research Triangle Institute reported that the total cost of drug and alcohol abuse to the American economy is $99 billion a year. This cost manifests itself in the form of lost productivity, absenteeism, sick leave,

There has been little debate in the past regarding whether an employer has the right to discipline and even terminate employees whose use of drugs and/or alcohol negatively affected their performance in the workplace. As employers increasingly recognize the costs associated with substance abuse in economic and human terms, however, many have turned to drug and alcohol testing as a method of controlling such abuse in the workplace. In March of 1986, the President's Commission on Organized Crime urged all public and private employers to "consider the appropriateness" of a drug testing program. According to the Commission's report, in a recent survey of Fortune 500 companies, two-thirds of those responding said they refused to hire job applicants who fail such tests; 25% said they fire drug-using employees; and 41% require treatment for employees who fail.[2]

The growing reliance of employers upon drug and alcohol testing has led to a widespread debate regarding the legality and reliability of such testing. Not surprisingly, among the leading opponents of testing has been organized labor. Unions have not only been outspoken critics of testing programs, but have also turned to the courts for relief, challenging the implementation of drug and alcohol testing programs on several grounds. They have argued that such programs are unconstitutional,[3] infringe upon the privacy rights of employees,[4] or are

---

drug-related injuries and deaths. The Institute further estimated that alcohol abuse alone caused $65 billion in productivity losses in 1983. BUREAU OF NATIONAL AFFAIRS, ALCOHOL & DRUGS IN THE WORKPLACE: COSTS, CONTROLS AND CONTROVERSIES 8 (1986).

2. Daily Labor Rep. (BNA) No. 43, at A-12 (Mar. 5, 1986).

3. Most of these challenges have been based on the fourth amendment's prohibition against unreasonable searches and seizures or the right to due process. *See, e.g.*, Turner v. Fraternal Order of Police, 500 A.2d 1005 (D.C. 1985) (departmental order requiring police officers to submit urine samples if suspected of drug use did not violate officers' fourth amendment rights); Railway Labor Executive Ass'n v. Dole, No. C-85-7958-CAL (N.D. Cal. Nov. 26, 1985) (Department of Transportation regulations providing for blood or urine testing of railroad employees under certain circumstances do not violate fourth amendment); Caruso v. Ward, 133 Misc. 2d 544, 506 N.Y.S.2d 789 (1986) (New York Police Department order requiring tenured police officers to undergo random drug testing violates fourteenth amendment); Guiney v. Roache, No. 86-1346-K (D. Mass., filed Apr. 29, 1986) (claiming Boston Police Department policy of conducting random urine testing of officers violates fourth, fifth, ninth and fourteenth amendments).

4. *See, e.g.*, Association of West Pulp and Paper Workers v. Boise Cascade Corp., 644 F. Supp. 183 (D. Or. 1986) (union's claim that urine testing violates employees' common law privacy rights is preempted by federal labor law); International Ass'n of Machinists, District Lodge 120 v. General Dynamics Corp., No. 86-2244

mandatory subjects of bargaining which the employer may not implement unilaterally.[5]

The purpose of this article is to educate the unionized employer who is considering implementing a drug and alcohol testing program. The article is targeted chiefly to private sector employers and does not discuss the myriad of constitutional arguments upon which the public sector unions are relying in challenging drug and alcohol testing programs initiated by federal, state and local authorities. Nor does the article address the various statutes that may restrict an employer's right to implement testing in the workplace.[6] Rather, the article examines the manner in which federal labor law may limit the employer's ability to unilaterally establish testing in the workplace and the strategies which unions are pursuing in opposing such policies.

II. Assessing the Need for Testing: "If It Ain't Broke, Don't Fix It"

In light of the recent surge in the popularity of drug and alcohol

---

(C.D. Cal., filed on Apr. 9, 1986) (claiming that mandatory drug testing program violates individual's right to privacy as set forth in California Constitution).

5. *See, e.g.*, Railway Labor Executives' Ass'n v. Consol. Rail Corp., No. 86-2698 (E.D. Pa., filed on May 7, 1986) (claiming that unilateral implementation of drug and alcohol testing program that is broader in scope than testing program required by Department of Transportation regulations violates Railway Labor Act's requirement that employer bargain with union regarding changes in working conditions); Railway Labor Executives' Ass'n v. National R.R. Passenger Corp. (Amtrak), No. 86-1235 (D. D.C., filed May 2, 1986).

6. A patchwork of federal, state and local laws may limit both the unionized and non-unionized employer's ability to implement drug testing programs. The Rehabilitation Act of 1973, 29 U.S.C. § 793 (1983), precludes federal government contractors and sub-contractors from discriminating against employees or job applicants on the basis of their handicapped status. The 1978 amendments to the Act provide that although the term "handicap" encompasses drug addiction and alcoholism, an exception exists for those individuals whose "current use of alcohol or drugs prevents such individuals from performing the duties of the job in question or whose employment by reason of such current alcohol or drug abuse would constitute a direct threat to the property or safety of others." 29 U.S.C. § 707(7)(B). Many states have similar statutes which prohibit discrimination against the handicapped and which have been found to apply to drug addiction and alcoholism. *See e.g.*, Haslett v. Martin Chevrolet, Inc., No. 85-1426, (Ohio, Aug. 13, 1986) (drug addiction and alcoholism are handicaps under Ohio anti-discrimination law); Consolidated Freightways, Inc. v. Cedar Rapids Civil Rights Comm'n, 366 N.W.2d 522 (Iowa 1985) (alcoholism is handicap within meaning of Iowa handicap statute).

testing, employers are feeling a significant amount of pressure to hop on the bandwagon and implement drug and alcohol testing programs. Many are doing so without evaluating whether such policies are truly necessary and without assessing the costs and benefits of testing.

Many employers have had a considerable amount of success controlling substance abuse in the workplace without utilizing testing. Through a combination of supervisory observation and Employee Assistance Programs ("EAPs"), these employers have eliminated or reduced drug/alcohol problems while providing assistance and rehabilitation to employees who needed it.[7] In such cases, the employer should consider carefully whether implementation of a testing program is in its best interest.

For the employer who has not enjoyed such success, there is no doubt that drug and alcohol testing can be an effective weapon in the war against substance abuse in the workplace. Notwithstanding their effectiveness, however, testing programs do not come without costs. The expense of having blood or urine samples analyzed can be significant. While initial screening tests can cost as little as $5.00,[8] confirmatory tests, using gas chromatography/mass spectrometry, can run as much as $80.[9] Moreover, there are costs involved in the training of supervisors, an essential part of any testing program. Finally, the additional paperwork and recordkeeping that results from testing means increased administrative costs.

Thus, the decision to begin testing employees for drugs and alcohol should not be taken lightly. Only after carefully weighing the costs of testing and the effectiveness of current policies to control drug and alcohol abuse should an employer consider implementing a testing program.

III. Negotiating with the Union

A testing program promulgated by the employer, over the protestations of the union, is unlikely to have the same success as a program that enjoys union support. The advantages of a union-supported pro-

---

7. For a description of Employee Assistance Programs currently utilized by a variety of employers, *see* BUREAU OF NATIONAL AFFAIRS, ALCOHOL & DRUGS IN THE WORKPLACE: COSTS, CONTROLS AND CONTROVERSIES 39-50, 79-124 (1986).

8. Stille, *Drug Testing: The Scene is Set For a Dramatic Legal Collision Between the Rights of Employers and Workers*, Nat'l L.J., Apr. 7, 1986, at 1.

9. *Id.*

gram are obvious. Such a program is less likely to be welcomed with a host of grievances or lawsuits. Employees will generally be more cooperative when they know that testing has been endorsed by the union. In addition, employees with drug and/or alcohol problems may be more likely to seek rehabilitation through their union representatives than through management. Finally, when both management and the union speak out in a united voice against substance abuse in the workplace, they send a more persuasive message to employees that such conduct simply will not be tolerated. Consequently, there may be decided advantages to having the union play a role in the formulation of a testing program.

However, this is not to suggest that management efforts to implement a drug program should be forestalled by a recalcitrant union. To the contrary, once management perceives that there is a need for drug and alcohol testing, it should act with or without the union's support, subject to the bargaining obligations it has under federal labor laws.

A. *The Duty to Bargain*

1. *Under the Labor Management Relations Act*

The Labor Management Relations Act[10] compels the parties to undertake collective bargaining with respect to *mandatory* subjects of bargaining, those being defined generally as "wages, hours, and other terms and conditions of employment."[11] An employer commits a *per se* violation of the Act if it changes mandatory subjects unilaterally, unless the union has waived its right to bargain over them.[12] Alternatively, if the change does not amount to a "material, substantial and significant" change from the employer's existing policy or practice, unilateral promulgation will not be a violation of the Act.[13]

The National Labor Relations Board ("NLRB" or "Board") has not yet addressed the issue of whether a drug and alcohol testing program is a "term" or "condition" of employment. In what some regard as an analogous situation, however, the Board has held that requiring employees to submit to polygraph testing as a condition of continued employment is a mandatory subject of bargaining. In *Medicenter, Mid-*

10. 29 U.S.C. § 141 (1985).
11. 29 U.S.C. § 158(d) (1985).
12. *See* N.L.R.B. v. Katz, 369 U.S. 736 (1962).
13. Peerless Food Products, Inc., 236 N.L.R.B. 161 (1978).

South Hospital,[14] the Board agreed with the administrative law judge's ("ALJ") conclusion that the use of the polygraph test to determine which employees had been responsible for a wave of vandalism that had plagued a hospital "substantially altered the existing terms and conditions of employment and constituted a subject of mandatory bargaining."[15] The ALJ reasoned:

> [I]t may fairly be said that this sort of change in an employer's investigatory method, substantially varying both the mode of investigation and the character of proof on which an employee's continued job security might hinge, is a bargainable change in the terms and conditions of his employment. The existing technique for investigating and determining guilt of misconduct involved the application of human skill, judgment, and experience. Onto this scale, and perhaps in lieu of naked human assessment, Respondent was introducing a chart based on variations in bodily functions, which, as indicated, has never been considered sufficiently trustworthy to be deemed probative in criminal proceedings. The employees' jobs are on the other scale.[16]

The ALJ rejected the employer's argument that in using the polygraph test, the employer was simply exercising its inherent right to investigate misconduct. The ALJ noted that even an employer's "inherent right to discharge employees is subject to bargaining about the manner in which he does so and the causes on which the discharge may be premised, as well as the procedures enabling the employee to challenge the employer's justification for meting out, in a given case, this industrial equivalent of capital punishment."[17]

Similarly, in *LeRoy Machine Co.*,[18] the Board once again adopted an ALJ's conclusion that requiring employees with poor attendance records to submit to a physical examination by a physician of their choice at the employer's expense, subject to disciplinary action if they refused, was a mandatory subject of bargaining. The ALJ reasoned that because the job security of the employees was placed in jeopardy

---

14. 221 N.L.R.B. 670 (1975); *see* Fraternal Order of Police v. Miami, 12 F.P.E.R. ¶ 17029 (Fla. Pub. Employees Relations Comm. 1985), *appeal pending sub nom.* City of Miami v. Fraternal Order of Police, Lodge 20, No. 85-2863 (Fla. 3d Dist. Ct. App. 1985).
15. 221 N.L.R.B. at 675.
16. *Id.*
17. *Id.* at 676.
18. 147 N.L.R.B. 1431 (1964).

as a result of the employer's request, it "clearly involved a term and condition of their employment with respect to which the collective bargaining representative is entitled to be consulted."[19]

Finally, in *Laney v. Duke Storage Warehouse Co.*,[20] an employer unilaterally changed the contents of its employment application form to require job applicants to agree, on the application, to take either mental examinations or polygraph tests at the employer's expense or to resign immediately upon refusing to take such tests. The ALJ, affirmed by the Board, held that the employer had an obligation to bargain with the union regarding such a change in its hiring practices.

Thus, the Board has taken the position that the testing or examining of some bodily functions is a term or condition of employment within the meaning of the Act. While the Board has not specifically addressed this issue as it applies to drug and alcohol testing, given its position in the above cited cases, it might find that the imposition of such testing programs would be a mandatory subject of bargaining, at least with regard to some job classifications.[21]

2. *Under the Railway Labor Act*

Labor relations in the railroad and airline industries is governed by the Railway Labor Act.[22] Section 152 prohibits an employer from changing "rates of pay, rules, or working conditions of its employees, as a class as embodied in agreements except in the manner prescribed in such agreements or in section 6 of this Act."[23] Section 156 of the Act sets forth procedures for changing rates of pay, rules and working conditions.[24] These procedures are analogous to the bargaining obligations that an employer has with respect to a mandatory subject of bargaining under the Labor Management Relations Act.

Disputes over changes in the terms of an existing collective bargaining agreement or over the terms of a new agreement are known as

---

19. *Id.* at 1439.
20. 151 N.L.R.B. 248, *enforced in part*, 369 F.2d 859 (5th Cir. 1966).
21. Although the Florida Commission has held that to require urinalysis of a police officer, who has been positively identified as having recently ingested cocaine, without prior bargaining, violates the duty to bargain in FLA. STAT. § 447.309 (1985), other jurisdictions have held to the contrary. *See* Local 346 Int'l Bhd. of Police Officers v. Labor Rel. Comm'n, 462 N.E.2d 96 (Mass. 1984).
22. 45 U.S.C. § 151 (1983).
23. 45 U.S.C. § 152.
24. 45 U.S.C. § 156.

"major" disputes.[25] At least one court has suggested that a dispute over the implementation of a policy which requires employees to randomly submit urine samples to be analyzed for the presence of drugs is a major dispute and that, therefore, the employer cannot unilaterally implement the policy without bargaining with the union.[26] Consequently, employers covered by the Railway Labor Act, like those covered by the Labor Management Relations Act, would be well-advised to negotiate with their unions before implementing a drug/alcohol testing policy, absent some evidence of waiver by their unions.

B. *Union Waiver*

The National Labor Relations Board has long recognized that a union may waive its statutory rights to bargain over changes in the terms and conditions of employment. The union may waive its right to bargain in one of two ways: 1) by failing to promptly request bargaining in response to receiving timely notice of an employer's plan to change a term or condition of employment; 2) by agreeing to a contractual provision or practice which arguably gives management the unilateral right to take the action in question.

A "waiver by inaction" is unlikely to arise when an employer uni-

---

25. The terms "major" and "minor" disputes were first used by the United States Supreme Court in Elgin, Joliet & Eastern Railway Co. v. Burley, 325 U.S. 711 (1945), to describe disputes arising under the Railway Labor Act. A "major" dispute is a disagreement "over the formation of collective agreements or efforts to secure them. They arise where there is no such agreement or where it is sought to change the terms of one. . . ." *Id.* at 723. These disputes must be settled by the procedures set forth in Section 6 of the Act, and the employer cannot unilaterally implement major changes before these procedures are completed. "Minor" disputes, on the other hand, are those which "relate either to the meaning or proper application of a particular provision" of the collective bargaining agreement. *Id.* Minor changes in working conditions may be instituted unilaterally by the employer while settlement is pursued through arbitration before the National Railroad Adjustment Board.

26. Brotherhood of Locomotive Eng'rs v. Burlington N. R.R. Co. (BLE I), 620 F. Supp. 173, 175 (D. Mont. 1985). *See also* Brotherhood of Locomotive Eng'rs v. Burlington N. R.R. Co. (BLE II), 620 F. Supp. 163, 171-73 (D. Mont. 1985) (dispute over unilateral implementation of policy providing for random searching of employees for drugs was not justified by collective bargaining agreement and was "major" dispute); Brotherhood of Maintenance of Way Employees v. Burlington N. R.R. Co., 802 F.2d 1016, 1024-25 (8th Cir. 1986) (Arnold, J., dissenting in part) (unilateral addition of drug screen to standard urinalysis which is part of required medical examination periodically given to employees is a major change requiring bargaining under Railway Labor Act).

laterally promulgates a drug and alcohol testing program. The appropriateness of these programs is a very emotional issue and the implementation will undoubtedly draw immediate protest from the union. Should the union fail, however, to promptly request bargaining in response to receiving timely notice of an employer's plans to implement a testing program, the union's lack of diligence may very well be found to constitute a waiver of its right to bargain.[27]

For example, in *Medicenter, Mid-South Hospital*,[28] the employer gave the union notice of its intention to require employees to submit to polygraph examinations. The ALJ concluded that because the employer "stood ready — indeed, in a meaningful sense, eager — to bargain about the polygraph examination. . ." the union's willingness to "do nothing but protest" this decision was sufficient to constitute a waiver of its right to bargain over the decision.[29] Such a protest, the ALJ found, is not sufficient to satisfy the union's obligation to request bargaining. The ALJ's decision offers some hints as to what would have been sufficient to constitute a request for bargaining:

> [The union representative] chose, however, to solicit no information about Respondent's planned testing, to advance no reasoned arguments against its implementation, and to proffer no suggestions or comments about the manner in which the program would be executed. He did not ask to meet again later that day so that he might, in the interim, collect his thoughts or formulate a counterproposal, nor did he ask to meet the following morning or afternoon for further discussions which might better inform the Union about the program or lead to a compromise. [The union representative] simply voiced his complete hostility to the program and left [the employer's] office.[30]

Similarly, in *Kansas National Educational Association*,[31] the Board concluded that a union waived its right to bargain regarding an employee job transfer when it was notified of the transfer one month before it took place, but failed to request bargaining on the issue until one month after implementation. In *City Hospital of East Liverpool,*

---

27. *See* Clarkwood Corp., 233 N.L.R.B. 1172 (1977).
28. 221 N.L.R.B. 670 (1975).
29. *Id.*
30. *Id.*
31. 275 N.L.R.B. No. 92 (1985).

Ohio,[32] the Board found a waiver where the union failed to request bargaining prior to the implementation of the employer's plans to discontinue a position, despite having three weeks' notice of the employer's intentions. Finally, in *Meharry Medical College*,[33] waiver was found where the union received notice of changes in the hours of work of day-shift employees only three days before these changes were implemented, but did not request bargaining until some five months later.

A more likely scenario involving the implementation of a drug and alcohol testing program is one in which the union waives its right to bargain over implementation by contract or past practice. Obviously, a contractual clause which reads, "Management reserves the right to test employees for the presence of drugs or alcohol in their systems" will be sufficient to defeat any attempt by the union to challenge the imposition of a testing program. However, the waiver need not be explicit. A broad management's rights clause that retains in management the right to promulgate work rules or disciplinary procedures might also arguably encompass introduction of drug and alcohol testing procedures.

Perhaps the best example of this type of waiver is set forth in *LeRoy Machine Co.*[34] As stated previously, in that case, the Board found that requiring employees to submit to a physical examination or polygraph testing constituted a mandatory subject of bargaining. Notwithstanding this finding, however, the Board also found that the union had waived its right to bargain over the implementation of this policy by agreeing to a broadly-worded management rights clause. The management rights clause provided that, "The Company retains the sole right to . . . hire, layoff, assign, transfer, promote and *determine the qualifications of employees*; subject only to such regulations governing the exercise of these rights as are expressly provided in this Agreement."[35] Based on this language, the Board concluded that the language reserving to the employer the right to determine the "qualifications of employees" gave the employer the authority unilaterally to require employees to submit to physical examinations.

Waivers have also been found in similar circumstances under the Railway Labor Act. In *Brotherhood of Maintenance of Way Employees v. Burlington National R.R. Co.*,[36] the court found that a dispute

32. *See* 234 N.L.R.B. 58 (1978).
33. 236 N.L.R.B. 1396, 1408 (1978).
34. 147 N.L.R.B. 1431 (1964).
35. 236 N.L.R.B. at 1432 (emphasis in original).
36. 802 F.2d 1016 (8th Cir. 1986). *See also* Brotherhood of Locomotive Eng'rs

over a railroad's unilateral implementation of a urine testing policy did not amount to a "major" dispute under the Railway Labor Act and that, consequently, the employer was not required to bargain with the union prior to implementation. The policy required all employees who are involved in accidents or other incidents in which human error may have been a factor to undergo urinalysis. In addition, a drug screen was added to the standard urinalysis required of all employees during their periodic medical examinations. In reaching its decision, the court relied on the fact that employees had, for many years, been governed by a safety rule known as Rule G, which provided:

> The use of alcoholic beverages, intoxicants, and narcotics, marijuana, or other controlled substances by employees subject to duty, or their possession or use while on duty or on Company property, is prohibited. Employees must not report for duty under the influence of any alcoholic beverage. . . or other controlled substance, or medication, including those prescribed by a Doctor, that may in any way adversely affect their alertness, coordination, reaction, response or safety.[37]

The court concluded from the existence of Rule G that the parties had acquiesced in certain detective and investigative methods, and that requiring employees involved in accidents or similar incidents to undergo urine testing amounted to nothing more than a refinement of these methods. The court similarly found that since the railroad had long required employees to undergo periodical medical examinations to ensure fitness for duty, without opposition from the union, the addition of a drug screen to the examination was arguably justified by past practice.[38]

---

v. Burlington N. R.R. Co. (BLE I), 620 F. Supp. 173, 175 (D. Mont. 1985).

37. *Brotherhood of Maintenance of Way Employees* 802 F.2d at 1016.

38. By contrast, in *Fraternal Order of Police*, the agreement contained a provision reserving to the City the right to act unilaterally to "implement and maintain an effective internal security program," and the officer whose urinalysis was requested had been identified as having ingested cocaine. Nevertheless, Florida PERC had held, over the sharp dissent of member Louis Shelley, that there was no waiver. 12 F.P.E.R. at 41-48. *See also* Palm Beach Junior College Bd. of Trustees v. United Faculty of Palm Beach College, 7 F.P.E.R. ¶ 12300 (Fla. PERC 1981), *aff'd*, 425 So. 2d 133 (Fla. 1st Dist. Ct. App. 1983), *aff'd in relevant part*, 475 So. 2d 1221 (Fla. 1985).

C. *Summary*

Although the NLRB and the courts may find the implementation of a drug and alcohol testing program, particularly on a random basis, to be a mandatory subject of bargaining (or "major" dispute under the Railway Labor Act), an employer may still be able to unilaterally require employees to undergo testing. If the collective bargaining agreement contains a broad management rights clause or the employer has rules against substance abuse, or can demonstrate that it had a practice of requiring employees to undergo physical examinations to determine fitness for duty or a practice of using certain investigative techniques to detect substance abuse, a compelling argument can be made that the union waived its right to bargain over implementation of the testing program.

IV. Post Implementation

Once an employer has implemented a drug and alcohol testing program, the union may react in one of several ways. The union can challenge the implementation of the program in a variety of forms: in arbitration; before the National Labor Relations Board; or in the courts. Alternatively, the union may decide to accept the program, particularly if it has been given the opportunity to play a role in program development. Even if the union has agreed to a program, however, the manner in which the program is applied can always be attacked in arbitration.

A. *Arbitration*

Upon implementation of a drug and alcohol testing program, a union may file a grievance and ultimately arbitrate the issue of whether such a program is permissible under the collective bargaining agreement. The issue in such cases generally will be whether a management rights clause or a work rule prohibiting drug and alcohol abuse gives management the right to engage in drug and alcohol testing.[39]

---

39. *See, e.g.*, Capital Area Transit Auth., 69 Lab. Arb. (BNA) 811 (1977) (Ellmann, Arb.) (provision in collective bargaining agreement giving employer right to promulgate work rules encompasses blood testing policy); Southern Pac. Transp. Co., 79 Lab. Arb. (BNA) 618 (1982) (O'Brien, Arb.) (employer did not have right to unilaterally require employees to undergo blood test); Potomac Elec. Power Co., No. 16-30-0110-8414 (unpublished opinion) (Zumas, 1986) (employer did not violate collec-

Moreover, even if the union recognizes the right of the employer to implement the program, it may always challenge the manner in which the provisions of the program are applied. For example, if the employer has a rule that provides that employees may not be "under the influence" of drugs and alcohol while at work, the union may challenge whether the test performed adequately demonstrated that the employee was indeed under the influence.[40] Alternatively, the union may claim that employees were not given adequate notice of the existence of the testing program.[41] Finally, the union may assert that testing cannot be undertaken randomly, but only when the employer has some reason to believe a particular employee is under the influence.[42]

B. *The National Labor Relations Board*

As previously discussed, should the employer unilaterally implement a drug and alcohol testing program, the union may assert that the employer committed an unfair labor practice under the Labor Management Relations Act by refusing to bargain over a term and condition of employment. The Board has a longstanding policy of deferring cases to arbitration, however, when the issue involved may be submitted to the grievance procedure set forth in the collective bargaining agreement. In *Collyer Insulated Wire*,[43] the Board held that a union's refusal to bargain charge, alleging unilateral changes in conditions of employment,

---

tive bargaining agreement when it required employees to provide urine specimens for drug and alcohol testing).

40. *See, e.g.*, Georgia-Pacific Corp., 323-4 Am. Arb. Awards (1985) (Clarke, Arb.) (urine test results which showed presence of marijuana were insufficient to establish that employee was under the influence of marijuana while at work); Weirton Steel Div., 81-1 Lab. Arb. Awards (CCH) ¶ 8215 (1981) (Kates, Arb.) (urine samples showing traces of marijuana and cocaine were by themselves insufficient to establish that employee was under the influence while working).

41. *See, e.g.*, Capital Area Transit Auth., 69 Lab. Arb. (BNA) 811 (1977)(Ellmann, Arb.)(although employer had right to unilaterally promulgate drug policy, failure to adequately notify employee who was terminated for refusal to submit to test warranted reinstatement); Faygo Beverage, Inc., 86-1 Lab. Arb. Award (CCH) ¶ 8302 (1986) (Ellmann, Abr.) (employee unjustly terminated for refusing to undergo alcohol test where employer failed to notify employees of unilaterally-imposed policy).

42. *See, e.g.*, Potomac Elec. Power Co., No. 16-30-0110-8414 (unpublished opinion) (Zumas, 1986) (urine testing can only be conducted where there is "a valid reason to believe that drugs were being used; random or indiscriminate testing is impermissible").

43. 192 N.L.R.B. 837 (1971).

would be deferred to arbitration. The Board ruled that it would defer as a matter of policy to existing grievance-arbitration procedures, prior to the invocation of those procedures,[44] under the following circumstances:

> (1) Where the dispute arose within the confines of a long and productive collective bargaining agreement and there is no claim of enmity by [the employer] to employees exercise of protected rights;
> (2) Where the employer is willing to proceed to arbitration; and
> (3) Where the dispute in question is arbitrable under the collective bargaining agreement.[45]

Thus, there is a possibility that an arbitrator may decide a dispute over whether the employer was authorized by the collective bargaining agreement or past practice to unilaterally require employees to undergo drug and alcohol testing, notwithstanding the fact that the union filed an unfair labor practice charge with the NLRB challeging implementation of the testing program.

C. *The Courts*

Unions have increasingly turned to the courts in response to an employer's implementation of a drug and alcohol policy. In such cases, unions have generally sought injunctive relief, requesting that the employer be barred from requiring employees to undergo testing, based on one of two grounds.

First, a union may seek to enjoin unilateral implementation of a drug and alcohol testing program pending arbitration. The enforceability of such a program pending an arbitrator's ruling on its validity under the collective bargaining agreement has turned on the court's assessment of the danger to employees or public safety in delaying enforcement relative to the injury employees would suffer if subjected to the policy prior to arbitral decision. Thus, in *International Brotherhood of Electrical Workers, Local 1900 v. Potomac Electrical Power Co.*,[46] a federal judge refused to issue a preliminary injunction against the Potomac Electric Power Company, following the issuance of a tempo-

---

44. The Board also has a similar policy of deferring to arbitration in cases where the employee has already submitted the dispute to the grievance-arbitration procedure. *See* Dubo Mfg. Corp., 142 N.L.R.B. 431 (1963).
45. Collyer Insulated Wire, 192 N.L.R.B. at 842.
46. 634 F. Supp. 642 (D. D.C. 1986).

rary restraining order compelling the company to delay implementing a drug and alcohol testing program pending arbitration. The court reasoned that the testing program would not expose employees to any "new" injuries that they were not already subject to under the previous drug and alcohol rules and that injunctive relief was therefore inappropriate. However, in *International Brotherhood of Electrical Workers Local System Council U-9 v. Metropolitan Edison*,[47] a temporary restraining order was issued, blocking random drug and alcohol testing of 1600 employees at the Three Mile Island Nuclear Station pending arbitration.

Alternatively, the union may claim that the drug and alcohol testing policy is contrary to state or federal law and, for that reason, should be enjoined. For example, in *International Association of Machinists, District Lodge 120 v. General Dynamics Corp.*,[48] the union sued to enjoin the implementation of a drug testing program which it claims violates the employees' privacy rights as guaranteed by the California Constitution.[49]

Similarly, in *Railway Labor Executives' Association v. Consolidated Rail Corp.* and *Railway Labor Executives' Association v. National R.R. Passenger Corp. (Amtrak)*,[50] the Railway Labor Executives' Association and several member unions are seeking to enjoin the implementation of a drug and alcohol testing policy which, the unions allege, goes beyond the testing procedures provided for in the regulations recently promulgated by the Department of Transportation.[51] The unions claim that the companies' unilateral implementation of this policy violates the Railway Labor Act's requirement that an employer bargain with the union regarding changes in working conditions. Moreover, the unions assert that the testing program violates the fourth amendment because it is conducted without probable cause or reasonable suspicion.[52]

Finally, in *Association of West Pulp and Paper Workers v. Boise Cascade Corp.*,[53] the union attempted to enjoin the unilateral implementation of a drug testing policy by the employer, claiming that the

47. No. 86-4426 (E.D. Pa. Aug. 6, 1986).
48. No. 86-2244 (C.D. Cal., filed Apr. 9, 1986).
49. *Daily Labor Rep.*, No. 71, at A-6 (Apr. 14, 1986).
50. No. 86-1235 (D. D.C., filed May 2, 1986).
51. *See supra* note 3 and accompanying text.
52. *Daily Labor Rep.* (BNA) No. 87, at A-11 (May 6, 1986).
53. *See, e.g., Association of West Pulp and Paper Workers*, No. 86-873-PA; *International Ass'n of Machinists*, No. 86-2244.

policy violated the common law privacy rights of employees and an O egon law forbidding employers from requiring breathalyzer tests wit out an employee's consent or without reasonable care. The court re jected the union's arguments, concluding that the privacy claims wer preempted by federal labor law and that the policy complied with th requirements of the Oregon breathalyzer statute. The judge also note that the collective bargaining agreement allows the company to insti tute reasonable work rules and that the union may challenge these rules through the grievance procedure.[54]

V. Conclusion

The pervasiveness of illegal drug use in American society, and the tacit admission by governmental authorities that they are unable to cope with this escalating problem, make it incumbent upon unionized employers to confront the issue in the workplace. There is no pre-packaged set of rules and procedures that can effectively address all situations. While drug and alcohol testing can play an effective role in reducing employee substance abuse, it is not a panacea. Thus, the decision to rely on drug and alcohol testing must not be an impulsive one. Employers must carefully examine their working conditions, evidence of employee or community drug use, the nature of their business, their corporate philosophy, and their current labor relations climate in assessing whether or not to require their employees to undergo such testing in the workplace.

54. *Daily Labor Rep.* (BNA) No. 185, at A-11 (Sept. 24, 1986).

Corporate Vice Precedents: The California Constitution and San Francisco's Worker Privacy Ordinance

Cliff Palefsky*

I. Introduction

San Francisco enacted a Worker Privacy Ordinance in 1985 to protect the human dignity and rights of its citizens in the workplace. It was the first legislation in the country to place specific limitations on drug testing of employees. It also restricted employer regulation on off-the-job conduct that does not affect performance. This article will examine San Francisco's landmark privacy legislation, the California Constitution's express right to privacy, and their impact on drug testing in the workplace.

II. The California Constitution

In 1972, the voters of California amended the California Constitution by adding an express right to privacy to the other "inalienable" rights already enumerated in its article I, section 1.[1]

The principal objectives of the amendment were set forth in the statement drafted by the proponents of the provision and included in the state's election brochure. The statement provided in part:

> At present there are no effective restraints on the information activities of government and business. This amendment creates a le-

© Copyright 1987 by Cliff Palefsky; all rights reserved by the author.

* Partner, McGuinn, Hillsman and Palefsky, San Francisco, California. Mr. Palefsky helped draft San Francisco's Worker Privacy Ordinance. The law firm of McGuinn, Hillsman and Palefsky has taken part in the following employment related cases: Rulon-Miller v. IBM, 162 Cal. App. 3d 241, 208 Cal. Rptr. 524 (1984), and Tameny v. Atlantic Richfield Co., 27 Cal. 3d 167, 610 P.2d 1330, 164 Cal. Rptr. 839 (1980).

1. CAL. CONST. art. I, § 1 provides: "All people are by nature free and independent and have inalienable rights. Among these are enjoying and defending life and liberty, acquiring, possessing, and protecting property, and pursuing and obtaining safety, happiness and privacy."

> gal and enforceable right to privacy for every Californian. . . . The right of privacy is the right to be left alone. It is a fundamental and compelling interest. It protects our homes, our families, our thoughts, our emotions, our expressions, our personalities, our freedom of communion and our freedom to associate with the people we choose.[2]

Based on this "legislative history" and on the express wording of the amendment, the California Supreme Court determined that the amendment was intended to be "self-executing" and that the constitutional provision, in itself, "creates a legal and enforceable right of privacy for every Californian."[3] The court went on to hold that the amendment does not prohibit all incursions into individual privacy, but rather that any such intervention must be justified by a "compelling interest."[4]

In contrast to the protections contained in the federal Constitution, the California "right to privacy" is a personal right, *not* dependent on state action, and enforceable against any person or entity that wrongfully violates a protected zone of privacy.[5]

III. Drug Testing and the Common Law

Like a stone tossed into the middle of the common law pond, the enactment of this new and extensive right caused large ripples of change to emanate in all directions. Discovery in civil cases was profoundly affected. Financial, medical, sexual and other personal information is now protected from routine inquiry by adverse parties without a compelling need for the information.[6] A new "privacy" objection has become commonplace in depositions and in interrogatory responses to protect all sorts of other personal information that had been routinely discoverable before the amendment. More pertinent to the issue

---

2. White v. Davis, 13 Cal. 3d 757, 774, 533 P.2d 222, 223, 120 Cal. Rptr. 94, 105 (1975).

3. *Id.* at 775, 533 P.2d at 234, 120 Cal. Rptr. at 106.

4. *Id.*

5. Porten v. University of San Francisco, 64 Cal. App. 3d 825, 829, 134 Cal. Rptr. 839, 842 (1976).

6. Moskowitz v. Superior Ct., 137 Cal. App. 3d 313, 187 Cal. Rptr. 4 (1982) (financial information); Gunn v. California Employment Dev. Dep't, 94 Cal. App. 3d 658, 156 Cal. Rptr. 584 (1979) (medical information); Fults v. Superior Ct., 88 Cal. App. 3d 899, 152 Cal. Rptr. 210 (1979) (sexual information); Britt v. Superior Ct., 20 Cal. 3d 844, 143 Cal. Rptr. 695 (1978) (associations).

of drug testing has been the development of several new torts based on invasions of privacy.[7] The two most significant of these new private causes of action involve claims for the public disclosure of true but embarrassing private facts[8] and claims for "intrusion." An unreasonably intrusive investigation is a tort in California.[9] Both of these causes of action would be available against an employer under appropriate circumstances.

IV. Invasion of Privacy

The California Constitution's "right to privacy" is applicable in both the public and private workplace.[10] The California Supreme Court has recently held that "a public sector employee, like any other citizen, is born with a constitutional right of privacy" and cannot be said to have waived that right in return for the privilege of employment unless the government demonstrates a "compelling need."[11] In order to satisfy that condition the government must demonstrate that: (1) the condition reasonably relates to the purposes of the legislation; (2) the value accruing to the public from the conditions imposed manifestly outweighs any resulting impairment of the constitutional right; and (3) there are no available alternative means less offensive to the constitutional right.[12] A similar standard should apply in the private sector when the right to privacy is implicated.

---

7. Four different invasion of privacy torts have been recognized: false light, disclosure of embarrassing private facts, misappropriation, and intrusion. Lugosi v. Universal Pictures, 25 Cal. 3d 813, 603 P.2d 425, 160 Cal. Rptr. 323 (1979). *See also* Heinke, *Sorting Out The Four Invasion of Privacy Torts*, CAL. LAWYER, Mar. 1982, at 50.

8. *See, e.g.*, Payton v. City of Santa Clara, 132 Cal. App. 3d 152, 183 Cal. Rptr. 17 (1982), upholding claim for invasion of privacy where city posted a notice of employee's termination and reasons therefore in city employee workroom. *See also* Sipple v. Chronicle Pub. Co., 154 Cal. App. 3d 1040, 201 Cal. Rptr. 665 (1984).

9. Noble v. Sears Roebuck & Co., 33 Cal. App. 3d 645, 109 Cal. Rptr. 269 (1973).

10. *See* Long Beach City Employees Ass'n v. City of Long Beach, 41 Cal. 2d 937, 719 P.2d 660, 227 Cal. Rptr. 90 (1986); Rulon-Miller v. I.B.M., 162 Cal. App. 3d 241, 208 Cal. Rptr. 524 (1984).

11. *Long Beach City Employees Ass'n*, 41 Cal. 3d at 937, 719 P.2d at 660, 227 Cal. Rptr. at 90.

12. *Id.* (Bird, J., concurring); Robbins v. Superior Ct., 38 Cal. 3d 199, 213, 695 P.2d 695, 704, 211 Cal. Rptr. 398, 407 (1985); Bagley v. Washington Township Hosp. Dist., 65 Cal. 2d 499, 421 P.2d 409, 55 Cal. Rptr. 401 (1966).

The requirement of no "less intrusive means" may be considered as one component of the test to determine whether a "compelling interest" exists, or may be viewed as a separate standard altogether. Regardless, this requirement presents an almost insurmountable obstacle to body fluid sampling in most instances where the purpose is to determine whether workers can perform their job safely.

Three of the most obvious problems with drug testing, aside from very serious and legitimate concerns about accuracy,[13] are that: (1) it does not distinguish between drug use during work hours and drug use on an employee's private time; (2) the tests reveal much more personal, medical and biological information about the employee than the employer has any conceivable right to know; and (3) the tests do not indicate impairment but simply past drug use.[14] Any of these three considerations should be fatal to a proper legal analysis of urine testing because of the availability of more specific, more accurate and less intrusive tests to discern impairment. Urine testing, moreover, is an extraordinarily inefficient way to prevent accidents, if that is truly the concern, because you must wait several days or weeks for results.

Any employer genuinely interested in determining whether an employee is impaired or incapable of performing a specific task can administer a reflex or response time test, a short-term memory test, a test of hand-eye coordination or any other physical or mechanical test which simulates the actual job or specifically evaluates those skills necessary to perform the job safely. A variety of video arcade games are probably better suited to test for impairment than a urine test. The true benefit of these contemporaneous and more exact tests is that they allow the employer to take action before the accident happens.

Many employers justify drug tests based on their alleged deterrent effect. Despite the honorable intentions, deterring conduct which they have no reason to believe will occur or desiring to enforce a certain morality on their employees' off-the-job conduct can never constitute the "compelling interest" necessary to justify such a gross violation of the bodies of employees who are not even suspected of using drugs.

Other employers cite the illegality of certain substances to justify

---

13. *See* Hansen, Caudill, & Boone, *Crisis in Drug Testing*, 253 J. A.M.A. 2382 (1985); Morgan, *Problems of Mass Urine Screening for Misused Drugs*, J. OF PSYCHOACTIVE DRUGS, Oct-Dec. 1984, at 305.

14. In his article, Dr. John P. Morgan states: "[U]rine screening is a probe to identify deviance, not dysfunction — a technique to investigate humans, not accidents." *See* Morgan, *supra* note 13, at 306.

drug tests. Safety is a legitimate interest of an employer; enforcing the penal code against employees' off-the-job activities is not. In the United States, the penal code is enforced by the state pursuant to the constitutional guarantees which distinguish our society from a totalitarian state. Corporate vigilantes are no less repugnant to our system than are lynch mobs.

V. Other Common Law Remedies

California employees have a variety of additional possible remedies for unlawful invasions of their privacy by their employers.

A violation of an employee's right to privacy can make an employer liable for intentional infliction of emotional distress. In *Rulon-Miller v. I.B.M.*,[15] a judgment for intentional infliction of emotional distress was affirmed where I.B.M. terminated a successful female manager for dating a competitor. The *Rulon-Miller* court made it clear that California citizens do not surrender their right to privacy in the workplace:

> As we earlier noted the right of privacy is unquestionably a fundamental interest of our society. . . . It is guaranteed to all people by article 1, section 1 of the State constitution. So the question is whether the invasion of plaintiff's privacy rights by her employer in the setting of this case constitutes extreme and outrageous conduct.[16]

The right to privacy has also been held to be a proper "factor" for the jury to consider when determining whether the employer has tortiously breached the implied covenant of good faith and fair dealing which exists in every employment contract.[17]

The express recognition of privacy as a "fundamental interest of our society" should also permit the right to privacy to serve as the public policy necessary to support a classic wrongful termination action.[18]

---

15. 162 Cal. App. 3d 241, 208 Cal. Rptr. 524 (1984).
16. *Id.* at 255.
17. *Id.* at 252 n.6.
18. California courts have begun distinguishing between the various causes of action once collectively referred to as "wrongful termination." The classic "wrongful termination" tort is premised on a discharge in violation of public policy. *See* Tameny v. Atlantic Richfield Co., 27 Cal. 3d 167, 610 P.2d 1220, 164 Cal. Rptr. 839 (1980); Hentzel v. Singer Co., 138 Cal. App. 3d 290, 188 Cal. Rptr. 159 (1982).

Under proper factual settings employees could bring actions for negligence against those entities involved in the specimen collection or testing. Defamation actions would also be available for the publication of inaccurate results in certain situations.

VI. The San Francisco Ordinance

On November 19, 1985, the San Francisco Board of Supervisors became the first legislative body in the country to enact legislation expressly extending the right of privacy to the workplace.[19] The stated purpose of the ordinance was "to protect employees against unreasonable inquiry and investigation into the off-the-job conduct, associations, and activities not directly related to the actual performance of job responsibilities."

The sponsor of the legislation, Supervisor Bill Maher, cited escalating "incidents of invasion of privacy and firings in the private workforce" as the motivation for the legislation.[20] Maher specifically referred to the cases of a female executive at I.B.M. being fired for socializing with a competitor[21] and of a pregnant employee of the Southern Pacific Transportation Company being fired for refusing to give a urine sample without notice or cause[22] as the types of employer abuses creating the need for such legislation. In his press release announcing the new Worker Privacy Ordinance, Maher said:

> The kinds of incidents we are seeing all over the country remind me more of the Soviet Union than the United States. . . . What we want to say is that businesses which operate in San Francisco should treat their employees as adults, who are free to conduct their personal lives without interference from the company so long as it does not interfere with productivity.[23]

---

19. The entire ordinance is set forth in the Appendix to this article.

20. Bill Maher, *Maher Introduces Ordinances To Protect Workers' Privacy* (press release of Board of Supervisors, City and County of San Francisco, Sept. 30, 1985).

21. *Rulon-Miller*, 162 Cal. App. 3d at 241, 208 Cal. Rptr. at 524.

22. Luck v. Southern Pac. Transp. Co., Case No. C84-3-230 (Cal. Super Ct., San Francisco, filed 1984).

23. Maher, *supra* note 20.

A. *Public Policy*

The ordinance begins with a bold pronouncement of "public policy":

> It is the public policy of the City and County of San Francisco that all citizens enjoy the full benefit of the right to privacy in the workplace guaranteed to them by Article 1, Section 1 of the California Constitution. It is the purpose of this Article to protect employees against unreasonable inquiry and investigation into off-the-job conduct, associations and activities not directly related to the actual performance of job responsibilities.[24]

The obvious significance of this pronouncement is that it states a "public policy" which can be relied on by employees in wrongful termination actions if they have been victims of invasions of privacy not specifically addressed in the two substantive sections of the ordinance.

B. *Interference in Off-The-Job Conduct*

The first substantive section of the ordinance deals with the broad issue of employer regulation of off-the-job conduct. It prohibits employers from limiting their employees' right to engage in personal relationships, organizations, activities or otherwise restricting their freedom of association unless the activities have a "direct and actual" impact on the employees' ability to perform assigned responsibilities.[25] Employers must be capable of demonstrating an actual impact on performance, rather than rely on what might occur, before they can take action.

Requiring an actual impact on performance serves several purposes. The first and most important is that it sets a concrete standard on which both employers and employees can rely. If employers know in advance that they can act only if performance is impaired, it should prevent them from taking improper and irreparable actions that can never be adequately remedied years later in the courts. Second, it is a standard which can be "objectively" evaluated, as opposed to trying to evaluate such amorphous complaints as "an appearance of a conflict," where no actual conflict exists,[26] or the mere "potential" future impact

---

24. *See* appendix at § 3300 A.1.

25. The ordinance does not prohibit employers from enforcing rules against actual financial "conflicts of interest."

26. This theory was discussed and rejected in *Rulon-Miller*, 162 Cal. App. 3d at

on performance, when the employee is presently fully performing the requirements of the job.

Finally, the requirement of a direct and actual impact on performance is the only logical standard if any consideration is to be given to the privacy rights of the employees. A standard that permits employers to control employees' off-the-job conduct based on the mere potential of harm to performance eviscerates the "right to privacy" and leads to absurd and undesirable results. No one can question the potential effect of fatigue on the ability to perform certain functions. Should employers be able to monitor the times that their employees go to sleep? Recent studies show that marital stress has a negative impact on the immune system. It certainly cannot be disputed that serious personal problems can preoccupy employees and distract them from paying full attention to their tasks. Should that potential permit an employer to investigate and control an employee's marriage? Of course not. The ordinance eliminates these problems by establishing that an employer is entitled only to performance, and that the payment of eight hours worth of wages does not buy heart, soul and twenty-four hours worth of control.

C. *Drug Testing*

The drug testing section of the ordinance attempts to balance the interests of the employer, the employee, and the public. It converts the general protections of the California Constitution into specific guidelines for the workplace. The Constitution, as discussed earlier, prohibits the involuntary invasion of employees' bodies without a compelling interest. The ordinance makes a partly legal, partly policy determination by establishing "physical safety" as the only circumstance considered compelling enough to justify violating the integrity of an employee's body. The ability of an individual to protect the integrity of his or her body against violations by others is more than a constitutional or civil right — it is a fundamental human right. The ordinance only prohibits exceptionally invasive "methods" — blood, urine and encephalographic testing. It does not limit "field sobriety" tests or other non-invasive tests or inquiries.

Once an employee has joined a company, the employer may test body fluids or brainwaves only if:

---

251 n.5, 208 Cal. Rptr. at 531 n.5. As the court there properly recognized, "[i]ndeed, the import of the argument is that rumor or an unfounded allegation, could serve as a basis for the termination of the employee."

(1) the employer has reasonable grounds to believe that an employee's faculties are impaired on the job; and
(2) the employee is in a position where such impairment presents a clear and present danger to the physical safety of the employee, another employee or to a member of the public; and
(3) the employer provides the employee, at the employer's expense, the opportunity to have the sample tested at an independent laboratory and provides the employee with a reasonable opportunity to rebut or explain the results.[27]

Thus, under the ordinance, the only employees who would ever be subjected to drug testing are those involved in jobs where safety is a true concern. The requirement of a "clear and present danger to physical safety" was included to require a certain immediacy to the danger, and to avoid attenuated, Rube Goldberg-inspired arguments, such as speculation on the possible dire consequences of a typographical error, or other essentially clerical tasks.

The requirement that the employer have reason to believe that the person is impaired on the job, aside from providing the constitutionally required "reasonable suspicion,"[28] serves to establish the employer's legitimate interest in testing. Although off-the-job drug use may indicate an underlying abuse problem and may lead to future problems with performance, those concerns are speculative. As discussed earlier, it would be absurd to permit employers to regulate any aspect of an individual's off-the-job conduct which merely had the potential to affect performance.

The ordinance specifically prohibits random or company-wide testing. Random testing, or testing without a reasonable suspicion, has already been held to be unconstitutional in most settings by those courts that have considered the matter.[29] Random testing of American citizens, without cause, is repugnant to the fundamental precepts of our

---

27. The greatest protection an employee can have against inaccurate results is to have part of the original sample preserved for testing by a reputable laboratory.

28. *See, e.g.*, Jones v. McKenzie, 628 F. Supp. 1500 (D.D.C. 1986); McDonell v. Hunter, 612 F. Supp. 1122 (S.D. Iowa 1985), *modified*, 809 F.2d 1302 (8th Cir. 1987); National Treasury Employees Union v. Von Raab, 649 F. Supp. 380 (E.D. La. 1986).

29. *See, e.g.*, *Jones*, 628 F. Supp. at 1500; *McDonell*, 612 F. Supp. at 1122; Turner v. Fraternal Order of Police, 500 A.2d 1005 (D.C. 1985); Division 241, Amalgamated Transit Union v. Suscy, 538 F.2d 1264 (7th Cir. 1976), *cert. denied*, 429 U.S. 1029 (1976). *Contra*, Shoemaker v. Handel, 608 F. Supp. 1151 (D.N.J. 1985), *aff'd*, 795 F.2d 1136 (3d Cir. 1986), *cert. denied*, 107 S. Ct. 577 (1986).

constitutional system. It reverses the "presumption of innocence" and requires the majority of workers, who are not impaired at work and who do not use drugs, to humiliate themselves and play Russian roulette with their lives and careers.

There are several exemptions from the ordinances. First, members of the city's uniformed emergency services, such as police, firefighters and emergency service vehicle operators are exempt from the ordinance. However, the California Supreme Court, in a strongly worded privacy decision, found that the use of lie detectors on public employees "intruded upon the employee's constitutionally protected zone of privacy," and definitively held that the mere status of being employed by the government should not compel a citizen to forfeit his or her fundamental right of privacy; a compelling interest, the court ruled, is required before such testing can be done on public employees.[30] Moreover, their status as public employees confers upon these individuals the privacy and due process protections of the federal Constitution as well. Thus, the exemption of these categories of employees from the protections of the ordinance is relatively insignificant.

An additional exemption from the ordinance applies to employees who are covered by collective bargaining agreements that contain drug testing programs. The ordinance does not supercede any bargained for testing program.[31]

Finally, for reasons more political than legal, the ordinance does not expressly prohibit pre-employment drug screening. The prior sections of the ordinance and the California Constitution, however, certainly provide some protection in those situations since employers hardly have a "compelling" interest in knowing about an applicant's activities, not only off-the-job, but before the job even begins. Nevertheless, the legal analysis of a job applicant's case does present differ-

---

30. *Long Beach City Employees Ass'n*, 41 Cal. 3d at 937, 719 P.2d at 660, 227 Cal. Rptr. at 90.

31. A question arose as to the applicability of the ordinance to San Francisco's professional baseball and football teams. The City Attorney issued an opinion concluding that the ordinance did not apply to the San Francisco 49ers Football Club because the collective bargaining agreement between the league and players contained a drug testing program. The ordinance was held applicable to the San Francisco Giants Baseball Club, however, because that collective bargaining agreement did not contain any such program. The ruling effectively invalidated the "drug testing" clauses the team inserted into individually negotiated contracts as part of Commissioner Ueberroth's unsuccessful attempt to circumvent the union. City Attorney Opinion No. 86-04, March 18, 1986.

ent considerations, since it is more susceptible to a voluntary waiver argument than is the case of an employee being threatened with the loss of a job and career.

The ordinance expressly permits employers to conduct medical screening, with the employee's consent, for exposure to toxic or other unhealthful substances. It also expressly reaffirms an employer's right to prohibit the use of intoxicating substances during work hours and to discipline employees for being under the influence of intoxicating substances during work hours.

D. *Enforcement*

The ordinance contains meaningful enforcement provisions. It permits any aggrieved person to bring a civil action for special and general damages together with attorney's fees and costs. The ordinance also permits the City Attorney or any other person or entity who will fairly and adequately represent the interests of a protected class to bring an action for injunctive relief.

VII. Conclusion

In 1928, Justice Brandeis described privacy as the "right most valued by civilized men."[32] In 1986, the President of the United States advocated the compelled relinquishment of that right as a condition of employment in the "land of opportunity."

Despite numerous court rulings explicitly holding that testing without cause is unconstitutional and essentially un-American, politicians concerned primarily with public opinion and employers concerned only with profit continue to use economic coercion to compel hard working and law abiding Americans to surrender dominion over their bodies.

It has become evident that the business community cannot be relied upon to respect the privacy rights of their employees in the absence of definitive case law or statutory prohibitions.

The San Francisco ordinance represents a balanced approach to the issue. It protects the legitimate privacy rights of workers by requiring that employers have a "compelling interest" before body fluid sam-

32. Olmstead v. United States, 277 U.S. 438, 478 (1928) (Brandeis, J., dissenting). In 1967, *Olmstead* was overruled by Katz v. United States, 389 U.S. 347 (1967), which relied significantly on Justice Brandeis' dissent in *Olmstead*.

ples can be compelled. More importantly, it requires individualized suspicion and a real concern for safety. Finally, it makes clear that employers have no legitimate interest in regulating the off-the-job conduct of employees that does not impact performance.

The San Francisco ordinance has received widespread popular support and has served as the catalyst for proposed legislation in other jurisdictions as human beings are forced to resort to the political process to reclaim dominion over their personal lives and bodies.

APPENDIX

San Francisco's Worker Privacy Ordinance

File No. *97-85-44*
November 1, 1985
(Employee Activities and Drug Testing)
Amending Part II, Chapter VIII of the San Francisco Municipal Code (Police Code) by adding article 33A thereto to prohibit employer interference in employee relationships and activities and to prohibit employer drug testing of employees.

Note: This entire Article is new.

Be it ordained by the People of the City and County of San Francisco:

Part II, Chapter VIII of the San Francisco Municipal Code (Police Code) is hereby amended by adding Article 33A thereto, to read as follows:

ARTICLE 33A PROHIBITION OF EMPLOYER INTERFERENCE WITH EMPLOYEE RELATIONSHIPS AND ACTIVITIES AND REGULATION OF EMPLOYER DRUG TESTING OF EMPLOYEES

Sec. 3300A.1 POLICY. It is the public policy of the City and County of San Francisco that all citizens enjoy the full benefit of the right to privacy in the workplace guaranteed to them by Article 1, Section 1 of the California Constitution. It is the purpose of this Article to protect employees against unreasonable inquiry and investigation into off-the-job conduct, associations, and activities not directly related to the actual performance of job responsiblities.

Sec. 3300A.2 DEFINITIONS.

(1) "Employee" shall mean any person working for salary or wages within the City and the County of San Francisco, other than members of the uniformed ranks of the police, sheriff's and fire departments, police department communication dispatchers, and any persons operating emergency service vehicles for the City and County of San Francisco.

(2) "Employee labor organization" shall mean any organization that exists and is constituted for the purpose, in whole or in part, of collective bargaining or of dealing with employers concerning grievances, terms or conditions of employment, or of other mutual aid or protection.

(3) "Employer" shall mean the City and County of San Francisco, any individual, firm, corporation, partnership, or other organization or group of persons however organized, located or doing business within the City and County of San Francisco, that employs personnel for sal-

ary or wages, or any person acting as an agent of such an organization.

Sec. 3300A.3 EMPLOYER INTERFERENCE IN PERSONAL RELATIONSHIPS OF EMPLOYEES PROHIBITED. No employer may make, adopt, or enforce any rule or policy forbidding or preventing employees from engaging or participating in personal relationships, organizations, activities, or otherwise restricting their freedom of association, unless said relationships, activities, or associations have a direct and actual impact on the employees' ability to perform their assigned responsibilities.

Sec. 3300A.4 CONFLICTS OF INTEREST. It is not the intention of the Board of Supervisors in adopting this Article to prohibit an employer from promulgating or enforcing rules or policies prohibiting conflicts of interest, which prohibit employees from making, participating in making, influencing or attempting to influence decisions in which they have a financial interest, as such would be defined under Government code section 8100D et. seq. were they public officials, or which prohibit employees from being financially interested, within the meaning of Government Code section 1090, et. seq. were they public employees, in any contract made by them in their capacity as employees.

Sec. 3300A.5 EMPLOYER PROHIBITED FROM TESTING OF EMPLOYEES. No employer may demand, require, or request employees to submit to, to take or to undergo any blood, urine, or encephalographic test in the body as a condition of continued employment. Nothing herein shall prohibit an employer from requiring a specific employee to submit to blood or urine testing if:

(a) the employer has reasonable grounds to believe that an employee's faculties are impaired on the job; and

(b) the employee is in a position where such impairment presents a clear and present danger to the physical safety of the employee, another employee or to a member of the public; and

(c) the employer provides the employee, at the employer's expense, the opportunity to have the sample tested or evaluated by State licensed independent laboratory/testing facility and provides the employee with a reasonable opportunity to rebut or explain the results.

In conducting those tests designed to identify the presence of chemical substances in the body, and not prohibited by this section, the employer shall ensure to the extent feasible that the test only measure and that its records only show or make use of information regarding chemical substances in the body which are likely to affect the ability of

the employee to perform safely his or her duties while on the job.

Under no circumstances may employers request, require or conduct random or company-wide blood, urine or encephalographic testing.

In any action brought under this Article alleging that the employer had violated this section, the employer shall have the burden of proving that the requirements of Subsections (a), (b) and (c) as stated above have been satisfied.

Sec. 3300A.6 MEDICAL SCREENING FOR EXPOSURE TO TOXIC SUBSTANCES. Nothing in this Article shall prevent any employer from conducting medical screening, with the express written consent of the employees, to monitor exposure to toxic or other unhealthy substances in the workplace or in the performance of their job responsiblities. Any such screenings or tests must be limited to the specific substances expressly identified in the employee consent form.

Sec. 3300A.7 PROHIBITING USE OF INTOXICATING SUBSTANCES DURING WORKING HOURS: DISCIPLINE FOR BEING UNDER THE INFLUENCE OF INTOXICATING SUBSTANCES DURING WORKING HOURS. Nothing in this Article shall restrict an employer's ability to prohibit the use of intoxicating substances during work hours, or restrict an employer's ability to discipline employees for being under the influence of intoxicating substances during work hours.

Sec. 3300A.8 ENFORCEMENT.

(a) Any aggrieved person may enforce the provisions of this Article by means of a civil action. Any person who violates any of the provisions of this Article or who aids in the violation of this Article shall be liable to the person aggrieved for special and general damages, together with attorney's fees and the costs of action.

(b) Injunction

(1) Any person who commits, or proposes to commit, an act in violation of this Article may be enjoined therefrom by any court of competent jurisdiction.

(2) An action for injunctive relief under this subsection may be brought by any aggrieved person, by the District Attorney, or by the City Attorney, or by any person or entity which will fairly and adequately represent the interests of the protected class.

Sec. 3300A.9 CITY UNDERTAKING LIMITED TO PROMO-

TION OF GENERAL WELFARE. In undertaking the adoption and enforcement of this ordinance, the City and County is assuming an undertaking only to promote the general welfare. It is not assuming, nor is it imposing on its officers and employees, an obligation for breach of which it is liable in money damages to any person who claims that such breach proximately caused injury.

Sec. 3300A.10 PREEMPTION. In adopting this Article, the Board of Supervisors does not intend to regulate or affect the rights or authority of an employer to do those things that are required, directed, or expressly authorized by federal or state law or administrative regulation or by a collective bargaining agreement between an employer and an employee labor organization. Further, in adopting this Article, the Board of Supervisors does not intend to prohibit that which is prohibited by federal or state law or administrative regulation or by a collective bargaining agreement between an employer and an employee labor organization.

Sec. 3300A.11 SEVERABILITY. If any part or provision of this Article, or the application thereof to any person or circumstance, is held invalid, the remainder of this Article including the application of such part or provision to other persons or circumstances, shall not be affected thereby and shall continue in full force and effect. To this end, provisions of this Article are severable.

Drug Testing in the Federal Government

Patricia Schroeder* and Andrea L. Nelson**

Introduction

When the President's Commission on Organized Crime issued its March 1986 report recommending that federal employees and contractors be subject to drug testing, there was little indication that drug testing would become one of the hottest political and media issues of 1986. Initial reaction to the drug testing recommendations was critical. It was ridiculed during Congressional hearings. The editorial boards of such diverse newspapers as the *New York Times*, the *Washington Post*, the *Philadelphia Inquirer* and the *Wall Street Journal* all agreed that the drug testing recommendation was bad public policy. Indeed, the issue might have died quietly had it not been for the drug-induced deaths of two prominent athletes in the early summer of 1986 and the national media focus on the cocaine derivative "crack."

An anti-drug surge hit the capital like a tidal wave. Politicians fought to out-do one another in demonstrating their opposition to drug use. Bills were introduced, press conferences were held, and plastic vials were filled with urine. Drug wars soon became Jar Wars.

The Politics of Anti-Drug Legislation

In July, the Democratic leadership of the House of Representatives set enactment of comprehensive anti-drug legislation as its highest priority. At the same time, the Reagan Administration was struggling to wrest control of the anti-drug initiative away from the House. The Administration sought to project the President as a leader on this issue.

Congress tried to identify various methods for reducing drug use. Amid work on increased funding for drug interdiction efforts, anti-drug education programs, and drug treatment facilities, the issue of drug testing of federal employees re-surfaced. Several bills to require drug testing of federal employees were introduced. One would have re-

* Member, United States House of Representatives (D-Colorado). Chairwoman, Subcommittee on Civil Service, Committee on Post Office and Civil Service.

** B.A., Bryn Mawr College, 1977; J.D. George Washington University, 1983.

quired testing of all employees with access to classified information — well over a million federal employees; another would have required taxpayers to pay for drug tests of members of Congress and their staffs.

Yet, most Democratic members of Congress opposed drug testing. The only bill to require drug testing which passed the House would have required testing of employees in the intelligence community, but even this provision was dropped before final passage of the bill. There was no reference to drug testing in the omnibus anti-drug bill which was enacted into law on October 27, 1986.[1]

Republicans, however, were bitterly divided on the issue. In the Administration's search to develop an alternative to the Democratic legislation, early draconian proposals gave way to vague policy announcements — although with new drug testing regulations the pendulum now seems to be sweeping back.

The U.S. Office of Personnel Management (OPM) proposed in late July that drug testing be required of federal employees. Under this proposal, an employee would be summarily dismissed after two positive tests for drug use. OPM urged repeal of the current law which allows an employee to be dismissed only if drug use (or alcohol use or emotional difficulties) impairs on-the-job performance.

The OPM proposal created an uproar. Members of Congress, public employee organizations, and federal manager organizations expressed outrage at the punitive nature of the program and its emphasis on getting drug users off the federal payroll rather than into treatment programs. Within two weeks, the White House had publicly rejected the OPM proposal.

Yet, the Republicans refused to let go of drug testing as a policy option. The White House Domestic Policy Council staff proposed in late August that federal workers in sensitive positions or those suspected of using drugs should be subject to urinalysis. Testing would be required of job applicants and random testing would be done among employees in critical positions, under the staff proposal.

The President's Executive Order

President Reagan took the staff recommendation into account in developing an executive order on drug testing. On September 15, 1986, federal employees in "sensitive" positions were made subject to

1. Omnibus Anti-drug Act of 1986, Pub. L. No. 99-570 (1986).

mandatory drug testing by Executive Order.[2] The executive order defines "sensitive" positions as: (1) employees in designated critical/sensitive positions; (2) employees who have access to classified information; (3) Presidential appointees; (4) law enforcement officers; and (5) "Other positions that the agency head determines involve law enforcement, national security, the protection of life and property, public health or safety, or other functions requiring a high degree of trust and confidence."[3] The President emphasized that his program was not intended to ferret out drug users for disciplinary action, but rather to identify employees who needed help in breaking a drug habit.

On December 1, 1986, the Office of Personnel Management (OPM), in consultation with the Justice Department, issued guidelines to implement the executive order. The guidelines are entitled "Establishing a Drug-Free Federal Workplace." They emphasize discipline rather than rehabilitation. Under the OPM approach, each agency head will be free to decide which groups among the employees in sensitive positions will be tested and whether testing will be random. An employee can be dismissed on the basis of one confirmed positive drug test and an employee who refuses to take a drug test can also be fired.

These regulations are a dangerous precedent. Once an agency head is given the discretion to fire employees for drug use, why should the agency spend money on rehabilitation? The federal government does not have an unqualified go-ahead for its drug testing program, however. Several federal employee organizations have filed suit in the U.S. District Court for the Eastern District of Louisiana seeking an injunction against the executive order.

The same district court decided on November 12, 1986, that a random testing program by the U.S. Customs Service was unconstitutional.[4] A permanent injunction was issued by the court and the Customs Service was prohibited from conducting random tests of its employees. The Administration has appealed the Customs decision.

Whatever the decision of the district court on the constitutionality of the executive order, the controversy will not be easily resolved.

---

2. Exec. Order No. 12,564, 51 Fed. Reg. 32,889 (1986).

3. *Id.*

4. National Treasury Employees Union v. Von Rabb, 649 F. Supp. 380 (E.D. La. 1986).

A Summary of the Subcommittee on Civil Service Study on Drug Testing

The Subcommittee on Civil Service conducted a five-month study on drug testing in the federal government and in June 1986 issued a staff report.[5] At that time, nearly one agency in five reported that it currently tested or planned to begin testing certain employees or applicants. The agencies are: The Departments of the Army, Navy, and Air Force; components within the Department of Justice; the Federal Aviation Administration in the Department of Transportation; the Secret Service Uniformed Division and U.S. Customs Service within the Department of the Treasury; the Central Intelligence Agency; the National Aeronautics and Space Administration; the Panama Canal Commission; the U.S. Postal Service; the Tennessee Valley Authority; and the Veterans Administration. Three other agencies — the Department of Energy, General Services Administration, and Nuclear Regulatory Commission — are beginning to develop employee drug testing programs.

Several agencies reported that they conduct drug testing only as part of an accident investigation, or where there was probable cause that an employee was using drugs. But other agencies, including the U.S. Customs Service and the military departments, seek to implement wide-scale, random testing, where there is no indication of employee drug abuse. The Customs program has been struck down and it remains to be seen how other agencies' random testing programs will be affected by the executive order or litigation.

The Subcommittee report identified a number of technological and legal issues pertaining to drug testing. A summary follows:

Purpose: Two reasons are generally given to support drug tests. First, for work-site safety and second, to deter off-the-job drug use. But urinalysis, unlike breathalyzer tests for alcohol, cannot determine present drug intoxication, so drug testing will not insure worksite safety. Routine scheduled tests will not deter off-the-job drug use since employees can test negative by avoiding drug use prior to the test. Random testing is intended to work as a deterrent but it violates constitutional protections against unreasonable search and seizure as well as common expectations of privacy.

Cost: A drug testing program can be either accurate or inexpen-

---

5. *See* Rep. Patricia Schroeder, Chairwoman, Subcomm. on Civil Service, Comm. on Post Office and Civil Service, Press Release (June 20, 1986).

sive, but not both. While initial screening can be done for about $15 per sample, confirmatory testing by state of the art technology can raise the cost to about $100 per drug per sample.

Authority: Until the December 1, 1986 issuance of drug testing guidelines, nothing in the Federal Personnel Manual or civil service laws authorized mandatory drug testing, any more than it authorized mandatory testing for venereal disease, pregnancy, cancer, or contagious diseases like hepatitis. Rather, the emphasis is on rehabilitation of employees who abuse drugs or alcohol. The Federal Personnel Manual provides guidance to Federal agencies in establishing alcoholism and drug abuse programs that deal with employees' health in relation to their work.[6]

Agencies may require employees to undergo fitness-for-duty examinations when there is a question about the employee's physical or mental ability to perform the job. Drug testing may be required as part of this examination if drug or alcohol abuse is suspected.

The Department of Defense on April 8, 1985 issued a directive that limits drug testing to employees in specifically designated positions, but does allow random testing.[7] The Department of Defense is reviewing its directive in light of the issuance of the President's Executive Order and recent court decisions.

Timing: Urinalysis can determine recent use of such drugs as marijuana, cocaine, amphetamines, barbiturates, and heroin. Marijuana residues stay in the body for up to 30 days; residues of other drugs stay in the body only 2 to 5 days. If the urine sample is not taken within 48 hours after drug use, all traces of the drug may have been excreted and subsequent urinalysis will not reveal drug use. Thus, to thwart a scheduled urinalysis test, a drug user could simply refrain from using drugs for a short time prior to the test. Further, since most drugs take from six to eight hours to go from ingestion to excretion, a urine sample taken an hour after an individual had taken drugs is likely to test negative.

Errors: The initial drug screening tests have error rates ranging from 5 to 20 percent. Test results can be affected by many factors, including over-the-counter medications and foods such as the poppy seed buns on fast food hamburgers. Quality control and chain of cus-

---

6. FEDERAL PERSONNEL MANUAL ch. 792 (Federal Employees Health and Counseling Programs).

7. Department of Defense Directive 1010.9 (April 8, 1985) (DOD Civilian Employees Drug Abuse Testing Program).

tody problems also produce false positives (samples incorrectly identified as containing drugs). False positive errors rates of up to 66% were identified in a study by the Centers for Disease Control. The Defense Department had to drop disciplinary proceedings against thousands of military personnel after sloppy quality control and chain of custody errors led a blue-ribbon panel to conclude that 97% of urinalysis tests at Ft. Meade were "not scientifically or legally supportable."[8]

Legal Issues: Courts are now considering many drug testing cases. They exist in public employment, private sector employment, and educational programs. In public employee cases, three main issues have been identified:

(1) *Search and seizure* — the fourth amendment to the U.S. Constitution protects individuals against unreasonable searches and seizures. Recent court decisions have upheld the assertion that the government's taking of a urine sample is an unreasonable search or seizure within the meaning of the fourth amendment.[9] Courts have also required some reasonable suspicion of drug use before an individual government employee can be required to undergo urinalysis testing.[10]

(2) *Nexus* — under the merit principles of the civil service, federal employees can only be disciplined for off-duty conduct if it adversely affects on-duty job performance, and demonstration of a clear "nexus" or connection is required.[11] The Merit Systems Protection Board decided in 1981 that an employee's off-duty use of marijuana, while unlawful, did not have the requisite nexus with the efficiency of the service to support the agency's decision to remove the employee.[12] Yet, the Second Circuit Court of Appeal has presumed a nexus between off-duty drug use and certain critical jobs (the employee was an air traffic controller).[13] The court did not provide standards for determining what those jobs are.

---

8. Washington Post, Apr. 27, 1984, at A21, col. 1.

9. *See, e.g.*, Capua v. City of Plainfield, 643 F. Supp. 1507 (D.N.J. 1986); McDonell v. Hunter, 612 F. Supp. 1122 (S.D. Iowa 1985), *modified*, 809 F2d. 1302 (8th Cir. 1987); National Treasury Employees Union v. Von Rabb, 649 F. Supp. 380 (E.D. La. 1986); Lovvorn v. City of Chattanooga, 647 F. Supp. 875 (E.D. Tenn. Nov. 13, 1986).

10. Jones v. McKenzie, 628 F. Supp. 1500 (D.D.C. 1986); *McDonell*, 612 F. Supp. at 1122.

11. 5 U.S.C. § 2302(b)(10) (1982).

12. Merritt v. Department of Justice, 6 M.S.P.B. 585 (1981).

13. Borsari v. FAA, 699 F.2d 106 (2d Cir. 1983).

(3) *Rehabilitation* — under the Rehabilitation Act of 1973[14] federal agencies cannot discriminate against an individual with a handicapping condition, and alcohol and drug addiction qualify as handicapping conditions. Before taking any disciplinary action for performance problems, an agency must offer rehabilitative assistance (including sick leave to participate in a rehabilitation program) to accomodate an employee with a drug or alcohol problem.[15] Thus, if a drug user were identified through a urinalysis program, an agency might be required to offer rehabilitative assistance and immediate removal would be precluded.

Conclusion

Prove yourself human! That's the underlying theme of drug testing programs. It seeks to thwart our constitutional protections. As public policy, massive drug testing programs funnel millions of dollars into the drug testing business and diverts funds away from law enforcement and drug interdiction efforts. Furthermore, since proper drug testing procedure requires that an observer watch as a urine sample is collected, testing programs violate our common expectations of privacy in performing bodily functions.

Drug testing is a short-sighted response to our frustration at being unable to get drugs out of our schools, workplaces, and homes. As in all controversial, emotional issues, we have to make sure that the solution is not worse than the problem.

14. 29 U.S.C. § 791 (1982).
15. Ruzek v. G.S.A., 7 M.S.P.B. 437 (1981).

Drug Testing As An Element Of The Everlasting Drug War

E. Clay Shaw, Jr.* and Roger T. Fleming**

I. Introduction

Over the past decade, the federal government, through the legislative branch, the executive branch and the judicial branch, has attempted to thwart drug abuse and drug smuggling. Congress has acted to toughen criminal laws against the smuggler; the White House and the Pentagon have acquiesced in allowing the military to be used to fight the smuggler's enterprise; and our courts have imposed tougher sentences and still higher bail requirements to impede the drug runner's success. Our federal government to date has failed to curb drug abuse and has failed miserably at stopping drug smuggling.

From 1975 to 1980, I was Mayor of the city of Fort Lauderdale, situated in Broward County, Florida. Through the perspective of the drug war, Broward County was one of the most heavily impacted counties in this country. I have observed first hand the destruction that the drug dealer and his success can have on a community. Since 1981, I have been a member of Congress. In Congress I serve on, among other committees; the House Judiciary Committee; the Subcommittee on Crime; the Select Committee for Narcotics Abuse and Control; and I am Co-Chairman of the House Republican Task Force on Crime. I have attempted to fight the drug war on the federal level for five years.

My first year in Washington made me aware of the enormous challenge our federal government was facing in its attempt to halt the illegal importation of drugs from foreign source countries. The smuggler's ability to finance boats, planes and manpower to infiltrate our borders was overwhelming. Our U.S. Coast Guard and U.S. Customs agencies were essentially civilian in nature and, even with help from the newly created Drug Enforcement Agency, they were no match for

* United States Congressman 1981-Present; Mayor of the City of Fort Lauderdale, Florida 1975-1980; B.A., Stetson University (1961); MBA, University of Alabama (1963); J.D., Stetson University (1966).

** Legislative Counsel to Congressman Shaw; B.A., Emory University (1978); J.D., Nova University Law Center (1982).

the smuggler's enterprise. In 1982, the second year of the 97th Congress, I offered an amendment to the Department of Defense Authorization Bill H.R. 3519, to further erode the Posse Comitatus restrictions on our military's involvement in civilian law enforcement by allowing military personnel to make arrests and seizures of drug runners in U.S. territorial waters. The amendment passed the House but was readily defeated in conference. It became evident to me then and still clearer to me in the next two years that the growing drug problem in the United States was far from a national priority and not a politically popular legislative issue in Congress.

In 1983, at the beginning of the 98th Congress, the Vice President's Drug Task Force began to show some successes in South Florida and it helped to temporarily distract the drug trader. There was an increase in arrests of smugglers on the seas and some victories to point to at least on Florida's coastline. However, as in the case with many criminal proceedings, drug dealers were able to hire expensive defense attorneys who developed effective loop-holes and allowed dealers to walk out of federal courtrooms. During the 98th Congress, the Crime Subcommittee shifted its attention toward tightening criminal laws already on the books. Attempts at bail reform and harsher penalties for dealers were introduced and some successes were seen in the Omnibus Crime Control Act of 1984, which passed at the end of that year.

The 99th Congress opened in January 1985, facing essentially the same or worse percentage statistics regarding drug abuse and drug smuggling successes as had existed for the past six years. For those members of Congress, primarily from California, Florida, New York and Texas, who had fought for years for tougher drug laws, the harsh reality remained that nothing had worked to prevent the smuggler from penetrating United States borders. The Select Committee on Narcotics Abuse and Control's latest estimates on drug abuse and trafficking include the following: in 1985 an estimated 85 tons of cocaine entered the United States and the estimate for 1986 is at least 150 tons of cocaine; between 1981 and 1985 the number of hospital emergencies associated with the use of cocaine increased from 3,296 to 9,946; and between 1981 and 1985, the number of cocaine related deaths increased from 195 to 580. The Alcohol, Drug Abuse, and Mental Health Administration of the U.S. Department of Health and Human Services estimates from recent studies the following: that approximately 21.6 million Americans have used cocaine; that 4 million Americans are "current users"; cocaine use by high school seniors reached its highest level ever in 1985 with 17% having used the drug; and 49% of

high school seniors reported in a 1985 survey that it would be easy for them to get cocaine.

II. Attacking the Demand for Illegal Drugs

The 99th Congress saw a theoretical shift regarding the drug issue and surrounding debates. Accepting our inevitable failure at stopping the drug supply through illegal importation, we began to shift our focus toward demand. The economic reality exists; as long as there remains a demand for illegal drugs in the U.S., someone will be willing to risk the supply. The supply/demand theory did not really sink in for me until January 1986 when I took a trip with the Select Committee on Narcotics Abuse and Control to Texas, Arizona, California and Mexico. The trip focused on the success of illegal aliens crossing our borders with illegal drugs. The U.S. Customs border patrol at the San Diego-Tiajuana border post reported their estimate that 82,000 illegal aliens had crossed into the U.S. through just that 60 mile zone in the previous 48 hours. It may have been optimistic to think that we could stop a percentage of smugglers' boats sailing into Florida's harbors and the Gulf Coast states' shorelines, but the realization of a virtually open U.S.-Mexican border put that optimism into perspective.

In July of 1983, President Reagan, through Executive Order 12435, established the Commission on Organized Crime. In March of 1986 the Commission issued its report and concluded that "drug trafficking" was the single most serious organized crime problem facing the world and this country today.[1] The Commission's report recognized the need to focus on the demand-side of the drug problem. The report cited drug testing use and effectiveness in the private sector via a survey of Fortune 500 companies and recommended that drug testing programs be implemented for federal employees. In support of the Commission's findings and recommendations, I announced to my staff my intent to initiate a drug testing program in my congressional office. I announced, on the House floor in March, 1986, that in support of the President's Commission findings and suggestions, I would implement a drug testing program for my Washington staff.

It was my hope at the time of my announcement on the floor that other members of Congress would follow suit. I knew there were enough members of Congress who had conceded to our failures in the

1. PRESIDENT'S COMMISSION ON ORGANIZED CRIME, AMERICA'S HABIT, DRUG ABUSE, DRUG TRAFFICKING AND ORGANIZED CRIME (1986).

supply-side and I believed there was substantial speculation of hypocrisy in the halls of Congress to invite the alternative of drug testing. As it turned out, however, a U.S. House Administration determination precluded congressional funds from paying for the tests and the House Committee on Official Conduct ruled to prevent any private corporation from donating the funds for the tests.

I paid for the tests out of my own pocket. The tests were conducted by the Hoffman-La Roche Company's clinical laboratory. It required about ten minutes of my staff's time and cost about ten dollars per staffer. I made it clear to my staff that I did not suspect them of using drugs. I further stated that if a positive test result occurred on anyone, a second alternative test method would be provided as well as a re-test. If a confirmatory test was positive, I intended to speak in private to that staffer. No individual results of the tests were to be made public under any circumstances. My entire Washington staff volunteered; I was impressed with their attitude and pleased with the results.

My intentions in testing my staff were two-fold: one, to demonstrate to the public my confidence in the value of drug testing as a deterrent and a viable component in the demand-side war; and two, to show to the public that we in Congress who enact laws that often infringe upon your rights, are not doing drugs. The facts remain indisputable regarding our inability to stop the drug supply. The facts are also indisputable that citizens in the United States continue to consume outstanding quantities of illegal narcotics. I have been convinced for years that drug abuse is a serious problem in this country and that we must do whatever is within our means to stop it. The demand-side is a new front to fight this battle; I only hope we do not repeat the same mistakes on this front as we made in the supply-side war.

There is no question but that drug testing infringes upon one's rights as does every single law we have passed in Congress to fight the drug war. Prolonged and extensive searches of luggage, cars and planes at our borders infringe on individual rights. The stopping and boarding of ships and yachts by United States Customs and Coast Guard agents infringes upon individual rights and freedoms. Continually raising taxes and extending our federal debt to finance drug interdiction efforts, and drug abuse and rehabilitation programs infringes upon individual freedoms. Asking someone to submit to a urinalysis test infringes upon one's rights. Societal interest as a counter balance to the enactment and enforcement of laws that infringe upon individual rights must be strong and must present a larger cause to justify such imposition.

Fundamental constitutional questions concerning drug testing re-

main the same as in all due process issues: is the right impinged upon a constitutionally protected right; and what amount of justification must the government put forth to successfully defend that infringement? Procedural due process has really been the issue reviewed in cases involving drug testing and the focus has been on the process used to carry out a test or to terminate an employee via a test result.[2] However, the moment that drug testing began to approach the halls of Congress, several avenues of constitutional attack arose to defeat it. The arguments range from fourth amendment violations of search and seizure to invasion of a privacy right to violations of substantive and procedural due process. Whether drug testing is a violation of a constitutional right depends upon the circumstances surrounding the test and the right alleged to be violated. I believe the primary constitutional question framed by the drug testing issue is the application of fourth amendment protections to the testing process.

There is no question but that a government employee is entitled to the same constitutional rights against unreasonable search and seizure as any citizen,[3] and as such is always entitled to these protections, not just when he or she is suspected of criminal behavior.[4] A governmental taking of a urine specimen has been held to be a seizure within the meaning of the fourth amendment.[5] However, such testing in the perspective of a requirement in a medical exam, in my opinion, does not represent an overly intrusive government act. Urine is routinely discharged from the body, so unlike the taking of blood as a context for seizure,[6] no governmental intrusion into the body is required to seize urine.[7]

From the beginning of my efforts to pass drug testing legislation, I have emphasized that one's right to notice of testing be respected, that one's privacy from public exposure be a priority and that one's right to a re-test and to appeal a positive result be set forth. Most legal opinions ruling against drug testing have been based upon the implementation of a particular test and the attendant or subsequent treatment of a partic-

---

2. Jones v. McKenzie, 628 F. Supp. 1500, 1507 (D.D.C. 1986).
3. Allen v. City of Marietta, 601 F. Supp. 482, 491 (N.D. Ga. 1985).
4. Camara v. San Francisco Mun. Ct., 387 U.S. 523, 530 (1967).
5. *See Allen*, 601 F. Supp. at 482. *See also* Storms v. Coughlin, 600 F. Supp. 1214, 1217-18 (S.D.N.Y. 1984).
6. Schmerber v. California, 384 U.S. 757, 767 (1966).
7. McDonell v. Hunter, 612 F. Supp. 1122 (S.D. Iowa 1985), *modified*, 809 F.2d 1302 (8th Cir. 1987).

et al.: Nova Law Review Full Issue

ular employee or employees.[8] There are, no doubt, unlimited circumstances where a procedure for testing and treatment of an employee would not be fair and would be violative of constitutional protections. However, a reasonable testing procedure exists and it must be implemented cautiously and with an eye toward respect of individual rights. A specifically set forth procedure for testing which includes reasonable safeguards and is closely tailored to further a legitimate governmental interest has been held to pass constitutional scrutiny.[9]

The fourth amendment protects an individual's expectation of privacy from unreasonable intrusions by the government. Whether, under a particular circumstance, a reasonable expectation of privacy exists and whether the intrusion is reasonable are determined by balancing the claims of the public against the interest of the individual.[10] How strong a claim to protection of the public interest does drug testing carry? Do the American people want to protect a government employee's right to ingest illegal narcotics without risk of exposure? In order to receive the protection of the fourth amendment, an expectation of privacy must be one that society is prepared to recognize as legitimate.[11]

A drug testing policy passed by Congress and supported by the President in response to an overwhelming health crisis in this country may establish the basis for a degree of government intrusion. The government has the same right as any private employer to oversee its employees and investigate potential misconduct relevant to the employees' performance of their duties.[12] A drug testing program on an employee-wide basis, structured not to catch anyone but simply to deter drug abuse may satisfy constitutional standards. A distinction has been drawn between a search made by the government for criminal investigatory purposes and a search made by the government as employer to protect the work product of an office.[13] Thus, where the purpose of a government employer's search is not to gather evidence of a crime un-

---

8. *See, e.g.*, Capua v. City of Plainfield, 643 F. Supp. 1507 (D.N.J. 1986); Division 241 Amalgamated Transit Union v. Suscy, 538 F.2d 1264 (7th Cir. 1976); *Allen*, 601 F. Supp. at 482; and *McDonell*, 612 F. Supp. at 1122.

9. Shoemaker v. Handel, 608 F. Supp. 1151 (D.N.J. 1985), *aff'd*, 795 F.2d 1136 (3d Cir.), *cert. denied*, 107 S. Ct. 577 (1986).

10. *Division 241 Amalgamated Transit Union*, 538 F.2d at 1267; United States v. Martinez-Fuerte, 428 U.S. 543 (1976).

11. New Jersey v. T.L.O., 105 S. Ct. 733, 742 (1985).

12. *Allen*, 601 F. Supp. at 491.

13. United States v. Huggerty, 388 F.2d 713 (7th Cir. 1968).

related to an employee's performance, but is rather undertaken for the proprietary purpose of preventing future damage to the government's ability to discharge its statutory responsibilities, it may be a legitimate search within the confines of the fourth amendment.[14]

I believe the federal government has the right to insure that its employees are conducting their work within a drug free work place. I further believe that a reasonable testing program is available to help promote a drug free federal work force. I can attest first hand only to the implications of the test that my staff and I underwent. The procedure was simple, it was carried out in private, the objective labeling and sealing process took place in the presence of each staffer and the results remain 100% confidential. I do not think that the test I implemented at my staff level was unreasonable; I believe it would pass constitutional muster. Other such tests under similar circumstances are carried out in this country every week.

III. Recent Trends

On September 15, 1986, President Reagan issued an Executive Order entitled "Drug Free Federal Work Place," wherein he ordered the implementation of a controlled substance testing program for employees of the federal government employed by the executive branch. In that order, the President set forth specific guidelines for drug testing procedures which include: a sixty day prior notice to employees; opportunity to submit medical documentation which could substantiate an effected test; an assurance of individual privacy regarding the providing of urine specimens; the application of existent federal law with respect to the confidentiality of test results; and an authorization to the Secretary of Health and Human Services to promulgate scientific and technical guidelines regarding the test procedure.[15] I supported the President's initiative and have indicated my willingness to introduce legislation necessary to bring the dictates of that order into compliance with current federal law where necessary. I hope the 100th Congress will bring more successes to drug testing legislation than this past session observed.

On March 6, 1986, immediately following my announcement that I was to test my own staff and discovering that there existed no means within budget to pay for those tests, I introduced H. R. Res. 394. The

14. *Allen*, 601 F. Supp. at 491.
15. Exec. Order No. 12,564, 51 Fed. Reg. 32,889 (1986).

relevant text of H. R. Res. 394 reads as follows:

> That until otherwise provided by law, amounts shall be available from the contingent fund of the House for payment of expenses of a controlled substances testing program. Each Member and officer of the House, and . . . each employee of the House shall be eligible to participate in the program. Participation shall be entirely voluntary on the part of the participant.[16]

As stated earlier herein, it was my hope that this legislation would at the least attract the support of those members who wanted to initiate demand-side programs. The resolution did pick up the cosponsorship of twelve members of Congress. However, it was referred to the jurisdiction of the Committee on House Administration and after one brief hearing in October of 1986, the bill died in committee.

On April 17, 1986, I introduced a bill to provide for a controlled testing program for federal civilian and military personnel whose duties involved access to classified information.[17] The bill was referred jointly to the Committee on Armed Services, the Committee on Post Office and Civil Service and the Committee on House Administration. This proposed legislation picked up only three House cosponsors, was never afforded a hearing and died in committee.

Toward the end of the 99th Congress, the leadership in the House determined that the country's drug problem might be used as an effective political issue for the 1986 elections. Consequently, the introduction and debate of drug enforcement legislation became politically popular. Numerous hearings were hastily scheduled to push new and old legislation to the floor. The political effort resulted in the passage of H.R. 5484, a 481 page bill consisting of a conglomeration of dozens of pieces of legislation and amendments thereto.[18] The bill represents a good cross section of legislation which strengthens the drug interdiction, supply-side, effort and legislation that appropriates millions of new dollars for rehabilitation and drug abuse prevention; the new demand-side war. There is no provision for drug testing or even a study of drug testing in the bill.

---

16. H.R. Res. 394, 99th Cong., 2d Sess. (1986).
17. H.R. 4636, 99th Cong., 2d Sess. (1986).
18. H.R. 5484, 99th Cong., 2d Sess. (1986).

IV. Conclusion

I started my education regarding the success and failure of federal legislative responses to the illicit drug trade in 1981. That was in the midst of the supply-side effort. In 1986, it became evident to me that of all the avenues we had tried, the reality remained that nothing had worked. There were those members of Congress who wanted to get tough in the supply-side war eight years ago but Congress did not listen. The supply-side war failed and the federal government was always ten steps behind the drug dealer. In May of 1986, I introduced H.R. 4815, "The Drug Dealer Capital Punishment Act of 1986." It was referred to the House Judiciary Committee, where it was not afforded a hearing. However, it passed on the House floor as an amendment to the Omnibus Drug Bill, H.R. 5484 and it became the most controversial amendment to the bill and was eventually defeated by the threat of a filibuster in the Senate.[19]

When I introduced that legislation, I knew I harbored some very complex feelings about it. I considered it an attempt to elevate the crimes of the drug dealer to those crimes considered the most serious in this country, those subject to the death penalty. It represented a turning point in the theretofore failing efforts against the drug dealer. The bill was termed by its supporters as the ultimate weapon against the drug trader. The reality is, in my opinion, that we should never have had to reach that point. We should have passed effective, tough legislation at the beginning of the supply-side war instead of the attenuated compromises that ultimately failed. It is my belief that we are embarking down the same path in the demand-side war. I feel that drug testing, though in some instances unproven and in some instances to date not procedurally fair, is the hard answer that may put us ahead of the curve in this new battle.

19. CONG. Q., 2699 (Oct. 25, 1986).

Toward a New Federal Right to Privacy

Loren Siegel*

Drug testing in the American workplace is the new panacea. Along with the other would-be accoutrements of the "War on Drugs" — increases in criminal penalties, including the death penalty, deployment of military forces in search and arrest activities, and further erosion of the Exclusionary Rule — drug testing offers false promises while doing great injury to civil liberties. Wars and crusades are never kind to individual rights, and when rhetoric is combined with new technologies which are little understood by the public, the damage is compounded. The pushers of drug tests have attempted to portray them as harmless adjuvants to a routine medical examination. They have been described as no more intrusive than passing through an airport metal detector. Policy makers from the President on down exhort the citizenry to help create a "Drug-Free America" by voluntarily urinating into a bottle. They assure us that if we have nothing to hide, there is nothing to fear.

Such blandishments aside, an anonymous personal testimonial recently received by one of the American Civil Liberties Union's state offices tells quite a different story:

> I am a Baltimore County resident and thought I wanted to serve my country until June 4, 1986. On that day I was given a drug test. A drug test you say. Big deal. Well, it was a big deal! I was not informed of the test until I was walking down a hall towards the bathroom with the attendant. I thought no problem. I have had urine tests before and I do not take any type of drugs besides occasional aspirin. I was led into a very small room with a toilet, sink and a desk. I was given a container in which to urinate by the attendant. I waited for her to turn her back before pulling down my pants, but she told me she had to watch everything I did. I

* B.A., Bennington College, 1966; J.D., Rutgers University Law School-Newark, 1973. Ms. Seigel is a national spokesperson for the American Civil Liberties Union on the drug testing issue. She also monitors legal developments in this area. Ms. Siegel has been Special Assistant to the Executive Director of the ACLU since 1981.

> pulled down my pants, put the container in place — *as she bent down to watch* — gave her a sample and even then she did not look away. I had to use the toilet paper as she watched and then pulled up my pants. This may sound vulgar — and that is exactly what it is . . . . I am a forty year old mother of three and nothing I have ever done in my life equals or deserves the humiliation, degradation and mortification I felt.

Urinalysis as presently practiced by American industry represents, in its very scope, an unprecedented invasion of privacy. It invades privacy not only because of the manner in which specimens are collected as so eloquently detailed by the forty-year-old mother of three, but also because the specimens are then subjected to scrutiny and analysis for the personal, physiological secrets they hold.[1] Today, hundreds of thousands of Americans are being routinely searched in the absence of even the merest suspicion that they are committing illegal acts. And their livelihoods and reputations are, in many cases, falling victim to an imperfect technology.

Other contributors to this symposium have written of the deficiencies inherent in the technology of drug testing. Without belaboring the point, it bears reminding that even the most sophisticated test (Gas Chromatography/Mass Spectometry) cannot distinguish between casual use and chronic abuse; cannot discover recency of ingestion and cannot measure impairment or even intoxication. The far more commonly used screening tests, like the EMIT kit, confuses codeine with heroin, Advil with marijuana, and the antibiotic Amoxicillan with cocaine. Medical experts caution that testing large, unselected groups of people for unusual events produces more false positives than true positives and that drug screening should not be used as a "front-line tool" in combatting drug abuse. But the drug testing epidemic continues to spread, and for the employees of private industry there is no end in sight.

On the other hand, government employees have, with few exceptions, prevailed in a number of challenges against random, indiscriminate testing programs. Virtually every court which has considered the issue, on both the state and federal levels, has found that urinalysis is a search and seizure and that fourth amendment standards apply.[2] Fur-

---

1. McDonell v. Hunter, 612 F. Supp. 1122, 1127 (S.D. Iowa 1985), *modified*, 809 F.2d 1302 (8th Cir. 1987).

2. Division 241 Amalgamated Transit Union v. Sucsy, 538 F.2d 1264 (7th Cir. 1976), *cert. denied*, 429 U.S. 1029 (1976); Shoemaker v. Handel, 795 F.2d 1136 (3d

thermore, in the majority of cases decided thus far, the courts have held that a public employee can be required to submit to urinalysis only on the basis of "reasonable suspicion, based on specific facts and reasonable inferences drawn from those facts in the light of experience" that the employee is under the influence of drugs.[3]

Judges have explicitly rejected a variety of employer justifications for testing which fall short of the "reasonable suspicion" standard. In *McDonell v. Hunter*[4] the court enjoined the state of Iowa from testing *all* prison guards in order to discover the few actual drug users:

> No doubt most employers consider it undesirable for employees to use drugs, and would like to be able to identify any who use drugs. Taking and testing body fluid specimens, as well as conducting searches and seizures of other kinds, would help the employer discover drug use and other useful information about employees . . . . There is no doubt about it — searches and seizures can yield a wealth of information useful to the searcher. (That is why King George III's men so frequently searched the colonists.) That potential, however, does not make a governmental employer's search of an employee a constitutionally reasonable one.[5]

In *Caruso v. Ward*[6] the New York City Police Department sought to persuade the state trial court that random testing would deter the 1200 members of the Department's Organized Crime Bureau from using drugs. The court was unpersuaded: "Without any direct or even circumstantial proof that a drug problem exists . . . it is difficult to justify random testing as a deterrent when there is little indication that there is any significant drug use to deter."[7] Nor have the courts ac-

---

Cir. 1986); Storms v. Coughlin, 600 F. Supp. 1214 (S.D.N.Y. 1984); Allen v. City of Marietta, 601 F. Supp. 482 (N.D. Ga. 1985); *McDonell*, 612 F. Supp. at 1122; Jones v. McKenzie, 628 F. Supp. 1500 (D.D.C. 1986); Capua v. City of Plainfield, 643 F. Supp. 1507 (D.N.J. 1986); Turner v. Fraternal Order of Police, 500 A.2d 1005 (D.C. 1985); Caruso v. Ward, 133 Misc. 2d 544, 506 N.Y.S.2d 789 (Sup. Ct. 1986); Matter of Patchogue-Medford Congress of Teachers v. Board of Educ., 119 A.D.2d 35, 505 N.Y.S.2d 888 (App. Div. 1986); City of Palm Bay v. Bauman, 475 So. 2d 1322 (Fla. 5th Dist. Ct. App. 1985).

3. *McDonell*, 612 F. Supp. at 1122. *But see* Jones v. McKenzie, 628 F. Supp. 1500 (D.D.C. 1986) (which held that the "probable cause" standard applies).

4. 612 F. Supp. at 1122.

5. *Id.* at 1130.

6. 506 N.Y.S.2d 789 (Sup. Ct. 1986).

7. *Id.* at 795.

cepted "voluntary" consent as a valid waiver of constitutionally protected privacy rights: "Advance consent to future *unreasonable* searches is not a reasonable condition of employment."[8]

A clear consensus is developing among the courts that random drug testing in the public workplace runs afoul of fourth amendment standards of reasonableness, a judgment perhaps most forcefully stated by Federal Judge H. Lee Sarokin in a recent drug testing decision:

> If we choose to violate the rights of the innocent in order to discover and act against the guilty, then we will have transformed our country into a police state and abandoned one of the fundamental tenets of our free society. In order to win the war against drugs, we must not sacrifice the life of the Constitution in the battle.[9]

Paradoxically, private sector employees (except for those working in the city of San Francisco[10]) are essentially unprotected from indiscriminate drug testing. Some labor unions are effectively opposing drug testing programs, but their members constitute a small percentage of the American workforce. A few state constitutions, most notably California's, may confer an enforceable right to privacy upon private employees not found in the United States Constitution. Lastly, lawyers around the country are trying to develop other legal strategies to combat abuses of drug testing. But the fact that so few cases have been brought against private companies is a measure of the dearth of viable legal options for wronged employees.

The right to privacy in America today occupies much the same place as did the right to equality in the days before the passage of the Civil Rights Act of 1964. Before 1964, government employers were prohibited from discriminating against employees or prospective employees on the basis of race, religion or national origin, while private

---

8. *McDonell*, 612 F. Supp. at 1130.

9. Capua v. City of Plainfield, 643 F. Supp. 1507 (D.N.J. 1986). *See also* Stille, *Some Judges 'Say No' to Drug Tests*, Nat'l L.J. Oct. 6, 1986 at 1.

10. In December 1985, the San Francisco Board of Supervisors amended Part II, Chapter VIII of the San Francisco Municipal Code by adding Article 33A entitled, "Prohibition of Employer Interference with Employee Relationships & Activities & Regulation of Employer Drug Testing of Employees." The new law prohibits drug testing unless the employer has "reasonable grounds" to believe the employee is impaired and such impairment presents "a clear and present danger to the physical safety of the employee, another employee or to a member of the public." *See* Palefsky, *Corporate Vice Precedents: The California Constitution and San Francisco's Workers Privacy Ordinance*, 11 NOVA L.REV. 699 (1987).

employers could do so with impunity. Under the mounting pressure of the Civil Rights movement, Congress concluded that the strong public policy against racial discrimination would continue to be frustrated unless legislation were enacted which essentially extended the protections of the 13th, 14th and 15th amendments into the private workplace. The historic Civil Rights Act gave racial, ethnic and religious minorities the legal handle they needed to vindicate their right to equality under the law. Only a federal Privacy Act, which gives private employees the right to be free of unreasonable searches and seizures by their employers, will put a halt to the wholesale tyranny of drug testing. Such testing threatens our "right to be left alone," once described by Justice Louis Brandeis as "the most comprehensive of rights and the right most valued by civilized people."[11]

11. Olmstead v. United States, 227 U.S. 438, 478 (1928) (Brandeis, J., dissenting).

Employee Assistance and Drug Testing: Fairness and Injustice in the Workplace

William J. Sonnenstuhl,* Harrison M. Trice, William J. Staudenmeir, Jr.,*** and Paul Steele******

I. Introduction

Every few years, the mass media report that a drug epidemic is sweeping America and sapping its economy. In the sixties, marijuana and "speed" were the problems; in the seventies, heroin was the culprit; today, the scourge is cocaine and its powerful derivative, "crack."[1] Despite the evidence that drug use is declining, frightened executives, spurred on by horror stories of cocaine-crazed executives embezzling company money and "whacked-out" workers manufacturing shoddy products, are increasingly implementing drug screening programs,

* Senior Research Associate, Department of Organizational Behavior. Director, Employee Assistance Education and Research Program, New York State School of Industrial and Labor Relations, Cornell University. B.A., Southern Connecticut State College, 1969; M.A., New School for Social Research, 1971; Ph.D., New York University, 1983.

** Professor, Department of Organizational Behavior. Director, Program on Alcoholism and Occupational Health, New York State School of Industrial and Labor Relations, Cornell University. B.A., Louisiana State University, 1946; M.A., University of Wisconsin, 1949; Ph.D., University of Wisconsin, 1955.

*** Assistant Professor, Department of Sociology, Drake University. B.S., United States Military Academy, West Point, 1972; M.A., Webster College, 1978; Ph.D., Washington University, 1985.

**** Associate Professor, Department of Sociology, University of New Mexico. B.A., Washington State University, 1969; M.A., University of Texas, 1971; Ph.D., University of Texas, 1975.

Portions of this article were published in *Lessons from EAPs for Drug Screening* (Sonnenstuhl and Trice), ILR Report, Spring 1986, School of Industrial and Labor Relations, Cornell University. In preparing the manuscript, we would like to acknowledge the financial support of the Christopher D. Smithers Foundation, the collegiate inputs of Tia Schneider Denenberg, Richard V. Denenberg, Paul M. Roman, Terry C. Blum, and thank Barbara Evans for typing the manuscript.

1. Reinarman, Waldorf, and Murphy, *Cocaine and the Workplace*, Paper presented at the 36th Annual Meeting of the Society for the Study of Social Problems, New York City (Aug. 1986). *See also* Martz, *Trying to Say "No"*, Newsweek Aug. 11, 1986 at 14.

which use chemical tests (*e.g.*, blood and urine analyses), to identify drug users, abusers, and addicts. Managers insist that the programs are necessary to insure productivity and safety. Deeply offended by the intrusiveness of blood and urine testing, employees argue that drug screening is an invasion of privacy and violates basic workplace principles.

This paper examines management and employee concerns about drug screening within the context of employee assistance programs and argues that, where companies have well-implemented programs, drug screening is unnecessary. Employee assistance programs provide managers with a proven strategy for identifying, motivating and treating alcoholic, drug-addicted and emotionally disturbed employees, and they protect employees' rights by adhering to standards of judicial jurisprudence. Those standards have grown out of the quasi-legal framework of labor-management relations and parallel many of the standards found in the United States Judicial System.[2] In particular, they include the rights to due process and privacy.

Within constitutional law, due process entails legal interpretations of the fourteenth amendment; in the workplace, it essentially means that employees may not be deprived of their livelihood without "just cause." Collective bargaining agreements spell out the reasons for which management may justly dismiss employees and the procedures which they must follow in doing so. Those procedures entail the use of progressive discipline (e.g., verbal warnings, written warnings, suspension, and discharge) and opportunities for employees to appeal actions perceived as unjust. The last step in the grievance process is arbitration by an impartial third party whose decision is binding on labor and management. As in a court of law, the employee is presumed to be innocent until proven guilty; that is, management must prove that it had "just cause" for its actions.

Likewise, within constitutional law, the right to privacy is an emergent concept dependent upon interpretation of the fourth amendment; in the workplace, the job performance standard evolved to protect employees from unreasonable intrusion by management into their private lives. According to this standard, employees are judged solely on the basis of their performance on the job and cannot be disciplined for off-duty behavior. This is a historical consequence of labor's and management's often stormy relationship. Prior to the National Labor

---

2. Stone, *The Post War Paradigm in American Labor Law*, 90 YALE L.J. 1509 (1981).

Relations Act of 1935, which guaranteed employees the right to organize and bargain in good faith, employers did capriciously intervene in workers' private lives.[3] Ford Motor Company's personnel department, for example, in the teens and twenties, vigilantly checked the cleanliness of employees' homes, the neatness of their gardens, their attendance at church, and the kind of cars they drove.[4] Employees found lax in any of these areas were often fired. To counteract such paternalism and insure fairness, collective bargaining agreements, arbitration decisions, and company policies, practices, and procedures have hewn to the job performance standard.

Employee assistance programs preserve these workplace standards of jurisprudence by using job performance to identify alcoholic, drug addicted, and emotionally disturbed employees and by using a strategy called "constructive confrontation," which is based upon the concept of due process, to motivate them to change their behavior.

Drug screening programs are intended to deter employees from using drugs. Theoretically, employees will be deterred if they believe that almost all drug offenses will be detected, that offenders will be rapidly brought to justice, and that they will be punished.[4a] The deterrence argument, as we illustrate in this article, is difficult to sustain because of the problems inherent in drug screening — almost all offenses cannot be successfully detected and standards of workplace justice are being threatened by the rush to punish those who test positive.

II. Employee Assistance

Employee assistance programs are job-based strategies for the identification, motivation, and treatment of alcoholic and other troubled employees.[5] Employee counseling and employee assistance programs are commonly assumed to be the same thing,[6] but this is a mistake because the two possess different strategies for helping employees with personal problems. Counseling relies primarily upon employees to refer themselves voluntarily to the program, where they are treated

3. R. EDWARDS, CONTESTED TERRAIN: THE TRANSFORMATION OF THE WORKPLACE IN THE TWENTIETH CENTURY (1979).

4. S. BRANDES, AMERICAN WELFARE CAPITALISM (1970).

4a. J. GIBBS, CRIME, PUNISHMENT, AND DETERENCE (1975).

5. W. SONNENSTUHL & H. TRICE, STRATEGIES FOR EMPLOYEE ASSISTANCE PROGRAMS: THE CRUCIAL BALANCE (1986).

6. MacLeod, *EAPs and Blue Collar Stress*, in JOB STRESS AND BLUE COLLAR WORK (Cooper & Smith ed. 1985).

with a variety of psychotherapeutic techniques. The effectiveness of counseling is unclear. Some researchers claim that all psychotherapy works with all problems;[7] others claim only a few forms of therapy are successful with a small number of problems.[8] Employee assistance programs use a double strategy. First, constructive confrontation, which is based on due process and utilizes job performance, is used to identify troubled employees and motivate them to change their behavior. Second, employees who cannot manage their own problems are encouraged to use the counseling services provided by the program. The synergistic effect of this dual strategy has proven to be very effective in improving the performance of alcoholic and other troubled employees.[9]

In this paper, our remarks apply to employee assistance programs but not to employee counseling programs, even those that call themselves "employee assistance," because they lack the essential constructive confrontation strategy which is necessary to break through the denial of drug users and addicts and motivate them to change their behavior. A test for determining if a program is "employee assistance" or "employee counseling" is to measure the extent to which constructive confrontation has been actually implemented.[10] That is, what proportion of managers, supervisors, and union representatives are familiar with the strategy, understand how to use it, and are prepared to use it. If less than two-thirds are knowledgeable about the strategy and willing to use it, constructive confrontation is not fully implemented and the program should probably be regarded as "employee counseling." This standard means that employee assistance practitioners must give more than lip service to constructive confrontation; they must preserve a balance between the dual strategies.[11]

Companies and unions use employee assistance programs to cope with any personal problem that might adversely affect an employee's job performance, but they generally retain a focus on alcoholism because epidemiological evidence shows it to be very prevalent among

---

7. Smith & Glass, *Meta-analysis of Psychotherapy Outcome Studies*, 32 AM. PSYCHOLOGIST 752 (1977). *See also* M. SMITH, G. GLASS & T. MILLER, THE BENEFITS OF PSYCHOTHERAPY (1980).

8. S. RACHMAN & G. WILSON, THE EFFECTS OF PSYCHOLOGICAL THERAPY (1980).

9. Trice & Beyer, *Work Related Outcomes of Constructive Confrontation Strategies in a Job-Based Alcoholism Program*, 45 J. STUDIES ON ALCOHOL 393 (1984).

10. J. BEYER & H. TRICE, IMPLEMENTING CHANGE: ALCOHOLISM POLICIES IN WORK ORGANIZATIONS (1978).

11. W. SONNENSTUHL & H. TRICE, *supra* note 5.

working populations — consistently more so than emotional and other drug problems.[12] For instance, a large-scale community survey of psychiatric disorders revealed that the most common diagnoses were alcohol abuse and dependency, phobia, major depressive disorders, and drug abuse and dependency, in that order.[13]

A. *Deteriorating Job Performance*

Employee assistance programs use deteriorating job performance to identify troubled employees because it is the *only* legitimate reason that employers have for intervening in employees' private lives, but it is rarely represented by formal rituals of checking boxes on performance appraisal forms.[14] This is a political act with administrative overtones and typically fails to provide a true picture of the actual performance. Judgments about performance occur in everyday decision-making on the job. Rather, job performance is what supervisors say it is. It grows out of the day in and day out observations and evaluation of performance. To quote Karl Weick's baseball umpires evaluating pitchers' pitches, "They ain't nothing until I calls 'em."[15] This is also true of immediate supervisors. Good or bad performance comes into being with the supervisors' judgments, which are based upon knowledge of the job and experiences with the best and worst performers in their work groups.[16] These criteria are likely to be more accurate reflections of an employee's performance than those in formal appraisal systems because they are specific to the context of a particular job and vary accordingly. In some instances, absenteeism will be the critical indicator of performance; in others, quanity or quality of work may be critical. These points underline that supervisors probably know the criteria that really count in getting a job done and regularly use them to assess how well employees are doing. In sum, line supervisors are probably aware of and willing to try to manage marginal performers.

---

12. Roman & Blum, *The Core Technology of Employee Assistance Programs*, 15 THE ALMACAN 8 (1985).

13. Robins, *Lifetime Prevalence of Specific Psychiatric Disorders in Three Sites*, 41 ARCHIVES OF GEN. PSYCH. 949 (1984). *See also* Myers, *Six-Month Prevalence of Psychiatric Disorders in Three Communities*, 41 ARCHIVES GEN. PSYCHIATRY 959 (1984).

14. Trice & Beyer, *supra* note 9.

15. K. WEICK, THE SOCIAL PSYCHOLOGY OF ORGANIZING (2d ed. 1979).

16. Trice, *Reaction of Supervisors to Emotionally Disturbed Employees*, 7 J. OCCUPATIONAL MED. 177 (1965).

If performance is basically a judgment call by supervisors, it is necessary to ask on what basis supervisors discipline employees. According to recent research,[17] there is scant evidence that supervisors use discipline because of certain personal tendencies or to discriminate against certain employees. Instead they use discipline in response to specific behavior — when they consider employees' behaviors to be relatively serious and disruptive and when employees have relatively poor and deteriorating performance. They also use discipline when company policy encourages it.[18]

In administering an employee assistance policy, supervisors are concerned about identifying and managing deteriorating performance. At some point in the natural history of most employees' troubles, their problems will begin to affect their work and their job performance will begin to decline. This is true whether the trouble is drinking,[19] gambling,[20] emotional distress,[21] family and sexual difficulties, or something else such as drug abuse.[22]

Controversy, however, surrounds the question of whether deteriorating job performance is a late or early symptom in the natural progression of employees' personal problems. Health practitioners, who by virtue of their special training are taught to see illness where others see nothing unusual, argue that it is a late symptom.[23] Drawing upon the retrospectively constructed accounts of troubled employees, health practitioners contend that supervisors are often the last to recognize employees' troubles. For instance, Harrison Trice interviewed alcoholic employees and their supervisors about the progression of their alcoholism.[24] The alcoholic employees contended that they were able to cover-up their alcoholism so effectively that their supervisors did not recog-

---

17. Beyer & Trice, *A Field Study of the Use and Perceived Effects of Discipline in Controlling Work Performance*, 27 ACAD. MGMT. J. 743 (1984).

18. *See* D. PHILLIPS, A. PURVIS & H. OLDER, TURNING SUPERVISORS ON TO EMPLOYEE COUNSELING PROGRAMS (1980).

19. H. TRICE & P. ROMAN, SPIRITS AND DEMONS AT WORK: ALCOHOL AND OTHER DRUGS ON THE JOB (1972).

20. H. LESIEUR, THE CHASE (1972).

21. Hamburger & Hess, *Work Performance and Emotional Disorders*, in MENTAL HEALTH AND WORK ORGANIZATIONS 170 (A. McLean ed. 1970).

22. Reinarman, Waldorf, & Murphy, *supra* note 1.

23. *See, e.g.*, M. SHAIN & J. GROENEVELD, EMPLOYEE ASSISTANCE PROGRAMS (1980).

24. Trice, *New Light on Identifying the Alcoholic Employee*, PERSONNEL, Sept.-Oct., 1964, at 18.

nize their developing alcoholism until the final stages. Interviews with their supervisors, on the other hand, revealed that they were well aware of developing alcoholism. The difference in perspective is accounted for by the alcoholics' denial. In the early stage, neither the alcoholic employees nor their supervisors were aware of a developing problem. During the middle stage, supervisors became aware of the alcohol problems because the employees' job performance began to deteriorate.

In a recent study,[25] Trice and Beyer found that many of the supervisors interviewed were aware of an employee's developing alcohol problem prior to a job difficulty, were keeping a close eye on the situation, and had not intervened because the problem was not affecting the employee's job performance. Frequently, supervisors become aware of drinking problems because the employees' coworkers or family members tell them about the difficulties.[26] Often employees tell their supervisors about emotional, financial, and family problems.[27] As a concerned friend, supervisors may offer an employee advice about his developing problems, but, as management's representatives, they have no right to intervene unless the trouble adversely affects job performance. Likewise, health practitioners may feel compelled to intervene before job performance is adversely affected, but as long as they act upon behalf of the employer, they cannot do so. Finally, even if they could intervene, there is little evidence that early treatment is correlated with increased recovery from alcoholism. Generally, problem drinkers who are in the early stages of alcoholism do less well in treatment than those who are in the later stages of their illness because they lack motivation to accept such help.[28]

---

25. Trice & Beyer, *supra* note 9.

26. Roman, *Job Characteristics and the Identification of Deviant Drinking*, 11 J. DRUG ISSUES 337 (1981). *See also* Kurtz, Googins & Williams, *Supervisors' Views of an Occupational Alcoholism Program: An Experimental Perspective*, ALCOHOL, HEALTH AND RESEARCH WORLD, Spring, 1980.

27. W. SONNENSTUHL, INSIDE AN EMOTIONAL HEALTH PROGRAM: A FIELD STUDY OF WORKPLACE ASSISTANCE FOR TROUBLED EMPLOYEES (1986).

28. Trice, *A Study of the Progress of Affiliation with Alcoholics Anonymous*, 18 Q. J. STUD. ON ALCOHOL 39 (1957); Trice & Wahl, *A Rank Order Analysis of the Symptons of Alcoholism*, 19 Q. J. STUDIES ON ALCOHOL 636 (1958); Moberg, *Treatment Outcomes for Earlier Phase Alcoholics*, 273 ANNALS N. Y. ACAD. SCI. 543 (1976).

B. *Constructive Confrontation*

In reacting to unsatisfactory job performance, supervisors generally follow progressive discipline guidelines. In nonunion organizations, the guidelines are normally included within its personnel policies, practices, and procedures; in unionized facilities, they are laid out in collective bargaining agreements and arbitration decisions. The purposes of progressive discipline, of course, are to give employees feedback on their behavior, to discover and correct the underlying causes of poor performance, and to induce employees, by progressive sanctions, to conform to standards in the future. Constructive confrontation complements the normal steps in progressive discipline by incorporating into each step an offer of help. In the confrontation part of the discussion, employees are given feedback on the specifics of their unacceptable work performance and warned that continued unacceptable performance is likely to lead eventually to formal discipline. In the constructive part, supervisors suggest alternative courses that the employee can take to regain satisfactory performance, one of which is to seek help from the employee assistance program. Subsequent steps in the intervention depend on the response of the employee. If performance improves, nothing happens. If unacceptable performance continues, several more informal discussions may follow before formal disciplinary procedures are introduced. At all times, however, employees are free to choose to go to the employee assistance program or not to go.

Constructive confrontation serves two purposes: to identify troubled employees and to motivate them to change their behavior. As we stated earlier, in the early stages of trouble, it often appears as though nothing unusual is happening and it is in the middle stage that troubles begin to affect the job. Constructive confrontation assumes that most employees, when given appropriate feedback on their behavior, possess the resources to resolve their own problems and improve their performance. It further assumes that, when employees are given repeated feedback and are still unable to improve their performance, their problems are beyond their control and require expert advice. At the same time, the gradual build-up of sanctions breaks down the employees' denial systems and increases the likelihood that they will do something constructive about their problems. Medical or psychiatric labeling and treatment of employees' troubles, then, are the last steps in the process, when it is clear that the problems are beyond indivdiual control and the

employee is unable to respond to confrontation.[29]

Controversy surrounds the question of whether supervisors will use the constructive confrontation strategy. Phillips, Purvis, and Older[30] claim that troubled employees beget troubled supervisors who must be counseled before they will use it. Empirical research, however, shows that well-trained supervisors have little difficulty implementing it.[31] The willingness of supervisors to use the strategy is associated with familiarity, age, and experience. Young, inexperienced supervisors are less likely than older, experienced ones to use it. As younger supervisors become familiar with the policy and integrated into a work organizations' formal and informal networks, they are more willing to use constructive confrontation. Generally, the most important determinant of whether supervisors use it is the support they receive from management, other supervisors, coworkers, and union representatives. Training programs that teach supervisors to use constructive confrontation as a general technique for managing troubled employees increase familiarity with the policy, integrate supervisors into the formal and informal networks, and increase the willingness of supervisors to use the strategy.[32]

Since the sixties, a large number of outcome studies of constructive confrontation have been completed; all demonstrate that it is effective.[33] These studies were conducted using different populations and re-

---

29. H. TRICE & P. ROMAN, *supra* note 19.

30. *See* D. PHILLIPS, A. PURVIS & H. OLDER, TURNING SUPERVISORS ON TO EMPLOYEE COUNSELING PROGRAMS (1980). *See also* Phillips & Older, *A Model for Counseling Troubled Supervisors*, 2 ALCOHOL, HEALTH, & RESEARCH WORLD 24 (1977); Purvis, *Getting Rid of the "Lone Ranger" Syndrome in Supervisors' Labor-Management*, 9 ALCOHOLISM J. 25 (1979).

31. *See* J. BELASCO & H. TRICE, THE ASSESSMENT OF CHANGE IN TRAINING AND THERAPY (1969); J. BEYER & H. TRICE, IMPLEMENTING CHANGE: ALCOHOLISM POLICIES IN WORK ORGANIZATIONS (1978); Googins & Kurtz, *Discriminating Supervisors in Occupational Programs*, 11 J. DRUG ISSUES 199 (1981).

32. *See* BELASCO & TRICE, *supra* note 31; J. BEYER & H. TRICE, *supra* note 31; Googins & Kurtz, *supra* note 31.

33. *See, e.g.*, Asma, Eggert & Hilker, *Long-Term Experience with Rehabilitation of Alcoholic Employees*, 13 J. OCCUPATIONAL MED. 581 (1971); Franco, *A Company Program for Problem Drinkers: Ten Years Follow-Up*, 2 J. OCCUPATIONAL MED. 157 (1960); Hilker, Asma & Eggert, *A Company Sponsored Alcoholic Rehabilitation Program: Ten Years Evaluation*, 14 J. OCCUPATIONAL MED. 769 (1972); Alander & Campbell, *An Evaluative Study of an Alcohol and Drug Recovery Program*, Paper presented at the Annual Meeting of Alcohol and Drug Problems Association, San Francisco, Cal. (Dec. 1974); Chopra, Preston & Gerson, *The Effects of Constructive Coercion on the Rehabilitative Process*, 21 J. OCCUPATIONAL MED. 749 (1979); Moberg, *Treatment Outcomes for Earlier Phase Alcoholics*, 273 ANNALS N. Y. ACAD.

search methods, and they have yielded remarkably similar results. For instance, Trice and Beyer[34] recently evaluated the strategy using a national, random, stratified sample of supervisors from a company whose employee assistance program dated back to the 1960s. They found that, as a result of the strategy, 75% of the alcoholic employees and 55% of the troubled employees improved their performance—impressive outcomes for any intervention.[35]

III. Drug Screening

Despite evidence that, since 1979, use of illicit drugs other than cocaine has been declining,[36] a growing number of individuals and work organizations support screening programs because they believe that drug use is dangerously out of control and drastic steps are required to curb it.[37] Managers expect that drug screening will accurately identify drug offenders so that they can be quickly punished, deterring further drug use. Drug screening, however, is a very drastic step because it is based on unreliable technology and raises serious constitutional and social questions about employee rights to due process and privacy.

Most screening tests, such as urine and blood analysis or lie detection, are time consuming and expensive; consequently, testing all employees is not usually considered to be cost effective. To avoid these constraints, companies typically use several tactics. The most widespread use of drug screening is with new applicants. This is intended to weed out potential drug users and is usually considered the least risky use of screening for employers because they do not have to tell applicants why they were rejected for employment. Unfortunately, there is little evidence that such testing can reliably predict who will or will not

---

SCI. 543 (1976); Smart, *Employee Alcoholics Treated Voluntarily and Under Constructive Coercion*, 35 Q. J. STUDIES ON ALCOHOLISM 196 (1974); SCHRAM, WORKERS WHO DRINK: THEIR TREATMENT IN AN INDUSTRIAL SOCIETY (1978); M. HEYMAN, ALCOHOLISM PROGRAMS IN INDUSTRY (1978); Freedberg & Johnston, *Changes in Drinking Behavior, Employment Status, and Other Life Areas for Employed Alcoholics After Treatment*, 9 J. DRUG ISSUES 523 (1979).

34. Trice & Beyer, *supra* note 9.

35. W. SONNENSTUHL & H. TRICE, *supra* note 5.

36. Brinkley, *Drug Use Held Mostly Stable or Lower*, N.Y. Times, Oct. 10, 1986, at A14, col. 1.

37. Serrin, *Drug Tests Promote Safety, Many Say*, N.Y. Times, Sept. 16, 1986, at A16, col. 1.

develop a drug problem over the long term. Another technique is to test periodically a random sample of employees to insure that they are drug free. According to this procedure, no employee is exempt from being tested and anyone whose name is drawn at random must submit to the test. Such testing is potentially more risky for employers than screening applicants because it risks alienating productive workers who often feel they have been singled out without reason. Currently, a number of disgruntled employees are suing their employers because of such practice. A third procedure is to test those employees suspected of using and abusing drugs. Refusal to take such tests are usually interpreted by the company as evidence that the employee is guilty of drugging. Testing is often supplemented, by the use of undercover agents and periodic searches with dogs, to ferret out drugs. In each tactic, the objectives are the same — to identify offenders and make an example of them so that other workers will not use and abuse drugs. In some instances, companies have fired employees on the spot who test positive; in others, they sanction them within the progressive discipline process; in still others, they have remanded the offenders to treatment.

A. *Technical Problems With Drug Testing*

The reliability of drug screening programs is questionable.[38] For instance, Dr. Richard Hawks, chief of the National Institute on Drug Abuse's research and technical branch laments that there is no certification program for companies doing drug testing.[39] Consequently, there are many unskilled laboratories entering the business and eventually there will be a flood of lawsuits challenging the veracity of test results. Those lawsuits will be filed by employees against employers who take action based on the dubious test results. Indeed, there are many questions about the reliability of these tests when done by well-qualified laboratories. Between 1972 and 1981, the U.S. Centers for Disease Control, in conjunction with the National Institute on Drug Abuse, conducted proficiency tests of drug screening laboratories. In the most recent blind study, researchers sent spiked urine samples containing barbiturates, amphetamines, methadone, cocaine, codeine, and mor-

38. Altman, *Drug Tests Gain Precision, But Can Be Inaccurate*, N.Y. Times, Sept. 16, 1986, at A7, col. 1.

39. BUREAU OF NATIONAL AFFAIRS, ALCOHOL AND DRUGS IN THE WORKPLACE: COSTS, CONTROLS, AND CONTROVERSIES (1986).

phine to 13 laboratories.[40] Some laboratories performed very poorly, with false negatives (samples included drugs but tested negative) running as high as 100% on amphetamines, cocaine, codeine and morphine. False positives (samples which were free of drugs but tested positive) ran as high as 37% for amphetamines and 66% for methadone. None of the laboratories was considered to have performed acceptably in testing for amphetamines and only one performed acceptably in identifying barbiturates, cocaine, and morphine. The authors concluded that the results reflect serious shortcomings in the laboratories and estimated the losses due to such errors could cost between $37.2 million and $75.6 million.

Urine tests vary widely in cost and it is inexpensive immuno-assay tests that are often the most unreliable. The leading immuno-assay manufacturers, Syva Corporation and Hoffman-LaRoche, claim they are 99% accurate and counsel that positive tests should be confirmed by another, more elaborate and expensive method, such as thin-layer chromatography, gas chromatography, and gas chromatography/mass spectrometry. Syva Corporation and Hoffman-LaRoche, however, challenge the reliability of one another's tests. Double or triple testing of samples makes screening very expensive.

Drug abusers and addicts are very knowledgeable about how to beat the system; consequently drug screening is more likely to catch less experienced than more experienced users. In order to catch those who would invalidate urine tests, a trusted observer must directly watch employees as they urinate. Employees feel that this is degrading, but the observers also feel the same way. For example, a group of New York City Corrections personnel recently filed a grievance because they were disgusted at having to observe employees providing a urine sample. Unfortunately, the suspicion of drug users substituting someone else's clean urine for their own is well-founded. For instance, they will manipulate the observers' embarassment by encouraging them to turn away momentarily — enough time to make a switch. Another tactic is to fill a condom with clean urine, place it in one's pocket, and run a plastic hose from it underneath one's penis. When asked to provide a sample, the employee squeezes the condom and fills the container. Unless the observer is watching very closely, this technique is not easily detectable. Another technique for avoiding detection is to drink large quantities of water which can dilute one's urine with so much water

40. Hansen, Caldwell & Boone, *Crisis in Drug Testing*, 253 J. A.M.A. 2382 (1985).

that the test is invalidated. The addition of some household chemicals can also invalidate the tests.

Questions also arise about what a positive reading means in terms of job impairment. Urine tests cannot demonstrate current impairment because urine is a waste product and metabolites found in it do not prove that impairing chemicals are still circulating in the blood stream. In addition, some drugs such as marijuana can also be detected in urine days, weeks, or even months after being ingested. Urine testing, then, can tell whether a particular drug was used recently — not whether it is impairing. The option, of course, is to do a blood test, but even here there is little agreement among the experts about what constitutes impairment. For instance, what does a blood alcohol level of .10 mean? Many states use that as the legal definition of intoxication when prosecuting drunken drivers, but impairment levels on some jobs might be set by employers at .05 or less. For the majority of drugs, however, no agreement exists on what blood level constitutes impairment or intoxication. Small amounts of amphetamines and cocaine, for instance, may actually improve performance temporarily.

Another question bedeviling screening is how the drug got into someone's body in the first place. The assumption, of course, is that the individual ingested it intentionally, but that reasoning may not be accurate. Train conductors, for instance, sometimes fear that walking through a marijuana-smoke-filled car and inhaling the fumes could cause them to test positively. Hoffman-La Roche and Syva Corporation acknowledge this potential and say they have taken precautions against it by instructing laboratories not to label "positive" those urine tests with minute quantities of marijuana residues. Similarly, drinking herbal teas containing coca leaves can cause one to test positively for cocaine, and taking some over-the-counter drugs can cause one to test positively for phenobarbital, an illegal drug present in small amounts in the products. In some instances, eating poppy seed cake will cause one to test positively for heroin.

Additionally, hundreds of drugs which have a potential for abuse exist, and every week new synthetic ones are being added to the list. Practical tests for most of these drugs, however, do not exist, and testing laboratories do not screen for all of those where the technology exists. For example, M.L.L. Diagnostic Laboratory, Inc. tests for 50 "drugs frequently suspect in abuse and overdose" including: (1) illicit ones such as cocaine, heroin, LSD, and marijuana; (2) prescription drugs and barbiturates, methaqualone (*e.g.*, Quaalude, Sopor), benzodiazepines (*e.g.*, Valium, Librium), meprobamate (*e.g.*, Miltown),

and meperidine (*e.g.*, Demerol); (3) over-the-counter medications such as acetaminophen (*e.g.*, Tylenol, Datril), salicylates (*e.g.*, aspirin), phenylpropanolamine (*e.g.*, Contac, Alka Seltzer Plus, Dexatrim), ephedrine/pseudoephedrine (*e.g.*, Primatene M, Bronkaid, Sudafed). On the surface, the list is impressive, but it represents only a small proportion of the potentially addictive drugs available and many of those on the list are only suspected of being abused. Some, such as phenylpropanolamine and ephedrine/pseudoephedrine, are included on the list because they are often misrepresented in illicit preparations of "speed" or a common adulteration of cocaine. Consequently, employees taking Contac for a cold might be suspected of using illicit preparations of "speed" and those taking Sudafed for their allergies could be suspected of using adulterated cocaine. Because of limited technology, no screening program, then, can detect all drugs, and when they do detect certain drugs, the nagging question of what it means remains.

Another quandary facing screening programs is proving that the hundreds of test samples processed in a day are not mixed up and that the results attributed to a particular person are indeed based on that person's own urine sample. Once the specimen has been obtained, it should be carefully sealed, labeled, and safeguarded so that no one is able to tamper with it. This is important because, if the sample is found to have drugs and the employer disciplines the employee, a court trial or arbitration hearing may follow. In these instances, the employer will be required to show the chain of custody — that is, to demonstrate that the urine is the sample provided by the employee and that it has not been misidentified or contaminated. This is not an easy task for the employer because there are many opportunities in the workplace and laboratory for mixing up and contaminating specimens. For example, Tia Schneider Denenberg, a full-time arbitrator, told students at Cornell University that when she was researching her book *Alcohol and Drugs: Issues in the Workplace*,[41] she visited a number of drug screening laboratories and was surprised to find thousands of specimens for testing casually piled in unsecured areas. She had expected to find them safely locked way.

B. *Constitutional Issues*

Drug screening raises constitutional issues about the rights of due

41. T. DENENBERG & R. DENENBERG, ALCOHOL AND DRUGS: ISSUES IN THE WORKPLACE (1983).

process and privacy. Constitutional experts agree that citizens are protected from unreasonable search and seizure by government officials. Accordingly, the courts struck down attempts by school officials in Becton Regional High School, Bergen County, New Jersey to conduct mandatory drug screening on students.[42] One of the clearest judicial decisions on these constitutional rights, however, was delivered by federal district court Judge H. Lee Sarokin in a case brought by 17 police and fire personnel of Plainfield, New Jersey.[43] In May 1986, Plainfield officials conducted surprise urine tests. In the case of the firefighters, they were locked into their fire station without notice, forced to give urine samples within the presence of all the firefighters and, if they tested positively, were discharged without being given a chance to appeal. Judge Sarokin found that the Plainfield officials had violated the police and firefighters' fourth amendment rights against unreasonable search and seizure and fourteenth amendment rights to due process. He wrote:

> The invidious effects of such mass, roundup urinalysis is that it casually sweeps up the innocent with the guilty and willingly sacrifices each individual's Fourth Amendment rights in the name of some large public interest. . . . Such an unfounded presumption of guilt is contrary to the protections against arbitrary and intrusive government interference set forth in the constitution.[44]

According to Sarokin, prior court cases sanctioned urine tests where there were strong suspicions of drug use on the job and, under the fourth amendment, urine sampling should be allowed "only on the basis of a reasonable suspicion predicated upon specific facts and reasonable inferences drawn from those facts in light of experience."[45] Other judges have reached similar conclusions. For instance, Justice Stanley Parness of the New York State Supreme Court found in *Caruso v. Ward*[46] that the New York City Police Department's mandatory test-

---

42. Applebome, *Plan for School Drug Testing Divides Texas Town*, N.Y. Times, Sept. 30, 1986, at A16, col. 1.

43. *See* Capua v. City of Plainfield, 643 F. Supp. 1507 (D.N.J. 1986); *see also* Navarez, *U.S. Judge Blocks Urine Drug Tests*, N.Y. Times, Sept. 19, 1986, at A2, col. 1, B2, col. 1; Shipp, *Jersey Ruling Follows Similar Decisions in Government Drug Tests*, N.Y. Times, Sept. 19, 1986, at B2, col. 1.

44. *Capua*, 643 F. Supp. at 1517.

45. *Id.*

46. 133 Misc. 2d 544, 506 N.Y.S.2d 789 (1986). *See also* Shipp, *supra* note 43.

ing program violated the officers' fourth amendment rights. He wrote:

> That such testing may have some incalculable deterrent effect, turn up an occasional abuser or improve public confidence in the police does not constitute that degree of justification required under the reasonableness test . . . or the weight of case authority.[47]

Despite court rulings that mandatory drug screening is unconstitutional for government employees, many agencies are still trying to prove that their drug screening programs are reasonable under the fourth amendment. For instance, the superintendent of Beaumont, Texas Schools has proposed mandatory drug testing for 10,000 students in the 6th through 12th grades and the district's 2,400 employees, trustees, and administrators.[48] Similarly, the Boston Police Department will be defending its mandatory random drug testing program in federal district court.[49] The plan calls for testing the department's 1,800 officers and civilian employees once a year without warning. A computer would randomly select the employees to be tested. They would be required to provide a sample of their urine, which would be divided into six laboratory samples for testing and verification. Those whose tests were positive would be subject to a range of disciplinary measures, including suspension and termination, and be given an opportunity to appeal. The Boston Police Patrolman's Association contends that the proposed tests are a violation of the fourth amendment because it requires all employees to submit to tests and claims that its members could live with a drug screening program based upon probable cause of reasonable suspicion. In a brief filed as a friend of the court, the Justice Department is supporting the police department's drug screening plan as constitutional. Responding to the Justice Department's brief, Frank McGee, a lawyer for the Patrolman's Association, stated, "The Justice Department sees this as an opportunity to establish that random, unannounced, without-cause drug testing is valid constitutionally. Firemen are next, school teachers and right behind them, the students. And the next day, you'll be saying good morning to George Orwell."[50]

---

47. 133 Misc. 2d at 553, 506 N.Y.S. 2d at 798.
48. Applebome, *supra* note 42.
49. Shenon, *U.S. Backs Boston Plan for Drug Tests of Police*, N.Y. Times, Sept. 20, 1986, at A32, col. 1.
50. *Id.*

C. *Safeguards in the Private Sector*

While the constitution provides some safeguards against drug screening for public employees, legal scholars generally agree that it does not cover private sector employees.[51] Consequently, private sector employers are relatively free to require employees to provide urine samples on demand and to fire them if they refuse or if they test positively.

One safeguard for private sector employees comes from judicial precedents which have been affected by arbitral decisions. For instance, numerous state and federal courts have steadily abrogated the historic right of employers to dismiss their employees at will, for any reason or no reason.[52] Although the courts have not created a just cause standard for discharges, they have created so many exceptions that the employment-at-will doctrine may no longer be viable. Some courts have found an implied covenant of good faith and fair dealing in the employment relationship. The essence of this doctrine appears to be fair treatment analogous to just cause, particularly for long-term employees who have been satisfactory workers. In the future, this doctrine could be used to attack drug screening. For example, Barbara Luck, whose job performance was satisfactory, was fired for refusing to take a random drug test; currently she is suing Southern Pacific for wrongful discharge. The California Superior Court will decide whether or not Southern Pacific treated her fairly when it fired her for refusing the random test.

Meanwhile, the San Francisco Board of Supervisors was prompted to pass the first local legislation restricting drug screening by private sector employers.[53] This "privacy act" prohibits private employers in the city and county of San Francisco from taking blood, urine, or encephalographic tests as a condition of employment unless there are reasonable grounds to believe an employee's faculties are impaired and that such impairment presents a clear and present danger to the safety of the employee, another employee, or a member of the general public. Employers are also required to give employees the opportunity to have samples tested or evaluated at state licensed, independent laboratories

---

51. Menaker, *Drug Screening: Protecting the Workplace and the Employee*, ILR REPORT, Spring, 1986, at 18; Spitzer, *Drug Screening: Usually Unnecessary, Frequently Unreliable, and Perhaps Unlawful*, ILR REPORT, Spring, 1986 at 21; Klein, *Legal/Legislative Developments*, in BUREAU OF NATIONAL AFFAIRS, *supra* note 39, at 59.

52. Klein, *supra* note 51.

53. *See* Palefsky, *Corporate Vice Precedents: The California Constitution and San Francisco's Worker Privacy Ordinance*, 11 NOVA L. REV. 699 (1987).

and a chance for employees to rebut the findings. Such legislation is being considered in other jurisdictions as well. Maine legislators, for instance, are considering barring pre-employment testing as well as any current testing which is not done for probable cause. Recently, in New York State, Suffolk County legislators approved a bill banning mandatory drug testing of county and private sector employees, but it was vetoed by the County Executive.[54] The legislators are seeking a two-thirds majority to override the veto.

In some cases, the best protection is a union contract.[55] Unions can negotiate with management about all aspects of drug screening. They can restrict it to cases in which employees' job performance is impaired and insure that employees are not discharged without just cause. In the grievance and arbitration process, they can also raise questions about the accuracy and relevance of test results. These protections, of course, are not available to non-unionized employees.

Trust is an essential ingredient in management-labor peace and many employees complain that random testing without cause demonstrates management's distrust. Some employees would rather resign than submit to testing, but few have the resources to do so and are forced to undergo the perceived indignities of drug testing. Considering these circumstances, it is little wonder that company announcements of drug screenings often turn morale sour as it did recently at Capital Cities/ABC, Inc., where employees were angered and confused by the new anti-drug policy and the possible use of undercover agents and drug-sniffing dogs.

Pointing to opinion polls showing that Americans support drug screening, managers claim that concerns about employee discontent are overstated. Many of these surveys, however, have serious methodological errors making interpretation of responses impossible. For instance, a recent New York Times-CBS News national poll, which is widely quoted in the media, purports to show that 72 percent of Americans are willing to undergo urine testing. These findings were based upon the responses to the question, "If your employer wanted to test all employees to determine if they had used illegal drugs recently, would you be willing to be tested, or would you consider this an invasion of your privacy?"

According to Lloyd D. Johnson, a research director at the Univer-

---

54. *Cohalan Vetoes Ban on Drug Testing*, N.Y. Times, Sept. 24, 1986, at B7, col. 1.

55. Spitzer, *supra* note 51.

sity of Michigan's Survey Research Center:

> This structure violates several of the canons of scientific survey research. Most important, the answer categories constitute neither a mutually exclusive nor collectively exhaustive set of answers. This is because they derive from the answer sets to two questions. The first is: "How would you feel if your employer required urine tests of all employees to see if they use drugs? Would you think that was a reasonable requirement, or would you think it was an invasion of privacy?" The second question is, "Would you comply if your employer required such urine tests?"
>
> Many would comply rather than lose their jobs, even if they thought the procedure constituted a massive invasion of their rights. The single question in your poll does not permit you to discover this.[56]

In addition, surveys ask respondents to give answers to complex issues to which they may have given little thought. It is doubtful that respondents, when asked about supporting some vague concept called drug testing, conjured up images of being required to provide a urine sample without just cause, being watched by someone while urinating in a cup, and being fired because of an unreliable finding.

Considering the serious questions raised about drug screening, what does a positive reading mean and who will decide its meaning? More to the point, perhaps, is the meaning attached to an innocent employee's refusal to submit to a test whose results are not as clear cut as advertised? Denenberg and Denenberg contemplated those questions within the light of arbitration cases and concluded:

> Some of this conflict might be avoided if the rules against substance abuse, wherever compatible with the needs of individual industries, were to be drawn in terms of impairment. The issue in arbitration then would become whether the employee was working or reporting for work while "impaired," that is, unable to perform his duties safely and effectively. The impairment standard could be coupled with progressive discipline culminating in discharge after warnings and suspensions for a series of similar infractions.
>
> The impairment standard would offer a number of advantages in both alcohol and drug cases. The nature of the substance used and the level of dosage would no longer be critical issues; establishing impairment does not necessarily require interpretation of ar-

56. Johnston, *Questioning a Survey*, N.Y. Times, Sept. 24, 1986, at A30, col. 1.

et al.: Nova Law Review Full Issue

cane laboratory procedures, and the eyewitness evidence of those working with the grievant normally would suffice . . . .[57]

IV. Conclusions and Recommendations

Employee assistance programs, built upon the standards of industrial jurisprudence, safeguard employees' rights to privacy and due process by using job performance to identify alcoholic, drug addicted, and emotionally disturbed employees and constructive confrontation to motivate them to change their behavior. This process insures that programs are both fair and compassionate. Since 1960, employee assistance programs have been widely evaluated using different research populations and methods, and social scientists have consistently found them to be very effective, especially in dealing with alcohol problems. Consequently, they are a proven and potent alternative for combating the drug hysteria currently sweeping the American workplace. A company whose management stands firmly behind its employee assistance policy and whose managers, supervisors, and stewards are well-trained in the identification of job performance problems and are aware of, accept, and are willing to use constructive confrontation as a general technique for managing troubled employees will not need a drug screening program.

Despite adherents' claims that urine testing is an effective deterrent to drug use, there is no scientific evidence to support such a proposition. Drug screening, however, fails on theoretical grounds. It simply cannot meet the three previously stated principles of deterrence theory. First, almost all offenses cannot be detected. The incidences of false negatives in testing are very high and knowledgeable drug offenders can learn to beat the system. At the same time, the incidences of false positives are so high that the innocent are inadvertently caught up in the same dragnet as the guilty. Second, the crazy quilt of safeguards surrounding drug screening cannot guarantee justice to those who test positive. Employees generally assume that the constitution will protect them, but that protection is guaranteed to public employees only. Private sector employees have few safeguards aside from sympathetic legislators, courts, and unions. As employees become aware of these deficiencies and their consequences become known, they will probably come to view drug screening as unfair and morale will plummet.

57. T. DENENBERG & R. DENENBERG, *supra* note 41, at 145.

Two justifications are frequently given for continuing drug testing in the face of their inadequacies. First, some occupations such as nuclear reactor operators, airline pilots, and truckers represent such danger to the public that they must submit to mandatory urine testing in order to be sure that they are drug free and able to perform properly. Second, testing is believed to be justified when the employer has reason to suspect an employee is using drugs because of an accident or other performance problem. Here, testing is used to confirm suspicious behavior. While there is some support for testing in both of these instances,[58] it is not necessary if a company has a well-run employee assistance program.

In the case of dangerous occupations, employee assistance programs target job impairment directly. An actual test of impairment would be for supervisors to randomly, periodically, or regularly conduct brief, on-the-job checks to insure that employees are reporting to work without their faculties being impaired.[59] For instance, they might check employees' eyes to see if they are dilated or pinpoint and their motor coordination to see if they can perform satisfactorily. In most arbitration cases, such eyewitness accounts have been sufficient evidence for arbitrators to uphold disciplinary decisions. For example, a fork-lift operator appeared to be acting abnormally when he reported to work.[60] The foreman and other company witnessses testified that the operator "was in a staggering and unbalanced condition and that his speech was slurred and thick tongued." He was sent home and ultimately discharged for violation of a plant rule against "reporting to work under the influence of intoxicants or drugs." The union defended the employee by attributing his condition to taking tranquilizers and a sleeping pill prescribed by the employee's doctor. The arbitrator upheld the discharge, reasoning that, however the condition had been produced, the testimony established a violation of the rule in as much as the grievant was unfit to work. The arbitrator also upheld the discharge because the employee knowingly disregarded his doctor's prescription which prevented him from performing his job and because the employee had been progressively disciplined for similar misconduct three times within the last fifteen months. Supervisors working in dangerous occupations should make such impairment checks a routine part of their jobs. Combined with a well-implemented employee assistance pro-

58. *See generally* T. DENENBERG & R. DENENBERG, *supra* note 41.
59. *Id.*
60. *Id.*

gram, impairment checks are a potent defense against drug use and make testing unnecessary.

In cases where management has good reason to suspect an employee's performance is impaired by drugs, testing is not really necessary. Well-run employee assistance programs are sufficient for the identification of drug users because they focus on deteriorating job performance and supervisors properly trained in constructive confrontation are equipped to break through the denial system of users, abusers, and addicts — regardless of the drug in question. It is important to emphasize, however, that managers, supervisors, and union representatives must be well-trained in constructive confrontation and that many companies have mastered these intricacies.

Despite our arguments that testing is not necessary, many companies will choose to implement drug screening programs. In order to protect the rights of employers and employees, companies should consider the lesson drawn from employee assistance programs — develop testing according to the standards of industrial jurisprudence. The following safeguards are recommended:

First, companies need written policies on drug screening in which its limitations are openly and plainly discussed. While emphasizing safety issues, policies should acknowledge employees' legitimate right to fairness and privacy. They should state that in the interest of both managers and employees, the use and sale of illicit and licit (but not properly prescribed) drugs are prohibited at work. At the same time, they should address the shortcomings of drug screening — lack of tests for many abused drugs, incidences of false positives and difficulties in interpreting results — and list the steps that will be taken to protect employees from being falsely accused. Such steps would include retesting by alternative methods to insure against false positives.

Second, it should be clear to employees that they will not be asked to submit to tests unless their performance is unsatisfactory and there is reason to suspect that they are using or abusing drugs.

Third, all drug offenses should be handled within the contexts of due process, progressive discipline, and constructive confrontation. This would insure that employees would not be summarily fired for a first offense and that they would be given feedback on, and sanctioned for, misbehavior, including evidence of drug use. At the same time, it would act as a means for understanding what the tests mean. As in the employee assistance program, the meaning of the test becomes clearer when employees are given feedback on, and disciplined for, their behavior.

In the case of dangerous jobs, the individual who tests positively might be temporarily transferred to a nondangerous one until the test's meaning can be sorted out. If the positive result is false, the employee should be quickly returned to the original job; however, if it becomes clear that the employee is a user, abuser, or an addict, they should be confronted with the consequences of their behavior, offered rehabilitation, and closely supervised until such time as they are deemed safe to return to their dangerous work. If the employee's behavior continues to be unsatisfactory and future testing suggests continued drug use, those offenses could be handled within the company's regular disciplinary process. At each step, however, the employee should be offered an opportunity for help. In nondangerous cases, where companies choose to exercise their right to test employees whose performance is unsatisfactory and whom they suspect of drug use, positive findings should always be handled within the regular progressive discipline process.

Fourth, policies should make provision for appealing drug screening offenses to an outside impartial arbitrator. This is essential because of the many problems surrounding drug screening — particularly the meaning to be attached to a positive result and the appropriate sanctions to be imposed. In unionized companies, this function would be handled within the normal arbitration procedures; in nonunion facilities, mediation arrangements can be worked out with professional arbitrators acting through such neutral agencies as the American Arbitration Association. In either case, such a provision is a potent guarantee to employees that they will be treated justly by management, a guarantee that they do not now have under many testing programs.

Fairness and compassion are important ingredients in labor-management peace. Drug screening as practiced in many work organizations is neither because, in the rush to punish drug users, management is all too willing to abandon standards of workplace justice. Employee assistance, on the other hand, entails both. Constructive confrontation provides employees a square deal and counseling provides them opportunities for rehabilitation.

Mass Round-Up Urinalysis and Original Intent

Robert L. Stone*

> When the Fourth . . . Amendment [was] adopted, "the form that evil had theretofore taken" had been necessarily simple. Force and violence were then the only means . . . by which a government . . . could secure possession of [the individual's] papers and other articles incident to his private life — a seizure effected, if need be, by breaking and entry. . . . But "time works changes, brings into existence new conditions and purposes." Subtler and more far-reaching means of invading privacy have become available to the government. . . . The progress of science in furnishing the government with means of espionage is not likely to stop with wire tapping. Ways may some day be developed . . . in the psychic and related sciences . . . of exploring unexpressed beliefs, thoughts and emotions. "That places the liberty of every man in the hands of every petty officer" was said by James Otis of much lesser intrusions than these. To Lord Camden, a far slighter intrusion seemed "subversive of all the comforts of society." Can it be that the Constitution affords no protection against such invasions of individual security?[1]

On Constitution Day, September 17, 1986, forty-eight days before the national elections, the Federal Register published President Ronald Reagan's Executive Order 12564, "Drug-Free Federal Workplace," ordering "all agencies in the Executive Branch" to develop and implement plans to collect and test urine from all government employees in "sensitive positions."[2] The Federal Office of Personnel Management estimates that about half of the federal government's 2.2 million civilian

* B.A., Stanford University, 1969; M.A., Columbia University, 1972; J.D., University of Chicago, 1982; Ph.D. University of Chicago, 1986; Intern in office of the State's Attorney of Cook County, Illinois, 1981; Law Clerk, United States District Court, Northern District of Illinois, 1982-1983; member of the bar of Illinois, admitted 1982.

1. Olmstead v. United States, 277 U.S. 438, 473-74 (1928) (Brandeis, J., dissenting from the holding that wire-tapping is not regulated by the fourth amendment because, unlike cases before 1791, it does not involve force).

2. Order of September 15, 1986, 51 Fed. Reg. 32,889 (1986).

employees are subject to the President's order.[3]

State and federal courts recently have decided at least fifteen cases[4] involving such "mass round-up urinalysis,"[5] and a clear judicial

---

3. Kerr, *Government Drug Tests Losing in Most Court Cases*, Chicago Daily L. Bull., Dec. 11, 1986, at 2, col. 2.

4. American Fed'n of Gov't Employees v. Weinberger, 1 Individual Employees Rights (BNA) 1137 (S.D. Ga. Dec. 2, 1986) (civilian policemen on a military base); National Treasury Employees Union v. Von Raab, 649 F. Supp. 380 (E.D. La. 1986) (Customs Service workers who seek promotion to "covered positions"); Penny v. City of Chattanooga, 648 F. Supp. 815 (E.D. Tenn. 1986) (policemen); Lovvorn v. City of Chattanooga, 647 F. Supp. 875 (E.D. Tenn. 1986) (firemen); Capua v. City of Plainfield, 643 F. Supp. 1507 (D.N.J. 1986) (firemen and policemen); Patchoque-Medford Congress of Teachers v. Board of Educ., 119 A.D.2d 35, 505 N.Y.S.2d 888 (App. Div. 1986), (appeal pending) (teachers); Shoemaker v. Handel, 795 F.2d 1136 (3d Cir. 1986), *cert. den.*, 107 S. Ct. 577 (1986) (jockeys), the only published case permitting random drug testing, the holding of which is limited to the facts: "confidential" and unsupervised testing of small numbers of jockeys in an industry that is traditionally heavily regulated and thus provides elaborate routines and established procedures to protect the subjects; Caruso v. Ward, 133 Misc. 2d 544, 506 N.Y.S.2d 789 (Sup. Ct. 1986) (members of elite City Police Organized Crime Control Bureau); National Fed'n of Fed. Employees v. Weinberger, 640 F. Supp. 642 (D.D.C. 1986), (appeal pending) (civilian employees of the Department of the Army in "critical" jobs); Jones v. McKenzie, 628 F. Supp. 1500 (D.D.C. 1986) (school bus attendant); Turner v. Fraternal Order of Police, 500 A.2d 1005 (D.C. 1985) (policemen); City of Palm Bay v. Bauman, 475 So. 2d 1322 (Fla. 5th Dist. Ct. App. 1985) (policemen and firemen); McDonell v. Hunter, 612 F. Supp. 1122 (S.D. Iowa, 1985), *modified*, 809 F.2d 1302 (8th Cir. 1987) (employees of Department of Corrections); Storms v. Coughlin, 600 F. Supp. 1214 (S.D.N.Y. 1984) (prisoners may be tested at random); Committee for G.I. Rights v. Callaway, 518 F.2d 466 (D.C.C. 1975) (soldiers on active duty may be tested in mass round-ups). The court in Burka v. New York City Transit Auth., 110 F.R.D. 595 (S.D.N.Y. 1986), has not yet ruled on the substantive issues. The following cases have not yet been reported: *The Philadelphia Post Office Case*, Chicago Daily L. Bull., Dec. 11, 1986, at 2, col. 2 (E.D. Pa. Dec. 11, 1986); Allen v. County of Passaic, No. L-19262-86 (N.J. Super. Ct. App. Div. June 23, 1986); Bostick v. McClendon, No. C-85-233A (N.D. Ga. July 10, 1986); Guiney v. Roache, No. 86-1346-K (D. Mass. 1987) (the Boston Police case); and Fraternal Order of Police v. City of Newark, No. L-095001-85E (N.J. Super. Ct. App. Div. Mar. 20, 1986) (appeal pending).

The following cases have permitted drug testing where there is a reasonable individualized suspicion: Association of Western Pulp and Paper Workers v. Boise Cascade Corp., 644 F. Supp. 183 (D. Or. 1986) (employees of private corporation); King v. McMickens, 120 A.D.2d 351, 501 N.Y.S.2d 579 (App. Div. 1986) (corrections officer); Mack v. United States, No. 85 C 5764, (S.D.N.Y. 1986) (FBI agent); Allen v. City of Marietta, 601 F. Supp. 482 (N.D. Ga. 1985) (employees observed by undercover investigator smoking marijuana on the job); Division 241 Amalgamated Transit Union v. Suscy, 538 F.2d 1264 (7th Cir. 1976), *cert. den.*, 429 U.S. 1029 (1976) (Chicago Transit Authority trainmen and busdrivers involved in serious accidents or intoxicated

consensus has emerged. In the words of Judge R. Allan Edgar, who was appointed by President Reagan in April of 1986, "All courts which have ruled upon the validity of urine tests for public employees . . . have required as a prerequisite some articulable basis for suspecting that the employee was using illegal drugs, usually framed as 'reasonable suspicion.' "[6] This article is a summary of those cases.

For assessing the purpose of the White House in promulgating Executive Order 12564, it is important to note that it was signed after most of the opinions discussed in this article were written and thus after the judicial consensus against it had emerged. Also, the Order is now being implemented without benefit of public hearings.[7]

The courts agree that the fourth amendment to the United States Constitution prohibits mass round-up urinalysis — although the Constitution permits reasonable tests under controlled circumstances. The fourth amendment provides,

> The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.[8]

Although the fourth amendment on its face restricts only the govern-

---

on the job). *See also* Krolick v. Lowery, 32 A.D.2d 317, 302 N.Y.S.2d 109 (App. Div. 1969) (drunken fireman who fell off of moving fire truck).

5. *Capua*, 643 F. Supp. at 1516.

6. *Lovvorn*, 647 F. Supp. at 881 (citations omitted).

7. As of March of 1987, there have been no rule-making or other hearings scheduled on the new Order, although such hearings are provided for in the Administrative Procedure Act, 5 U.S.C. §§ 553 and 556. Arguably the Order is exempt from the requirement for hearings because it is a "matter relating to agency management or personnel." 5 U.S.C. § 553(a)(2). But the courts have ruled that mass round-up urinalysis is not a mere personnel matter. *Von Raab*, 649 F. Supp. at 380; *AFGE*, 1 Individual Employees Rights (BNA) 1137 (S.D. Ga. Dec. 2, 1986). And the courts have ruled repeatedly that it is "highly undesirable for an agency to announce a new *per se* rule without *either* a rule-making *or* an evidentiary hearing, thereby denying itself the light on the rule which such proceedings would afford." NLRB v. Majestic Weaving Co., 355 F.2d 854, 862 (2d Cir. 1966) (denying enforcement of a ruling where the determinative issue was raised after a hearing). Did the Administration choose to proceed without hearings because it was obvious that hearings would have revealed the problems recognized in the opinions discussed herein?

8. U.S. CONST. amend. IV.

ment of the United States, it is settled law that the fourteenth amendment incorporates the fourth amendment against the States.[9] Also, it is settled law that taking a sample of blood for testing is a search and seizure regulated by the fourth amendment.[10] And all courts that have ruled on the question agree that urine, for these purposes, is like blood.[11] Thus, although the courts have legitimate "doubts whether requiring a person to provide a sample of his urine for analysis is the kind of 'search' contemplated by the framers of the fourth amendment,"[12] the courts correctly understand that the true meaning of original intent of a law is not limited to what its framers actually had in mind at the time it was passed into law.

> Legislation, both statutory and constitutional, is enacted, it is true, from an experience of evils, but its general language should not, therefore, be necessarily confined to the form that evil had theretofore taken. Time works changes, brings into existence new conditions and purposes. Therefore a principle to be vital must be capable of wider application than the mischief which gave it birth. This is peculiarly true of constitutions. They are not ephemeral enactments, designed to meet passing occasions. They are, to use the words of Chief Justice Marshall, "designed to approach immortality as nearly as human institutions can approach it." The future is their care and provision for events of good and bad tendencies of which no prophecy can be made. In the application of a constitution, therefore, our contemplation cannot be only of what has been but of what may be. Under any other rule a constitution would indeed be as easy of application as it would be deficient in efficacy and power. Its general principles would have little value and be converted by precedent into impotent and lifeless formulas. Rights declared in words might be lost in reality.[13]

---

9. Wolf v. Colorado, 338 U.S. 25 (1949).
10. Schmerber v. California, 384 U.S. 757 (1966).
11. *AFGE*, 1 Individual Employees Rights (BNA) 1137 (S.D. Ga. Dec. 2, 1986); *Von Raab*, 649 F. Supp. at 380; *Lovvorn*, 647 F. Supp. at 879; *Capua*, 643 F. Supp. at 1513; *Patchoque-Medford Congress of Teachers*, 119 A.D.2d at 37, 505 N.Y.S.2d at 890; *Caruso*, 133 Misc. 2d at 547, 506 N.Y.S.2d at 792; *Storms*, 600 F. Supp. at 1217; *McDonell*, 612 F. Supp. at 1127; *Allen*, 601 F. Supp. at 488; and *Division 241 Amalgamated Transit Union (AFL-CIO)*, 538 F.2d at 1267.
12. *Allen*, 601 F. Supp. at 488.
13. Weems v. United States, 217 U.S. 349, 373 (1909), quoted at length by Justice Brandeis in his dissent in Olmstead v. United States, 277 U.S. 438, 472-73 (1928), which holds that wiretapping is not regulated by the fourth amendment because, unlike the search at issue, it does not involve force or entry.

The Framers were thinking of writs of assistance, which gave officers of customs blanket authority to make general searches for goods imported into the colonies in violation of the laws of England. (This writ derives its name from its requirement that all civil officers and subjects of the Crown assist in its execution the officer of the customs to whom it was issued.) Instead of describing the place to be searched and the things to be seized, the writ of assistance gave the officer of customs, to whom it was issued by the court, the absolute power to enter and search any building, ship, or other place where he reasonably suspected smuggled goods to be and to seize and remove them. Historians agree that the resentment of the colonists, especially in Massachusetts, to these writs was one of the causes of the American Revolution. John Adams, second President of the United States, says that James Otis's arguments before the Superior Court in Boston against writs of assistance "breathed into this nation the breath of life."[14] Since legal authorization to conduct mass round-up urinalysis closely resembles such a general warrant, inclusion of it under the fourth amendment's ban is a legitimate, strict interpretation of the original intent of the fourth amendment.

The fourth amendment proscribes only those searches and seizures that are unreasonable. The decision as to whether a given search or seizure is reasonable requires a balancing of the need to search against the intrusiveness of a particular kind of search.[15] Before one may invoke the protection of the fourth amendment, one must have a reasonable or legitimate expectation of privacy, according to the Supreme Court; and one's expectation is reasonable if (1) one has a subjective expectation of privacy and (2) this expectation is one which society is prepared to recognize as reasonable.[16] Given the complexity of this bal-

---

14. Letter to Hezekiah Niles, Jan. 14, 1818, quoted in Ervin, *The Exclusionary Rule: An Essential Ingredient of the Fourth Amendment*, 1983 SUP. CT. REV. 283, 286. For a quotation from this letter and a general discussion of the extraordinary importance of resentment against unreasonable searches and seizures for the founding generation, *see id. See also* 2 LEGAL PAPERS OF JOHN ADAMS 107 (Wroth & Zobel ed. 1965).

15. New Jersey v. T.L.O., 469 U.S. 325, 337 (1985); Bell v. Wolfish, 441 U.S. 520, 559 (1979).

16. Smith v. Maryland, 442 U.S. 735, 739-40 (1979); Katz v. United States, 389 U.S. 347, 361 (1967) (Harlan, J., concurring). The *Smith-Katz* doctrine is cited as authoritative in *Caruso*, 133 Misc. 2d at 547, 553, 506 N.Y.S.2d at 792, 798; *Turner*, 500 A.2d at 1010-11; *Lovvorn*, 647 F. Supp. at 880; *Capua*, 643 F. Supp. at 1514; and *McDonell*, 612 F. Supp. at 1127.

ancing process and the importance of the particular facts and procedures in each case, it is remarkable that a judicial consensus has emerged so quickly against a much-publicized initiative of the Administration. The remainder of this article will summarize this consensus using the following outline:

I. Considerations that Weigh in the Balance in Favor of Mass Round-Up Urinalysis: Arguments Pro and Con 739
A. *Urgency* 739
B. *Efficiency* 739
C. *Limited Scope* 739
II. Considerations that Weigh in the Balance against Mass Round-Up Urinalysis 740
A. *The Tests are Not Reliable* 740
B. *Testing Must be Public and by Surprise to be Effective* 742
C. *Urinalysis Provides too Much Information* 742
D. *Mass Round-up Urinalysis Shifts the Burden of Proof in an Impermissible Manner* 743
III. Legal Conclusions 743
A. *No Warrant is Required* 743
B. *Reasonable Suspicion is the Standard* 744
C. *Probable Cause is Rejected as the Standard* 744
D. *Mere Suspicion is Rejected as The Standard* 745
E. *Involuntary Waivers of Constitutional Rights Are Not Valid* 746
F. *Mass Round-up Urinalysis Does Not Violate the Fifth Amendment* 746
G. *Mass Round-up Urinalysis is Not a Mere Personnel Action* 747
IV. When Is Mass or Random Urinalysis Permitted? 747
A. *In the Military* 747
B. *In Prisons* 748
C. *In the Private Sector* 748
D. *During Pre-employment or Routine Physical Examinations* 748
V. Conclusion 749

I. Considerations that Weigh in the Balance in Favor of Mass Round-Up Urinalysis: Arguments Pro and Con

A. *Urgency*

Proponents argue that the extraordinary urgency of the problem of drug abuse, and the frightening inability of the police to control the problem, justify extraordinary means. But in fact, in each case where data are available, where employees have been tested by surprise or under observation, there is no evidence of widespread drug abuse. In *Penny v. City of Chattanooga*,[17] only two of 360 policemen tested positive in 1985; in *Capua v. City of Plainfield*,[18] sixteen of 103 policemen and firemen tested positive; and in *City of Palm Bay v. Bauman*,[19] five firemen and no policemen tested positive.

B. *Efficiency*

Proponents argue that mass round-up urinalysis is the most efficient way to deter drug abuse. But the courts remind us that the law is not economics:

> Taking and testing body fluid specimens, as well as conducting searches and seizures of other kinds, would help the employer discover drug use and other useful information about employees. There is no doubt about it — searches and seizures can yield a wealth of information useful to the searcher. (That is why King George III's men so frequently searched the colonists.)[20]

C. *Limited Scope*

Proponents argue that the test in whichever case is at bar is not "mass" testing but instead is limited to those employees in truly sensitive positions. In *National Treasury Employees Union v. Von Raab*,[21] testing was limited to customs agents who search for illegal drugs and

---

17. 648 F. Supp. 815 (E.D. Tenn. 1986).
18. 643 F. Supp. 1507 (D.N.J. 1986).
19. 475 So. 2d 1322 (Fla. 5th Dist. Ct. App. 1985).
20. *McDonell*, 612 F. Supp. at 1130; *quoted in AFGE*, 1 Individual Employees Rights (BNA) 1137 (S.D. Ga. Dec. 2, 1986); and in *Caruso*, 133 Misc. 2d at 550, 506 N.Y.S.2d at 795.
21. 649 F. Supp. at 380.

who were applying for promotion. In *Caruso v. Ward*,[22] testing was limited to the elite Police Organized Crime Bureau that deals with drug dealers. And in *American Federation of Government Employees, AFL-CIO (AFGE) v. Weinberger*,[23] the testing was limited to those in the forty most critical positions out of 2,000 civilian employees at Fort Stewart, Georgia. But even in these cases, the courts have recognized that mass round-up urinalysis of such employees is unreasonable — absent reasonable evidence of mass abuse — in spite of the fact that these employees, "as opposed to the general citizenry, have a . . . diminished expectation of privacy."[24] If these groups may not be tested with mass round-up urinalysis, then very few groups may be so tested. *AFGE v. Weinberger* suggests in a dictum that employees involved directly in an activity that is "intimately or even regularly related to national security concerns" may be tested with mass round-up urinalysis.[25]

II. Considerations that Weigh in the Balance against Mass Round-Up Urinalysis

A. *The Tests are Not Reliable*

The test that is used in most instances is the Enzyme Multiplied Immunoassay Technique (EMIT), produced by the Syva Company. Syva claims that, when used properly, EMIT has a failure rate of one to five percent.[26] The practical value of the test seems to depend upon the composition of the group to which it is applied. But, even in groups in which one would not expect to find a high incidence of drug use many "false positives" are elicited by such tests. If we assume that Syva's claim of five percent inaccuracy is correct, and if the facts in *Penny v. Chattanooga* are typical and the guilty rate is much more

22. 133 Misc. 2d 544, 506 N.Y.S.2d 789 (Sup. Ct. 1986).
23. 1 Individual Employees Rights (BNA) 1137 (S.D. Ga. Dec. 2, 1986).
24. *Lovvorn*, 647 F. Supp. at 880 (citing *Allen*, 601 F. Supp. at 489-91; *Turner*, 500 A.2d at 1007-08; and Mack v. United States, No. 85 Civ. 5764 (S.D.N.Y. Apr. 21, 1986)). *See also AFGE*, 1 Individual Employees Rights (BNA) 1137 (S.D. Ga. Dec. 2, 1986).
25. *AFGE*, 1 Individual Employees Rights (BNA) at 1139.
26. *Von Raab*, 649 F. Supp. at 380. (EMIT gives a false positive for marijuana if the subject has ingested a prescription antiinflammatory drug such as Anaprox. EMIT gives a false positive for amphetamines if the subject has ingested cold preparations such as Nyquil or Contac. And it gives a false positive for heroin if the subject has taken cough medicine containing codeine.)

than about one percent, then use of EMIT will falsely accuse five people for every one true accusation. Clearly, prudence and fairness would suggest that the tests should only be applied when there is at least some reasonable suspicion that the subject is guilty.[27]

The courts generally have recognized the significance of the tests' unreliability. "All drug testing procedures result in false positives."[28] One court has gone so far as to hold that EMIT field tests are so unreliable that their use with any kind of personnel sanction is a per se violation of due process.[29]

True, the results of EMIT may be checked against the results of the more accurate and much more expensive[30] method of gas chromatography/mass spectroscopy (GCMS). But each false positive has a profound impact on the life of the unlucky subject. In *Penny*, the plaintiffs were suspended and their identities reported to the local newspaper after testing positive with EMIT tests. Apparently GCMS is too expensive and slow for practical use in a mass round-up. In *Jones v. McKenzie*,[31] the plaintiff, after testing positive with the EMIT, claimed that she had never taken drugs and volunteered immediately for verification tests. Two verification tests were negative, but the plaintiff was dismissed from her job nonetheless. It seems that the employer thought that the plaintiff had detoxified in the interim, and that whichever test is positive is more accurate.

---

27. *See* Anderson, *Too Many Bugs in Screening Measures*, Wall St. J., Apr. 14, 1986, at 22, col. 3. Dr. Anderson is an academic physician at St. Elizabeth's Hospital, Boston, and teaches at Harvard and Tufts Universities. His article dismissing scientific doubters of yellow rain appeared in the Wall Street Journal last December.

28. *Von Raab*, 649 F. Supp. at 380. The procedural dangers inherent in relying on the results of such tests are well documented in both legal and medical literature. *See, e.g.*, Jones v. McKenzie, 628 F. Supp. at 1505-06 and authorities cited therein; *see also* Divoll & Greenblatt, *The Admissibility of Positive EMIT Results as Scientific Evidence: Counting Facts, not Heads*, 5 J. CLINICAL PSYCHOPHARMACOLOGY 114-16 (1985). *Capua*, 643 F. Supp. at 1521. *See also Jones*, 628 F. Supp. at 1505-06; and *Storms*, 600 F. Supp. at 1221-22.

29. *Von Raab*, 649 F. Supp. at 380.

30. "Mandatory drug testing of urine would cost $8 billion to $10 billion a year if it is to be done accurately, the editor of the Journal of the American Medical Association warned . . . . Dr. George Lundberg . . . based his estimates on actual costs expended by the military services for programs to test urine to detect illicit drug use. The military spends $90 to $100 for each specimen tested, not counting the expense of lost time." Van, *Vote Urged on Drug Tests*, Chicago Tribune, Dec. 5, 1986, at 21, col. 1.

31. 628 F. Supp. 1500 (D.D.C. 1986).

B. *Testing Must be Public and by Surprise to be Effective*

If samples are taken in private without supervision, the test is a farce. In *Penny*, some employees carried clean urine samples to the test in balloons in their trousers. It is widely reported that some employees buy and sell drug-free urine and even insert it into their bladders using catheters.[32] Therefore, many tests have been conducted by surprise, and employees have been compelled to urinate in front of a bonded testing agent.[33] The minimum precaution is to observe the subject from the shoulders up while he is urinating and then to observe the temperature of the sample — and then to observe him directly if there is a suspicion of tampering. Observation must be closer for women than for men. But because of the catheter problem, even this type of procedure must be done by surprise to catch the careful abuser. The gross indignity of such proceedings has influenced the courts to rule against mass round-up urinalysis even where observation is "close but not direct."[34]

The courts also have pointed out that the problematic character of such proceedings is shown by the fact that all states have laws against urinating in public. "[S]ociety has generally condemned and prohibited the act in public."[35]

C. *Urinalysis Provides too Much Information*

It is characteristic of modern technology that it provides not less but more information than is good for people.

> [C]ompulsory urinalysis forces plaintiffs to divulge private, personal medical information unrelated to the government's professed interest in discovering illegal drug use. Advances in medical technology make it possible to uncover disorders, including epilepsy and diabetes [as well as pregnancy and hence either miscarriage or abortion], by analyzing chemical compounds in urine.[36]

Many courts have expressed concern that urinalysis may reveal use of very small amounts of marijuana "up to two to three weeks" before the

---

32. *Altered Urine Samples Make Drug Testing Chancy*, Chicago Tribune, Dec. 4, 1986, at 46, col. 1.
33. *Capua*, 643 F. Supp. at 1511.
34. *Von Raab*, 649 F. Supp. at 380; *AFGE*, 1 Individual Employees Rights (BNA) 1137 (S.D. Ga. Dec. 2, 1986).
35. *Capua*, 643 F. Supp. at 1514; *Von Raab*, 649 F. Supp. at 380.
36. *Capua*, 643 F. Supp. at 1515.

test and hence provide information unrelated to job performance.[37]

D. *Mass Round-up Urinalysis Shifts the Burden of Proof in an Impermissible Manner*

Voluntary testing is no testing at all. To be a true test, the testing procedure must include punishment for those who decline to submit to testing. When an authorized tester selects an employee for testing, that employee is then presumed guilty, even if there is no suspicion whatsoever against him. Unless the employee proves that he is innocent, he will be punished. And to prove his innocence, the employee must submit to a humiliating and intimidating test.

> The invidious effect of such mass, round-up urinalysis is that it casually sweeps up the innocent with the guilty and willingly sacrifices each individual's Fourth Amendment rights in the name of some larger public interest. The City of Plainfield essentially presumed the guilt of each person tested. The burden was shifted onto each fire fighter to submit to a highly intrusive urine test in order to vindicate his or her innocence. Such an unfounded presumption of guilt is contrary to the protection against arbitrary and intrusive government interference set forth in the Constitution . . . .[38]

Unfounded presumptions of guilt are contrary to a millennium of Anglo-American legal tradition.

III. Legal Conclusions

A. *No Warrant is Required*

The courts have long recognized that governmental agents may conduct warrantless searches whenever it would be unreasonable to require a warrant, provided the scope of the warrantless search is reasonably related to the circumstances which justified the search. The courts in the drug-use testing cases often cite *Terry v. Ohio*,[39] in which a policeman frisked a suspect encountered on a street and confiscated a pis-

---

37. *AFGE*, 1 Individual Employees Rights (BNA) 1137 (S.D. Ga. Dec. 2, 1986) (citing NFFE v. Weinberger, 640 F. Supp. 642, 647 (D.D.C. 1986)). *See also Von Raab*, 649 F. Supp. at 380; *McDonell*, 612 F. Supp. at 1130.

38. *Von Raab*, 649 F. Supp. at 386 (quoting *Capua*, 643 F. Supp. at 1517) *See also Lovvorn*, 647 F. Supp. at 875.

39. 392 U.S. 1 (1968).

tol, as the guiding case.[40]

B. *Reasonable Suspicion is the Standard*

The courts have agreed not only that mass round-up urinalysis is illegal, but they have agreed on the proper standard for when urinalysis is legal: whenever the employer has a reasonable suspicion that an employee is intoxicated. Therefore, the fourth amendment will not hinder the government significantly in its efforts to detect harmful drug abuse. To date no plaintiff has argued that there is a constitutional right of penumbral privacy to use the drugs of one's choice.

"All courts which have ruled upon the validity of urine tests for public employees, including police officers and firemen, have required as a prerequisite some articulable basis for suspecting that the employee was using illegal drugs, usually framed as 'reasonable suspicion.' "[41] For example, *King v. McMickens*[42] holds that it is lawful to dismiss those employees who refuse urinalysis after a "reasonable suspicion" of drug abuse. Likewise, *Division 241 Amalgamated Transit Union v. Suscy*[43] affirms dismissal of a suit by bus drivers and trainmen against the Chicago Transit Authority, challenging the legality of the CTA's practice of forcing employees to submit to urinalysis after they are involved in any serious accident or whenever they are suspected by two supervisors of being under the influence of liquor or narcotics.

C. *Probable Cause is Rejected as the Standard*

"Reasonable suspicion" means "individualized suspicion" and is

---

40. Opinions that cite *Terry* as a guide to the reasonableness of urinalysis include *Lovvorn*, 647 F. Supp. at 882; *Caruso*, 133 Misc. 2d at 547, 506 N.Y.S.2d at 792; *Capua*, 643 F. Supp. at 1516; *Turner*, 500 A.2d at 1007; *McDonell*, 612 F. Supp. at 1127-28; and *Allen*, 601 F. Supp. at 489.

41. *Lovvorn*, 647 F. Supp. at 881 (citing *Capua*, 643 F. Supp. at 1517; *City of Palm Bay*, 475 So. 2d at 1325; *Turner*, 500 A.2d at 1008-09; *McDonell*, 612 F. Supp. at 1129; *Allen*, 601 F. Supp. at 489; *Patchoque-Medford Congress of Teachers*, 119 A.D.2d at 38, 505 N.Y.S.2d at 891; *Jones*, 628 F. Supp. at 1508; and *Caruso*, 133 Misc. 2d 547, 506 N.Y.S.2d at 792-93). *See also AFGE*, 1 Individual Employees Rights (BNA) 1137 (S.D. Ga. Dec. 2, 1986); *Von Raab*, 649 F. Supp. at 380; *Association of Western Pulp and Paper Workers*, 644 F. Supp. at 186; *King*, 120 A.D.2d at 353, 501 N.Y.S.2d at 681; *Division 241 Amalgamated Transit Union*, 538 F.2d at 1266-67; and *Krolick*, 32 A.D.2d at 323, 302 N.Y.S.2d at 115.

42. 120 A.D.2d 351, 501 N.Y.S.2d 679 (1986).

43. 538 F.2d 1264, 1267 (7th Cir. 1976), *cert. den.*, 429 U.S. 1029 (1976).

something between "mere suspicion" and "probable cause." The "probable cause" standard would significantly hinder the government's efforts to test for drug abuse, and this standard is decisively rejected in the case law. In *Patchogue-Medford Congress v. Board of Education*[44] the court declared that, "[w]e reject the argument that the type of test proposed in this case is warranted only upon a showing of full-scale probable cause."[45]

D. *Mere Suspicion is Rejected as the Standard*

Because the opinions reject the probable-cause standard, they are careful also to reject the mere-suspicion standard. "Reasonable suspicion is also referred to as founded suspicion, which this court has described . . . as . . . something less than probable cause, but something more than a mere suspicion. It is a reasonable suspicion that requires further investigation."[46]

For example, in *McDonell v. Hunter*[47] the subject was employed as a correctional officer at the Men's Reformatory at Anamosa, Iowa. He refused to submit to urinalysis after his employer "received confidential information indicating that he had been seen the previous weekend with individuals who were 'being looked at' by law enforcement officials regarding drug-related activities."[48] The employee was fined ten days' pay when he refused to submit to urinalysis, and the court ordered the employer to repay the lost salary. The court held that the employer did not yet have a reasonable suspicion and the employer's attorneys agreed:

> Defendants argue that "mere suspicion" rather than "reasonable suspicion" should be the standard . . . . This position is arguable, but I do not find it persuasive . . . The Fourth Amendment allows [employers] to demand of an employee a urine . . . specimen . . . only on the basis of a reasonable suspicion, based on specific objec-

---

44. 119 A.D.2d 35, 505 N.Y.S.2d (App. Div. 1986).

45. *Id.* at 38, 505 N.Y.S.2d at 891. "Probable cause is not required where the search is not aimed at the discovery of evidence for use in a criminal trial. Reasonable suspicion is sufficient." *King*, 120 A.D.2d at 353, 501 N.Y.S.2d at 681 (citation omitted).

46. *City of Palm Bay*, 475 So. 2d at 1326 (citations omitted). *Cf. Jones*, 628 F. Supp. at 1509 (dictum).

47. 612 F. Supp. 1122 (S.D. Iowa, 1985).

48. *Id.* at 1126.

> tive facts and reasonable inferences drawn from those facts in light of experience, that the employee is then under the influence of alcoholic beverages or controlled substances.[49]

On the other hand, in *King*, the employer had

> contacted a confidential informant who advised him that petitioners [also correctional officers] had frequented a certain drug trafficking location and that they used illegal drugs at such location. Further investigation revealed that the location was known to the police department as premises used for drug trafficking. Thereafter, the investigator received information from the informant that petitioners had recently been observed using drugs at the location.[50]

The petitioners refused to submit to urinalysis, so the employer dismissed them from the Corrections Department after a hearing. The court held that this action was reasonable.

E. *Involuntary Waivers of Constitutional Rights are Not Valid*

In the typical case, the employer attempts to coerce its employees to sign a form that states that the employees consent to random urinalysis in the future, by making such a waiver a condition of continued employment.[51] The courts agree that coerced waivers of constitutional rights are not valid.[52] "In a long line of cases, the Supreme Court has consistently adhered to the principle that the state may not condition access to public benefits or privileges on the waiver of a constitutional right. . . ."[53]

F. *Mass Round-Up Urinalysis Does Not Violate the Fifth Amendment*

The privilege against self-incrimination "applies only to testimonial communications."[54] On the other hand, *NTEU v. Von Raab*[55]

---

49. *Id.* at 1129-30.
50. 120 A.D.2d at 352, 501 N.Y.S.2d at 680.
51. *See McDonell*, 612 F. Supp. at 1134, for an example of such a form.
52. *Id.* at 1131.
53. *Caruso*, 133 Misc. 2d at 548, 506 N.Y.S.2d at 793. *See also City of Palm Bay*, 475 So. 2d at 1325.
54. *City of Palm Bay*, 475 So. 2d at 1324.
55. 649 F. Supp. 380 (E.D. La. 1986).

holds that a public employer violates the fifth amendment when it requires employees to fill out a form stating which drugs they have used recently, because that kind of information is a testimonial communication.[56]

G. *Mass Round-Up Urinalysis is Not a Mere Personnel Action*

The court in *National Federation of Federal Employees v. Weinberger*,[57] dismissed the employees' lawsuit on the ground that drug testing is a "federal personnel policy," a mere "labor-management dispute;" therefore challenges to such a policy must proceed under the Civil Service Reform Act (CSRA). According to the CSRA, the aggrieved employee waits to be tested, then refuses, then allows himself to be dismissed, then appeals his dismissal to the Merit Systems Protecting Board (MSPB), then appeals from the MSPB to the federal circuit court of appeal for *ex post facto* judicial review. This approach to the problem has been squarely rejected as "absurd" or "irrational" by all other courts that have considered this question.[58] First, warrantless searches simply are not mere "personnel actions," so a claim for injunctive relief is not covered under the CSRA. Second, it is absurd to require employees to submit to an unconstitutional program and then to seek damages for it. Such a mechanism manufactures damages. Third, the majority of subjects who submit to urinalysis and test negative would have no cause of action under the CSRA because no personnel action would be taken against them.

IV. When Is Mass or Random Urinalysis Permitted?

A. *In the Military*

"Servicemen are subject to far more discipline and regimentation and thus retain a more diminished expectancy of privacy than civilians."[59] The courts recognize that there is "precedent authorizing drug

---

56. *Id.* at 382.
57. 640 F. Supp. 642 (D.D.C. 1986) (appeal pending).
58. *Von Raab*, 649 F. Supp. at 380; *AFGE*, 1 Individual Employees Rights (BNA) 1137 (S.D. Ga. Dec. 2, 1986).
59. *Caruso*, 133 Misc. 2d at 553, 506 N.Y.S.2d at 798 (citing Parker v. Levy, 417 U.S. 733 (1974)); *see also* Committee for G.I. Rights v. Callaway, 518 F.2d 466, 474, 476 (D.C. Cir. 1975).

screening of all personnel in the armed forces."[60]

B. *In Prisons*

Storms v. Coughlin[61] holds that daily random urinalysis of prison inmates is reasonable, provided only that the selection is truly random and is not used to harass unruly prisoners.

C. *In the Private Sector*

It is true that private-sector employees may be 'forced to consent' to random urine testing without individualized suspicion as a condition of employment. The fourth amendment operates to restrain the freedom of only state actors.[62]

D. *During Pre-Employment or Routine Physical Examinations*

One of the most important reasons why the judicial consensus against mass round-up urinalysis will not defeat legitimate attempts to detect and punish drug abuse is that public employers may simply add a test for illegal drugs to the annual physical examination performed in a hospital or clinic by medical professionals (where the test will be more accurate and confidential because medical professionals understand that their tests are problematic). One of the complaints of the plaintiffs in these cases is that the urine tests "stigmatize" them and require that they prove their own innocence. The taking of a routine physical examination is something that we all do (or should do), so it cannot have those effects. In the words of Judge Edgar:

> [There is] no constitutional difficulty with the regularly conducted physicals or the requested physicals, or a pre-employment physical, even if they involve a urinalysis for drugs, provided that they are not used as a subterfuge to conduct an unreasonable search and seizure.[63]

---

60. *Jones*, 628 F. Supp. at 1508. *See also Turner*, 500 A.2d at 1008; and *AFGE*, 1 Individual Employees Rights (BNA) 1137 (S.D. Ga. Dec. 2, 1986).
61. 600 F. Supp. 1214 (S.D.N.Y. 1984).
62. *AFGE*, 1 Individual Employees Rights (BNA) 1137 (S.D. Ga. Dec. 2, 1986). *See, e.g., Association of Western Pulp and Paper Workers*, 644 F. Supp. at 186.
63. *Lovvorn*, 647 F. Supp. at 881 n.7 (citing *Turner*, 500 A.2d at 1011; *McDonell*, 612 F. Supp. at 130 n.6; *Caruso*, 133 Misc. 2d at 552, 506 N.Y.S.2d at 797).

On the other hand, *Jones v. McKenzie*[64] granted an employee-plaintiff's motion for summary judgment on the grounds that mass round-up urinalysis is unreasonable even when the urinalysis is part of a general physical examination. The Court noted that the general physical examination in that case was ordered "as quickly as possible . . . prior to the opening of school in September"[65] specifically to test for drugs, and the tests were conducted by the employer in the field instead of in a clinic or hospital.

V. Conclusion

In *Capua v. City of Plainfied*[66] well-meaning but zealous municipal officials staged a ludicrous, paramilitary raid upon their own employees. The officials struck at dawn, locked the employees in, rounded them up, and forced them to urinate in public. "The harassment, coercion and tactics utilized here, even if motivated by the best of intentions, should cause us all to recognize the realities of government excesses and the need for constant vigilance against intrusions into constitutional rights by its agents."[67]

The spectacle of such official misbehavior, and also the broader failure of the Administration's attempt to proceed by decree with mass round-up urinalysis after Congress declined to pass into law the Administration's "Drug-Free America Act of 1986,"[68] are instructive for a number of reasons.

First, the Administration's defeat by the judicial branch reminds us in a dramatic way of the subordinate role of the executive branch in Anglo-American legal systems. Judge William Blackstone teaches that the rule of law *per se* requires this subordination.[69]

Second, the Administration has been hoisted on its own petard. This Administration more than any in recent time has appointed judges that understand that "[t]he fairest and most rational method to inter-

---

64. 628 F. Supp. 1500 (D.D.C. 1986).
65. *Id.* at 1502.
66. 643 F. Supp. 1507 (D.N.J. 1986).
67. *Id.* at 1511.
68. THE WHITE HOUSE, OFFICE OF THE PRESS SECRETARY, THE PRESIDENT'S DRUG ABUSE INITIATIVES § 4 (Sept. 15, 1986) (*Summary of Legislation*, which includes a proposed law authorizing random testing of students in schools that receive subsidies from the federal government, as well as testing of governmental employees).
69 Stone, *We Inherit an Old Gothic Castle*, 8 HASTINGS CONST. L.Q. 923, 925, 933 (1981) (reviewing W. BLACKSTONE, COMMENTARIES ON THE LAWS).

pret the will of the legislator, is by exploring his intentions at the time when the law was made."[70] Ironically, one of the most quoted opinions in this summary of the judicial consensus against mass round-up urinalysis is by Judge R. Allan Edgar, who was appointed by President Reagan in the same year that Executive Order 12564 was signed.[71]

Third, we are reminded once again in this dramatic way that "the true liberty of the subject consists not so much in the gracious behavior, as in the limited power, of the sovereign."[72]

70. *Id.* at 924.
71. *Lovvorn*, 647 F. Supp. at 875.
72. Stone, *supra* note 69, at 943.

Drug Tests: Issues Raised in the Defense of a "Positive" Result

Mark L. Waple*

Introduction

The practitioner confronted for the first time with the task of representing a client who has been accused of using a controlled substance where the only evidence of the alleged use is scientific testing of the client's urine has a somewhat challenging task ahead. The issues most commonly raised in urinalysis cases range from those more familiar legal issues confronted regularly in the defense of a criminal case (such as the law of search and seizure) to the more unfamiliar issues relating to novel, scientific testing techniques of human urine to search for traces or minute amounts of controlled substances. This article is intended to assist the practitioner in becoming familiar with some of the issues raised in the defense of positive drug test cases through urinalysis testing. Certain assumptions are made in identifying the predominate issues. The first of those assumptions is that in the jurisdiction where the case is being heard, there is a statute or regulation prohibiting the "use" of the controlled substance in question. Of course, many jurisdictions do not have such a statute. The second assumption made is that the scientific drug test is the only evidence the state, federal or private "accuser" has to substantiate the claim that the client has used a controlled substance. For obvious reasons if there is independent evidence of drug use such as a witness, an admission, paraphernalia, or the controlled substances themselves, the scientific test becomes only corroborative in nature rather than dispositive, thus making a legal challenge to the evidence of the positive drug test more difficult.

A checklist of issues raised in the defense of a positive urinalysis case is lengthy and could exceed some 80 to 90 items, any one of which could invalidate the scientific conclusion that the urine tested positive

* B.S. 1969, U.S. Military Academy; J.D., 1974, University of North Carolina School of Law; M.A., 1975, Boston University. The author wishes to thank Dr. Arthur McBay, Dr. William Manders, Dr. John Whiting and Dr. W. Lee Hearn for their sound and patient advice in the author's legal representation of urinalysis cases.

for a particular controlled substance, for a particular individual. Legal practitioners may want to be wary for any one or more of the following major points: (1) urine specimens taken in a constitutionally prohibited manner, (2) test results derived from nonspecific drug tests, (3) test results without the requisite supporting chain of custody, (4) testing techniques not accepted in the American scientific community, (5) test results without supporting quality control data, (6) improperly interpreted test results, (7) test results with concentration levels consistent with "passive inhalation" and "passive ingestion" of the controlled substance, and (8) false-positive tests. The legal practitioner may also want to carefully consider the additional issues concerning the desirability of retesting, tissue typing and blood grouping tests which may or may not assist in the representation of the client.

How Bad Can a Drug Testing Laboratory Get?

On the 24th of October, 1983, because of the legal challenges to the accuracy of the Army and Air Force Drug Testing Program, the Deputy Surgeon General of the Army appointed a blue ribbon panel to review the massive urinalysis drug testing program for the Army and Air Force.[1] The "Einsel Commission," as it was named, was directed "to assess if their results are legally sufficient for use as evidence . . . in disciplinary or characterization of discharge actions."[2] At that time, individual Army and Air Force Drug Testing Laboratories were processing between 18,000 and 31,000 urine specimens per month.[3] These laboratories were relying upon the Roche Abuscreen radio immunoassay (RIA) for the initial detection of the presence of target drugs[4] and gas chromatography (GC) as the main method of confirmation of the RIA screening test results.[5] Although the "Einsel Commission" concluded that there was no evidence to suggest that there had been any "false-positive THC results" reported by any of the laboratories, this investigation did conclude that: "The quality of the official records, and the poor quality control records will make it difficult, and, in many cases, impossible to provide scientifically and legally supporta-

1. Report by a Panel of Army and Civilian Experts in Toxicology and Drug Testing, Legal Issues for the Surgeon General of the U.S. Army, (Dec. 12, 1983) app. A.
2. *Id.* at 1.
3. *Id.* at 21, 23, 25.
4. *Id.* at 3-4
5. *Id.* at 6.

ble documentation."[6]

A closer examination of the results of this investigation is shocking. It concluded that these results reported by one drug testing laboratory prior to November 15, 1983 contained a 90% error rate.[7] At the Brooks Air Force Base Drug Testing Laboratory, which at that time was testing 22,200 specimens per month,[8] an error rate as high as 60% was found.[9] At another drug testing laboratory, which was then testing 31,000 urine specimens per month for five different drugs,[10] prior to April of 1983, only 25% of the positive test results were scientifically and legally supportable.[11]

The investigation into the U.S. Army's drug testing laboratory at Fort Meade, Maryland concluded that:

> [A]ccess to the COC [chain of custody] room was allowed without need-to-access or proper documentation. There was a severe deficiency in the ability to forensically document COC . . . . In general the staff attitude towards security and COC was inadequate. The GC [gas chromatography] confirmation for THC program . . . was ineffective . . . . [L]aboratory technicians confirmed that they did not know how to properly use GC and . . . the civilian supervisor had been routinely signing reports which had no, or inadequate standards . . . . Quality control was sporatic and unplanned . . . . The GC program did not provide valid scientifically and legally supportable data.[12]

Legal challenges to the Army and Air Force Drug Testing Program and the results of the Einsel Commission investigation eventually resulted in a massive effort by the military to review disciplinary actions taken on the basis of flawed drug test results. Fifty-one percent of all Army samples showing drug use (or 52,000 specimens) were mishandled by the four drug testing laboratories used by the Department of the Army between April 1982 and November 1983.[13]

---

6. *Id.* at 20.
7. *Id.*
8. *Id.* at 23.
9. *Id.* at 20.
10. *Id.* at 25.
11. *Id.* at 20.
12. *Id.* at 21-22.
13. *60,000 to 70,000 May Appeal Drug Test Sanctions*, ARMY TIMES, July 23, 1984.

Constitutional Issues

Privacy can be defined as "control over who can sense us."[14] It is the point of the privilege against self-incrimination and the associated doctrines denying officials the power to compel other kinds of information without some explicit warrant that a man cannot be forced to make public information about himself.[15]

> Modern acoustics, optics, medical and electronics have explored most of our normal assumptions as to the circumstances under which our speech, beliefs, and behavior are safe from disclosure, and these developments seem to have out flanked the concept of property and physical intrusion, and presumed consent-concepts which have been relied on by the law to maintain the balance between the private personality and the public need. The miniaturized microphone and tape recorder, the one-way mirror, the sophisticated personality test, the computer with its enormous capacity for the storage and retrieval of information about individuals and groups, the behavior controlling drugs, the miniature camera, the polygraph, the directional microphone . . . hypnosis, infra-red photography . . . are capable of use in ways that can frustrate an individual's freedom to choose . . . what shall be disclosed or withheld about himself . . . .[16]

The fourth amendment privilege affords the individual privacy against certain types of government intrusion. Before the provisions of the fourth amendment are triggered, the individual must show that he had a reasonable expectation of privacy in the area subject to the government's intrusion.[17] To determine whether a reasonable expectation of privacy exists, an individual's subjective expectation of privacy is balanced against the nature and quality of the intrusion on individual rights. Two potential levels of fourth amendment violations are created by the collection of physical evidence.[18] The first occurs when the individual is seized. A police-citizen encounter which restricts the movement of the citizen against his will is a detention within the meaning of

---

14. Parker, *A Definition of Privacy*, 27 RUTGERS L. REV. 275, 280 (1974).
15. Fried, *Privacy*, 77 YALE L.J. 475, 488 (1968).
16. Reubhausen and Brimm, *Privacy and Behavioral Research*, 65 COLUM. L. REV. 1184, 1190 (1965).
17. Katz v. United States, 389 U.S. 347 (1967).
18. Schmerber v. California, 384 U.S. 757 (1966).

the fourth amendment.[19] The second seizure occurs when physical evidence is collected from that individual. An initial seizure of the person is lawful if it occurs pursuant to lawful arrest,[20] or a grand jury order to testify,[21] or upon a showing of probable cause.[22] Thus, it could be argued in cases in which the individual has been directed by an employer or by an agency of the federal or state government to provide physical evidence in the form of human urine, that the preceeding "seizure" of the individual was unlawful in the absence of probable cause.

The next level of constitutional issue concerns the actual seizure of the urine from the person. A threshold question in examining the constitutionality of collecting urine samples is whether the fourth amendment applies to this procedure and the answer is dependent upon the expectation of privacy, if any, a citizen has in his body fluids.

In addressing this issue, one federal court has already provided that:

> Urine, unlike blood, is routinely discharged from the body, so no governmental intrusion into the body is required to seize urine. However, urine is discharged and disposed of under circumstances where the person certainly has a reasonable and legitimate expectation of privacy. One does not reasonably expect to discharge urine under circumstances making it available to others to collect and analyze in order to discover the personal physiological secrets it holds, except as part of a medical examination. . . . One clearly has a reasonable and legitimate expectation of privacy in such personal information contained in his body fluids.[23]

Governmental taking of a urine specimen is a seizure within the meaning of the fourth amendment.[24] In those cases where urine testing has been upheld, some particularized cause or underlying rationale for the urine test is a prerequisite and without this, constitutionally prohibited.[25]

---

19. Terry v. Ohio, 392 U.S. 1 (1968).
20. *Schmerber*, 384 U.S. at 757.
21. United States v. Dionisio, 410 U.S. 1 (1973).
22. Cupp v. Murphy, 412 U.S. 291 (1973).
23. McDonell v. Hunter, 612 F. Supp. 1122, 1127 (S.D. Iowa 1985), *modified*, 809 F.2d 1302 (8th Cir. 1987).
24. Allen v. City of Marietta, 601 F. Supp. 483, 489 (N.D. Ga. 1985).
25. Murry v. Haldeman, 16 M.J. 74, 81 (C.M.A. 1983); Amalgamated Transit Union v. Suscy, 538 F.2d 1264, 1267 (7th Cir. 1976).

The Admissibility Issue

In *Frye v. United States*,[26] the defense offered evidence based on a forerunner of the polygraph, the systolic blood pressure test. The trial judge excluded the evidence and the appellate court affirmed the trial judge's ruling, declaring:

> Just when a scientific principle or discovery crosses the line between the experimental and demonstrable stages is difficult to define. Somewhere in this twilight zone the evidential force of the principle must be recognized and while courts will go a long way in admitting expert testimony deduced from a well-recognized scientific principle or discovery, the thing from which the deduction is made must be sufficiently established to have gained general acceptance in the particular field in which it belongs.[27]

In *Frye* the appellate court found that there was insufficient proof of the general acceptance of the systolic blood pressure test.[28] For that reason the trial judge properly ruled the evidence to be inadmissible.[29] The *Frye* standard requires that the scientific technique being considered for admission as evidence by the trial court be sufficiently established "in the particular field in which it belongs."[30]

The *Frye* standard has been subjected to criticism and there has been substantial movement away from the *Frye* standard within the past few years.[31]

Whether radio immunoassay screen tests, gas chromatography or gas chromatography/mass spectography tests are admissible in a legal proceeding will largely depend on how the *Frye* standard is interpreted in a given jurisdiction. It is, however, important to be familiar with the major differences between the various test procedures utilized in urine testing. Additionally, the proponent of the scientific evidence should be required to demonstrate that the scientific technique, or that the scientific test in question, is generally accepted as a fact finding tool. Courts usually distinguish between the general acceptance of scientific tech-

---

26. 293 F.2d 1013 (D.C. Cir. 1923).
27. *Id.* at 1014.
28. *Id.*
29. *But see* Gianelli, *The Admissibility of Novel Scientific Evidence: Frye v. United States, a Half-Century Later*, 80 COLUM. L. REV. 1197 (1980).
30. *Frye*, 293 F.2d at 1014.
31. Coppolino v. State, 223 So. 2d 68 (Fla. 2d Dist. Ct. App. 1968), *appeal dismissed*, 234 So. 2d 120 (Fla. 1969), *cert. denied*, 399 U.S. 927 (1970).

niques for clinical and investigative purposes.[32] If the law of the jurisdiction adheres to the *Frye* standard and a requirement that the scientific technique be accepted as an identification rather than a screening procedure, it is unlikely that radio immunoassay testing (RIA), enzyme multiplied immunoassays (EMIT) or gas chromatography tests on urine would be admissible. Radio immunoassay is so nonspecific that there is a scientific need to confirm all positive RIA results by some other procedure to adequately identify a drug.[33] Retention times in gas chromatography tests are not proof of identification unless they are supported by other evidence.[34] Gas liquid chromatography (GLC) should not be relied on for identification.[35] Gas chromatographic (GC) methods have been used to confirm the presence of the metabolites of a controlled substance in urine but they are not generally accepted by the scientific community as sufficiently specific for positive identifications.[36] Roche Diagnostics, the manufacturer of Roche Abuscreen confirms that a positive radio immunoassay for cannabinoids should be confirmed by another generally accepted scientific method.[37] The United States Department of Health and Human Services conducted a field test survey of 64 laboratories using the SYVA system for urine screening for cannabinoids and determined that such testing had an incidence of four percent false-positive rate. The manufacturer, SYVA, recommends that any positive test result should be confirmed by an alternative method.[38] The immunoassay tests are extremely valuable and impressive tools in some settings but have not performed so well in mass screening settings.[39] Adversarial or punitive action against individuals should not be based solely on urine specimens which are positive for

---

32. People v. Shirley, 31 Cal. 3d 18, 641 P.2d 775, 181 Cal. Rptr. 243 (1982); People v. Gonzales, 415 Mich. 615, 329 N.W.2d 743 (1982).

33 Lorenzo, *Radio Immunoassay (RIA)*, in METHODOLOGY FOR ANALYTICAL TOXICOLOGY 404 (I. Sunshine ed. 1975).

34. Stein, Laessing, & Indiksons, *An Evaluation of Drug Testing Procedures by Forensic Laboratories and the Qualifications of Their Analysis*, 1973 WIS. L. REV. 727, 752.

35. *Id.* at 753.

36. McBay, *Cannabinoid Testing: Forensic and Analytical Aspects*, 23 LABORATORY MGMT. 26, 38 (1985).

37. ROCHE DIAGNOSTICS MANUFACTURER'S PAMPHLET, ABUSCREEN RADIO IMMUNOASSAY FOR CANNABINOIDS (1983).

38. *Urine Testing for Detection of Marijuana: An Advisory*, 32 MORBIDITY AND MORTALITY WEEKLY REP. 469 (1983).

39. Morgan, *Problems of Mass Urine Screening for Misused Drugs*, 16 JOURNAL OF PSYCHOACTIVE DRUGS 305, 313 (1986).

drugs by a presumptive screening method such as the EMIT or RIA methods. Confirmation of the presumptive positive by a well-documented method such as gas chromatography/mass spectrometry is mandatory in such instances.[40]

There thus seems to be a consensus in the forensic science community that immunoassays may be excellent for screening specimens but they are inadequate for identification of specific drugs when the results are to be used in adversarial proceedings or for instituting sanctions.[41]

Confirmation of these immunoassays by gas chromatography (GC), high performance liquid chromatography (HPLC), or thin layer chromatography (TLC) may add weight to the positive immunoassays but there is no agreement among forensic toxicologists that any one of these methods are to be considered adequate enough for confirmation.[42] Only where the scientific tests at least include a properly performed and properly interpreted gas chromatographic-mass spectrometric method of analysis is adequate identification provided and arguably only then admissible in an adversarial proceeding.[43]

Chain of Custody Issues

One of the main hazards of high volume urine testing has to do with the problem of the integrity, safe-keeping and control of the urine specimen. Gaps in the continuity of the possession of the urine specimen generally cannot be filled in by any presumption of the performance of official duty or correctness.[44] Problems generally arise not only in insuring that the client's urine specimen was properly identified from the very moment that the urine passes into the urine specimen collection bottle, but all the way through and including delivery of the urine specimen bottle to the drug testing laboratory. In urinalysis cases the chain of custody problem is particularly unique since not only are the drug testing laboratories generally at some distance from where the actual urine specimen was collected, but the chain of custody issue is complicated further by the fact that a single urine specimen will fre-

40. Schwartz & Hawks, *Laboratory Detection of Marijuana Use*, 254 J. A.M.A. 788, 791 (1985).

41. McBay, Dubowski & Finkle, *Urine Testing For Marijuana Use*, 249 J. A.M.A. 881 (1983).

42. McBay, *Cannabinoid Testing: Forensic and Analytical Aspects*, 23 LABORATORY MGMT. 36-43 (1985).

43. McBay, *Marijuana Testing and Litigation*, 30 J. FORENSIC SCI. 989 (1985).

44. 29 AM. JUR. 2D *Evidence* §§ 775, 776.

quently be subjected to multiple tests. The only guarantee that all gaps in the chain of custody are identified is to conduct a day-by-day examination of the chain of custody documents including chain of custody at the work site, from the work site to the drug testing laboratory and at each step of the drug testing laboratory's testing procedures including the aliquoting procedures, presumptive screening tests and confirmatory testing. Registered mail numbers should be verified, storage compartments should be properly identified and every individual handling the specimen should appear in the chain of custody in proper sequence. With some drug testing laboratories conducting very high volume testing, it is even wise to attempt to validate signatures in the chain of custody at the drug testing laboratory to insure that they are not forgeries, since that problem seems to arise frequently.

The False-Positive Issue

It is quite clear that false-positive test results for controlled substances in human urine have occurred and have been documented. The issue of false-positives must be further refined by evaluating the problem of false-positives as it exists with presumptive screen tests such as the RIA and EMIT and also the question of false-positives after testing by gas chromatography mass spectrometry. In any screening program by radio immunoassay directed at probationers, individuals undergoing pre-employment or pre-promotion examinations or job fitness evaluations, the reporting of a drug positive urine takes on great importance to the individual. The occurrence of a false-positive is much more important than a false-negative to the individual. A false-positive can be defined as an unconfirmed positive when a reasonable attempt has been made to confirm the positive test result by using an analytical test different and at least as sensitive as the testing method reporting the positive in the first instance.[45] A 9.7% false-positive rate has been attributed to EMIT positive tests for barbiturates, 8.7% false-positive rate for morphine, 2.5% false-positive rate for methodone, 5.6% false-positive rate for opiats, 12.5% false-positive rate for amphetamines, and a 10% false-positive rate for cocaine.[46]

False-positive test results have also occurred even where the screen test has been confirmed by the scientifically favored confirmatory test,

---

45. Morgan, *Problems of Mass Urine Screening for Misused Drugs*, J. OF PSYCHOACTIVE DRUGS, Oct.-Dec. 1984, at 309.

46. *Id.* at 312.

gas chromatography/mass spectrometry. Recent testimony by representatives of a government drug testing laboratory at military administrative discharge proceedings indicate that at least one laboratory experienced five false-positives in the 1983-1984 time frame and has been required by the terms of its amended government contract to provide "a thorough and complete explanation of the five false-positives occurring during the early stages of the . . . contract with the United States Navy."[47]

Outside of the question of unconfirmed positive test results there remains the issue of false-positive test results caused by improperly interpreted drug test information. Legal practitioners should consult with toxicologists in reviewing all drug test data but as a minimum should determine whether the concentration of the controlled substance reported by the screening test is within the sensitivity level of the screening test itself, whether there are major discrepancies between the concentration levels reported by the screening test and the confirmatory test, whether there are any interfering substances in the chromatograms attributed to the client's specimen, whether the internal quality controls run by the drug testing laboratory have been validated, whether the mass ratio evaluations by GCMS fall within accepted levels, whether mass amount ratio evaluations fall within acceptable limits, whether there is a problem of "carry over" between the subject's specimen and previously tested specimens and whether the retention times of characteristic ion peaks in the GCMS testing fall within scientifically acceptable ranges.

There has also been some suggestion that racial bias in the EMIT, RIA and GCMS are the result of melanin, the bodily substance responsible for skin tone. The studies of at least one scientist have concluded that positive results for blacks in EMIT, RIA, and GCMS tests can be the result of melanin interference.[48]

The Passive Inhalation and Passive Ingestion Issue

In an affidavit filed in United States District Court for the Eastern District of North Carolina in March 1983, Dr. Arthur McBay, then Chief Toxicologist for the State of North Carolina provided that:

47. Government Contract DADA 15-85-D-0025 with Amendment Number P00004 (July 16, 1985).

48. *See* Affidavit of Dr. James Woodford (April 14, 1986).

> It is my medical opinion that even given the use of the RIA and the GLC that individuals who have never used marijuana can come up positive. Any test other than the gas chromatograph-mass spectrometer is only a presumptive test and can result in inaccuracies. Furthermore, not only are "false-positives" possible with this present testing procedure but it is entirely possible that involuntary exposure to marijuana through "passive inhalation" can result in positive findings as a result of the radio immunoassay and gas liquid chromatography testing procedures which the Department of Defense is utilizing at the present time.[49]

It is clear based upon scientific studies conducted that passive inhalation of marijuana can result in the urinary excretion of detectable amounts of cannabinoid material producing positive results by the enzyme multiplied immunoassay technique (EMIT).[50] In a study reported in the *American Journal of Psychiatry* in 1978, a control who did not smoke marijuana was placed in a room with marijuana smoke. The control's urine was tested each week for 8 weeks resulting in readings of up to 260 ng/ml, levels significantly higher than the cut-off concentration levels being used by most laboratories.[51] Obviously such factors as environment, duration of marijuana smoke exposure, time lapse between exposure and urine excretion, and concentration levels of the marijuana metabolized must be examined carefully before the issue of passive inhalation should be raised.

Passive ingestion, or the involuntary or unknowing consumption of a controlled substance such as marijuana or cocaine in food and drink, is an issue which also bears consideration. This is true in those particular cases where the individual suspects contamination of his food or drink by third parties. Toxicologists for both government and private institutions have testified in adversarial proceedings that concentration levels of 4000 to 5000 ng/ml of the cocaine metabolite is consistent with unknowing consumption of cocaine placed in "Christmas punch." And, the same testimony has been made in cases with concentration levels less than 140 ng/ml where marijuana has been cooked into food. In scientific studies of oral ingestion of cannabis resin, tested subjects

---

49. *See* Affidavit of Dr. Arthur John McBay, File No. 83-39-CIV 3 (E.D.N.C. Mar. 28, 1983).

50. Perez-Reyes, Guisseppi, and Davis, *Passive Inhalation of Marijuana Smoke and Urinary Excretion of Cannabinoids*, 29 J. A.M.A. 475 (1983).

51. Zeidenberg, *Marijuana Intoxication by Passive Inhalation: Documentation by Detection of Urinary Metabolites*, 136 Am. J. Psychiatry 76 (1977).

demonstrated physiological effects attributable to cannabis intoxication. In these studies it was determined that a small oral dose of cannabis (5 mg) resulted in relatively high urine cannabinoid levels (up to 210 ng/ml).[52]

Summary

It has been the experience of this practitioner that in representing clients accused of using controlled substances, an analytical approach can be helpful. First, was the urine specimen taken in a constitutionally permissible manner? What form of custody was maintained over the specimen to guarantee that no contamination or tampering took place? What kind of scientific testing was used? (Screening tests like RIA and EMIT alone should not be admissible.) Was a confirmatory test used and what kind? Gas chromatography is not specific and has been successfully challenged. Gas chromatography — mass spectrometry is scientifically acceptable if properly conducted. Were the concentration levels by screen test and/or confirmatory test high enough to rule out passive-inhalation or involuntary ingestion of the drug? Were the test results properly interpreted? And, what does the quality control data on the drug testing laboratory reveal about the capability of the lab to report accurate test results? The assistance of a toxicologist familiar with issues relating to the detection of controlled substances in urine is indispensable.

52. Law, *Forensic Aspects of the Metabolism and Excretion of Cannabinoids Following Oral Ingestion of Cannabis Resin*, 36 J. OF PHARM. PHARMACOL., 291, 293 (1983).

The Ideology of Drug Testing

Steven Wisotsky*

> The mood towards drugs is changing in this country and the momentum is with us. We're making no excuses for drugs, hard, soft or otherwise. Drugs are bad and we're going after them.[1]
>
> President Ronald Reagan

I. Introduction

Drug testing in the workplace seems to be an idea whose time has come. In the private sector, drug testing — usually by urinalysis — has become widespread, especially among large corporations. By 1986, an estimated one fourth of Fortune 500 companies were testing both employees and job applicants for illegal drugs.[2] The movement towards employment drug testing gained additional momentum in September, 1986, when President Reagan issued an Executive Order mandating drug testing of federal workers. The Order required the head of each Executive Agency to establish a program to test any job applicant for illegal drugs; to test for the use of illegal drugs by "employees in sensitive positions"; to provide for "voluntary" drug testing; and to test for drugs in other specified circumstances, including reasonable suspicion, investigation of an accident, or as part of an employee assistance program course of rehabilitation for illegal drug use.[3] The Order followed on the heels of the Report of the President's Commission on Organized Crime, which had recommended adoption of a more sweeping drug testing program for all federal, state, and local government employees and employees of federal contractors.[4]

---

* Professor of Law, Nova Law Center; LL.M., Yale Law School, 1971; J.D., University of Miami, 1970; B.A., University of Pennsylvania.

1. President's Radio Address to the Nation on Federal Drug Policy, II PUB. PAPERS 1252, 1253 (Oct. 2, 1982).

2. Freedberg, *Clean Urine Clouds Drug Testing*, Miami Herald, Oct. 29, 1986, at 1A. *See also* Kaufman, *The Battle Over Drug Testing*, N.Y. Times, Oct. 19, 1986, § 6 (Magazine), at 52.

3. Exec. Order No. 12,564, 51 Fed. Reg. 32,889 (1986).

4. PRESIDENT'S COMMISSION ON ORGANIZED CRIME, AMERICA'S HABIT: DRUG

The widespread and rapidly growing acceptance of drug testing programs reflects a two-fold consensus: that drug abuse in the workplace is a major source of inefficiency and dangerous conditions, and that drug testing is a reasonable, effective solution to these problems. This article challenges both propositions. It will show first that the dimensions of illegal drug abuse in the workplace are small in comparison to those of alcohol abuse, so that universal drug testing is radically disproportionate to the scope of the problem. Second, it will show that drug testing has little functional value in screening out impaired workers or job applicants, i.e., those who fail to meet objective standards of productivity and safety. Nor is it intended to do so. Rather, drug testing is an exercise in symbolism, an expression of the hostile attitude of the War on Drugs. Drug testing may succeed in punishing illegal drug use through fear of dismissal or other job sanctions. But, drug testing as an indicator of impairment is so tenuous that it must be understood as an ideological initiative intended to stigmatize non-conformity and coerce conformity with the law. Whether or not that type of deterrence is a legitimate policy is, of course, subject to debate. The point here is simply that drug testing should be seen for what it is rather than what public rhetoric portrays it to be. Drug testing has little to do with performance. It is driven instead by the categorical imperative that drugs are bad and we are going after them.

II. Sweeping Away the Intellectual Underbrush

To sharpen this point, it is useful to begin by sweeping away the intellectual underbrush of the drug testing controversy. Prevailing criticisms of drug testing mostly miss the mark, failing to confront the legitimacy of drug testing *per se*. Typical objections focus on technical issues such as the potential for innocent, unknowing ingestion of a controlled substance (ambient marijuana smoke, for example); the problem of false positives, such as the claim that EMIT [Enzyme Multiplied Immunoassay Test], the most commonly used method of urinalysis, gives a false positive in at least 5% of the samples; or the potential for mishandling or tampering with a urine sample.[5] But these objections can be put to rest by better technology, reliance on confirming tests of preliminary positive results, and adherence to strict chain-of

---

ABUSE, DRUG TRAFFICKING AND ORGANIZED CRIME 10 (1986).

5. Tampering with samples is a two-way street; black market samples of clean urine are sold to those who want to beat the system. *See* Freedberg, *supra* note 2.

custody standards for maintaining the integrity of physical evidence that now apply in criminal cases.[6] Other critics fret about resources wasted in testing,[7] as sophisticated test procedures can cost up to $100 per sample. Better technology will also undermine this objection. Some commentators base their objections on legal grounds. They argue that fourth amendment privacy rights of public employees are violated by mandatory urinalysis tests.[8] But the constitutional prohibition against unreasonable searches and seizures does not apply where authorities have probable cause, and investigative intrusions short of a full-scale search are legitimated by "reasonable suspicion" of wrong doing.[9] Thus, the constitutional objection has bite only against random or universal testing without cause but concedes the legitimacy of testing under "proper" circumstances. The ACLU, for example, takes this position;[10] and most lower courts have agreed that some factual predicate is required to justify administering the test to an individual.[11]

---

6. *See* Rep. Patricia Schroeder, Chairperson, Subcomm. on Civil Service, Comm. on Post Office & Civil Service, Staff Report, at 17 (June 20, 1986).

7. *Id.*

8. There is a constitutionally protected liberty or property interest in public employment under the due process clause, Paul v. Davis, 424 U.S. 693 (1976); Board of Regents v. Roth, 408 U.S. 564 (1972).

9. *See* Terry v. Ohio, 392 U.S. 1 (1968) and its progeny, *e.g.*, United States v. Place, 462 U.S. 696 (1983).

10. *See* Siegel, *Toward the New Federal Right to Privacy*, 11 NOVA L. REV. 703 (1987).

11. All the cases decided thus far have agreed that drug testing implicates the right of privacy, although at least one appellate judge has questioned whether a person can maintain an expectation of privacy in bodily waste products. National Treasury Employees Union v. Von Raab, 808 F.2d 1057 (5th Cir. 1987) (Judge Higginbotham concurring in denial of Government's application for stay). On February 3, the court heard oral argument in the Government's appeal of the district court's order enjoining the Custom Service's plan to test those who apply for positions directly involved in drug interdiction, who carry firearms, or who have access to classified information.

Most of the cases agree that urinalysis of a public employee constitutes a warrantless search of the person and that the fourth amendment requires "reasonable suspicion" or "particularized suspicion." Applying this standard, courts upheld the drug tests in Allen v. Marietta, 601 F. Supp. 482 (N.D. Ga. 1985); Turner v. Fraternal Order of Police, 500 A.2d 1005 (D.C. 1985); Everett v. Napper, 632 F. Supp. 1481 (N.D. Ga. 1986). Applying the same standard, drug tests were struck down as unconstitutional in Jones v. McKenzie, 628 F. Supp. 1500 (D.D.C. 1986); Capua v. City of Plainfield, 643 F. Supp. 1507 (D.N.J. 1986); Lovvorn v. City of Chattanooga, 647 F. Supp. 875 (E.D. Tenn. 1986); and Patchogue-Medford Congress of Teachers v. Board of Educ., 119 A.D.2d 35, 508 N.Y.S.2d 888 (1986). The major exception is Shoemaker v. Handel, 795 F.2d 1136 (3d Cir. 1986), upholding drug testing of jockeys without

Yet another set of concerns focuses on procedural matters, such as whether a monitor will watch a worker urinate into a bottle or whether there will be an opportunity for a hearing to challenge the accuracy of test results. In short, the main currents of debate swirling around the drug testing issue deal only with the time, place and manner of administering the tests. These "challenges" to drug testing have little power because they implicitly concede the fundamental question whether drug testing can claim any legitimacy at all. For the truth of the matter is that the instrumental and practical — as distinguished from ideological and symbolic — basis for drug testing is very feeble and cannot survive critical scrutiny intact.

The main justification for drug testing of employees or applicants is efficiency: to promote the productivity of workers and their safety in the workplace. A worker who tests positive for drugs is assumed to be impaired and therefore to produce less (quantitatively or qualitatively) and to make errors that endanger himself, co-workers or the public. The President's Executive Order states a typical rationale: "Federal employees who use illegal drugs, on or off duty, tend to be less productive, less reliable, and prone to greater absenteeism. . . ." Drug use "impairs the efficiency of Federal departments and agencies. . .[and] can pose a serious health and safety threat to members of the public and to other Federal employees."[12]

These claims are at best unproven. Certainly the President's Order did not respond to any comprehensive empirical study of the federal workforce regarding safety, unreliability, absenteeism, and the like. Indeed, after the Presidential Order was issued, press accounts of interviews with officials in various government departments described drug use as minimal. Many said alcohol was a far greater menace to alertness and productivity. Furthermore, the President rejected the recommendation of the Labor Department that a study be made to determine the extent of illegal drug use among federal workers. Of course, ideological presupposition requires no proof; faith does not depend on facts. And the operative belief was expressed by President Reagan in his 1982 declaration of war: "Drugs are bad and we're going after

---

cause under the "administrative search exception" to the fourth amendment. Language in McDonell v. Hunter, 809 F.2d 1302 (8th Cir. 1987), points in a similar direction, allowing testing of prison guards by "systematic random selection," but the case is narrower on its facts because plaintiff was arguably under suspicion. *See generally*, Stille, *Some Judges Say 'No' to Drug Tests*, Nat'l L. J., Oct. 6, 1986, at 1.

12. *Supra* note 3.

them."[13]

But what about the "drug crisis"? Isn't that a valid and concrete predicate for drug testing in the workplace? Everyone "knows", after all, that drug abuse costs employers billions of dollars in lost productivity, insurance claims and the like. In 1983, for example, *Newsweek* magazine ran a cover story on the issue.[14] It presented the results of a 1977 Study by the Research Triangle Institute showing the cost of drug abuse to the economy at $25.8 billion (in 1983 dollars). In 1986, *Time* followed with its own cover story on the subject. This time the Research Triangle Institute study of the cost of drug abuse in 1983 was estimated as $60 billion.[15] *Time* also asserted that "[f]ederal experts estimate that between 10% and 23% of all United States workers use dangerous drugs on the job."[16] Closer to home, the City of Miami rejected 25 of 272 job applicants (9%), most of whom tested positive for marijuana or cocaine or both.[17]

Carlton Turner, President Reagan's adviser on drug abuse, asserts that employees who use drugs perform at only 67% of their normal ability. Where does one begin to analyze a statement like that? Which drug? What job? What measurement of performance? Other drug warriors, such as former DEA Director Peter Bensinger, blame drug abuse for poor industrial performance in the late 1970's but nonfarm productivity rose at an annual rate of 4.3% when *Newsweek* published its story — during the greatest cocaine boom in history. Cause and effect are quite elusive.

Mandatory drug testing programs have a lot more to do with defending anti-drug cultural norms by espousing homilies than with serious analysis of employee productivity. This is not to deny the obvious anecdotal evidence of employee failure, theft or accidents apparently caused by drug abuse. This is not the issue. The question is whether there is a substantial fit or match between the perceived problem and the proposed solution. The argument here quite simply is that for most employees in most jobs drug testing does not substantially promote the goals of efficiency and safety.

---

13. *Supra* note 1, at 1253.

14. *Drugs are Rife in the Workplace and the Human and Economic Costs are Enormous*, NEWSWEEK, Aug. 22, 1983, at 52.

15. TIME, Mar. 17, 1986, at 52-3.

16. *Id.*

17. Livingston, *Dade Formulating New Employee Drug-Testing Policy*, Miami Herald, Jan. 8, 1987, at 1D.

There are three principal points. First, the President's drug testing program, like many in the private sector, applies only to illegal drugs. A drug program that disregards alcohol, the major source of worker impairment, cannot be taken seriously as a program focused upon performance. Second, illegal drug traces in the urine of a worker or applicant show only past use of that drug and very little, if anything, about the present physical and mental condition of the person tested. Third, even if drug testing could be technologically refined to pinpoint the recency of use, i.e., to show that the person tested was then under the pharmacological influence of the drug, that would not itself prove his intoxication or impairment.

III. The Exclusion of Alcohol From Testing

The first point requires little elaboration. The exclusion of alcohol from the scope of any drug testing program strips it of rationality. Even the most hysterical purveyors of a "drug crisis" concede that the scale of alcohol abuse far exceeds that of drug abuse (although the purity of the two categories is muddled by the phenomenon of polydrug abuse and cross addiction). For example, *Time*, which ran four cover stories on drugs in the 1981-86 period, concedes that the cost of alcohol abuse runs double that of drug abuse. Its data came from the Research Triangle Institute, which also provided the information for a report by *The Conference Board* on controlling substance abuse in the corporate sector.[18]

The data show that of $16.9 billion in treatment and support costs, $14.9 billion goes for alcohol abuse, only $2 billion for drug abuse. The loss in production due to premature mortality is computed at $20.6 billion, with $18.2 billion attributed to alcohol, $2.4 billion to drugs. Of $98.9 billion in reduced productivity, roughly ⅔ results from alcohol abuse, ⅓ from drug abuse. Of $5.7 billion in lost employment, $5.3 billion arises from alcohol abuse. Of $52 billion in social welfare costs, only $3 billion comes from drug abuse and $49 billion comes from alcohol abuse. Only in the area of criminality does alcohol impose less social cost; and that for the stunningly obvious reason that alcohol is legal while the predominant black market drugs (marijuana, cocaine, and heroin) are steeped in lawlessness and generate secondary crimes to facilitate illicit transactions and to pay the exorbitant crime tariffs of

the black market.[18a]

Given these facts of contemporary life, it would take transcendental creativity to conclude that programs of testing for illegal drug use that exclude alcohol are really directed toward policing the productivity

---

18. THE CONFERENCE BOARD, CORPORATE STRATEGIES FOR CONTROLLING SUBSTANCE ABUSE 13 (Axel ed. 1986).

An Update on Costs

ECONOMIC COSTS TO SOCIETY OF ALCOHOL AND DRUG ABUSE, 1983

Millions of Dollars

	Total	Alcohol Abuse	Drug Abuse
CORE COSTS[1]			
Direct:			
Treatment and Support	$16,914	$14,865	$2,049
Indirect:			
Mortality[2]	20,637	18,151	2,486
Reduced Productivity	98,928	65,582	33,346
Lost Employment	5,728	5,323	405
OTHER RELATED COSTS			
Direct:			
Motor Vehicle Crashes	2,667	2,667	a
Crime	9,172	2,607	6,565
Social Welfare Programs	52	49	3
Other	4,350	3,673	677
Indirect:			
Victims of Crime	1,137	192	945
Crime Careers	10,846	0	10,846
Incarceration	5,404	2,979	2,425
Motor Vehicle Crashes (time loss)	583	583	a
TOTAL[3]	$176,421	$116,674	$59,747

[1]"Core" costs are costs that occur in the health sector. "Direct" costs are those in which resources are consumed and formal payment in cash or in kind is made. "Indirect" costs involve no formal payment for resources used and may be incurred over a period of time.

[2]Production lost due to premature death calculated at 6 percent discount rate.

[3]Totals may not add due to rounding. Data for alcohol and drug abuse are not strictly comparable. Most significant differences occur in the completeness of data relating substance abuse and reduced productivity. Figures are more complete for alcohol abuse.

[a]Insufficient data to provide reliable estimate.

Source: Harwood, 1984, at G-16.

18a. H. PACKER, THE LIMITS OF THE CRIMINAL SANCTION (1968).

and safety of workers. Even if a positive urinalysis is assumed to be a meaningful index of worker impairment, the exclusion of alcohol makes it radically and irrationally under-inclusive. As a constitutional matter, of course, under-inclusiveness does not invalidate a legislative classification. The one-step-at-a-time rationale permits the legislature to address itself "to the phase of the problem which seems most acute to the legislative mind."[19] But this deferential legal rule mocks rationality. Indeed, the point of the rule is to defer to the irrational or unprincipled nature of the political process.

The likelihood that far more workers come to the office or plant hung over on alcohol (or return tipsy from lunch) than high on marijuana or stimulated by cocaine, is simply irrelevant to the political counterattack on illegal drug use. A bona fide testing program — one truly focused on preventing or minimizing worker impairment — could not exclude alcohol, the single greatest source of impairment, on the ground that it is a legal drug. Legality is an artifact of culture, while impairment belongs to the domains of science and medicine. For this reason, a few government agencies, such as the Tennessee Valley Authority in "the nuclear work environment," do test for alcohol.[20] Most agencies do not test for alcohol abuse, however. This merely confirms that testing for illegal drugs is generally intended to promote cultural values other than efficiency or safety.[21]

IV. The Past/Present Dichotomy In Drug Testing

Even if one assumes that the tests are accurate,[22] traces of cocaine or marijuana in the urine provide only historical evidence that the test subject has ingested those drugs. But there is no basis to infer from a positive test result that the subject is under the *influence* of the drug at the time of testing. In the language of economists, urinalysis is a "lagging indicator." Unlike a breathalyzer test for alcohol, a positive urine test does not prove a contemporary altered physical or psychic condition.[23] If a person snorts a few lines of cocaine, for example, the drug

19. Williamson v. Lee Optical Co., 348 U.S. 483, 489 (1955).
20. Schroeder Comm. Report, *supra* note 6, at 30.
21. *See infra* note 36.
22. *See* Dubowski, *Drug-Use Testing: Scientific Perspectives* 11 NOVA L. REV. 415 (1987); *See generally*, Stille, *Drug Testing: The Scene is Set for a Dramatic Legal Collision Between the Rights of Employers and Workers*, Nat'l L.J., Apr. 7, 1986, at 22-23.
23. Schroeder Comm. Report, *supra* note 6, at 11.

has a short half-life and is rapidly metabolized in the body.[24] Most of the subjective experience of say 50 milligrams of the drug will dissipate within 20 to 30 minutes. In short, the subject will rapidly return to physical and psychological equilibrium. He will not in other words be "under the influence" of the drug. Yet 2-3 days later, urinalysis may well reveal traces of the cocaine. An employee would then face disciplinary action for prior conduct despite the fact that he would be fully functional on the job.

The discrepancy between then and now approaches the extreme with marijuana. Depending upon the amount (and potency) of the intake, the effect of the drug will wear off within a few hours or more. Certainly, the intoxication of a joint smoked on Saturday night ordinarily dissipates by Sunday or Monday. But urinalysis will catch traces of THC in the urine for up to 30 days after ingestion.[25] Again, there is hardly any congruence between a positive drug test for THC and the (altered) condition of the subject at the time of testing.

This argument, however, is vulnerable to advancing technology. Technically, it may become possible to refine the tests (or administer them more frequently) to establish the amount taken and the recency of ingestion. In other words, it may become possible to establish that a drug was taken so close to the time of the test that the subject is likely to be under its influence when tested. If that technology should evolve, drug testing could claim better justification: the ability to pinpoint those who are under the influence while on the job would arguably identify impaired workers.

Here we get closer to the goal. Yet this argument uncritically and inaccurately equates the mere fact of chemical influence or drug action in the body with impaired performance. In fact, drug consumption will often have no measurable impact on job performance, and some drugs may actually improve performance. Everything turns on the nature of the task, the drug, the dose, and the subjective or experiential response of the individual. Therefore, drug testing becomes a very poor means of promoting high performance. Even common sense suggests that direct measures of worker efficiency are better than oblique, ambiguous and irrationally selective evaluations of an employee's pharmacological condition. Why make speculative inferences when direct measures are available? The answer, once again, is ideological.

---

24. Wisotsky, *Exposing the War on Cocaine:The Futility and Destructiveness of Prohibition*, 1983 WIS. L. REV. 1305, 1410.

25. Schroeder Comm. Report, *supra* note 6, at 12.

The drive to install universal drug testing programs rests on the operative Presidential assumption of the war on drugs that drugs are "bad." It is therefore believed that a person "on drugs" is, at the very least, disabled from normal functioning and, at the worst, a menace to himself or to those around him. This is not generally true, and certainly not any more true of marijuana or cocaine than it is for alcohol. Here is where cultural truth clashes with science, where fact (or at least reasoned inquiry) falls beneath the crushing weight of what J.S. Mill called the tyranny of majority opinion.

Contrary to the conventional wisdom, there are two inescapable truths about the connection between drug intake and human behavior, including job performance. First, the most common "recreational drugs" — alcohol, marijuana and cocaine — do not cause or determine any particular course of human behavior or misbehavior. People under the influence can behave as"normal" people do, from the sublime to the psychotic. Second, to the extent that certain physical or mental abilities are affected by the use or abuse of drugs, alcohol is by far the greatest danger to accuracy, control, good judgment and other qualities that constitute safety and productivity of workers. Let's take these one at a time.

First, a lot of what we commonly regard as inappropriate mixing of drugs and work represents no more than convention (and its flip side, taboo) rather than empirically based judgments. In fact, prodigious feats of human performance have been accomplished by people under the influence of alcohol, opium, cocaine and other drugs. One of the greatest hypocrisies of the war on drugs is the dishonest, undimensionally negative portrayal of illicit drugs as *always* bad for health or performance. This is as false as the equivalent condemnation of a glass of wine or a prescribed valium tablet. The only meaningful distinction is between use and abuse, moderation and excess, responsibility and irresponsibility. If businessmen can take wine or vodka with lunch or dinner and consummate multi-million dollar transactions, it is no less true of other drugs. Only the legal stigma differentiates the two.

This is a very unpopular thing to say — heresy always is — but it is nonetheless true. There is abundant empirical evidence accumulated over several centuries that the frequent consumption of large quantities of drugs of many kinds is perfectly consistent with a raging work ethic. The Chinese Coolies smoked opium and built the U.S. railroads quite efficiently in the 19th century. In fact, they worked so hard and so productively that they earned the enmity of white coworkers who then barred them (literally) from the country with the Chinese Exclusion

laws.[26] A generous daily ration of whiskey was standard issue for sailors, soldiers, miners and plantation workers at many times in the past. Today athletes take steroids to improve their physical development and amphetamines to enhance their competitive edge. Long distance truckers also favor amphetamines to maintain alertness during long hours on the road. (Cocaine has a similar effect but suffers the disadvantage of having a short span of action.) Throughout his outstanding dancing career, Mikhail Baryshnikov smoked cigarettes and drank freely. So did Mickey Mantle. Babe Ruth was known as a glutton and heavy drinker. Gelsey Kirkland, a principal dancer for the New York City Ballet Company, danced under the influence of cocaine for a period of years. Perhaps it would be better to hide the "warts" of these culture heroes from impressionistic youngsters. But there is no basis for the universal assumption that drug use necessarily impairs professional performance. Certainly, it has that potential; and often that potential is realized. But proponents of drug testing have not weighed the evidence to come up with a reasoned assessment of the relationship of particular drugs to particular jobs.

At the same time, it is indisputable that drug intake, legal or not, sometimes results in absenteeism, diminished productivity, industrial accidents and the like. On this score, the damaging evidence weighs most heavily against alcohol, because of its high toxicity and impairment of motor skills. Cocaine is rather more dualistic in character.

A review of the psychopharmacology of cocaine is beyond the scope of this article. While it clearly has a dark side, the reputation of cocaine as an addictive and dangerous drug far exceeds the evidence. Media hype and government propaganda bear the primary responsibility for irrational fears about the drug. The sensationalistic reports of notorious tragedies such as those with John Belushi, Richard Pryor, David Kennedy, and Len Bias have tended to portray these aberrations as the norm. In fact, just about 600 official cocaine overdose deaths occurred in 1985, as compared to one third of a million from cigarette-caused diseases or one quarter million from long-term alcoholism or acute intoxication leading to traumatic death.[27] Of course, addiction to cocaine is a justifiable concern in light of its rapid growth, but the question here is not prevention of addiction but the pharmacological effect of the drug on human performance in the workplace by the ma-

---

26. Act of May 6, 1882, ch. 126, 22 Stat. 58, *amended by* Act of July 5, 1884, ch. 220, 23 Stat. 115.

27. Wisotsky, *supra* note 24, at 1406-08.

jority of persons who are not addicted.[28] That side of the coin has been suppressed because it subverts orthodoxy. The truth is that cocaine, like amphetamines, can facilitate many kinds of work.

Let us take a hypothetical scenario in which a 9-to-5 worker tests positive for cocaine at 11:30 a.m. Suppose further that sophisticated tests of the future are able to pinpoint the time of ingestion to 8:30 that morning. Given the short half-life of cocaine, we can infer that the worker was to some degree stimulated by cocaine while in the office. The common place assumption would be to view the worker as impaired. But the taint of illegal drugs such as cocaine is rather more metaphysical than pharmacological. Moderate levels of central nervous system stimulation generally promote efficient performance. The twice-daily coffee break reflects that reality. Overstimulation, of course, is counter-productive, and cocaine may well be a difficult drug to use in moderation, but that is quite a different argument from the *per se* equation of cocaine ingestion and impaired performance.

Among the most important data neglected by the negative political consensus on cocaine are Freud's own studies suggesting that as a stimulant of the central nervous system (CNS), cocaine in moderate doses can improve physical and mental performance. For example, Freud's self-experiments with cocaine showed some improvement in eye, ear, and hand coordination in his tests with a neuroamoebimeter, a device that emits a tone and measures the time it takes for a subject to react to stop the tone. After taking a tenth of a gram of cocaine, Freud's reaction times were usually shorter and more uniform than before taking the drug.[29]

In addition to improved reaction times, Freud found that taking cocaine generally caused his physical strength, as measured with a hand dynamometer, to increase. Freud's findings apparently have been

---

28. In a 1984 paper for NIDA (*Research Monograph 50*), Dr. Ronald Siegel concluded that the "hypothesis that long term use of cocaine is inevitably associated with an escalating dependency marked by more frequent patterns of use is not supported by these findings." Instead, he found that "social recreational users maintained relatively stable patterns of use" in the face of ready supplies and increased income as they aged. This undermines the view that cocaine is inherently addictive. Indeed, the probability is that cocaine addiction occurs in 10-20% of the population at risk, resembling the rate of alcoholism. Consider that in excess of 21 million people have tried cocaine at least once, according to the NIDA 1985 National Household Survey. *See* Wisotsky, *supra* note 24, at 1411.

29. S. Freud, *Contribution to the Knowledge of the Effect of Cocaine*, COCAINE PAPERS 98, 103 (R. Byck ed. 1974).

rediscovered by contemporary athletes. According to media reports, many professional athletes, especially football and baseball players, have used cocaine during the playing season, and sometimes amphetamines during the games themselves. Some of these players turned in brilliant performances, suggesting that the consumption of cocaine, like amphetamines, may be beneficial for speed and strength, at least in the short run. In a sports "scandal," the Commissioner of the National Football League suspended four players for four games of the 1983 season "because of their involvement with cocaine."[30] One of the four, defensive end Ross Browner, had set a Super Bowl record of 10 unassisted tackles. Another, running back Pete Johnson, was the all-time leading rusher for the Cincinnati Bengals. A third, a rookie, finished third in team tackles. It seems doubtful that cocaine hurt their playing.

Unlike the paucity of controlled studies of cocaine, marijuana has been prominent in American culture long enough to produce a vast body of literature on its behavioral effects. Nevertheless, as a result of uncontrollable variables of dose, tolerance, set and setting,[31] it too is awash in ambiguity. Let's take as an example the operation of machinery. The intuitive assumption would regard marijuana as similar to alcohol in dulling cognitive acuity and degrading motor coordination so that driving a car would be irresponsible. The staff of *Car and Driver Magazine* put that hypothesis to the test, with results that powerfully undermine what everyone "knows." Initially, testers drove against the clock on a challenging slalom course to establish a base time. The testers then smoked marijuana and repeated the experiment with successive runs as they progressively got more stoned. Their accuracy and times held close to the same as their base levels.[32] Two drivers actually improved. By contrast, the magazine's similar test of the effects of drinking on driving performance confirmed the commonplace dangers, demonstrating gross deterioration of motor skills.[33] Once again, *bona fide* concern for industrial safety and productivity could not possibly

30. *NFL Benches Four Players for Drug Use*, Miami Herald, July 26, 1983, at 1C.

31. *See* N. ZINBERG, DRUG SET AND SETTING: THE BASIS FOR CONTROLLED INTOXICANT USE (1984).

32. Knepper, *Puff, the Dangerous Drug*, CAR AND DRIVER, June, 1980, at 43. Compare a study performed at Stanford University Medical School. In that study, pilots voluntarily smoked marijuana and then tested their flying skills on a flight simulator. The results of the test were negative. Apparently, driving entails a low level exercise of motor coordination.

33. Thompson, *High Driving*, CAR AND DRIVER, Mar., 1978, at 30.

exclude alcohol from the scope of testing where hand-eye coordination is important.

This, of course, raises as many questions as it answers. The alcohol/marijuana comparison may cut the other way for different jobs. Marijuana use may impair the performance of more complex tasks like flying an airplane. Some jobs place a premium on brute strength, agility (sports, dance), on alertness (air traffic control), on repetitive physical motion (assembly line), on complex judgment and evaluation (securities trader) and so on. Job performance is thus not a unitary phenomenon. This is precisely the reason why urinalysis is such a crude and barely relevant measure of ability, even if the test could verify that the employee was then "under the influence."

When all is said and done, the question remains: Isn't drug testing a reasonable response to the fear of worker impairment resulting from drug abuse in the workplace? The answer is no. If society is really interested in safety and efficiency, it should devise standards of safety and efficiency. The way to measure performance is to measure performance. Rather than testing the typist's urine for drug traces, why not test the typing? If a "pop quiz" produces acceptable speed and accuracy scores, what then is the relevance of cocaine in the urine? Conversely, if the typing is not acceptable, of what importance is the absence of drugs in the urine?

Other procedures would have to be devised. Perhaps pilots could be tested at computer consoles that simulate flight. Assembly line workers could be tested in time and motion studies. Sales personnel could be tested by volume of sales. Other jobs, especially those where qualitative judgments must be made, may be more difficult to assess. But that is the duty of supervisory personnel.

A lot of what is now blamed on drugs is simply poor supervision. In June, 1985, a Miami Metrorail train crashed; twelve people were injured and several million dollars in property damage resulted. The driver had received eight reprimands and four suspensions for violating county rules as a bus driver. The driver was compelled to undergo urinalysis 16 hours after the accident. The test was positive for cocaine, marijuana and Valium, but it was unclear whether he was intoxicated at the time of the accident. He was fired for negligent operation of the train, in violation of procedures.[34] In short, the drug issue only raised a cloud of suspicion and did not resolve the question of impairment.

---

34. Fisher & Soto, *Driver in Metrorail Crash has a Spotty Job Record*, Miami Herald, June 28, 1985, at 1A.

Given the driver's long history of violations, he should probably have been dismissed *before* the accident. Since the accident was based on negligence, why even bother with urinalysis? The negligence speaks for itself. Could previous drug testing have weeded out that driver? Of course, but it's a strained and irresponsible system that would fire him for traces in the urine but not for repeated rules violations. A drug test is no substitute for good judgment.

Ultimately the challenge to an employer is to develop and enforce standards of evaluation tied in a meaningful way to the actual purpose of the job in question, as opposed to reliance on a relatively mindless, insensitive drug test. Are there nevertheless some jobs that are so critical, so delicate, so risk-laden that the cloud of suspicion raised by a drug test might justifiably be used for preventive or disciplinary purposes? Perhaps for soldiers, neuro-surgeons, or nuclear weapons personnel a prophylactic case can be made. In some areas of life, it is necessary to adhere to a spartan standard, to devote oneself completely to a task, and to give up the ordinary distinctions between one's personal and professional life. But merely to enumerate these special cases shows how far removed they are from relevance to the mass of employees in either the public or private sector. The irony is that the routine, bureaucratic work performed by the majority of Civil Service workers and other clerical personnel presents the *least* justification for drug testing.

V. Conclusion

In the end, universal drug testing of the work force in routine, nonsensitive jobs cannot plausibly be justified on morally neutral economic and safety grounds. At its core, drug testing is not about safety or productivity in the workplace. Rather, it is a transparent injection of governmental power into the private lives of workers. It is clearly intended to coerce and intimidate them into obeying the drug laws and to punish them for failing to do so. If administered frequently enough, drug testing may have a significant deterrent effect on illegal drug use. From the government's point of view, it is a neat solution, given the impotency of the criminal law to control the drug trade. Cocaine imports have tripled since 1980 and marijuana has become a principal cash crop in the United States. Sanctions for drug use, including dismissal, can be imposed even though the government would not be able to prove a criminal violation beyond a reasonable doubt. The sanction, moreover, has real bite. For most people, loss of employment is far

more severe than the probationary sentences typically meted out to first time drug users (not sellers) upon conviction. The drug testing program thus fulfills the frustrated societal need to strike back at the alien "them" that has so notoriously defied law and convention in taking illegal drugs.

The idea that dismissal from employment is a legitimate law enforcement tool has incredibly far-reaching implications. If drug testing does not measure job performance but nevertheless constitutes legal cause for loss of a constitutionally protected entitlement, then the logic of dismissal might apply with equal force to all other entitlements — Social Security benefits, VA benefits, retirement pensions, food stamps, *ad infinitum* to all species of the "new property".[35] Such radical measures may or may not be foreseen by drug testing proponents. But such is its inner logic. And the law, as Justice Oliver Wendell Holmes reminds us, has a tendency to expand a principle to the limits of its logic.

I have written elsewhere[36] about the complex of social attitudes that animates the War on Drugs. They are non-empirical, ideological, intolerant and increasingly vindictive.[37] Drug testing is merely one expression of that larger social reality. The zeal to condemn and isolate the bad — those who take illegal drugs — should not be mistaken for a rational response to a clearly defined social goal of promoting productivity and safety in the workplace. That would require a reasoned assessment of the subtle interrelationship of a particular job task, a particular drug, and the time and occasion of its use. Most of all, it would focus directly on the work actually being done by workers, rather than indulging speculative inferences about what might happen as a result of drug use in the past.

---

35. Reich, *The New Property*, 94 Yale L.J. 1617 (1985).

36. S. Wisotsky, Breaking the Impasse in the War on Drugs (1986) argues that drug laws have only a slight mooring in evidence of physical or psychological harm; that culture and tradition play the dominant role in the legal regulation of drugs; and that the war on drugs can be interpreted as a struggle for cultural hegemony between the drug-naive generation over age 50 and a younger, more sophisticated generation.

37. *See* Wisotsky, Crackdown: The Emerging "Drug Exception" to the Bill of Rights 38 Hastings L.J. (in press).

Major League Baseball and Drugs: Fight the Problem or the Player?

Glenn M. Wong* and Richard J. Ensor**

I. Introduction

The drug abuse issue is one of the most emotionally charged and important questions facing sports and society today. It dominates the sports and general news to the extent that it may often push stories about sporting events to the back pages of newspapers and other media coverage. The drug issue does not have easy solutions and the sports industry, as well as society, is struggling to find answers. Any final solution must consider: medical issues; the accuracy of the testing procedures; as well as what type of drugs are to be tested for and how frequently. Should testing include "street drugs," such as marijuana and cocaine, or just performance enhancing drugs, such as steroids?

There are important labor law concerns about drug testing in professional sports. The players and their labor organizations, the players associations, have contractual rights which must be considered. Drug testing in sports may also involve constitutional issues such as the right of athlete-employees to privacy, illegal search and seizure, and confidentiality. Such matters are representative of the many legal questions that are invariably raised as a result of any planned or implemented drug testing plan. Finally, in professional sports you have league and team concerns. Administrators and coaches are concerned about the impact of drugs on the image of professional sports as a whole as well

* Glenn M. Wong is Professor of Sport Law at the University of Massachusetts-Amherst. He is a lawyer and has co-authored a two-volume book entitled LAW AND BUSINESS OF THE SPORTS INDUSTRIES. He has published numerous articles on sports law, sports finance and business and sports labor relations. He is a graduate of Brandeis University and Boston College Law School, and is a member of the Massachusetts Bar.

** Richard J. Ensor is on the faculty of the Sports Management Department at the University of Massachusetts-Amherst. He has served as Assistant Athletic Director of Marketing and Promotions at Seton Hall University and has also served as Sports Information Director at Saint Peter's College in Jersey City, New Jersey, and Assistant Athletic Director at St. Louis University. Mr. Ensor is a graduate of Seton Hall University School of Law.

as on the individual players.

This article will discuss the recent history and the current status of the legalities of the drug use and testing issues with regards to Major League Baseball (MLB). It will examine existing and proposed drug testing policies for professional baseball. An attempt will also be made to examine the labor law issues raised by these policies with emphasis placed on the arbitration decisions that have been rendered in this area of sport law. The operation of professional leagues is governed under the labor laws, since a collective bargaining agreement (CBA)[1] has been negotiated between management and the union. Therefore, most of the issues and cases involving drug testing and usage in MLB have been and will be resolved in the internal grievance and arbitration system as stated within the collective bargaining agreement. Pursuant to the National Labor Relations Act,[2] the National Labor Relations Board (NLRB)[3] will hear a dispute upon the filing of an unfair labor practice grievance. The judicial system is likely to serve only as an appellate review of decisions made by an arbitrator or the NLRB and the scope of judicial review will be limited.

II. Collective Bargaining Agreements and Dispute Resolutions in Major League Baseball

The use of arbitration as a dispute resolving mechanism in Major League Baseball initially came about as a provision of baseball's first Collective Bargaining Agreement in 1968 and has been included in the subsequent bargaining agreements in 1970, 1976, 1980, and 1985.

The value of the arbitration process for Major League Baseball is not only in its expedient resolution of grievances for the two parties involved, but the process is also an effective policy-making tool. Arbitration defines problem areas, explores alternatives and often prevents a

---

1. A collective bargaining agreement is an "[a]greement between an employer and a labor union which regulates terms and conditions of employment." BLACK'S LAW DICTIONARY 239 (5th ed. 1983).

2. The National Labor Relations Act was passed in 1935 as the Wagner Act. It was amended in 1947 (Taft-Hartley Act) and 1959 (Landrum-Griffin Act). It governs most relations between employers and employees in the United States. It established the NLRB. *See* D. LESLIE, CASES AND MATERIALS ON LABOR LAW: PROCESS AND POLICY 9 (1985).

3. The National Labor Relations Board is an independent federal agency established in 1935 by the National Labor Relations Act (Wagner Act). *See* D. LESLIE, CASES AND MATERIALS ON LABOR LAW: PROCESS AND POLICY, 10 (1985).

repetition of the incident giving rise to the complaint by either establishing precedent or pointing out problem areas which need careful examination or re-working in the next collective bargaining agreement.

Arbitration has had a tremendous impact on professional baseball. The *Messersmith-McNally* arbitration decision, for instance, effectively challenged the reserve system and set the stage for greater player mobility and increased salaries within the sport. While player salary arbitration now dominates the sports pages, in terms of generating both internal controversy and public interest in baseball,[4] non-salary arbitration proceedings have also had an important role in shaping Major League Baseball and impacting on the relationship between owners and players. Drug testing grievances in Major League Baseball fall within the jurisdiction of non-salary grievance arbitration.

A professional player in Major League Baseball draws his benefits and responsibilities from two documents: 1) The collective bargaining agreement which is negotiated between the MLB Player Relations Committee (representative for the individual Clubs) and the MLB Players Association (MLBPA) (representative of the players), and 2) his individual MLB Uniform Player Contract. Each player, often with the assistance of an agent, separately negotiates the individual player contract with his ballclub.

From 1970 to 1986, there have been five collective bargaining agreements negotiated in Major League Baseball. The most recent was negotiated in August, 1985. Each successive agreement has been modified to a certain extent in an attempt to alleviate problems or discrepancies caused by the previous agreement and address new problems or issues.

The negotiation of the first MLB agreement in 1967 and the inception of the pact in 1968 resulted in a four step grievance procedure:

> STEP ONE: Any grievant could bring a verbal complaint to a club representative. Discussions would be held in an attempt to resolve the issue. The club representative delivered a written decision to player and Players Association.

---

4. *See* Miller, *Arbitration of Baseball Salaries: Impartial Adjudication in Place of Management Fiat*, ARB. J., Dec. 1983, at 31; and Grebey, *Another Look at Baseball's Salary Arbitration*, ARB. J., Dec. 1983, at 24. For a review of procedures associated with non-salary arbitration in Major League Baseball, *see* Wong, *A Survey of Grievance Arbitration Cases in Major League Baseball*, ARB. J., Mar. 1986, at 42; and Wong, *Major League Baseball's Grievance Arbitration System: A Comparison With Nonsports Industry*, 12 EMPL. RELATIONS L.J. 464, *reprinted in* 38 LAB. L.J. 84 (1987).

STEP TWO: Any grievant could appeal step one decision to a representative of the Player Relations Committee. Discussions would be held in an attempt to resolve the issue. The club representative would deliver a written decision to player and Players Association.
STEP THREE: Any grievant could appeal the step two decision to the Club's League President. An informal hearing would thus be held and it is followed by the written decision of the League's President.
STEP FOUR: Any grievant could appeal step three decision to the Commissioner. The Commissioner then would issue a final decision.

Under this grievance policy, MLB Commissioner William Eckert heard only two cases before the National Labor Relations Act of 1969 gave the National Labor Relations Board complete jurisdiction over Major League Baseball. This development effectively usurped the role of the Commissioner in the arbitration process by requiring the use of an impartial arbitrator to settle disputes. This set the stage for the institution of a tripartite arbitration panel which was introduced under the 1970 collective bargaining agreement. The tripartite panel consisted of a management representative, a union representative, and an impartial board member who chaired the panel.

The changes caused by the National Labors Relations Board decision in 1969 did not affect the grievance policy first established in 1968. This was not substantively changed until the 1980 collective bargaining agreement which removed step three in the process: appeal to the league presidents. This change condensed the pre-arbitration grievance procedure to two steps: the initial meeting with club officials and the second meeting with the Player Relations Committee representatives.

III. Major League Baseball's Historical Approach to Handling Drug Use by Players

Perhaps, Major League Baseball's favored status by way of sport lore[5] has hindered its ability to handle its drug problem. Whatever the cause, MLB has yet to devise a workable solution. Since the late 1970's, there has been a growing awareness of the drug problem in American sports and that "the grand old American game" was not immune from this malaise.[6] To understand the present controversy sur-

5. *See generally* R. KAHN, THE BOYS OF SUMMER (1972).
6. A 1983 research study compiled by the *New York Times* estimated that in the

rounding the question of drug testing in MLB, a review of some of the drug-related incidents involving major league players in the past decade may help.

One of the first major incidents involving MLB and drugs occurred on August 25, 1980. Ferguson Jenkins, a pitcher for the Texas Rangers, was arrested before a game against the Toronto Blue Jays for possession of small amounts of marijuana, hashish and cocaine.[7] This occurrence presented then MLB Commissioner Bowie Kuhn, acting under his authority in the MLB constitution to act in the best interests of the game, with his first opportunity to make a ruling on an active major leaguer involved in a drug-related incident.[8] In a letter dated

---

period from 1977 to 1983 that at least forty-two professional athletes had sought treatment for either alcohol or drug dependency, of whom twenty-three had been convicted of a related crime. Of this number eighteen were football players, fifteen baseball players and seven basketball players. *42 Pros Sought Treatment*, N.Y. Times, July 25, 1983, at C6, col. 5; *see also Drug Addiction: The Threat to Sports Keeps Growing*, N.Y. Times, July 25, 1983, at C1, 6, col. 2, 1.

7. In the Matter of the Arbitration Between Major League Players Association (Ferguson Jenkins) and Major League Player Relations Committee (Commissioner Bowie Kuhn), Decision No. 41 (1980) [hereinafter *Jenkins and Kuhn Arbitration*]. Jenkins was arrested under the Narcotics Control Act, at that time a separate Canadian federal statute which was not "enacted under the criminal law power." *Id.* at 5. The offense is considered to be "in the least serious category of criminal offense under Canadian Law — comparable to a misdemeanor under criminal law in the United States." *Id.* at 6.

8. Kuhn later explained his decision concerning Jenkins in the following manner:

> Right away the difficulty this creates is one of public relations for a — for the business of baseball. We have strongly endeavored in baseball to project a very wholesome image for our game. We have the provision in the player contract that the player will pledge to the public and to his club that he will maintain high standards of personal conduct.
>
> . . . .
>
> . . . There is, in addition, another facet to this that troubles me. Where you have charges like this, Mr. Chairman, you have to be concerned that drugs may possibly, improper drugs or illegal drugs may possibly be being used not only by Mr. Jenkins but by teammates. [W]e have the further problem of the involvement with criminal elements as illegal drugs are supplied, so far as I know, by people who are involved in criminal violations.
>
> . . . .
>
> . . . I also had to be concerned, if I may just touch on another aspect of this, with the fact that of all the professional sports, all the amateur sports, the one, I think, that has the greatest reputation as a family sport appealing to young children, women, mothers, family groups, is baseball. If you look at the makeup of our audience, both in the park and just

September 8, 1980, Commissioner Kuhn notified Jenkins that he was suspended from further play until Jenkins agreed to be interviewed about the Toronto arrest, and deny or admit his guilt.[9] Jenkins challenged the Commissioner's authority to suspend him. After hearing arguments about Jenkins' suspension, arbitration panel chairman Raymond Goetz overruled Commissioner Kuhn and ordered that Jenkins be reinstated to active duty with the Rangers.[10]

The panel noted that, "The primary reason why the August 25 arrest in Toronto did not provide just cause for Jenkins' suspension is that under controlling principles of United States and Canadian law — as well as fundamental rules of fair play — Jenkins must be presumed innocent until he is proven guilty."[11] While the panel acknowledged that Jenkins' arrest caused a public relations problem for MLB, it noted that a suspension based on this reasoning, "well-intentioned as this cautious approach might be, it lacks proper foundation."[12]

The panel was also concerned with Jenkins' constitutional right against self-incrimination.[13] While noting that the Commissioner's questioning might not technically violate Jenkins' rights it would as "a practical matter . . . jeopardize his defense in court."[14] The panel noted such action "offends the moral values of our society on which the legal privilege against self-incrimination is based."[15] Also, the panel held there was no "compelling reason why the investigation into Jenkins'

---

outside of the park, we are heavily supported by family groups and that, again has to be a source of very great concern to me when you have a situation like this where serious charges are made by criminal authorities and I can't get answers to questions to find out what the facts really were.

Id. at 8-10.

9. Kuhn noted in his letter that:

While I am, of course, disturbed by the pendency of drug charges against you, I am prepared to defer further proceedings by this office in that regard until they have been concluded. However, since you have also declined to cooperate with this office's investigation and thus perhaps to exonerate yourself, I think it is also fair that you should not be in uniform again until this matter has been disposed of . . . .

. . . I would obviously reconsider your status if you were to agree at any time to resume the interview and respond fully to interrogation.

Id. at 1-2.

10. *Id.*
11. *Id.* at 12.
12. *Id.* at 13.
13. *Id.* at 15.
14. *Id.* at 16.
15. *Id.*

activities could not have awaited the outcome of the trial."[16]

The next opportunity that Commissioner Kuhn had to deal with the problem of drugs in professional baseball came in 1983. It involved four MLB players: Willie Aikens, Jerry Martin, and Willie Wilson of the Kansas City Royals, and Steve Howe of the Los Angeles Dodgers.[17] The trio of players from the Royals had all plea-bargained and entered guilty pleas to misdemeanor charges of attempting to possess a quantity of cocaine.[18] The three, who had hoped to receive probation for their offenses,[19] instead were surprised when sentenced to three months in jail plus a fine.[20] United States Magistrate J. Milton Sullivant in announcing the sentence on Wilson noted that "A factor of defining a sentence is that it will not only deter the defendant but others who are affected by Mr. Wilson as an athletic hero. As a professional athlete, Mr. Wilson occupies a special place in our society."[21]

Steve Howe was not convicted of a crime but was instead a repeat offender of a cocaine drug test which he agreed to undergo as a condition of his continued employment with the Dodgers, who had become aware of the relief pitcher's drug problem in 1982 and had required testing thereafter.[22] Howe had just finished a drug rehabilitation treatment when the 1983 season started.[23] During the 1983 season he would be suspended twice by the Dodgers when he failed drug tests.[24]

On December 15, 1983, MLB Commissioner Kuhn announced that Aikens, Howe,[25] Martin and Wilson were all suspended from base-

---

16. *Id.*

17. *Kuhn Bans Four Players for One Year*, USA Today, Dec. 16, 1983, at C1, col. 2.

18. *Drug Probe Has Created Royal Mess*, USA Today, Oct. 17, 1983, at C1, col. 3.

19. *Kansas City Players to be Sentenced*, USA Today, Nov. 17, 1983, at C1, col. 5.

20. *Jail, Fines for Royals' Trio*, Boston Herald, Nov. 18, 1983, at 47, 64, col. 2, 1.

21. *Players Get Jail in K.C. Cocaine Case*, USA Today, Nov. 18, 1983, at C1, col. 5; *see also 3 From Royals Get 3-Month Terms in Drug Case*, N.Y. Times, Nov. 18, 1983, at A25, col. 2, 1.

22. *Bowie Banishes Coke Quartet*, Boston Herald, Dec. 16, 1983, at 6, 74, col. 1; *see also Howe's Ban Could Be Extended*, Boston Globe, Dec. 16, 1986, at 73, 85, col. 1.

23. *Id.* at 74.

24. *Id. See also A Day at a Time Keeps Steve Howe Straight*, Boston Globe, Feb. 26, 1984, at 40, col. 1.

25. In 1986, Steve Howe attempted to make a second comeback in professional

ball without pay for one year for "illegal use of drugs."[26] Los Angeles Dodgers President Peter O'Malley approved of Kuhn's decision. He stated, "We respect the Commissioner's decision, and we will abide by it. And quite frankly, I agree with it. Baseball and illegal drugs are not compatible, and we will not tolerate the use of them by any of our employees."[27]

---

baseball with the Class A San Jose Bees Club. However, Howe again ran into drug-related problems when in May he disregarded an order by MLB Commissioner Ueberroth not to pitch until a drug test problem was resolved. Howe was subsequently banned from the minor leagues for his actions and other problems with his drug rehabilitation. *See Howe Ignores Ban*, N.Y. Times, May 16, 1986, at A24, col. 1; and, *Howe Expelled From Baseball*, Boston Globe, May 16, 1986, at 52, col. 1; and *Drug Test Key Issue in Howe Suspension*, USA Today, May 16, 1986, at C1, col. 1; *see also A Day at a Time Keeps Steve Howe Straight*, *supra* note 24, at 40, col. 1; *Howe Shocked at Word of Imminent Suspension*, Newark Star Ledger, July 16, 1986, at 74, col. 5; *These are Testing Times for Howe*, USA Today, July 17, 1986, at 5C, col. 5.

In June, 1986, Howe was cleared of the accusation he had used cocaine in May. Howe's attorney felt an error had been made in the testing analysis and as Howe noted, "Wouldn't you feel bummed out if you felt that you didn't do anything wrong and you were fired from your job?" *See Howe Reinstated*, N.Y. Times, Jun. 25, 1986, at D24, col. 1. The fact that Howe's test results were made public was a great concern to some players who are worried about the "trust factor" when it comes to MLB officials. As the Dodger player representative Mike Scioscia noted:

> If it happens in the minor leagues, who knows what's going to happen in the major league. In the minor leagues, there has never been a worry about confidentiality because, basically, nobody cared. But in the major leagues, you can see what's going to happen in a situation like that.

See Dodgers Upset About Howe Drug Test Disclosure, Cape Cod Times (AP Wireservice), May 18, 1986, at 56, col. 1.

26. *Kuhn Bans Four Players for One Year*, *supra* note 17. In his written decision, Kuhn detailed the following:

> Following completion of the period of suspension, each of the players will remain in probationary status until the end of the Court-imposed probationary period. Each player's probationary program will be determined by this office in consultation with his Club, his representatives and his physicians, and will contain such reasonable terms as to rehabilitation, aftercare, community service, testing procedures and the like, as may be appropriate to the individual case.

See In the Matter of Arbitration Between Bowie K. Kuhn, Commissioner of Baseball, and Major League Baseball Players Association (Willie Wilson, Jerry Martin), Decision No. 54 (Apr. 3, 1984), at 2 (citing Kuhn's written decision involving the players) [hereinafter *Wilson and Martin Arbitration*].

27. *Id.* Ewing M. Kauffman, Chairman of the Board of the Kansas City Royals later commented on what he perceived as the role of professional athletes in society, stating that:

Howe filed a grievance against the Commissioner, but it was settled before it reached arbitration.[28] Wilson and Martin also brought a combined grievance against Kuhn because of their suspension,[29] which was eventually heard in arbitration. The arbitration panel ruled in favor of Commissioner Kuhn's suspensions, although they modified the penalties levied against Wilson and Martin.[30]

The panel concluded that, "As a general matter, given the criminal conviction and the acknowledged drug use, one cannot quarrel with a suspension plus probation, with the latter's provisions for testing and aftercare."[31] The panel reasoned that the Commissioner's decision fell within his powers as outlined in article I, section 2 of the Major League Agreement wherein he may investigate acts suspected to be "not in the best interests of the national game of Baseball," and, "[t]o determine . . . what preventive, remedial or punitive action is appropriate."[32]

In modifying the Commissioner's penalty, the panel's only concern was about the vagueness of the wording with regards to the players reinstatement.[33] "Neither the Commissioner's decision nor his testi-

---

> If he accepts the role of royalty, it is his obligation to act as royalty. His behavior is a mirror for imitation. He knows his photograph is on the bedroom wall of millions of young men and women. His photo cards are saved and cherished; the bat bearing his name is an object of special value; his autograph is the precious possession of all ages. To me, it is not difficult to conclude that he has a specific, beyond-the-ordinary duty to the public. Thus, as a role model, he is held to a higher degree of behavior. He must understand and recognize the obligation. He must defer to it and try to organize his life in a way that reflects it. In summary, he has the obligation of honorable and respectable behavior that stems from his place in public affection.

See Kauffman, *What Obligations Do Pro Athletes Have to the Fans?*, N.Y. Times, Dec. 4, 1983, sec. 5, at 2, col. 1.

28. Howe filed his arbitration grievance on July 12, 1983. The issue was whether the Dodgers had just cause for imposing a $54,000 fine and 36 months probation period. In settling the grievance the Dodgers agreed to remove Howe from the suspended list and place him on the inactive list for the remainder of the 1984 season, to convert a $41,261.34 loan to salary, and loan Howe up to $10,000 a month interest free for the rest of the 1984 season as an advance against his 1985 season salary. *See Steve Howe and LA Dodgers* (settled).

29. *Kuhn Is Named in Grievances*, N.Y. Times, Jan. 15, 1984, at 53, col. 1.

30. *Wilson and Martin Arbitration, supra* note 26, at 12-13.

31. *Id.* at 10.

32. *Id.* at 3-4. As one general manager noted, the players' actions were a "kick in the organizational groin." *Id.* at 9.

33. *Id.* at 10.

mony provides any guidance as to the standards to be applied or the expectations to be met,"[34] declared the panel.

In the same period of time as the above incidents, MLB Commissioner Kuhn also had to resolve a drug-related problem involving Pascual Perez, who was arrested in his native Dominican Republic on January 9, 1984 for possession of half a gram of cocaine with intent to distribute the substance.[35] Perez was convicted of a lesser misdemeanor charge of possession. He was released following a three-month imprisonment.[36] On April 17, 1984, Commissioner Kuhn ordered that Perez was to be suspended for one month. Kuhn declared, "When players violate the law and baseball's drug rules, discipline must follow."[37]

Perez filed a grievance against Commissioner Kuhn's decision. On April 27, 1984, the arbitration panel ruled in Perez's favor holding that because of insufficient evidence Kuhn could not support his decision to suspend Perez.[38]

The panel noted that:

> There can be no question that drug involvement by a Major League Ballplayer is not only contrary to established rules and provisions of the Uniform Players Contract, but also constitutes a "serious and immediate threat to the business that is promoted as our National Pastime."[39]

However, the panel noted that "because the misconduct is taken so seriously (appropriately so) and because the penalties may well be severe, proofs of alleged misconduct must be persuasive."[40]

The panel questioned Kuhn's decision to rely solely on the Dominican Republic legal system in pursuing sanctions against Perez.[41] It noted that the judicial structure and legal rights under that govern-

---

34. *Id.*

35. *Atlanta's Perez Facing Drug Charges*, USA Today, Jan. 11, 1984, at C1, col. 1.

36. *Court Upholds Perez Decision*, Boston Herald, Apr. 6, 1984, at 72, col. 1.

37. *Braves' Perez Is Suspended Until May*, USA Today, Apr. 18, 1984, at C3, col. 5, and *Names: Perez is Suspended*, Boston Globe, Apr. 18. 1984, at 48, col. 6.

38. *In the Matter of Arbitration Between Major League Baseball Players Association (Pascual Perez) and Bowie K. Kuhn, Commissioner of Baseball*, Decision No. 58 (Apr. 27, 1984); *see also Names: Arbitrator Lifts Perez Suspension*, Boston Globe, Apr. 29, 1984, at 96, col. 1.

39. *Id.* at 2 (quoting panel Decision No. 54).

40. *Id.*

41. *Id.* at 2-3.

ment's justice system differed substantially from the American system of law.[42] The panel stated further, "fairness requires, at a minimum, a demonstration that it was, in fact, cocaine he was carrying. But in this case there are substantial questions as to just that."[43]

As a result of the Dominican Republic's system of justice and questions about whether Perez actually possessed cocaine, the panel held that the Commissioner had not met his burden of proof against Perez.[44] However, the panel strongly stated that it was not holding that the drug use was permissible conduct:

> This opinion should not be read as undercutting the earnest attempt by baseball management to deal with a vital problem. That would be misreading . . . But a forceful and effective program must proceed on the foundation of clear and competent evidence. That evidence does not here exist and for these reasons, discipline is found to be lacking just cause.[45]

Commissioner Kuhn faced one final drug-related problem while at MLB which involved Vida Blue, a former pitcher for the Kansas City Royals.[46] Blue had been convicted of possession of cocaine in a trial related to the Aikens, Martin and Wilson controversy.[47] He received a one-year sentence which included a three-month imprisonment plus a $5,000 fine for his conviction.[48]

After his release from prison on March 21, 1984, Blue sought new employment within MLB.[49] The San Francisco Giants were interested in his services but they were informed by Commissioner Bowie Kuhn that Blue could not be signed until an investigation into his activities was concluded and possible disciplinary sanctions against Blue were considered by Kuhn's office.[50]

The MLBPA filed a grievance on behalf of Blue which alleged that the Commissioner's actions "constituted discipline and considering

---

42. *Id.* at 2.
43. *Id.*
44. *Id.* at 12.
45. *Id.* at 13.
46. *In the Matter of the Arbitration Between Major League Baseball Players Relations Committee, Inc. and Major League Baseball Players Association*, Gr. of Vida Blue, Decision No. 60 (July 19, 1984) (Interim Decision).
47. *Id.*
48. *Id.*
49. *Id.*
50. *Id.* at 1-2.

. . . the amount of time Blue had already been denied access to the game, any continued punitive action must be stopped."[51] The panel ruled in an interim decision in Blue's favor concluding that, "the Commissioner should not be precluded from proceeding with the matter and . . . there is no just cause for an order prohibiting the Giants from signing Vida Blue."[52]

Commissioner Kuhn then suspended Blue through the 1984 season and imposed a two-year probationary period that included mandatory drug testing.[53] Another grievance was filed, but in this instance Commissioner Kuhn's decision was upheld by the arbitration panel.[54] The panel concluded that the punishment levied against Blue was justified because of the role that Blue played in introducing players to Blue's drug supplier. Furthermore, Blue acted as a middleman on many of his teammates' drug buys.[55]

The marked increase of drug-related problems in MLB in 1983-84 caused great concern to all. Ken Moffett, Executive Director of the

---

51. *Id.* at 2.

52. *Id.* at 3. The panel reasoned that Kuhn should be able to proceed with his investigation and possible sanctions but in the interim period, "flat prohibition against Blue's signing with the Giants is notably severe, as yet unsupported and, therefore, lacking just cause." *Id.* at 3.

53. *In the Matter of the Arbitration Between Major League Baseball Player Relations Committee, Inc. and Major League Baseball Players Association*, Gr. of Vida Blue, Decision No. 61 (July 24, 1984), at 2.

54. *Id.* at 1.

55. *Id.* at 14. The panel noted that Blue:

> was vigorously involved in continuous heavy use of cocaine. He served as an active connection between other ballplayers . . . and their supplier. He placed himself . . . as a liaison . . . . The Commissioner accurately characterizes Blue as being at the center — the focal point . . . ."

Id.

In January 1987 Vida Blue signed a contract for $300,000 to pitch for the Oakland A's. On February 19, 1987, Blue suddenly announced that he would retire from MLB. In March, 1987 documents filed in the U.S. District Court in San Francisco revealed that Blue had plead guilty on November 19, 1986, to violating his probation from his 1984 cocaine conviction and he was ordered to spend 90 days in a drug aftercare program. *Blue Had Drug Tests*, N.Y. Times, Mar. 4, 1987, at A24, col. 1. The court documents further revealed that Blue had tested positive three times during the 1986 MLB season when he was pitching for the San Francisco Giants. *Giants Unaware of Blue's Cocaine Use*, Daily Hampshire Gazette, Mar. 4, 1987, at 30, col. 2 (AP Wireservice). In late March, 1987, Blue announced that he still expected to play professional baseball in either the United States or Japan. *Blue Gets Offer*, N.Y. Times, Apr. 1, 1987, at A26, col. 2.

MLB Players Association, was dismissed in November, 1983 by the MLBPA. His dismissal was in part a result of his willingness to work with MLB executives to develop a drug testing plan for players.[56] Opposition to Moffett's plans came from some of the players as well as then MLBPA General Counsel Don Fehr. Fehr presently serves as Executive Director of the Association.[57]

Marvin Miller, who had previously served as the MLPBA's Executive Director for almost seventeen years, replaced Moffett on an interim basis and immediately cancelled joint players-owners drug and alcohol committee meetings which had been established by Moffett and American League President Lee McPhail.[58] Moffett would later state that there was "an awful lot"[59] of cocaine used in baseball. Although he took a great deal of criticism for his position,[60] subsequent events would prove his analysis correct.[61]

In the spring of 1984, Commissioner Bowie Kuhn, who was then in his last months of his term of office, attempted to institute the first wide-range set of regulations in MLB to deal specifically with drug-related problems.[62] MLB team owners were very much split on the issue. Some owners wanted random mandatory testing, while other owners were willing to develop a more passive program which was designed with intermediate steps of action and included the involvement of players and the MLBPA.[63]

---

56. *Moffett's Background, Stand on Drugs Caused His Ouster*, USA Today, Dec. 5, 1983, at C7, col. 1.

57. *Baseball Meetings on Drugs Cancelled*, N.Y. Times, Nov. 30, 1983, at B13, col. 1.

58. *Id.*

59. *Cocaine Use Called Common By Moffett*, N.Y. Times, Feb. 23, 1984, at B20, col. 5.

60. *Angry Hernandez Threatens to Sue*, N.Y. Daily News, Feb. 24, 1984, at 72, 52, col. 1, 6; *see also Met Hernandez Denies Moffett Drug Story*, N.Y. Daily News, Feb. 23, 1984.

61. The Pittsburgh drug trial would prove that many of the allegations raised by Moffett were true, including drug usage by St. Louis Cardinal/New York Mets first baseman Keith Hernandez. *See Hernandez, Andujar Cited at Trial*, N.Y. Times, Sept. 6, 1985, at B9, 11, col. 3, 1.

62. *See generally Plans in the Works to Deal with Drug Use*, USA Today, Apr. 10, 1984, at C3, col. 2, and *Tentative Drug Treatment Plan is Slightly Watered Down*, USA Today, May 10, 1984, at C9, col. 1.

63. *Owners Split Over Testing*, N.Y. Times, May 27, 1984, sec. 5, at 45, col. 4. Lee McPhail, who had by then been named as president of the owner's Players Relations Committee, noted concerning testing that, "[i]t doesn't look like there's much unity among the clubs." *Id.*

MLB owners eventually approved a joint management-union program for the treatment and punishment of players who used certain types of drugs at a June, 1984, meeting.[64] Most owners considered the joint program too watered down but Commissioner Kuhn felt otherwise. Kuhn stated that the program was a "dramatic breakthrough in labor relations and sports."[65] On June 29, 1984 Commissioner Kuhn outlined the following policy:

> 1. The program excluded marijuana, amphetamines, and alcohol. Players who were found to be abusing these substances would continue to be subject to action by the commissioner, and the union would continue to have the right to file grievances in such cases.
> 2. A cornerstone of the new agreement was a salary abatement procedure to penalize players who continued to use drugs. A player who asked for help with a drug program would receive full pay for the first 30 days of treatment and half pay for the next 30 days. Beyond 60 days, if kept on the major league roster by the club, the player would be paid at a rate of $60,000 a year, the minimum salary.[66]
> 3. A club that suspected a player of drug involvement would ask the person to undergo examination. If the player refused, the evidence would be presented to a review council, a panel that included drug counselors. The members of this council were to be selected by a joint committee of owners and players. If the council recommended that the player undergo testing or treatment and the player refused, he would be subject to disciplinary action by the commissioner.[67]

Despite Kuhn's efforts, the drug testing issue continued to cause labor problems for professional baseball. This was especially true because the collective bargaining agreement then in force for MLB was

---

64. *Baseball Approves Program on Drugs*, N.Y. Times, June 22, 1984, at A20, col. 4.

65. *Id.*

66. *Kuhn Announces Tough Drug Rules*, USA Today, June 29, 1984, at C9, col. 5; *Kuhn Announces Rules on Drug Crimes*, N.Y. Times, June 29, 1984, at A18, col. 3; *Taking Steps to Solve the Drug Dilemma*, Sports Illustrated, May 28, 1984, at 36-40, 45, col. 1.

67. *Baseball Approves Programs on Drugs*, *supra* note 64, at A20, col. 4. In reference to the drugs excluded from the program Lee McPhail noted that, "At the present time, politically, we are not able to cover all things. We're trying to take this one step at a time. We know this is an area that we might want to expand at a later date." *Id.*

due to expire on December 31, 1984.[68]

A major conflict erupted because the Los Angeles Dodgers' and San Francisco Giants' management mandated that all new player contracts to contain a clause which required team members to submit to drug testing during the playing season.[69] Negotiations for a new CBA were stalled until the Dodgers and Giants agreed not to include the clauses in any future contracts.[70] It was also agreed that the drug policy announced by Kuhn would take precedence over any such clause[71] already included in contracts negotiated by the two clubs.[72]

Kuhn's decision concerning the contract clauses on drug testing would be his last on this issue. It was announced in early 1984 that Kuhn would not seek reappointment as commissioner.[73] Kuhn had lost the support of a number of team owners over a variety of issues and he knew a vote for his reappointment would not be successful based on MLB's three-fourths vote requirement.[74]

In reviewing Kuhn's decisions in respect to drug issues they seem reactive — in response to law enforcement charges against individual players. As time progressed, Kuhn realized a need to implement a broad based testing, preventive and educational programs to combat drug use in baseball. After leaving MLB, however, Kuhn's response to the problem was testing and Kuhn has noted that:

---

68. *Baseball Talks Are Snagged*, N.Y. Times, Jan. 24, 1986, at B7, col. 4.

69. *Dodgers' Decision Defuses a Conflict*, N.Y. Times, Jan. 26, 1985, at 29, col. 5.

70. *Baseball Settles Drug Issue*, N.Y. Times, Jan. 30, 1985, at A16, col. 4.

71. A similar clause used by the Chicago Cubs had earlier in 1984 snagged talks over the joint drug program, but when eliminated allowed the talks to proceed that led to Kuhn's announcement in June, 1984. *Id.*

72. *Id.* "We feel clubs have the right to have the clause in guaranteed long-term contracts, but we feel strongly that we want the joint drug program to work so we will abide by what we agreed to," noted Lee McPhail after the settlement of the drug clause issue was announced. *Id.*

Mandatory drug testing clauses in MLB contracts continues to be an issue. For instance, in January, 1986, four of eight free agent contracts announced in one day contained such drug testing clauses. *See Free Agent Contracts Include Drug Tests*, USA Today, Jan. 10, 1986, at C1, col. 6.

73. *Ueberroth Grand Slams Way Into Baseball's Top Job*, Boston Globe, Mar. 4, 1984, at 39, 45, col. 1.

74. *Id.* During Kuhn's term a commissioner needed three-fourths of all the owners' votes to be re-elected for another seven-year term. Ueberroth insisted before accepting the post that the procedure be changed so that a majority vote was required with a minimum five votes each from the owners of American and National League franchises. *Id.* at 45.

I tried suspensions when I was commissioner and not all of them were successful. I believe Peter (Ueberroth) is trying to do the right thing, to send a message to everyone that testing is the bottom line. The NBA's program is a good one . . . .[75]

IV. The Ueberroth Era Begins

Whether because of public relations concerns, or a deepening problem, much time has initially been spent by the MLB's new Commissioner, Peter V. Ueberroth, on solving the league's drug-related issues.[76] The new commissioner was appointed on March 3, 1984 and assumed office on October 1, 1984.[77] Prior to the appointment, Ueberroth had been executive director of the Los Angeles Olympic Games, where he had run the highly successful, if very commercial, 1984 Olympic Games.[78] The soon to be Commissioner noted during the press

---

75. *Kuhn: Gambling A Great Danger*, Newark Star Ledger, Apr. 12, 1986, at 25, col. 5.

76. Ueberroth's involvement with the subject of drug testing and usage is often far broader than just the problems surrounding MLB. In October, 1986 for instance he noted that:

> Some type of action must be taken with the countries that produce this rat poison . . . . To me, as a parent, they are more of a terrorist than the one in Tripoli.
>
> A lot of politicians want to get re-elected so they are running against drugs . . . until election day.
>
> Baseball virtually eliminated the problem. If one institution can defeat the problem, others certainly can.

Ueberroth Wants USA to Fight Drugs with Force, USA Today, Oct. 29, 1986, at C11, col. 1.

77. *Ueberroth Grand Slams Way Into Baseball's Top Job*, *supra* note 73, at 39.

78. *See The Games: A Triumph of Capitalism*, USA Today, July 27, 1984, at C1, 2, col. 4, 1; *Private Sponsoring of Games Appears to be Successful*, N.Y. Times, Aug. 6, 1984, at C11, col. 1; *Olympic Group Reports a $250 Million Surplus*, N.Y. Times, Sept. 12, 1984, at D25, 26, col. 1, 4; *$7 Million Gesture for the Olympics*, N.Y. Times, Nov. 15, 1984, at B23, col. 1; *LAOOC Forced to Defend a Profit of Almost $160 Million*, Newark Star Ledger, (AP Wireservice), Dec. 19, 1984, at 97, 100, col. 4.

Ueberroth has stated that his involvement with drug testing began during his tenure with the Los Angeles Olympic Commitee, noting that:

> Well, at the Olympics, we had to test all the athletes at the games. What I found was that this country did not have a single internationally recognized drug-testing facility. At Lake Placid Winter Olympics, they had to send their samples up to Canada. So we built the first lab in this country

conference announcing his new position that in regards to drugs in MLB, "[b]aseball has a responsibility to fight drugs, not fight players."[79]

However, Ueberroth would not be involved in the first decision concerning drug testing during his tenure. Former Commissioner Kuhn's efforts to initiate and develop the joint drug program between the MLB and the MLBPA were deemed insufficient in October, 1985 by the owners who dropped the program.[80] Ueberroth did not directly participate in the owners' decision to drop Kuhn's drug program.

Reacting in part to a major federal drug probe in Pittsburgh,[81] Ueberroth subsequently called for a comprehensive mandatory drug-testing program. The program mandated testing for those employed by the commissioner's office, the club's front office staffs and employees, and the umpires, as well as all minor league players.[82]

On May 15, 1985, Commissioner Ueberroth announced his first set of drug testing guidelines.[83] In a subsequent memo sent by Ueber-

---

at UCLA. So that's where the real interest started.

Cramer, *Citizen Ueberroth*, ESQUIRE, Feb. 1987, at 71.

79. *Ueberroth Grand Slams Way Into Baseball's Top Job*, Boston Globe, Mar. 4, 1984, at 39, 45, col. 1.

80. *Drug Agreement Ended by Owners*, N.Y. Times, Oct. 23, 1985, at B9, B10, col. 1, 6. Players Relations Committee chief counsel Barry Rona stated that the decision to drop the program was made because both sides were unable to make

> any substantial progress in reaching a drug testing agreement . . . . The clubs then examined whether it made any sense to continue the drug program . . . . Their feeling was that the program clearly isn't working and there was no sense in keeping it for the sake of keeping it.

Id.

81. *Inquiry Worries Baseball*, N.Y. Times, Apr. 10, 1985, at A21, col. 4. Donald Fehr, the acting director of the MLBPA, commented on the inquiry that:

> You have a general concern about anything like this. People can get hurt by it, whether they're involved or not. There's a lot of anquish. But all of the players who have participated have done so at the request of the government and have been acting like good citizens. The players have cooperated.

Id. See also Pittsburgh Drug Probe Widens, Boston Globe, Mar. 6, 1985, at 30, col. 1.

82. *Ueberroth Orders Wide Tests for Drug Use in Pro Baseball*, N.Y. Times, May 8, 1985, at A1, B12, col. 1, 3. Ueberroth in announcing the policy noted that, "We will include everyone from the owners on down." *Id. See also Drug Test Guidelines Listed*, N.Y. Times, May 16, 1985, at B11, 12, col. 1.

83. In describing his program Ueberroth has noted that, "Somebody has to say, 'Enough is enough,' against drugs. Baseball's going to accomplish this. It's a little tiny segment of society. We're going to remove drugs and be an example." *See The Commissioner Gets Tough*, Sports Illustrated, May 20, 1985, at 32, 22, col. 1. Ueberroth

roth on June 18, 1985, the commissioner outlined the policy as follows:

1. Preparations are complete for the implementation of the testing program.
2. Testing for Minor League players and umpires will commence during the month of July and continue through the end of each League season.
3. Testing for remaining Major and Minor League personnel will begin in August and continue through November 1985.
4. For 1986 and years thereafter, testing will commence in March and continue through October for all affected personnel.

The program will operate under the following guidelines:

a. Individuals subject to testing include all Minor League umpires and playing personnel; all full-time, year-round administrative and management personnel employed in Minor Leagues and by Major League Baseball; and all Major League managers, coaches, trainers and umpires;

b. The program will be administered under the direction of Anthony F. Daly, Jr., M.D. of Inglewood, California and Kim Jasper, Pharm. D. of Los Angeles. Dr. Daly has extensive background in providing assistance to amateur and professional athletes. Dr. Daly is a recognized sports medicine authority and former U.S. team physician for the 1976 and 1980 Olympic Games. He was the Director of the Olympic Health Services Program for the 1984 Los Angeles Olympic Games. Dr. Jasper's specialty is pharamacology. She was the director of Doping Control for the Los Angeles Olympic Games;

c. The tests will be administered by appropriately trained and supervised medical technicians;

d. The cost for the administration of this program will be borne by the Major Leagues Central Fund;

e. Samples will be taken at Major and Minor League ballparks and at the administrative offices of Major and Minor League management personnel. Samples will be divided into two containers, one for analysis and the other stored for confirmatory tests, if required. Laboratory analysis will be conducted at a fully competent facility under the supervision of Dr. Daly and Dr. Jasper;

f. Samples will be tested for the following controlled substances: cocaine, amphetamines, marijuana, heroin and morphine. Amphetamines will not be considered an illegal drug if an individual has a legal prescription;

---

noted three major concerns, health, reputation and gambling influences. *Id.*

g. Positive test results will be provided to Dr. Daly. He will then authorize a confirmatory analysis. If positive, Dr. Daly (or an appropriate designee) will thereafter contact the individual involved to make arrangements for appropriate evaluation and treatment if necessary;

h. At the time of collection samples will be coded. The results of all tests will be kept confidential;

i. There will be no discipline or penalties for initial positive test results. Test results will not become a part of an employee's permanent employment record;

j. Positive test results will occasion evaluation and rehabilitative treatment if necessary. Wherever appropriate, this will be done in conjunction with our Employee Assistance Programs.[84]

Ueberroth further advised that "Major League players are not covered by the program and will not be participating in it."[85] In addition, the Commissioner stressed, "Reiterate to all affected personnel that the objectives of this program are *not* punitive. . . . Our objective is to deter drug use, not punish anyone who may be involved with it."[86] In July, 1985 the first set of drug tests was administered to those MLB personnel who had agreed to the plan.[87]

Ueberroth had been able to get quick agreement and implement testing for all the groups[88] he wished to test except the players, who

---

84. Memo from Peter V. Ueberroth, Commissioner, Office of Commissioner, Major League Baseball, to all Major League Clubs, Re: Baseball's Drug Education and Prevention Program, June 18, 1985, at 1-3.

85. *Id.* at 2.

86. *Id.* at 3.

87. *First Drug Tests are Set for Baseball*, N.Y. Times, June 19, 1985, at B11, 13, col. 5.

88. *Baseball Backs Big Drug Plan*, USA Today, May 8, 1985 at C1, col. 2. New York Yankees owner George Steinbrenner commented about that plan that "[i]f ownership and other personnel are willing to participate in a mandatory testing program . . . then players association would certainly look foolish in the public's eyes if they weren't willing to do the same thing." *Id. See also Umpires Agree to Tests*, N.Y. Times, May 14, 1985, at A21, 25, col. 4, 1. Richie Phillips, counsel for the Major League Umpires Association noted:

> While manadatory testing is an invasion of privacy and an infringement on certain fundamental principles of civil liberties . . . the umpires balanced that infringement against the need that all of baseball remain above reproach and suspicion. It was determined that the program is not punitive, intends no publication or sanctions but rather is a confidential procedure aimed at rehabilitation.

Id. at A21.

rejected his plan.[89] The decision of the players, announced through the MLBPA,[90] was made despite mounting evidence that drug abuse had in the near past affected player performances on the field.[91] John McHale, president of the Montreal Expos, in particular blamed cocaine for his franchise's failure to win a close National League pennant race in 1982.[92] McHale noted, "We felt we should've won in '82. When we all woke up to what was going on, we found there were at least eight players on our club who were into this thing."[93] At least one player admitted that on a close play at a base he would dive head first into the bag to avoid being tagged out, but more importantly, to protect the glass container of cocaine in his back pants pocket.[94]

Nothing dramatized the degree of drug involvement more than the Pittsburgh drug trials that were held in September just as the 1985 season entered into the American and National Leagues Championship Series and the World Series.[95] The trial involved Curtis Strong, a Philadelphia resident accused of selling cocaine to MLB players.[96] In the first week of Strong's trial, Lonnie Smith of the Kansas City Royals described under a grant of immunity his introduction to cocaine in the major leagues and how the drug was purchased and distributed in

---

89. *Players Balk at Drug Test*, USA Today, May 9, 1985, at A1, 2, col. 2, 1. Donald Fehr commenting on the plan noted that, "It will take some pretty serious convincing for us to change our minds." *Id.* at A2. The following week a proposed Ueberroth-MLBPA meeting on the subject of drug testing was also rejected by the players' association. *Meeting on Drugs Spurned by Players*, N.Y. Times, May 17, 1985, at A22, col. 5; *see also Ueberroth's Idea OK'd, With a Catch*, USA Today, Sept. 27, 1985, at C1, 2, col. 4, 1.

90. *Id.*

91. *See Baseball and Cocaine: A Deepening Problem*, N.Y. Times, Aug. 19. 1985, at A1, C6, col. 1; *Cocaine Disrupts Baseball from Field to Front Office*, N.Y. Times, Aug. 21, 1985, at A21, 23, col. 1; *Battling Drugs: Approaches Vary*, N.Y. Times, Aug. 22, 1985, at D21, 22, col. 1.

92. *Id. Cocaine Disrupts Baseball from Field to Front Office*, N.Y. Times, Aug. 21, 1985, at A1, col 1.

93. *Id.*

94. *Id.* at B8.

95. *See Drugs Seen as Peril to Game Itself*, N.Y. Times, May 5, 1985, sec. 5, at 1, 7, col. 1; *Players Not Expected to be Indicted for Drugs*, (AP Wireservice) Newark Star Ledger, May 19, 1985, sec. 5, at 9, col. 4; *Players to Testify at Cocaine Trial*, N.Y. Times, Sept. 3., 1985, at D16, col. 5; *It's Baseball vs. Drugs Today*, USA Today, Sept. 4, 1985, at C1, col. 2; *Drug Trial Tarnishes Reputations*, USA Today, Sept. 9, 1985, at C1, 2, col. 3, 1; *Every Man for Himself*, Boston Globe, Sept. 11, 1985, at 59, 62, col. 1.

96. *Jury Is Selected in Drug Trial*, N.Y. Times, Sept. 5, 1985, at D26, col 4.

MLB.[97] In a succession of days some of MLB's most well-known players including Keith Hernandez,[98] Dale Berra,[99] Enos Cabell,[100] Dave Parker,[101] and John Milner[102] also testified under immunity about drug use in baseball.[103]

While no MLB player was charged in the Pittsburgh case, by the time the trial ended in late September[104] and Curtis Strong had been convicted and sentenced to 10 years imprisonment,[105] it seemed to many fans that professional baseball had been judged guilty.[106] Be-

---

97. *Hernandez, Andujar Cited at Trial*, *supra*, note 61. James Ross, assistant United States attorney, noted in his opening remarks to the jury that:

> These individuals will tell you about their use of cocaine, they will tell you how they began to use cocaine, how they used it afterward and what effect it had on them . . . . They will tell you how they purchased cocaine in or around Pittsburgh . . . . One of the individuals will tell you he bought cocaine from Curtis Strong in the restroom of the Pittsburgh Pirates locker room.

Id. at B9, col. 1.

98. *Keith Tale Took Guts, Say Yanks*, N.Y. Daily News, Sept. 7, 1985, at 27, col. 6; *Met Pals: He Told Us He Used It*, N.Y. Daily News, Sept. 7, 1985, at 27, col. 1.

99. *Dale Berra Admits to Use of Cocaine*, N.Y. Times, Sept. 10, 1985, at B9, 10, col. 5, 3; *Stargell and Maddock Accused by Berra*, N.Y. Times, Sept. 11, 1985, at B7, 11, col. 1, 3; *Berra Testifies at Another Trial*, N.Y. Times, Sept. 20, 1985, at A21, 24, col. 5; *Dale: Got Pills from Stargell*, N.Y. Daily News, Sept. 11, 1985, at 76, col. 1; *Madlock, Stargell Implicated*, Boston Globe, Sept. 11, 1985, at 62, col. 1.

100. *Baseball Drug Testimony*, Newark Star Ledger, Sept. 10, 1985, at 9, col. 1.

101. *Baseball Player Says Cocaine Joined the Team*, Newark Star Ledger, Sept. 12, 1985, at 6, col. 1; *Parker Admits to Cocaine Use*, N.Y. Times, Sept. 12, 1985, at D35, col 4.

102. *Milner Testifies in Drug Case*, Boston Globe, Sept. 13, 1985, at 31, col. 1; *Milner Tells Court of Buying Cocaine*, N.Y. Times, Sept. 13, 1985, at B7, 12, col. 5, 1.

103. *Baseball's Drug Scandal*, Time, Sept. 16, 1985, at 25-28; *Players' Testimony Adds Drama to Drug Trial*, N.Y. Times, Sept. 8, 1985, sec. 5, at 5, col. 1.

104. *Defense Ends Testimony in Drug Trial*, N.Y. Times, Sept. 19, 1985, at B26, col. 3.

105. *Baseball's Drug Headache Doesn't End With Trial Verdict*, USA Today, Sept. 23, 1985, at C8, col. 1.

106. *Slap on the Wrist for Baseball*, N.Y. Times, Nov. 3, 1985, at S2, col. 4, 5. U.S. District Court Judge Maurice Cahill, Jr. noted in sentencing Strong that:

> [Y]ou are in my judgment, however, only one of the parties who has injured his fellow man in this case. The baseball players to whom you sold your wares have debased themselves, their families, their friends, the laws of this country and the millions of people, particularly young people, who look up to them. Moreover, those who manage baseball teams — especially

cause of this perceived guilt by association, Commissioner Ueberroth decided to take further steps in his attack upon professional baseball's drug abuse problem.

While maintaining the same drug testing procedure that he had implemented in 1985 for all MLB personnel except the players,[107]

---

those who personally managed players on the field — have, through their acts of ommission, made it easy for you to violate the laws and impugn the integrity of the game of baseball.

[W]hether the manager's blindness to their players' personal and professional degeneration on the playing field and in the clubhouse was because they weren't looking or because they weren't seeing when they did look is largely immaterial. The damage to the American tradition of professional baseball resulting from this managerial sloth is incalculable. The losses to the youth of this country may be even greater.

It may be presumptuous of me to be suggesting how owners of baseball teams should act or how managers should manage, but I would feel that I have neglected my duty if I didn't say anything. If the ownership and the Player's Association can't agree on a satisfactory drug-detection program, the owners should at least require their managers and coaches to get some professional training in spotting these problems. Such training is available, and if anyone wants to know where, I'll tell them.

In other words, the toleration of drug use among players by the management of baseball helped to create this market. Without such tolerance, you might not be here today, and the enormous public trust granted to professional baseball by the American people might still be intact . . . .

Id.

107. Memo from Peter V. Ueberroth, Commissioner, Office of the Commissioner, Major League Baseball, to All Major League Teams, April 4, 1986, at 1-4. Commissioner Ueberroth noted in part that:

In February 1986 I announced that all drug testing in baseball would be done under the direction of my office. I took this action recognizing that many Major League players had agreed in their contracts or had stated their willingness to undergo drug testing and in response to concerns raised about the quality and confidentiality of the individual club testing programs. These are legitimate concerns notwithstanding the good faith effort on the part of players and clubs in reaching these understandings.

Set forth below are the details governing the operation of baseball's drug testing program for the 1986 season. This is essentially the same program which was initiated and successfully operated in 1985. I recognize that in certain cases individual player contracts have terms governing drug testing procedures which are different from those I have set forth. Nevertheless, I urge any such player to participate on the terms outlined below in the belief that these procedures will assure the validity of the test and its confidentiality. All Major League Clubs have unequivocally stated their concurrence in the course I have choosen.

I am prepared to approve player/club testing programs which can operate

Commissioner Ueberroth decided to implement the following measures as well in the pre-1986 baseball season: conditional punishment for those players involved in the trial including mandatory testing for continued playing eligibility,[108] and second, a renewed push for voluntary drug testing by all MLB players.[109]

Initially, Commissioner Ueberroth had attempted to deal with the Pittsburgh situation in September 1985 by asking all MLB players directly whether they would submit to voluntary testing. This approach bypassed any involvement with the MLBPA.[110] The MLBPA remained unconvinced of the Commissioner's intent. The MLBA was especially concerned about how Ueberroth's program would operate.[111] While Commissioner Ueberroth quickly reconsidered his tactics and decided to seek MLBPA input for his plan,[112] it soon became obivous that the plan was stalled.[113] This stall was brought on in part because the

---

> independently. I've already approved the Baltimore program. Any such program submitted for my review will receive prompt consideration.
>
> Our commitment to an effective drug testing program is the strongest, most positive step we can take toward eliminating illegal drug use from baseball. When properly administered, testing will allow us the early opportunity to help those in need, and it is a proven and effective deterrent to drug use.
>
> The principal objective of our drug prevention efforts has been and will remain the health, welfare and safety of those who work in the game. Our other obvious concern is the maintenance of the integrity of baseball. Drug involvement or the suspicion of drug involvement is inconsistent with maintaining these essential goals.

Id. at 1, 2.

108. *11 in Baseball Suspended for Drugs*, Boston Globe, Mar. 1, 1986, at 1, 30, col. 6, 1.

109. *Id.*

110. *Players May Ignore Drug Ballot*, USA Today, Sept. 25, 1985, at C3, col. 1.

111. *Players Decline to Vote*, Boston Globe, Sept. 16, 1985, at 55, col. 1; *Drug Tests Get Stormy Reaction*, USA Today, Sept. 26, 1985, at C1, col 1; *Players' Union Skeptical*, Boston Globe, Sept. 26, 1985, at 55, col. 1. Eugene Orza, Associate General Counsel to the MLBPA noted that, "We've asked the commissioner for details on at least 10 occasions . . . all we get back is the same thing, there's random testing a number of times. What are the numbers? What is the reliability of the testing? What is the level of drug abuse in the minor leagues?" *Id.*

112. *Ueberroth Agrees to Get Union Input*, N.Y. Times, Sept. 27, 1985, at A21, col. 3. MLBPA's Donald Fehr noted concerning the Commissioner's tactics that he had "orchestrated a campaign to bypass this organization and put pressure on the players." *Id.*

113. *Baseball's Tests for Drugs Stalled*, N.Y. Times, Dec. 1, 1985, sec. 5, at 1, 5, col. 5.

MLBPA reasoned that drug testing by its very nature presumed guilt on the part of players.[114] In late December 1985, the plan was rejected outright by the MLBPA.[115]

Commissioner Ueberroth then instituted his penalties against the players who testified or were implicated at the Pittsburgh drug trials after first holding individual meetings with the players involved during January 1986.[116] On February 28, 1986 the Commissioner announced his decision concerning these players:[117]

> 1. Seven players were given the choice of either being suspended for one year, or instead donating ten percent of their salaries for one season to a drug prevention program(s) in their hometown, agree to random drug testing for the remainder of their careers, and contribute 100 hours of community service for each of the next two years.[118]
> 2. Four players were given the option of a 60-day suspension at the

---

114. *Fehr Says Drug Tests Presume Players' Guilt*, USA Today, Dec. 4, 1985, at C11, col. 1. MLBPA's Donald Fehr noted that, "The way the clubs are putting it now, they're saying, 'I don't suspect you of anything, but unless you agree to take a test anytime I want, I'm not going to hire you.' " *Id.* At a December, 1985 executive board meeting of the MLBPA, Donald Fehr noted that drug testing was a matter for collective bargaining, and stated that:

> There's no proposal on the table from the clubs. The clubs' basic position is they don't want to negotiate with us about anything, so there's nothing for us to do at this point. It was not the consensus or the opinion of the board that we ought to rush out and agree to mandatory testing. Nor are we about to go set up our own testing program.

Union Reaffirms Drug-Test Stance, N.Y. Times, Dec. 7, 1985, at 48, col. 5.

115. *Players Reject Drug Tests, Announce Program for Kids*, USA Today, Dec. 20, 1985, at C1, col. 1. MLBPA's Donald Fehr noted, "This matter (drugs) deserves serious thought with thorough long-term approaches . . . . It does not lend itself to quick fixes." *Id. See also McPhail: Drug-Education Program for Kids is Not Enough*, USA Today, Dec. 20, 1985, at C11, col. 4.

116. *Ueberroth to See Players in Drug Cases*, N.Y. Times, Nov. 28, 1985, at B11, 14, col. 3, 6; and *Ueberroth Has Delicate Decision to Make*, USA Today, Nov. 28, 1985 at C3, col. 2; and *Ueberroth's Move*, USA Today, Feb. 29, 1986, at C1, col. 4.

117. *11 In Baseball Suspended for Drugs*, *supra* note 108; *see also Baseball Czar Suspends 11 Players for Drugs*, Boston Herald, Mar. 1, 1986, at 1, 50, col. 1; *see also Penalized Players Learn Through Service*, N.Y. Times, Mar. 22, 1987, sec. 5, at 1, 10, col. 2, 1.

118. *11 In Baseball Suspended for Drugs*, *supra* note 108, at 1, col. 6. The players given this punishment included Dave Parker, Keith Hernandez, Joaquin Andujara, Lonnie Smith, Enos Cabell, Jeff Leonard, and Dale Berra. *Id.*

start of the 1986 season, or instead donate five percent of their salary for one year, submit to random drug testing for the rest of their careers, and contribute 50 hours of community service for each of the next two years.[119]

3. Ten other players were given the option of facing suspension or submitting to drug testing.[120]

Ueberroth stated that he felt he had to make a strong statement and noted:

> It's a tough decision because it's complicated and also because it's a risk. But you can't ask any player coming out of high school to not deal with his problem if we don't deal with our problem. We're going to get it out of our game. I'm not orchestrating anything. Drugs are a problem, and I'm just saying we're going to get them out of the game.[121]

While reaction to the decision was mixed,[122] all 21 players did quickly agree to the penalties.[123] Haywood Sullivan, owner of the Boston Red Sox said of the Commissioner's decision that:

> I think there are some things in there that people could critize and say, "Why the hell didn't they throw them out of the game?" But I think that was not the purpose of this. The purpose was to help people. All these people have vowed they are no longer involved in any of it. The teeth of it will be that it's up to them to solve these

---

119. *Id.* at 30, col. 1. The players given this punishment included Al Holland, Lary Sorensen, Lee Lacy, and Claudell Washington. *Id.*

120. *Id.* The players given this option included Dusty Baker, Gary Matthews, Manny Sarmiento, Derrel Thomas, Vida Blue, Dickie Noles, Daryl Sconiers, Rod Scurry, Tim Raines, and Alan Wiggins. *Id.*

121. *Id.* Ueberroth had listed five major concerns prompting his action:

1. Significant use of drugs by players in MLB.
2. Drug trial publicity.
3. Track record of those using drugs in MLB.
4. Testing program seems effective.
5. Player agents poor reactions to drug plans.

Id.

122. *See Ueberroth's Move No Cure*, Boston Globe, Mar. 2, 1986, at 61, col. 1; and *A Fair Ruling by Ueberroth* (editorial), Sporting News, Mar. 10, 1986, at 3, col. 3.

123. *Drug Plan: Ballplayers Knocking Under*, USA Today, Mar. 3, 1986, at C1, col. 3; and *Hernandez Accepts Ueberroth Decision*, Cape Cod Times (AP Wireservice), Mar. 9, 1986, at 59, col. 1.

problems. Not only to solve the problems, but to serve as a catalyst to others.[124]

New York Yankees owner George Steinbrenner was much more direct in his praise, stating that "anyone who knocks this decision as too tough or too soft should have his head examined."[125]

At least one player representative, Don Baylor of the New York Yankees, thought the decision was fair.[126] Baylor noted that, "To me severe punishment would've been all of the above—suspension for one year, fine, testing. That's severe. This way he's giving them a second chance. Now, there are guidelines to go by."[127]

Despite the players decisions to go along with Ueberroth, the MLBPA decided to file a grievance on behalf of the association as a whole for arbitration of the Commissioner's decision concerning the players involved with the Pittsburgh trial.[128] The grievance is still pending at this writing.

In April 1986, Ueberroth again attempted to institute a drug testing program for MLB players.[129] The MLBPA again rejected the plan while awaiting the outcome of arbitration hearings over the issue of including random testing clauses in guaranteed and non-guaranteed contracts,[130] as well as the Pittsburgh trial grievance.

---

124. *11 In Baseball Suspended for Drugs*, *supra* note 117. Sullivan also noted that:

> I don't know any fairer way. He has taken a long time, and it's not a spur-of-the-moment decision. If it was tougher, and you just throw everybody out of the game, I don't think you have the opportunity to gain from this decision.
>
> We've got to find a way to convince people that this is the only way that will work. It seems that without fear, nothing works. We need a unified mandatory testing program so that all the innocent ones will be kept innocent.
>
> For a long time, people stuck their heads in the sand and said there wasn't a problem.

Id.

125. *Drug Suspension Reactions Vary*, Sporting News, Mar. 10, 1986, at 32, col. 1; *see also Grouping for a Drug Plan That Will Work*, Sports Illustrated, Mar. 10, 1986, at 7, 10, col. 1.

126. *Id.*

127. *Id.*

128. *Players to File Grievance in Response to Drug Ruling*, USA Today, Mar. 2, 1986, at 61, col. 1.

129. *Testing Plan Sent to Players*, N.Y. Times, Apr. 6, 1986, at 58, col. 1.

130. *Showdown Is Coming Up Over Drugs*, N.Y. Times, Nov. 24, 1985, sec. 5,

V. The Robert's Drug Clause Arbitration Decision

The first major drug testing related issue to be decided utilizing arbitration under Commissioner Ueberroth involved mandatory drug testing clauses in guaranteed and non-guaranteed MLB player contracts. The controversy had begun in November 1985 when the owner's Player Relations Committee again[131] suggested adding one of two clauses[132] to individual player's contract which would have required mandatory random drug testing.[133] The MLBPA filed their grievance on January 6, 1986[134] and it was heard the following April before baseball's new impartial arbitrator Thomas T. Roberts.[135]

Initially, Roberts had to decide a grievance filed on behalf of Joel Youngblood of the San Francisco Giants.[136] Youngblood had negotiated a guaranteed contract with the Giants and then refused to sign it when a mandatory drug testing clause was added. He subsequently re-

---

at 11, col. 1.

131. The owners had attempted to include similar clauses before in late 1984 and early 1985. *Supra* notes 68-70.

132. The two types of clauses as noted by Roberts in his decision were:

> In the main, the clauses found in guaranteed contracts are framed as follows:
>
> Player agrees to submit to any test or examination for drug use when requested by the Club and the failure to do so shall make the guarantee set forth in (the balance of the guarantee provision) null and void.
>
> In the case of non-guaranteed contracts, the drug testing provision typically states:
>
> Player is of the opinion that it is vitally important to him and his professional career that his image not be tarnished by the specter of drugs. Therefore, player voluntarily agrees to submit to any test or examination for drug use when requested by the Club.

In The Matter of the Arbitration Between Major League Baseball Player Relations Committee and Major League Baseball Players Association, Decision No. 69, Gr. Mo. 86-1, July 30, 1986, at 3 [hereinafter *Player Relations Arbitration*] (This is a draft of decision No. 69; the wording may be altered in the final published decision).

133. *Id.*

134. *Id.* at 1. MLBPA assistant counsel Eugene Orza commented on the clauses that:

> Certain subjects are for collective bargaining, and this is one of them. They (owners) have adopted a new rule that they apply to everybody. It's applicable across the board, but you say you're going to implement it on an individual basis. You can't do that.

Id.

135. *Supra* note 132.

136. *Grievance To Youngblood*, N.Y. Times, Mar. 21, 1986, at A29, col. 1.

considered and agreed to sign.[137] However, by that time the Giants claimed that they had withdrawn their offer.[138] Youngblood sought to have the Giants honor the offer and filed a grievance.[139]

In a March 1986 decision, Roberts ruled in favor of Youngblood.[140] Roberts held that the Giants had to honor the offer but the drug testing clauses also were valid until the grievance that he was about to hear on the wider issue of drug testing clauses made Youngblood's provisions for such, "null and void as a consequence of a decision . . . ."[141] All parties to the arbitration agreed that the decision would not be precedent setting.

It thus remained for Roberts to resolve the larger issue. In a much delayed[142] July 1986 decision, Roberts ruled in favor of the MLBPA stating that, "The drug testing clauses . . . are in violation of Article II of the Basic Agreement."[143] He stated further that, "Any such clauses must be negotiated with the Players Association."[144] Soon after rendering his decision, Roberts was fired by the owners' Player Relations Committee as baseball's impartial arbitrator.[145]

Roberts' decision focused on Article II of MLB's collective bargaining agreement.[146] Article II states that the MLBPA is "the sole and exclusive collective bargaining agent for all Major League Players . . . with regard to all terms and conditions of employment."[147] Excep-

---

137. *Id.*
138. *Id.*
139. *Id.*
140. *Id.*
141. *Id.* The MLBPA's Donald Fehr commented shortly before the decision that:
> The fact of the matter is that it will all be over in 30 days or less . . . . If we are right, none of the drug testing language will be enforceable at all. It will be just as if they didn't exist.

See Fehr Faces Test on Drug Issues, Boston Globe, Mar. 11, 1986, at 74, col. 2.
142. *See Fehr: Drug-Testing Challenge Delayed*, USA Today, Apr. 7, 1986, at 5C, col. 3, and *Baseball Drug Talks Dragging Along*, USA Today, May 8, 1986, at 8C, col. 1.
143. *Player Relations Arbitration*, *supra* note 132, at 9.
144. *Id.*
145. *PRC Fires Arbitrator Over Drug-Testing Flap*, Newark Star Ledger, Aug. 6, 1986, at 49, col. 1. MLB's collective bargaining agreement allows either management or labor to dismiss the arbitrator at any time. Roberts commented that, "It happens with some frequency." *Id. See also Grievance Hearing Set*, N.Y. Times, Aug. 21, 1986, at B11, col. 3. George Nicolau was named as Roberts' successor in September, 1986, *Arbitrator Selected*, N.Y. Times, Sept. 9 1986, at A22, col. 4.
146. *Player Relations Arbitration*, supra note 132, at 2.
147. *Id.*

tions to this general rule are allowed only for special covenants between the player and his club that "provide benefits beyond those found in the Uniform Player's Contract."[148] The issue thus centered on whether drug testing was an additional benefit to the player.[149] As Roberts summarized:

> The Clubs take the position that the drug testing clauses are not only consistent with the Basic Agreement but further provide actual or potential benefits to the player. The Players Association views the introduction of these special covenants as an effort to secure drug testing throughout the major leagues without compliance with the bargaining constraints of Article II. The Players Association states the drug testing clauses represent a potential detriment to the individual player rather than an additional benefit.[150]

The owners based their right to test players for drugs on Article XX of baseball's CBA that states, "Nothing in this agreement shall be construed to restrict the rights of the Clubs to manage and direct their operations . . . except as specifically limited by the terms of the Agreement."[151] The owners reasoned that since drug testing was not discussed in baseball's CBA and since there was no prohibition concerning drug testing in the CBA that they should be allowed to utilize drug testing clauses as special covenants to the players contracts. This was especially valid because physicals were already required within the CBA.[152]

In his decision, Roberts pointed out that past attempts to institute non-drug testing related special covenants in players contracts had been deemed violations of the CBA where the purpose was to bypass the

---

148. *Id.*

149. *Id.*

150. *Id.* at 2-3. Roberts sought to distinguish his decision from the general question over whether drug testing was good for baseball, pointing out in it that:

> It is important to note that the matter placed at issue . . . is not whether drug testing would advance the interests of baseball but rather whether the Club may institute drug testing in the absence of an agreement negotiated with the Players Association sanctioning such an understanding . . . . [T]he charge of the Arbitration Panel is one of contractual interpretation . . . .

Id.

151. *Id.* at 4.

152. *Id.*

MLBPA as the players' exclusive bargaining agent.[153] Roberts noted that such actions would be inconsistent with the provisions of baseball's CBA, since:

> Article II on its face prohibits the individual negotiation of special covenants uniform in nature and applicable to substantially all players who desire to negotiate a new contract so long as those special covenants provide no actual or potential additional benefits to the player. A unilaterally imposed condition of employment may not be sanctioned if it is inconsistent with the provisions of the Basic Agreement or does not provide "additional benefits" to the player within the meaning of that phrase as it appears in Article II.[154]

Roberts found that the clauses had been imposed unilaterally by the owners and were not voluntary.[155] Roberts stated, "While it is unquestionably true that many players find the testing obligation onerous, the reach of the testing language to more than five hundred Uniform Player's Contracts in a single winter of individual player negotiations makes it clear that a term and condition of employment is being defined."[156]

Reviewing the nature of both the guaranteed and non-guaranteed contracts, Roberts noted that in the case of the later, whether voluntary or not, the inclusion of the language in the contract created a previously non-existent affirmative duty to be tested until the "player repudiates his stated agreement to submit to testing . . . ."[157] A similar duty is created in guaranteed contracts, Roberts held, because even though such contracts traditionally prohibited certain conduct, never before had they sought to "create an affirmative duty such as that called for here, i.e., the production of urine samples for analysis in the absence of cause."[158] As such, Roberts held that non-guaranteed contracts drug testing clauses "are prohibited by Article II of the Basic Agreement unless first negotiated with the Players Association."[159] In guaranteed

153. *Id.* at 5 (citing Panel Decision No. 44, *In the Matter of the Arbitration Between: Major League Baseball Players Association (Richard Tidrow) and Major League Baseball Player Relations Committee, Inc.* (Jan. 17. 1981)).
154. *Id.*
155. *Id.* at 6.
156. *Id.*
157. *Id.* at 7.
158. *Id.*
159. *Id.*

contracts, Roberts held that the clauses are prohibited because "drug testing clauses may not be brought into compliance with Article II through the device of relating them to other clauses that do in fact afford a benefit."[160]

VI. Conclusion

Commissioner Ueberroth has indicated that he believes he has defeated the problem of drugs in MLB, noting in 1986 that:

> As for baseball, for the past five or seven years, there's been a major drug scandal every year. There won't be one this year. There won't be one next year. Why not? Because we're minding the store. There's enough testing, enough concern, a huge increase in education and cooperation with law enforcement."[161]

The key to any success in eradicting drugs in sports according to Ueberroth is to show the users that they will be helped with their problem, not punished (at least initially).[162] Ueberroth during testimony in May, 1986 before the House Select Committee on Narcotics Abuse and Control noted:

> If someone gave me unlimited power to throw people out of baseball, I'd refuse it. Nobody should be given the power of life and death.
> If you want the unions and management to agree (to expel drug abusing players), fine, but it will not stop drugs in baseball. . . . .
> My responsibility to baseball players is to get drugs out of baseball and it's (being) done. The message is clear: it's not tolerated anymore . . . .[163]

It remains to be seen if Ueberroth will be any more successful than his predecessor Bowie Kuhn in eradicating drugs in Major League Base-

---

160. *Id.* at 8.

161. *Id.* Over 500 players had such contract clauses in April, 1986. *Id.*; *see also Fehr: Drug-Testing Challenge Delayed*, USA Today, Apr. 7, 1986, at C5, col. 3; and *Baseball Drug Talks Dragging Along*, USA Today, May 8, 1986, at C8, col. 1.

162. Cosell, *The Terrorism of Drugs*, N.Y. Daily News, May 11, 1986, at 51, col. 1; *see also Ueberroth: USA Must Escalate War On Drugs*, USA Today, May 8, 1986, at C1, col. 5.

163. *"UBIE" Power to Ban Not Beat Drug Rx*, N.Y. Daily News, May 8, 1986, at 81, Col. 1.

ball.[164] Some critics claim that his only successes are in public relations coups and grand gestures, not in substantive results.[165]

In the meantime at least one MLB club is attempting to block deferred payments on a contract of a player who used cocaine while employed by the club.[166] Dave Parker, a former player for the Pittsburgh Pirates, was sued based on a fraud in the inducement theory by his former employer which is seeking to have $5.3 million in deferred payments to Parker stopped in a potentially precedent setting case.[167] Parker's agent, Thomas Reich, has stated that if the suit comes to trial, it will make the 1985 Pittsburgh trial "look like a marble shoot."[168]

Some speculate that in order for the Pirates to win, they would have to prove a direct relationship between Parker's use of cocaine and his dwindling statistics. The defense is likely to point out that Parker's

---

164. *Id.* One of Commissioner Ueberroth's greatest concerns is that drug use will lead to a betting scandal, and he has noted that "Baseball cannot afford and will not have a Tulane type of scandal." *See Players Innocent, Claims Ueberroth*, Newark Star Ledger, May 10, 1985, at 73, col. 2. For further information on gambling and sports, *see Gambling: America's National Pasttime?*, Sports Illustrated, Special Report, Mar. 10, 1986, at 30-82; II R. BERRY TO G. WONG, LAW AND BUSINESS OF THE SPORTS INDUSTRIES § 5.70 (section on "Common Issues in Amateur and Professional Sports," Gambling).

165. *See The Score After One: Some Hits, Some Errors*, Sports Illustrated, Dec. 16, 1985, at 38-43, col. 1.

166. *See Pirates Sue Parker Over Cocaine Use*, Daily Hampshire Gazette (AP Wireservice), Apr. 22, 1986, at 20, col. 1.

The Pittsburgh Pirates filed its civil suit in April, 1986 in the Allegheny County Common Pleas Court, charging that former Pirates player Dave Parker entered into a multi-year contract on fraudulent pretenses because he withheld information that he was using drugs, and that he failed to live up to the contract by not keeping himself in top shape. The Pirates maintain that, during the years 1979-1982, Parker's performance was far below that in his two seasons prior to signing a $7.4 million, five-year contract. The potential landmark case drew a wealth of criticism. Eugene Orza, counsel for the Players Association, said that the case is "bordering on the frivolous" in that it attempts to bypass the grievance procedure in the CBA. *Pirates May Have A Landmark Suit*, Newsday, Apr. 22, 1986. *See also Ugly Undertone To Pirate's Suit*, Sporting News, May 5, 1986; *Parker Lawyers Look to Union for Support*, Pittsburgh News, Apr. 22, 1986; *Prine Out to Avenge 'Crimes' Against Pittsburgh*, Pittsburgh Press, Apr. 22, 1986; *Drug Suit Against Athlete Breaks New Legal Ground*, Baltimore Sun, May 12, 1986, at A1; *Pirates Have a Case Against Parker*, Philadelphia Inquirer, Apr. 28, 1986.

167. *Id. See also Pirates Really Struck Out With Suit Against Parker*, USA Today, May 23, 1986, at C3, col. 4, and, *Tanner Comes to Parker's Defense Over Pirates' Lawsuit*, Boston Globe, Apr. 23, 1986, at 70, col. 1.

168. *Marble Shoot*, USA Today, Sept. 9, 1986, at C1, col. 1.

two best seasons (batting title in 1977, MVP Award in 1978) came after he began using drugs and that injuries such as a broken jaw and torn tendon in his thumb robbed him of his skills over the seasons in question. The defense can also argue that the money in question *has already been earned* (it was only deferred).

In the foreseeable future it seems, then, that a stalemate may exist over mandatory drug testing in MLB in light of the *Roberts* decision and the Players Association's refusal to agree to any mandatory plan. Eugene Orza, associate general counsel for the MLBPA, has stated that, "it's pretty clear that if there's not going to be random, non-cause testing, they're [MLB] not interested in any program."[169] Before MLB's 1986 winter meetings Commissioner Ueberroth echoed similar thoughts as to the possibility of a drug testing program, stating that, "I will encourage the owners, who cancelled the joint drug agreement last year, to reconsider and work toward an agreement with the Players Association. However, in this era of grievances and that type of thing, I don't hold out much hope."[170] In the interim, Ueberroth has extended the existing drug testing plan for MLB personnel and minor league players to the Winter Leagues held in Puerto Rico, Mexico, and the Dominican Republic.[171] In announcing the program in January 1987 Rodrigo Otero Suro, president of the Puerto Rican league stated that, "We'll be testing three times during the season. Random testing. . . . The players won't know when."[172]

However, in the past Commissioner Ueberroth, in an interview on ABC-TV's "This Week With David Brinkley," has voiced his conditional opposition to spot drug testing of ballplayers.[173] His remarks were based on a 1986 season that, despite a resurfacing of drug-related episodes involving Steve Howe and Lamarr Hoyt,[174] passed without any

---

169. *No Sense of Urgency in Anti-Drug Talks*, N.Y. Times, Dec. 7, 1986, sec. 5, at 7, col. 1.

170. *Id.*

171. *Winter Drug Test: Uebie's End Run*, SPORT, Jan. 1987, at 18, col. 1.

172. *Id.* Reacting to the plan, MLBPA's Donald Fehr stated, "It doesn't change anything as far as we're concerned. It's a very difficult thing, going around and testing everyone to see who's guilty and who's not. It doesn't change what's right and what's wrong. It's wrong." *Id.*

173. *This Week with David Brinkley* (ABC television broadcast, Apr. 6, 1986). *See also Ueberroth Opposes Spot Drug Tests*, Baltimore Sun, Apr. 7, 1986.

174. In 1986, San Diego Padres pitcher LaMarr Hoyt was involved in three drug related incidents in a ten month period, the last of which saw the 1982 Cy Young award winner arrested by U.S. Customs agents on October 28, 1986, when he at-

significant drug-related scandal.

"We had to work on education of players, work on penalties because there needs to be penalties, and we're doing some testing," said Ueberroth. "Testing is not a cure-all," continued Ueberroth. "I think it's only a tool you can use from time to time if you have a problem. If there's no problem, you don't use it. Basically, we've surrounded the problem, and I don't think you're going to see any baseball players have a problem this year."[175]

There remains the question then over what the future holds for Commissioner Ueberroth's approach to the drug issue in MLB? Observers of MLB will be closely monitoring the situation and will be looking for answers to some of the following questions:

1) Will there be any future drug problems or incidents in MLB?
2) If no further problems arise will Commissioner Ueberroth continue to press for further controls, education or testing concerning

---

tempted to cross from Mexico into the United States with 500 valium and quualude tablets concealed on his body. *Hoyt Faces Five Years In Federal Drug Case*, USA Today, Oct. 30, 1986, at 1C, col. 6; *More Trouble For Hoyt*, N.Y. Times, Oct. 30, 1986, at D30, col. 1. On November 13, 1986, Hoyt plead guilty to two misdemeanor drug charges as part of a plea bargain. *Hoyt Faces Jail Sentence*, USA Today, Nov. 14, 1986, at 1C, col. 5. On December 16, 1986, Hoyt was sentenced to 45 days in prison, fined $10,000, placed on probation for five years, and forfeited his $33,000 1986 Porsche which was confiscated when he was arrested at the border. *Hoyt Given 45-Day Jail Sentence*, USA Today, Dec. 17, 1986, at 1C, col. 3. Hoyt stated at sentencing, "I'd like to apologize. I've let a lot of people down. For the first time, I'm beginning to understand my problem." *Id. See also Hoyt Is Sentenced*, N.Y. Times, Dec. 17, 1986, at D26, col. 1; *Hoyt Surrenders*, N.Y. Times, Jan. 8, 1987, at D23, col. 6. Padres General Manager Jack McKeon noted about Hoyt's waivers that, "Our organization has been consistent in these matters. LaMarr was aware of the club's policy and had been previously warned about the situation. We hope LaMarr will be able to find a solution to his ongoing problem. We wish him the best in the future." *Id.* On February 25, 1987, Hoyt was barred from participation in MLB by commissioner Peter Ueberroth for the 1987 season. Ueberroth stated that, "While our first priority is to provide help to those who need it, we will impose discipline where appropriate. Given these circumstances, I have determined to make LaMarr Hoyt ineligible to participate in professional baseball for the 1987 season." *Hoyt Barred for Year for Drug Involvement*, Newark Star Ledger, Feb. 26, 1987, at 6, col. 3. MLBPA executive director Donald Fehr stated about Hoyt's suspension that, "The saddest part is that everybody is lining up to throw darts at this guy. I used to think the worst thing that could happen to you in America was to get fired from your job. Now they've fired this guy and said he can't even work any place else." *Hoyt Barred for Season*, N.Y. Times, Feb. 26, 1987, at B8, col. 1.

175. *See supra* note 173 and accompanying text.

drugs in MLB?

3) If there are continuing drug problems, will there again be a push for a joint agreement with the MLBPA? (A joint agreement would be necessary because the next CBA is not until 1989).

In addition, MLB will itself be monitoring the drug testing policies in other sport organizations like the National Basketball Association, the National Football League, and the National Collegiate Athletic Association. MLB will gauge the success of these organizations' policies and any arbitration or court decisions involving those organizations' policies. Finally, MLB will be looking at the non-sports workplace and society in general to see whether drug testing gains acceptance and if the courts uphold drug testing programs in non-sports settings and industries.[176]

---

176. In April 1987, New York Mets pitcher Dwight Gooden agreed to enter a drug treatment center after it was disclosed that he failed a voluntary drug test. The 1985 Cy Young Award winner entered the drug treatment center rather than be suspended from baseball by Commissioner Peter Ueberroth. *Gooden Agrees to Treatment After a Test Shows Drug Use*, N.Y. Times, Apr. 2, 1987, at A1, col. 5. Commissioner Ueberroth stated that,

> Baseball has made a great deal of progress in the area of fighting drug abuse. However, we expect sporadic skirmishes, and this is one of them. Our policy is simple. If the player is willing to help himself, he gets one chance. If he is unwilling to cooperate or if a problem occurs a second time, then we will take the penalty route.

Id. at B14, col. 2. New York Mets teammate Keith Hernandez noted, "We're in the public eye, and it all comes out. Nobody gives a rap about Joe Blow or a neurosurgeon. Drug Testing? I still say you have individual rights. This is America, not Russia." *Mets Shocked but Pledge Support for Gooden*, N.Y. Times, Apr. 2, 1987, at B13, col. 5.

Drug Hysteria Causing Use Of Useless Urine Tests

Kevin B. Zeese*

In the last few years urine testing has hit America like a hurricane. In the end it will probably do more damage than any hurricane that has hit our country.

As drug use has increased and the failure of our nation's drug policy has become more evident, government and employers have groped for an easy solution. The advent of urine tests, marketed as a high-tech, near infallible answer to the problem, is a symptom of our failed drug policy. The American public has been sold a bill of goods by profit-minded test manufacturers and testing labs. In the end we will deeply regret our quick jump to urine tests, as they will cause more problems than they solve.

Other writers in this symposium have examined the serious constitutional and other legal issues raised by urine testing, as well as the technical limitations of urine tests. While I will touch on these issues, this article focuses more on whether there really is a serious drug problem in the workplace, whether urine tests can accomplish what they promise, and what options are available to society as alternatives to urine testing.

I. Drug Use in America

Drug use in the United States is widespread. Indeed, one could fairly say that drugs are an American way of life. Virtually every household contains the once prohibited alcohol, almost every American needs caffeine to start or get through the day, and every candy store sells tobacco. There are some 150,000 legal drugs in the United States, and many are sold over-the-counter.[1] Americans use drugs to go to

* Legal advisor, National Organization for the Reform of Marijuana Laws (NORML). Mr. Zeese also practices law in Alexandria, Virginia. J.D., George Washington University Law School, 1980; B.S., State University of New York, Buffalo, 1977.

1. Sandee Burbank, Director, Mothers Against Misuse and Abuse, Mosier, Oregon.

sleep, wake up, lose weight and relieve stress. One over-the-counter drug even promises to "Correctall."

But these are not the drugs which are tied into the national drug hysteria. The drugs our government is at "war" with are the illegal drugs — mainly marijuana, cocaine and heroin. This "war" has made 30 million marijuana consumers, 5 million cocaine users, and 500,000 heroin addicts the "enemy" in a nation at war against itself.[2]

While the national drug mania has been focused on illegal drugs, it is clear that the real problem drugs are the legal ones: alcohol, prescribed medicines, and over-the-counter drugs. The National Institute on Drug Abuse estimates that prescription drugs cause 60% of hospital emergency room admissions for drug overdoses and 70% of all drug-related deaths. Each year 350,000 people die from tobacco, 100,000 die from alcohol (not including automobile accidents), 1,000 die from aspirin, and 15,000 die from prescription drugs. But there has *never* been a death caused by marijuana or long-term chronic marijuana use. It is perhaps the least toxic drug known to man. In the worst year for cocaine deaths there will not even be 1,000 deaths (.0002% of regular users).[3]

In addition, every study on the effects of drugs on the workplace has shown alcohol to be the largest problem. A report by the Bureau of National Affairs found that alcohol accounted for $30.8 billion in lost productivity.[4] A study by the Research Triangle Institute found that alcohol accounted for $89.5 billion in lost productivity and that all illicit drugs accounted for $46.9 billion.[5]

The report of the Bureau of National Affairs made the following findings: absenteeism among problem drinkers is 2.8 to 8.3 times greater than normal; alcoholics have a two to three times greater risk of being involved in an industrial accident; and up to 40% of industrial fatalities and 47% of industrial injuries can be linked to alcohol abuse.[6]

Despite these facts, employers have not even proposed testing their employees for alcohol. They are not requiring their employees to ab-

---

2. NATIONAL INSTITUTE ON DRUG ABUSE, HOUSEHOLD SURVEY, DRUG USE IN THE UNITED STATES (1985).

3. NATIONAL INSTITUTE ON DRUG ABUSE, ANNUAL REPORT, DRUG ABUSE WARNING NETWORK (1985).

4. BUREAU OF NATIONAL AFFAIRS, ALCOHOL AND DRUGS IN THE WORKPLACE: COST, CONTROLS, AND CONTROVERSIES (1986).

5. Harwood, *Economic Costs To Society of Alcohol and Drug Abuse and Mental Illness: 1980* (Research Triangle Institute) (June 1984).

6. ALCOHOL AND DRUGS IN THE WORKPLACE, *supra* note 4.

stain from alcohol and become teetotalers. When President Reagan announced the goal of a drug-free workplace he did not remove alcohol from the White House or announce that he would stop serving alcohol at state dinners. This hypocrisy is what makes the war on drugs unrealistic, unbelievable, and unwinnable.

The evidence of an effect on the workplace is very weak for some illegal drugs. For example, at a recent conference on drugs in the workplace sponsored by the National Institute on Drug Abuse (NIDA), government experts were asked if there was any evidence that marijuana adversly effected work performance. With surprising candor the experts replied that there was no evidence.[7] In an article, Dr. Arthur McBay concurred, saying that "little if any scientific evidence links the use of marijuana with significant behavioral impairment."[8]

A study by NIDA of one group of companies went even further. A study in 1979 by Myrick and Basen, entitled "Drug Use in Industry," found that supervisors and other middle-management staff estimated that 15 to 20 percent of their employees were regular drug users, primarily of marijuana. Yet those surveyed, when asked about the impact of drug use on job performance, responded that "drug use either had a positive or neutral effect." [9] Indeed, the report stated that the only way to tell marijuana users from nonusers is by examining their urine.

If we can step away from the hysteria created by the government's drug war, these findings should not be surprising. After all, stress is a leading killer in the U.S. and has a major impact on job performance, and marijuana is a relatively safe way to relieve stress. Moderate marijuana use can thus have some positive effects on work performance.

II. Urine Testing in the U.S.

Despite these facts, urine testing has taken off in American society. The beginnings on mass urine-testing came when an accident occurred on the aircraft carrier Nimitz in 1981. THC metabolites were found in the blood of some of the servicemen. This received a great deal of publicity. What was not given much attention was that over-

---

7. Conference sponsored by the National Institute on Drug Abuse, Bethesda, Maryland, March 6-7, 1986.

8. McBay, *Cannabinoid Testing: Forensic and Analytical Aspects*, LABORATORY MANAGEMENT (June 1985).

9. NATIONAL INSTITUTE ON DRUG ABUSE, PREVENTING DRUG ABUSE IN THE WORKPLACE 5 (1982).

the-counter drugs were found in the servicemen directly involved in the accident. These drugs were the more likely cause of the crash. Nevertheless, urine testing for marijuana has become widespread, while testing for over-the-counter drugs has not occurred.

Indeed, millions of American servicemen, sworn to defend and protect the Constitution against internal and external threats, have had to put aside their constitutional rights to be free from random searches and to not be forced to testify against themselves by providing a urine sample for drug testing. The inconsistency of the defenders of our Constitution giving up their constitutional rights has escaped the attention of most commentators on urine testing.

Urine testing has spread to prisoners,[10] government workers,[11] private employees,[12] and even school children.[13] Various surveys of Fortune 500 companies indicate that about one-third engage in some type of testing, primarily of job applicants.[14]

Testing has become widespread, but can it really accomplish what it promises? Does a positive urine test indicate poor job performance? Or have urine test salesmen pulled a hoax on the American public?

After five years of mass urine testing it has become evident that both false positives and false negatives occur with urine tests. In other words, people who use illicit drugs will not get caught and people who do not use illicit drugs will be falsely accused.

A study by the Centers for Disease Control[15] found that thirteen

---

10. Cook v. Perry, Civ. Act. No. 82 CV 5133 (Cir. Ct., Dane County, Wis. 1982); Kane v. Fair, Civ. Act. No. 136229 (Norfolk, Mass. Aug. 5, 1983); Jensen v. Lick, Civ. No. A1-83-113 (D.N.D. Jan. 9, 1984); Storms v. Coughlin, 600 F. Supp. 1214 (S.D.N.Y. 1984); Johnson v. Walton, Dkt. No. 961-84 RM (Superior Ct., Rutland, Va., Feb. 14, 1985); Higgs v. Wilson, No. C83-0256-P(J) (W.D. Ky. Feb. 22, 1985).

11. Turner v. Fraternal Order of Police, 500 A.2d 1005 (D.C. App. 1985); City of Palm Bay v. Bauman, 475 So. 2d 1322 (Fla. 5th Dist. Ct. App. 1985); Capua v. City of Plainfield, 643 F. Supp. 1507 (D.N.J. 1986); McDonell v. Hunter, 612 F. Supp. 1122 (S.D. Iowa 1985), *modified*, 809 F.2d 1302 (8th Cir. 1987).

12. I.B.E.W. v. PEPCO, Civ. Act. No. 86-0717 (D.D.C. March 25, 1986); Railway Labor Exec. Ass'n v. Dole, No. 0-85-7958 (N.D. Cal. Nov. 1, 1985); Shoemaker v. Handel, 795 F.2d 1136 (3d Cir. 1986).

13. Anable v. Ford, Civ. No. 84-6033 (W.D. Ark. July 15, 1985); Odenheim v. Carlstadt-E. Rutherford Regional School Dist., 211 N.J. Super. 54, 510 A.2d 709 (1985).

14. Gampel, *Drug Testing in the U.S.*, in COUNCIL ON MARIJUANA AND HEALTH, SOCIAL DRUG USE IN SOCIETY (1985).

15. Hansen, Caudill and Boone, *Crisis in Drug Testing*, 253 J. A.M.A. 2382

labs surveyed produced false negatives 31% of the time. Indeed, all of the tests have cut-off points where a certain percentage of the THC metabolites or other drugs can be in the urine and the test will be a negative one.

Not only can lab inaccuracy cause false negatives, but illicit drug users can mask positive urine samples. The three most common and effective ways of masking a positive urine test are: 1) not giving the first urine of the day; 2) diluting the urine by filling the bladder with a large amount of fluids; and 3) changing the pH of the urine by adding salt or other substances to it. Individuals have placed in their bladder balloons filled with another person's urine. There have even been reports of addicts in treatment centers inserting someone else's urine with a catheter. I have heard several reports from servicemen that a new industry has developed in the military: for $50 you can purchase a guaranteed clean urine sample.

As a result of some of these techniques, employers are beginning to more closely monitor urine tests. Some companies are now hiring people to "monitor the void." One consultant recommends blocking all the sinks and turning off the water in rooms where testing occurs and having two people watch each person giving a sample. This close monitoring increases the invasion of privacy, which already is pretty dramatic with the testing of bodily fluids.

Another problem is false positives — false accusations of drug use. False positives can be caused by improper lab techniques, mixing up of samples, inhalation of someone else's smoke, tampering with samples, inadequate confirmation testing, and cross-reactions of various non-drugs which test positive as illegal drugs.

Studies show very high levels of false results. The Center for Human Toxicology found a false positive rate of 38%, the New Jersey Department of Corrections found 25%, a 1983 Air Force study found 11.1%, the Armed Forces Institute of Pathology found 49.1%, and the Coast Guard found 58.1% in 1984; the Navy could confirm positives at only a 65% rate in a 1984 study and the CDC study referred to earlier found a 66% inaccuracy.[16]

One problem is a cross-reaction. For example, anti-inflammatory drugs will test positive as marijuana. These drugs include some of

---

(1985).

16. *See* filings by the Syva Company in Government Accounting Office # 2755028.

America's favorites: Advil, Motrin, and Nuprin.[17] The prescription drug fenoprofen (Nalfon) will test positive for amphetamines, barbiturates, benzodiazepines, and menthaqualone. Codeine can test positive for opiates, as can poppy seeds.[18] It is a statement of the inconsistency of our drug policy that there are so many drugs used by Americans that urine tests cannot tell the legal drugs from the illegal ones.

Drug tests are not only highly inaccurate, but also have nothing to do with whether people are capable of doing their jobs. There is no dispute that urine tests are incapable of either determining whether an individual is under the influence of marijuana or other drugs, or differentiating between users and abusers. Since the tests have nothing to do with impairment, they are useless even in jobs that are safety-sensitive, such as bus drivers and airline pilots.

Mass urine testing can have a significant impact on our society. It leads to dramatic erosion of our constitutional protections and makes us more of a totalitarian society than a tolerant society. It is a method of blacklisting which will prove to be as embarrassing as that of the McCarthy era. Millions of people may lose their jobs due to urine tests, adding greatly to our welfare burden.

Urine testing will also worsen the drug problem in the United States. Some people who use the less dangerous marijuana will switch to other drugs, as urine will test positive for marijuana longer (sometimes for over a month). For example, cocaine use can be detected for only two days. Some will switch to alcohol, adding to the largest drug problem in the workplace.

In addition, relations between employers and employees will worsen. There will be suspicion on both sides and employees will file lawsuits challenging the program. Employee assistance programs (EASP's) will be weakened, as they rely on employees to come forward and seek help when they recognize their drug problem. Instead, employees will take precautions to hide their private drug use from employers.

Urine testing can be expensive. Testing one individual can cost over $150. Toby Cohen estimates that testing each worker in the U.S. only once would cost up to $27 billion.[19] No one has estimated the cost

---

17. Letters from Syva to Clients (January-March 1986) (copies available from author).

18. *See supra* note 17.

19. Cohen, *Drug Use Testing: Costly and Corruptible*, New York Times, Aug. 20, 1986, at 23, col. 2.

of litigation, unemployment, and welfare payments that would also result.

Even if positive test results were used only to force someone into treatment, the testing makes little sense. Most marijuana (and other illicit drug) users are not abusers.[20] They use marijuana occasionally and it does not adversely effect their lives or work. Since people who need treatment are sometimes unable to get it due to the lack of facilities, it makes no sense to force people into treatment for drug problems they do not have.

III. Other Options

I do not mean to imply that on-the-job impairment is not something to be concerned about, or that it is an unsolvable problem. However, there are many sensible alternatives to urine testing.

In approaching the problem of on-the-job impairment, it must be recognized that the issue is broader than drug use. There are a number of factors other than drug abuse that can effect someone's performance: a poor night's sleep, a hangover, marital problems, stress, and physical or psychological problems.

The most important factor in solving this problem is trained supervisors who are very conscious about how people do their jobs. It is important for supervisors and managers to develop a close and trusting relationship with their employees so that they know their normal behavior. Indeed, a close relationship can result in employees confiding in their manager when a problem develops.

This type of relationship needs to be tied into a non-threatening treatment program. This should be an employee assistance program for drug and alcohol abuse, as well as some type of counseling or psychological program. Employees should know that involvement in this program will not result in loss of employment, but instead will result in support from the employer. This approach is less expensive than mass urine testing and will result in the rehabilitation of highly trained employees, rather than their dismissal.

It is difficult to create this non-threatening situation with our government engaged in a "war on drugs." Obviously it would be easier if drugs, especially marijuana, were not illegal. It is important for an employer to promise confidentiality and, especially, to assure the employee that the police will not be notified.

---

20. *See* DRUG USE IN THE UNITED STATES, *supra* note 2.

In safety sensitive positions where it is imperative that employees not be impaired, it could be worthwhile to employ some type of impairment test. One example is a simulator test. Airline pilots could be required to perform on a flight simulator before they are allowed to fly. Not only would this prevent drug-impaired pilots from flying, it would also prevent pilots with any other type of impairment from flying. Another alternative is a motor coordination test to determine whether an individual's motor coordination is impaired.

Another option is to test for drug impairment instead of drug use. There are two possible impairment tests for marijuana. A saliva test can result in a positive reading for five hours after use and a blood test for THC (as opposed to THC metabolites) will result in a positive reading for about six hours after use.[21]

IV. Conclusion

Mass urine testing is a symptom of our failed drug policy. Urinalysis is the same sort of mistake that has been made in drug policy for the last few decades — over-reliance on coercion and under-reliance on reason and fact. In the last twenty years the only two drugs to show consistent declines have been alcohol and tobacco.[22] Tobacco is especially interesting as it is legal, glamorized in advertising, sold over-the-counter and at vending machines, more addictive than heroin, and subsidized by the government. However, since 1965 overall tobacco use has dropped by 25%.[23] The government has engaged in an effective discouragement and education program even though tobacco is legal. If such a program can work with tobacco it can surely work with the currently illicit drugs.

Over the same period of time that tobacco use has been dropping, marijuana use has tripled.[24] The government has attempted to educate the public about marijuana's dangers and discourage its use. But that program has not worked as well because education is inconsistent with a "war" policy. When our government is at war it engages in propaganda more than honest education, and does more harm than good be-

---

21. MetPath Labs, Teterboro, New Jersey, Oral THC Test.
22. NIAA, *Epidemiological Bulletin No. 4, Apparent Consumption of Alcoholic Beverages in the U.S.*, ALCOHOL RESEARCH WORLD MAGAZINE, Summer 1984.
23. NATIONAL CENTER FOR HEALTH SCIENCES, NAT'L HEALTH INTERVIEW SURVEY (1986).
24. *See* DRUG USE IN THE UNITED STATES, *supra* note 2.

Nova Law Review, Vol. 11, Iss. 2 [1987], Art. 23

cause it loses credibility.

Urine testing is an extension of the "war on drugs" approach. This article has tried to demonstrate that there is no basis for mass urine testing, that urine tests are highly inaccurate and do not show impairment, that urine testing is costly and may make the drug problem worse, and that there are more sensible alternatives to mass urine testing. In this symposium other articles examine the legal issues which make it difficult to institute a urine testing program consistent with the Constitution, laws, and philosophy of our free society.

Whether these facts will result in employers being more sensible and not rushing to institute a urine testing program is doubtful. Our society is currently going through a drug mania which seems to have blinded us from reason and common sense. In the short-term it is difficult to combat this hysteria; in the long-term the mania will subside and employers will be embarrassed that they joined the blind hysteria.

The war on drugs will go down in history as an American folly. The government continues to pursue a policy that cannot work and is willing to waste tremendous resources, undercut our civil liberties, and ruin the lives of millions in the name of the drug war. We will be as embarrassed about this episode as we are about imprisoning Japanese-Americans during World War II and the treatment of black Americans as second-class citizens. Urine testing will be seen as the height of drug war absurdity.

Until that time I favor the type of urine testing that President Reagan submitted to: a program done for public relations purposes only, completely voluntary, with no action taken as a result of a positive test and with no one being told the outcome of the test. If it is good enough for the President, it is good enough for me.

Real Estate Broker Liability in Florida: Is Mandatory Housing Inspection in Florida's Future?

I. Introduction

For many Americans, the purchase of a home is perhaps the most important legal transaction of their lives.[1] Despite this reality, however, the typical homebuyer today neither seeks representation by a licensed real estate broker nor retains legal counsel to assist in the transaction.[2] When homebuyers do retain legal counsel, very often it is only for matters concerning the transfer of title.[3] Not surprisingly, this lack of foresight has resulted in a host of sale-related legal problems - problems which will only multiply as the supply of used homes increases and the cost of residential property continues to spiral upward.[4]

In many jurisdictions, these problems are evidenced by a general increase in sale-related litigation directed at licensed real estate agents.[5] Brokers[6] are classic targets for post sale liability. They are

---

1. *See* Currier, *Finding the Broker's Place in the Typical Residential Transaction*, 33 U. FLA. L. REV. 655 (1981).

2. Comment, *Dual Agency in Residential Real Estate Brokerage: Conflict of Interest and Interests in Conflict*, 12 GOLDEN GATE U.L. REV. 379, 387 (1972):

> In practice, there is seldom a written agreement between the buyer and the cooperating broker for representation in procuring a home. The cooperating broker is guaranteed a commission through the seller's listing agreement. The buyer receives free representation to the extent of the presentation of the offer. The courts, however, have generally found an agreement implied from the actions of the parties, based on reasonable expectations of the parties.

3. W. BEATON, R. BOND & J. FERGUSON, REAL ESTATE 327 (2d Ed. 1982) [hereinafter cited as BEATON]. "The fact is that buyers are usually unrepresented in the sales transaction until they hire an attorney to examine the title." *Id.*

4. Currier, *supra* note 1, at 663-77.

5. *See* Markham, *Going for Brokers*, Miami Herald, Aug. 17, 1986, § H, at 22, col. 1; Campbell, *Real Estate Industry Faces Law Suit Crisis*, L.A. Times, Sep. 7, 1980, Pt. VIII, at 1, col. 1. This note will focus specifically on the liability of the real estate broker for negligence in discovering and disclosing material defects to purchasers of residential property. It does not address broker liability for action based on fraud or deceit. That topic has seen extensive coverage. *See* RESTATEMENT (SECOND) OF TORTS § 552 (1977); 12 AM. JUR. 2D *Brokers* § 108 (1964); Annot., 55 A.L.R.2d 342 (1957); Annot., 61 A.L.R.2d 1237 (1958); Annot., 8 A.L.R.3d 550 (1966). Homebuyers have also sued brokers for breach of contract. *See, e.g.*, Bar v. Rhodes, 274 Cal. App. 2d

highly visible, postured in the center of virtually every residential sale.[7] Perhaps more importantly, the broker is a perpetually solvent defendant — still doing business when the defect is discovered; the homeseller

---

852, 79 Cal. Rptr. 505 (1969). In addition, several legal theories exist that may serve as a basis for broker liability in transactions involving the broker's use of creative financing techniques. *See* Levin, *Real Estate Agent Liability for Creative Financing Failures*, 39 U. MIAMI L. REV. 429 (1985); Olson, *Real Estate Broker Liability to the Seller in California: Seller-Financed Real Estate Sales*, 58 CAL. L. REV. 1073 (1985).

6. The terms "broker" and "agent" will be used interchangeably throughout this note to represent all real estate licensees who may represent a party in a real estate transaction. Simply stated, a real estate broker is a person who brings together two or more parties for the purpose of effecting a sale in real property.

In most states, the term "broker" is defined by statute. *See, e.g.*, Florida Statutes, which define a broker as follows:

> [A] person who, for another, and for a compensation or valuable consideration directly or indirectly paid or promised, expressly or impliedly, or with an intent to collect or receive a compensation or valuable consideration therefor, appraises, auctions, sells, exchanges, buys, rents, or offers, attempts or agrees to appraise, auction, or negotiate the sale, exchange, purchase, or rental of business enterprises or business opportunities or any real property or any interest in or concerning the same, including mineral rights or leases, or who advertises or holds out to the public by any oral or printed solicitation or representation that he is engaged in the business of appraising, auctioning, buying, selling, exchanging, leasing, or renting business enterprises or business opportunities or real property of others or interests therein, including mineral rights, or who takes any part in the procuring of sellers, purchasers, lessors, or lessees of business enterprises or business opportunities or the real property of another, or leases, or interest therein, including mineral rights, or who directs or assists in the procuring of prospects or in the negotiation or closing of any transaction which does or is calculated to, result in a sale, exchange, or leasing thereof, and who receives, expects, or is promised any compensation or valuable consideration, directly or indirectly therefor; and all persons who advertise rental property information or lists. The term "broker" also includes any person who is a partner, officer, or director of a partnership or corporation which acts as a broker.
>
> (d) "Salesman" means a person who performs any act specified in the definition of "broker", but who performs such act under the direction, control, or management of another person.
>
> (e) "Broker-Salesman" means a person who is qualified to be issued a license as a broker but who operates as a salesman in the employ of another.

FLA. STAT. § 475.01(1)(c) (1985).

7. *See* Levin, *supra* note 5, at 430. *See generally* Comment, *Mandatory Disclosure: The Key to Residential Real Estate Brokers Conflicting Obligations*, 19 J. MARSHALL L. REV. 201 (1985).

has often moved beyond the reach of effective judicial remedy.[8]

As a result, today's caveats are aimed at licensed real estate brokers, not at innocent homebuyers.[9] Buyers sue brokers for various reasons. Unwary purchasers, lured to the sale by the broker's assurances of affordability and security, now sue the broker when forced to lose their homes as victims of "creative" financing.[10] Disgruntled homebuyers sue the seller—and the seller's broker—for complaints which range from defects in title to leaking roofs and rusty plumbing.[11] As several authors have recently noted,[12] the modern judicial response reflects a general trend toward the expansion of sale-related liability.[13] To this end, several states have recently held homesellers liable for failing to disclose information concerning material defects in the property during pre-sale negotiations.[14]

In an effort to afford the homebuyer an even greater degree of protection, a number of states have also imposed liability upon the seller's real estate agent for failing to disclose the same type of critical information.[15] In a more extreme response, a California appellate court, in *Easton v. Strassburger*,[16] declared that state-licensed real es-

---

8. *See* Levin, *supra* note 5, at 430.

9. *See* F. FISHER, BROKER BEWARE: SELLING REAL ESTATE WITHIN THE LAW 1 (1981); Murray, *Am I My Brother's Keeper? Real Estate Broker Liability for Sellers' Misrepresentations*, 46 TEX. B.J. 1374 (1983).

10. *See* Levin, *supra* note 5, at 431.

11. Bush v. Palermo Realty, Inc., 443 So. 2d 104 (Fla. 4th Dist. Ct. App. 1983) (prospective purchaser sued the seller's broker because the broker used information from the purchaser to acquire the property for himself). Schipper v. Levitt and Sons, Inc., 44 N.J. 70, 207 A.2d 314 (1965) (first case in New Jersey to recognize a cause of action for breach of implied warranty in connection with the sale of a new home).

12. *See* Murray, *supra* note 9 at 1374; Fossey and Roston, *The Broker's Liability in a Real Estate Transaction: Bad News and Good News for Defense Attorneys*, 12 U.C.L.A.-ALASKA L. REV. 37 (1982).

13. *See, e.g.*, Bevins v. Ballard, 655 P.2d 757 (Alaska 1982).

14. *See* Flakus v. Schug, 213 Neb. 491, 329 N.W.2d 859 (1983)(basement flooding); Thacker v. Tyree, 297 S.E.2d 885 (W.Va. 1982)(cracked walls and foundation problems); Maguire v. Masino, 325 So. 2d 844 (La. Ct. App. 1975)(termite infestation); Weintraub v. Krobatsch, 64 N.J. 445, 317 A.2d 68 (1974)(roach infestation); Cohen v. Vivian, 141 Colo. 443, 349 P.2d 366 (1960)(soil defect).

15. *See, e.g.*, Johnson v. Davis, 449 So. 2d 344, 350 n.1 (Fla. 3d Dist. Ct. App. 1984); *see generally* Annot., 8 A.L.R.3d 550 (1963) and cases cited within.

16. 152 Cal. App. 3d 90, 199 Cal. Rptr. 3d 383 (1984); *see also* Gauerke v. Rozga, 112 Wis. 2d 271, 332 N.W.2d 804 (1983), where the Supreme Court of Wisconsin held the defendant-real estate broker strictly liable for innocent misrepresentation — not only as to facts of which a broker would normally be expected to know

tate brokers now have an affirmative duty to perform inspections on all listed property and to inform prospective purchasers of any defects that might prove material to the transaction.[17] A closer analysis of this last approach, however, reveals that it is not the most judicious solution to the problem.

The purpose of this article is to expose the flawed reasoning behind the imposition on brokers of a "duty to inspect" and to propose an alternative solution to some of the problems associated with the sale of defective residential property. A brief historical survey provides the background necessary to an informed analysis and forecast of the future of the issue in Florida and other jurisdictions. A critical examination of the broker's duty to inspect reveals the technical inadequacies and costliness of imposing such an obligation on the real estate industry. Finally, the author offers a plan for greater homebuyer representation as an alternative to the imposition of mandatory housing inspections. It is an unavoidable truth that today's homebuyer is in need of greater protection. Adequate representation during pre-sale negotiations can provide the homebuyer with that protection and will do so without the increased costs of mandatory inspection and expanded broker liability.

The initial examination of the history of the issue reveals that in recent years, courts in Florida, as in other states, appear to be following the general trend toward the expansion of sale-related liability.[18] In 1985, Florida became the eighth state to hold that a homeseller has an affirmative duty to disclose to potential buyers any material defect of which he has knowledge.[19] It is conceivable that Florida and other states will confront the question of whether real estate brokers must perform mandatory inspections on all listed property in the very near

---

without having conducted an investigation of the property — but as to *any* fact that a "broker" should be expected to know.

17. *Easton*, 152 Cal. App. 3d at 102, 199 Cal. Rptr. 3d at 390.

18. For a general discussion of the problems resulting from the conflicts created by the modern dual agency relationship, *see* Stambler & Stein, *The Real Estate Broker - Schizophrenia or Conflict of Interest*, 28 J. B.A. D.C. 16 (1961); *see generally*, Currier, *supra* note 1 at 655; Comment, *supra* note 2; Gulitz, *Broker's Responsibility in Co-Op Sales: Whose Agent is He?*, 10 REAL EST. L.J. 126 (1981); Comment, *Unprofessional Conduct by Real Estate Brokers: Conflict of Interest and Conflict in the Law*, 11 PAC. L.J. 978 (1979).

19. *Johnson*, 480 So. 2d at 625 (Fla. 1985). For an extensive analysis of the *Johnson* decision, *see* Note, *Johnson v. Davis: New Liability for Fraudulent Nondisclosure in Real Property Transactions*, 11 NOVA L. REV. 145 (1986).

future. That question will not be answered easily.

II. Case Law Analysis

A. *Historical Perspective*

Until thirty years ago, decisions throughout the country upheld the rule of caveat emptor[20] (let the buyer beware) in transactions involving the sale of real property.[21] The delivery and acceptance of the deed terminated the relationship between buyer and seller, and the language of the deed alone determined their rights and responsibilities.[22] Absent a showing of fraud, the buyer of a defective home was without judicial remedy.[23] In recent years, however, several jurisdictions have relaxed these rules, and, as a result, today's homebuyer now has a number of remedies available for the purchase of defective housing, including actions brought under theories of implied warranty,[24] strict liability[25] and negligence.[26]

The liability of the licensed real estate broker has expanded within the framework of this general trend.[27] Historically, the seller's real estate agent was not accountable to the homebuyer for the sale of defective property unless the buyer could produce evidence of actionable

---

20. For an interesting treatment of the history and development of caveat emptor, *see* Hamilton, *The Ancient Maxim Caveat Emptor*, 40 YALE L.J. 1113 (1931).

21. *See, e.g.*, Levy v. C. Young Constr. Co., 46 N.J. Super. 293, 134 A.2d 717 (N.J. Super. Ct. App. Div. 1957), *aff'd on other grounds*, 26 N.J. 330, 139 A.2d 738 (1958). *See also* Grand, *Implied and Statutory Warranties in the Sale of Real Estate: The Demise of Caveat Emptor*, 15 REAL EST. L.J. 44 (1986).

22. Grand, *supra* note 21, at 44.

23. *Id.* The purchaser could, of course, sue for breach of warranty, but such a claim required a showing that the parties expressly agreed to such a warranty at the time of the sale.

24. *Id.* at 45-46. "Today, most states recognize a cause of action against builder-vendors of new homes for breach of an implied warranty of habitability, good workmanship, or both." *Id. See also* Annot., 25 A.L.R.3d 383 § 6 (Supp. 1985).

25. *See Gauerke*, 112 Wis. 2d at 271, 332 N.W.2d at 804.

26. Easton v. Strassburger, 152 Cal. App. 3d 90, 199 Cal. Rptr. 3d 383 (1984). *See also* King, *Broker Liability After Easton v. Strassburger: Let the Buyer Be Aware*, 25 SANTA CLARA L. REV. 651 (1985); Comment, *Protecting the Real Estate Consumer: Traditional Theories of Liability Revisited, and a Look at Nebraska's Proposed Real Estate Consumer's Protection Act*, 65 NEB. L. REV. 189, 199 (1986).

27. In jurisdictions which apply the rule of joint and several liability, the broker can expect to be named as a defendant. F. FISHER, BROKER BEWARE: SELLING REAL ESTATE WITHIN THE LAW 12 (1981).

fraud on the part of the broker.[28] To maintain a cause of action in fraud, the homebuyer had to establish that the broker knowingly made a false representation as to a material fact and that the homebuyer relied on that information to his detriment.[29] In effect, the broker had to know about the defect and lie about it.[30] The licensed real estate broker was not held liable for simple nonfeasance or material non-disclosures.[31] For a number of years, Florida followed the traditional rule of nonfeasance,[32] particularly in transactions carried on at arm's length.[33] Accordingly, until only recently, courts in Florida consistently ruled that in residential transactions, where a presumption exists that buyer and seller are dealing at arm's length with an equal opportunity to examine the facts, mere non-disclosure did not constitute actionable fraud.[34]

Thus, in 1963, in *Ramel v. Chasebrook*,[35] the Florida Second District Court of Appeal embraced the rule that in the absence of a fiduciary relationship, the non-disclosure of a material defect would not support an action for misrepresentation.[36] Over twenty years later, in *Banks v. Salina*,[37] the Fourth District Court of Appeal reaffirmed the rule stated earlier in *Ramel*. In *Banks*, the purchasers of a fifteen-year-old house brought suit against the sellers, claiming that the sellers were

---

28. Diaz v. Keyes Co., 143 So. 2d 554 (Fla. 3d Dist. Ct. App. 1962).

29. *Id. See also* Potakar v. Hurtak, 82 So. 2d 502 (Fla. 2d Dist. Ct. App. 1955). For a clear definition of the elements of fraud, see Huffstetler v. Our Home Life Ins. Co., 67 Fla. 324, 65 So. 1 (1914). The court stated that under Florida law, relief for fraudulent misrepresentation may only be granted when the following elements are present: (1) a false statement concerning a material fact; (2) the representor's knowledge that the representation is false; (3) an intention that the representation induce another to act on it; and (4) consequent injury by the party acting in reliance on representation.

30. *See* Johnson v. Davis, 480 So. 2d 625 (Fla. 1985); *Huffstetler*, 67 Fla. at 324, 65 So. at 1.

31. *Fowler*, 229 Md. at 571, 185 A.2d at 344; *Vendt*, 210 S.W.2d at 692; *Diaz*, 143 So. 2d at 554.

32. *Diaz*, 143 So. 2d at 554.

33. Banks v. Salina, 413 So. 2d 851 (Fla. 4th Dist. Ct. App. 1982).

34. *Id.*

35. Ramel v. Chasebrook Constr. Co., 135 So. 2d 876 (Fla. 2d Dist. Ct. App. 1961).

36. *Id.* at 882. The court stated, "In the absence of a fiduciary relationship, mere nondisclosure of all material facts in an arm's length transaction is ordinarily not actionable misrepresentation unless some artifice or trick has been employed to prevent the representee from making further independent inquiry." *Id. See also* 14 FLA. JUR. *Fraud and Deceit* §§ 28-30 (1957).

37. 413 So. 2d at 851.

aware that the swimming pool was defective and that they failed to disclose its defective condition at the time of the sale.[38] Judge Letts, writing for the majority, cited to *Ramel*[39] and held that the defendant-homeseller had no duty to disclose the defective condition of the pool, as the parties were presumed to be dealing at arm's length.[40] Hence, as late as 1982, under Florida law, neither the broker nor seller of residential property was under any legal duty to disclose defects to prospective purchasers, even if aware of the existence of such defects prior to the sale.[41]

It was an earlier decision, however, that laid the foundation for future liability. In 1946, in *Zichlin v. Dill*,[42] the Supreme Court of Florida confronted the issue of real estate broker liability. *Zichlin* posed the question of what duty, if any, the seller's broker owed to prospective purchasers. Here, the defendant-broker had intentionally misrepresented the selling price of the seller's property, using the buyer's funds to purchase the property for himself.[43] The broker then resold the property to the buyer at a fraudulently inflated price.[44] The court reasoned that because state-licensed brokers enjoy a monopoly in the real estate industry and are statutorily required to be of good character, a real estate broker owes a legal duty to both buyer and seller.[45] Unfortunately, *Zichlin* did not give a clear definition of that duty, except to state that anyone who deals with a licensed broker may naturally assume that the broker possesses the requisites of an honest, ethical man.[46] This decision not only left the real estate industry without a clear definition of the broker's legal duty, but also left open the possibility for its future expansion.

Whatever the limits of that duty, it apparently did not include any obligation to perform inspections on listed property. In 1963, in *Diaz v. Keyes Co.*,[47] the Florida Third District Court of Appeal held that a licensed real estate broker, as an agent for the seller, did not have any

38. *Id.* at 852.
39. *Id.*
40. *Id.*
41. *Id.*
42. 157 Fla. 96, 25 So. 2d 4 (1946).
43. *Id.*
44. *Id.*
45. *Id.*
46. *Id.* at 96, 25 So. 2d at 5.
47. 143 So. 2d at 554.

duty to inspect property on behalf of the prospective purchasers.[48] The majority refused to impose such a duty on the broker, despite the fact that the plaintiff-purchaser was residing in Cuba at the time of the sale and had bought the defective property sight unseen, relying on a descriptive brochure supplied by the broker.[49]

It is clear from the preceeding analysis that courts in Florida were once in agreement with traditional rules of non-disclosure.[50] Recently, however, several jurisdictions have begun to rethink the laws regarding material non-disclosure in transactions involving the sale of real property. As a result, a number of states, including Florida, now hold the homeseller liable for the non-disclosure of material defects.[51] Several decisions indicate that licensed real estate brokers should be subject to the same risks of liability.[52] It is this legal framework which provides the underpinnings of the *Easton* rule.

B. Easton v. Strassburger: *The Broker's Duty to Inspect*

In the 1985 case of *Easton v. Strassburger*,[53] the California First District Court of Appeal held that a real estate broker representing a homeseller has an affirmative duty to make an investigation of all listed property and to disclose to prospective purchasers all material facts pertaining to the sale.[54] Prior to the *Easton* decision, California only required that a broker disclose those facts of which he had knowledge.[55] Moreover, in order to establish broker liability for material non-disclosure, the plaintiff-homebuyer had to establish that the facts in question were accessible only to the broker.[56] In effect, California law limited the broker's duty to disclose to either those facts of which the broker had actual knowledge or, in the alternative, to facts which the broker had exclusive access. Interestingly, this is the current state of

48. *Id.*
49. *Id.*
50. *Johnson*, 480 So. 2d at 628.
51. *See* cases collected, *supra* note 14.
52. *See, e.g., Lingsch*, 213 Cal. App. 2d at 733, 29 Cal. Rptr. at 205; Cooper v. Jenne, 56 Cal. App. 3d 860, 128 Cal. Rptr. 724 (Cal. 2d Ct. App. 1976).
53. 152 Cal. App. 3d 90, 199 Cal. Rptr. 383 (1984).
54. *Id.*
55. Note, *Real Estate Broker's Liability for Failure to Disclose: A New Duty to Investigate*, 17 Pac. L.J. 327, 336-38 (1985).
56. *Lingsch*, 213 Cal. App. 2d at 734, 29 Cal. Rptr. at 206; *Cooper*, 56 Cal. App. 3d at 860, 128 Cal. Rptr. at 724. *See generally* King, *supra* note 26.

et al.: Nova Law Review Full Issue

the law in several jurisdictions, including Florida.

In *Easton*, the property in question consisted of a three thousand square foot house, a swimming pool, and a guest house, all located on a one acre plot of land.[57] The area was geophysically unstable and had a documented history of landslide activity.[58] In fact, the defective condition of the soil had been responsible for previous damage to the home which the sellers had since repaired.[59] When the sellers listed the property with a state-licensed real estate broker, they did not disclose the defective condition of the soil to the listing agent.[60] The evidence presented at trial, however, indicated that the broker had conducted an independent investigation of the property and was aware of certain "red flags" which should have alerted him that there were soil problems.[61] In any event, the agent did not request that the soil stability be tested and did not inform prospective purchasers of the potential for soil problems.[62]

Shortly after the sale there were several landslides which resulted in substantial damage to the home and surrounding property.[63] The damage was extensive: experts appraised the value of the property at $170,000.00 before the slide and $20,000.00 after.[64] The homebuyer filed suit against the seller, the seller's broker, and three firms involved in the faulty construction of the home.[65] In the action against the broker, the homebuyer alleged causes of action for fraudulent concealment, intentional misrepresentation and negligent misrepresentation.[66] At trial, the court dismissed the counts of concealment and intentional misrepresentation, and instructed the jury only as to claims of negligent misrepesentation and *simple negligence*.[67] The court found the defendant-real estate broker liable for simple negligence, and the broker appealed.[68]

As noted earlier, when this case reached the California Court of

---

57. *Easton*, 152 Cal. App. 3d at 96, 199 Cal. Rptr. at 385.
58. *Id.* at 96, 199 Cal. Rptr. at 386.
59. *Id.*
60. *Id.*
61. *Id.*
62. *Id.*
63. *Id.*, 199 Cal. Rptr. at 385.
64. *Id.*
65. *Id.* at 97, 199 Cal. Rptr. at 386.
66. *Id.*
67. *Id.*
68. *Id.*

Appeal, a broker only needed to disclose only such facts of which he had actual knowledge or exclusive accessibility.[69] The court stated that implicit in that legal obligation, however, is the separate and distinct duty to perform a reasonable and diligent inspection of all listed property.[70]

The majority in *Easton* relied heavily on *Lingsch v. Savage*,[71] a similar non-disclosure case decided over twenty years earlier. In *Lingsch*, the homebuyer sued both the seller and the seller's broker for their failure to disclose that the property had been illegally constructed and targeted for condemnation by city officials.[72] The court held the broker liable for fraud based on the fact that he had been aware of the defective condition of the property.[73] Somewhere in the *Lingsch* decision, the California First District Court found the workings of a new and expanded rule of broker liability premised on the slimmest notion of constructive awareness: the broker's duty to inspect had arisen.

The opinion focused on the language in *Lingsch*, which only required disclosure of those facts known and "accessible to" the broker.[74] From this language, the court somehow concluded that brokers should be charged with constructive knowledge of all facts material to the transaction.[75] Thus, in cases where broker negligence is alleged, actual knowledge need not be shown. The homebuyer need only show that the broker (or his principal) had exclusive knowledge or access to such facts.[76] In essence, the broker's duty to inspect is nothing but a simple judicial construction.

The court premised the broker's duty to inspect on the "pertinent realities" which surround the traditional agency relationship.[77] The court reasoned that many homebuyers justifiably believe that the broker is acting to protect their interests, and that even if such reliance is misplaced, the potential for injury is too great to ignore.[78] The opinion also noted that the burden to brokers would be minimal,[79] but did not

69. *See* King, *supra* note 26, at 655.
70. *Easton*, 152 Cal. App. 3d at 99, 199 Cal. Rptr. at 388.
71. 213 Cal. App. 2d 729, 29 Cal. Rptr. 201 (1963).
72. *Id.* at 730-31, 29 Cal. Rptr. at 203.
73. *Id.*
74. *Easton*, 152 Cal. App. 3d at 99, 199 Cal. Rptr. at 388.
75. *Id.*
76. *Id.* at 104, 199 Cal. Rptr. at 390.
77. *Id.* at 101, 199 Cal. Rptr. at 389.
78. *Id.* at 102, 199 Cal. Rptr. at 389.
79. *Id.* at 100, 199 Cal. Rptr. at 389.

reveal much authority in support of that proposition. In fact, the majority cited to the code of ethics of a professional organization, The National Association of Realtors, a group with which many real estate brokers have no affiliation, to suggest that real estate brokers are already under an ethical obligation to inspect property.[80]

The only other support given by the court in this regard was another California appellate decision, *Brady v. Carmen*.[81] Curiously enough, *Brady*, like *Lingsch*, was a case involving intentional fraud, not simple negligence.[82] Moreover, in *Brady*, the undisclosed "defect" took the form of an easement across the property, not that of a latent physical defect, like the underlying soil condition in *Easton*.[83]

In response to the *Easton* decision, the California Legislature acted quickly to provide a statutory definition of the broker's duties regarding pre-sale housing inspections.[84] Interestingly, that response has primarily shifted the burdens associated with inspection back to the homebuyer.[85] Since the decision, *Easton* has been the focus of much attention and the subject of much criticism,[86] but one thing is certain: In each state where the question arises, the expansion of broker liability will be measured against the high water mark left by *Easton*.

C. *The Current Trend: Is The Rule of Easton v. Strassburger in Florida's Future?*

In October of 1985, the Supreme Court of Florida expanded sale-related liability when it affirmed the ruling of the Florida Third District Court of Appeal in *Johnson v. Davis*.[87] Overturning previous case law, the supreme court decided that a homeseller has an affirmative duty to disclose to a prospective purchaser any latent defects of which he has knowledge.[88] The failure to disclose such defects leaves the

---

80. *Id.*
81. 179 Cal. App. 2d 63, 3 Cal. Rptr. 612 (1960).
82. *Id.*
83. *Id.*
84. *See supra* note 18.
85. *Id.*
86. *See* King, *supra* note 26; note, *supra* note 55.
87. Johnson v. Davis, 449 So. 2d 344 (Fla. 3d Dist. Ct. App. 1984), *aff'd*, 480 So. 2d 625 (Fla. 1985).
88. *Johnson*, 480 So. 2d at 629. The court agreed with the reasoning of the California Court of Appeal, Second District, in Lingsch v. Savage, 213 Cal. App. 2d 729, 29 Cal. Rptr. 201 (1963), and the rule stated therein: "[W]here the seller knows of

homeseller liable to the buyer for damages caused as a result of the sale.[89]

In May of 1982, the Davises entered into a contract to purchase the Johnsons' three-year-old home for $310,000.00.[90] The contract required a $5,000.00 deposit payment and an additional deposit payment of $26,000.00 within five days.[91] The Davises put down the $5,000.00 deposit, but before they had paid out the additional $26,000.00, Mrs. Davis noticed stains on the ceilings in both the family room and kitchen.[92] When Mrs. Davis inquired about the stains, Mr. Johnson replied that there had once been a minor problem with the window which had long since been corrected.[93] Several days after paying the remainder of the deposit, Mrs. Davis entered the home to find water "gushing" in from around that same window frame, the ceiling in the family room, the light fixtures, the glass doors, and even from the stove in the kitchen.[94]

The Davises sued the Johnsons, claiming breach of contract, fraud and misrepresentation.[95] The trial court entered judgment for the Davises as to the $26,000.00 payment, but refused to allow recovery of the initial $5,000.00 deposit.[96] Both parties took exception, and the case then came before the First District Court of Appeal.[97]

The $5,000.00 deposit, actually tendered before the Johnsons had made any affirmative representation concerning the roof, provided the major issue on appeal.[98] The district court first acknowledged the traditional rule of non-liability found in *Ramel* and *Banks*. The court then

---

facts materially affecting the value or desirability of the property which are known or accessible only to him and also knows that such facts are not known to, or within the reach of the diligent attention and observation of the buyer, the seller is under a duty to disclose them to the buyer." *Id.* at 231, 29 Cal. Rptr. at 204. The court also noted that the same duty applies to the licensed real estate broker. *Id.* at 232, 29 Cal. Rptr. at 205.

89. *Johnson*, 480 So. 2d at 626.
90. *Id.*
91. *Id.*
92. *Id.*
93. *Id.*
94. *Id.* According to Mrs. Davis' testimony, employees of the Johnson's real estate agent were "scurrying" around trying to mop up the water.
95. *Id.* The Johnsons counterclaimed seeking the deposit as liquidated damages.
96. *Id.* at 627.
97. *Johnson*, 449 So. 2d 344 (Fla. 3d Dist. Ct. App. 1984), *aff'd*, 480 So. 2d 625 (Fla. 1985).
98. *Id.* at 347.

reached back to *Kitchen v. Long*,[99] a case decided in 1914, for authority to support the proposition that the seller's liability might be premised on mere non-disclosure.[100] *Johnson* abolished earlier distinctions drawn between the sale of real and personal property and left the door open for the expansion of sale-related liability.

Perhaps even more significant to the real estate industry, however, is the footnote added by the district court on the last page of the decision.[101] Here, the majority indicated its reluctance to limit non-disclosure liability to the homesellers; in effect, real estate agents may be subject to such liability as well.[102] In California, the imposition on the broker of a duty to disclose was the last judicial step taken before the imposition of the duty to inspect.[103]

The Supreme Court of Florida affirmed the decision of the district court.[104] In a lengthy discussion[105] of the California court's decision in *Lingsch*, the majority noted the general tendency toward the restriction of the doctrine of caveat emptor through the imposition of a duty to disclose.[106] In view of the reasoning in *Lingsch* and similar decisions, the majority held that if a seller has knowledge of facts which would materially affect the value of the property and those facts are not known and readily observable to the buyer, the seller is under a duty to disclose them to the buyer.[107] Florida has now clearly indicated that

---

99. 67 Fla. 72, 64 So. 429 (Fla. 1914).

100. In *Kitchen*, the seller of a "fine looking mule" intentionally concealed an organic defect in the animal from the buyer. When the mule died a few days after the sale, the buyer sued for recission. Relying on authority drawn from a number of defective animal cases, the court granted recission of the sale. It is important to realize, however, that the rule cited in *Kitchen* applies only in situations where the buyer does not have adequate opportunity to examine the merchandise being sold, i.e., a transaction not at arm's length. *Kitchen*, 67 Fla. at 72, 64 So. at 429.

101. *Johnson*, 449 So. 2d at 350.

102. *Id.* The court noted, "Although our holding is limited by the facts before us to the sellers of used homes, we realize that this duty is equally applicable to real estate brokers and all forms of real property, new and used." The Florida court once more looked to a California decision for support of this proposition. *See* Saporta v. Barbagelata, 220 Cal. App. 2d 463, 33 Cal. Rptr. 661 (1963).

103. *Easton*, 152 Cal. App. 3d at 99, 199 Cal. Rptr. at 387.

104. *Johnson*, 480 So. 2d at 625.

105. *Id.* at 628.

106. *Id.*

107. *Id.* at 629. The court stated, "We are of the opinion, in view of the reasoning and results in *Lingsch*, *Posner*, and the aforementioned cases decided in other jurisdictions, that the same philosophy regarding the sale of homes should also be the law in the state of Florida."

both seller and broker can be held accountable for non-disclosure of material defects in residential property.[108]

This was not the only significant case decided on this issue in 1985. Just one month earlier, in *Miller v. Sullivan*,[109] the First District Court of Appeal indicated that there is now a legal dispute as to whether a listing agent has a duty to double check the square footage figure provided by the sellers of residential property. In *Miller*, the purchaser sued the seller and the two brokers who cooperated in the sale for negligent misrepresentation.[110] The Sullivans' broker listed the house in the multiple listing service as having been "measured" at 1,417 square feet when, in fact, the home had less than eleven hundred square feet of usable living space.[111] The buyers, the Millers, discovered the error a year later when they attempted to sell the house.[112]

The trial court granted summary judgment for all defendants, and the purchasers appealed.[113] The Florida First District Court of Appeal upheld the summary judgment in favor of the sellers, but questioned the ruling of the trial court on the issue of broker negligence.[114] The court described the duty of the listing broker as one of honesty, candor, and fair dealing. The court then went on to state that a disputed issue of fact existed as to whether the broker had a duty to verify the square footage figure provided by the Sullivans.[115] As a result, the appellate court reversed summary judgment and remanded the case back for a determination on that issue and several other disputed issues of fact.[116]

In February of 1986, in *Horn v. First Orlando Realty Corp.*, Florida's First District Court of Appeal confronted the issue of broker negligence head on.[117] In *Horn*, the plaintiff-homebuyer brought an action

---

108. *Id.*

109. 475 So. 2d 1010 (Fla. 1st Dist. Ct. App. 1985).

110. *Id.* at 1011. In the original action, the Millers filed suit against both listing and selling brokers for breach of contract, fraud and negligence. They sued the sellers for breach of contract and fraud.

111. *Id.* at 1011. At trial, there was an issue as to whether the representation in the listing agreement that the square footage had been "measured" meant that such measurement had been made by the listing agent or simply provided by the seller.

112. The inflated figure was attributed to the inclusion of the space contained within the garage and utility room, where there were no facilities for heating or air-conditioning. *Id.* at 1011.

113. *Id.*

114. *Id.*

115. *Id.* at 1012.

116. *Id.*

117. Horn v. First Orlando Realty Management Corp., 483 So. 2d 80 (Fla. 5th

against the seller's agent for negligent misrepresentation.[118] During pre-sale negotiations, the agent had assured the buyer that she could use the attic of the home as a storage area.[119] After the sale, the buyer attempted to use the attic and fell through a weak spot in the floor, breaking her back.[120] The district court found that the complaint had adequately alleged a claim of negilgent misrepresentation and held the defendant-broker liable to the homeowner. The court reached this conclusion despite the lack of any evidence which might have indicated that the broker had been aware of the defective condition of the attic floor prior to the time of the sale.[121]

Decisions like *Johnson*, *Miller*, and *Horn* indicate that Florida courts are in harmony with the current national trend toward greater consumer protection in residential land transactions.[122] To that end, the expansion of sale-related liability will probably continue as property values increase and dissatisfied homebuyers become aware of the increasing number of remedies available. It is conceivable that the question of whether Florida law requires real estate brokers to perform pre-sale housing inspections will soon arise.[123]

In an area of increasing consumer awareness and protective legislation, mandatory housing inspections would appear to be an appropriate remedy to an intolerable situation. Upon closer examination, however, the broker's duty to inspect reveals itself only as a temporary stop-gap: a post-hoc judicial remedy which can only lead to increased housing costs and excessive litigation. The broker's duty to inspect is a simplistic approach to a complicated problem, and one which places an unnecessarily harsh burden on the agent for the seller.

III. Misdirected Liability: A Critical Analysis of the Broker's Duty to Inspect

The imposition of a duty to inspect upon the seller's agent is not an appropriate response to the increasing number of problems relating to the sale of residential real estate. There are several reasons for this.

Dist. Ct. App. 1986).

118. *Id.*
119. *Id.*
120. *Id.*
121. *Id.*
122. *Johnson*, 480 So. 2d at 628. *See also* sources cited *supra* notes 14 and 15.
123. *More Changes in 1986?*, 5 LAW ALERT 107 (1986).

First, the state-licensed broker does not ordinarily possess the skills necessary to conduct a comprehensive pre-sale inspection.[124] Most states prescribe statutory requirements to practice in the real estate industry and home inspection skills are rarely included within such requirements. For example, under current Florida law, a candidate for a real estate salesman's license must be eighteen years of age, a resident of the state, and of good character.[125] In addition, that candidate must complete a statutorily defined educational program and pass a statewide licensing examination.[126] The candidate for a broker's license must have held an active salesman's license in the year preceding the application and must complete a second, more comprehensive, course and exam.[127]

Neither of these state prescribed educational courses incorporate investigation technique. While many brokers might possess a rudimentary knowledge of housing construction and could spot obvious defects, the individual broker's personal experience limits the extent of such knowledge. The real estate agent's statutorily defined training requirements do not, in any way, involve the investigation of more complicated problems, such as the possibility of structural defects in the foundation or questions of soil integrity.[128] This latter problem might prove to be of particular significance in Florida, where a number of homes have collapsed into sinkholes which suddenly appeared without warning.[129] The licensed real estate broker simply does not possess the skill and expertise necessary to conduct independent housing inspections. As a result, brokers will undoubtedly look to costly inspection services to reduce their risk of liability.[130] Inevitably, they will pass that cost on to

---

124. For a persuasive analysis of the real estate broker's lack of inspection skills, see King, *supra* note 26 at 658. *See also* Note, *supra* note 55, at 340.

125. FLA. STAT. § 475.17(1)(a)(1985).

126. FLA. STAT. § 475.17(2)(1985).

127. *Id.*

128. There is no specific language in the statute that requires such skills; however, "[a]n applicant for an active broker's license or a salesman's license shall be competent and qualified to make real estate transactions and conduct negotiations therefor with safety to investors and to those with whom he may undertake a relationship of trust and confidence." FLA. STAT. § 475.17(1)(a)(1985). *See also* Levin, *supra* note 5, at 437; King, *supra* note 26 at 658.

129. For an enlightening discussion concerning the unpredictability of sinkhole occurrence, *see* Vimmer v. Aetna Ins. Co., 383 So. 2d 92, 94 (Fla. 5th Dist. Ct. App. 1980). *But cf.* Vogel v. Larson Constr. Co., 156 So. 2d 181 (Fla. 2d Dist. Ct. App. 1963).

130. King, *Broker Liability After Easton v. Strassburger: Let the Buyer Be*

the ultimate consumer, the homebuyer.[131]

A second flaw in the *Easton* analysis concerns the changing role of the seller's real estate agent. The duty to inspect places the broker in a precarious position in terms of his agency relationship with the seller. As a consequence, both buyers and sellers will pay the price for the continuing expansion of the broker's legal duties. As courts expand the duty of the seller's broker to afford the homebuyer greater protection, they force the broker deeper into a dual agency relationship.[132] In effect, the broker must now represent the interests of both buyer and seller, two parties with obviously conflicting interests. This suggests an argument that traditional agency theory fails to provide either the buyer or the seller of residential property with adequate protection.[133] The imposition of a duty to inspect will only complicate matters further.

It must be emphasized that in the typical residential transaction, the real estate broker is the agent of the seller, not the buyer.[134] Under such an arrangement, the broker's primary fiduciary duty is to the seller.[135] Traditionally, the seller's broker also owed a duty to the buyer,[136] but until only recently that duty was simply one of fair dealing and honesty.[137]

Nevertheless, recent decisions have based broker liability upon the homebuyer's misguided reliance on the broker's advice and posture

---

Aware, 25 SANTA CLARA L. REV. 662 (1985).

131. *Id.* at 663.

132. Dual agency is created when two essentially adverse principals, i.e., vendor and purchaser, are represented by a single entity. Comment, *supra* note 2, at 388.

133. *See supra* note 18.

134. Comment, *Broker - Real Estate Broker's Duties to Prospective Purchasers—Funk v. Tifft, 515 F.2d 23 (9th Cir. 1975)*, 4 B.Y.U. L. REV. 513 (1976). *See also* Comment, *Protecting the Real Estate Consumer: Traditional Theories of Liability Revisited, and a Look at Nebraska's Proposed Real Estate Consumer's Protection Act*, 65 NEB. L. REV. 188, 193 (1985).

135. *See* Funk v. Tifft, 515 F.2d 23, 25 (9th Cir. 1975). *See also* Gulitz, *supra* note 18, at 127; Comment, *supra* note 2, at 387.

136. *See* 7 FLA. JUR. 2D *Brokers* § 64 (1975).

137. *See, e.g.*, Zichlin v. Dill, 157 Fla. 96, 25 So. 2d 4 (1946); Shelton v. Florida Real Estate Comm., 120 So. 2d 191 (Fla. 2d Dist. Ct. App. 1960); Lerer v. Arvida Realty Co., 134 So. 2d 798 (Fla. 2d Dist. Ct. App. 1961); United Homes Inc. v. Moss, 154 So. 2d 351 (Fla. 2d Dist. Ct. App. 1963). If the seller acts as the agent for the buyer then he owes the duty of fair dealing to the prospective vendor. *See, e.g.*, Ellis v. Fink, 301 So. 2d 493 (Fla. 2d Dist. Ct. App. 1974).

during pre-sale negotiations.[138] Plaintiffs argue that real estate brokers are often the only source of information available to the homebuyer.[139] They contend that more often than not, the broker has an influential effect on the homebuyer due to his ability to access market information and his superior level of expertise concerning the housing industry itself.[140]

Several writers have also suggested that a gratuitous agency is formed between the seller's broker and the prospective purchaser.[141] Thus, courts might predicate the broker's duty to inspect on the relationship between the broker and buyer as independent from the broker's relationship with the seller.[142] The approach dovetails neatly with the *Easton* decision which held the obligation to perform mandatory housing inspections implicit in the broker's duty to disclose.[143]

Unfortunately, however, decisions like *Easton*, *Johnson*, and *Miller* have expanded the broker's duty to the homebuyer at the expense of the representation afforded the seller. *Johnson* based the broker's liability on principles of fraud.[144] In *Miller*, as in *Easton*, the court would have based liability upon a negligence theory.[145] In either case, the results are similar. In effect, such decisions require that licensed brokers provide professional assistance to separate parties with obviously conflicting interests. Both theories of liability premise the broker's duty on his relationship to the homebuyer, and regretably, that relationship lies in direct conflict with the interests of the broker's principal.[146] Thus, while it is true that a duty to the buyer may arise under the principles of gratuitous agency or through the homebuyer's misguided reliance, that duty is not absolute. It must be considered in light of the fact that real estate brokers ordinarily receive compensation for their services from the seller and that, in any event, the interests of the

---

138. *See, e.g., Easton*, 152 Cal. App. 3d at 100, 199 Cal. Rptr. at 389.

139. *Id.* at 100, 199 Cal. Rptr. at 388.

140. *Id.*

141. RESTATEMENT (SECOND) OF AGENCY § 378 (1978). For an interesting discussion of this argument, see Levin, *Real Estate Agent Liability for Creative Financing Failures*, 39 U. MIAMI L. REV. 429, 432-33 (1985).

142. *See* Currier, *supra* note 1, at 658-59.

143. *Easton*, 152 Cal. App. 3d at 100, 199 Cal. Rptr. at 389.

144. *Johnson*, 480 So. 2d at 628. *See* Saporta v. Barbageleta, 220 Cal. App. 2d 463, 33 Cal. Rptr. 661 (Cal. 1st Dist. Ct. App. 1963).

145. *Miller*, 475 So. 2d at 1011.

146. *See* authorities collected, *supra* note 18.

seller are unquestionably the listing broker's primary responsibility.[147]

Adding to this confusing conflict of interest, the typical residential transaction ordinarily involves two licensed brokers, both of whom receive substantial compensation from the seller.[148] Ordinarily, the broker who lists the property — the *listing broker* — deals directly with the homeseller.[149] The listing agreement creates an agency[150] relationship between the broker and the seller and provides a vehicle for the seller's representations as to the property, most often through the authorization of some form of access to a multiple listing service.[151] Theoretically, as well as in practice, the *listing* agent will then promote the seller's interests as if they were his very own: If the listed property fails to sell, the seller pays no commission.[152]

The broker who cooperates in the sale — the *selling broker* — is the agent who most often assumes the position in the transaction as the apparent representative of the buyer.[153] In reality, however, the *selling* broker is not the buyer's agent at all, but simply one more agent working for the seller.[154] It is the *selling* broker upon whom the homebuyer most often relies to his detriment.[155] Thus, the *selling* broker, who may have had no previous contact with the seller, and who may have no greater knowledge of the seller's property than the buyer himself, can be held liable for failing to provide the buyer with information which may in fact work against the seller's best interests.

Considering the state of confusion which surrounds the current

---

147. *See, e.g.*, Bush v. Palermo Realty, Inc., 443 So. 2d 104 (Fla. 4th Dist. Ct. App. 1983). The court, citing an earlier decision by a sister court, noted that the broker's primary fiduciary duties to the seller were not undermined by the broker's obligation of fair dealing to the buyer.

148. Comment, *Dual Agency in Residential Real Estate Brokerage: Conflict of Interest and Interests in Conflict*, 12 GOLDEN GATE U.L. REV. 379, 383 (1982).

149. In the typical residential real estate transaction, the seller lists his real estate for sale with a real estate broker by way of a salesman (listing salesman) representing the broker (listing broker). Gulitz, *supra* note 18, at 126.

150. Agency is a consensual relationship between two persons wherein one of them (the principal) empowers the other (the agent) to act and the agent assumes to so act. RESTATEMENT (SECOND) OF AGENCY § 1 (1958).

151. For a discussion of the marketing advantages of multiple listing services, see Currier, *supra* note 11, at 661. *See also* Gulitz, *supra* note 18, at 126.

152. *See* BEATON, *supra* note 3, at 328.

153. *Id.* at 327.

154. *See, e.g.*, Hale v. Wolfson, 276 Cal. App. 2d 285, 290, 81 Cal. Rptr. 23, 27 (Cal. 1st Ct. App. 1969). *See also* Comment, *supra* note 134, at 193.

155. *See* Comment, *supra* note 2, at 387.

real estate agency arrangement, it is clear that imposition of a duty to inspect on the seller's broker will only complicate matters further. The requirement that an agent for the seller perform inspections for the benefit of the buyer can only serve to increase the pressure on the real estate brokers in their attempt to avoid the conflict of interest which already exists. In effect, the duty to inspect forces the broker into a dual agency relationship, an arrangement where both the seller and buyer suffer from inadequate representation.

The preceeding analysis has revealed flaws in the reasoning behind the imposition of a duty on licensed real estate brokers to perform mandatory housing inspections on all listed property. It is clear that today's homebuyer is in need of protection; what is not clear, however, is whether that protection should come at the expense of the seller, or through the imposition of such an unnecessary burden on the seller's agent. It would appear that an alternative solution to the homebuyer's lack of adequate representation might be found by shifting fiduciary responsibilities and giving legal recognition to a proposition which many homebuyers already believe to be true: that the *selling broker* is the agent of the buyer.

IV. An Alternative Solution: Representation for the Homebuyer

Considering the nature and importance of the residential land transaction, it is nothing short of incredible that the modern homebuyer is under-protected and ill-advised. The purchase of a home is a relatively complex transaction.[156] It is imperative that the buyer be provided with adequate representation during the pre-sale negotiations. The deceptive appearance of the traditional agency relationship, however, has fostered a general misconception that leads homebuyers to believe they are receiving that representation.[157] As previously discussed,[158] it is this misconception which provided the element of reli-

156. *See* S. CEIDELL, HOUSING COSTS AND GOVERNMENT REGULATION 261-77 (1978); *See generally* Greshin, *The Residential Real Estate Transfer Process: A Functional Critique*, 23 EMORY L.J. 421 (1974).

157. W. BEATON, *supra* note 3, at 327. *See also* Comment, *Mandatory Disclosure: The Key to Residential Real Estate Broker's Conflicting Obligations*, 19 J. MARSHALL L. REV. 201 (1985); Owen, *Kickbacks, Specialization, Price Fixing, and Efficiency in Residential Real Estate Markets*, 29 STAN. L. REV. 931, 944-45 (1977).

158. *See supra* notes 142 to 146 and accompanying text.

ance necessary to the reasoning behind the *Easton* rule.[159] By expanding sale-related liability, today's courts are simply responding, albeit after the fact, to the problems generated by the pre-sale inequities of the traditional agency arrangement. A better solution would be to see the traditional agency arrangement undergo a simple, yet fundamental, readjustment.

As the problems relating to the sale of defective residential property so often revolve around the homebuyer's lack of representaton prior to the sale,[160] this provides the focal point of the solution.[161] The fact that homebuyers do not obtain adequate representation during pre-sale negotiations works to increase the risks associated with the purchase of defective property.[162] Homebuyers mistakenly — maybe even justifiably — rely on the seller's agent for information regarding the sale. This misplaced reliance is at least partially responsible for the favorable judicial treatment now afforded the homebuyer after the sale. Ultimately, it may result in the imposition of a duty on the part of the seller's agent to perform mandatory housing inspections on behalf of potential buyers.[163] In this way, the significance of the problem becomes painfully apparent. The seller, the buyer, and any agent involved in a real estate transaction risks potential liability due to the homebuyer's current lack of adequate representation.[164]

Not surprisingly, Florida homebuyers could acquire that representation from the same pool of professional assistance now available to any homeseller — the states's 322,331 licensed real estate agents[165]

---

159. *Easton*, 152 Cal. App. 3d at 101, 199 Cal. Rptr. 3d at 389.

160. Presumably, by the time the homebuyer brings his claim to court, he has arranged for adequate representation.

161. It is important to note that the court in *Easton* recognized that the broker's duty to inspect does not necessarily apply to transactions involving the sale of commercial real estate, where a purchaser is likely to be more experienced and sophisticated in his dealings and is usually represented by an agent who represents only the buyer's interest. *Easton*, 152 Cal. App. 3d at 103, 199 Cal. Rptr. at 390.

162. *Id. See also* Comment, *supra* note 2, at 383.

163. *Easton*, 152 Cal. App. 3d at 101, 199 Cal. Rptr. 3d at 389.

164. The homebuyer purchases an economic headache; the homeseller risks post-sale liability; the broker walks a legal tightrope, where high visibility and perpetual solvency can lead to actions filed by both buyers and sellers.

165. Telephone interview with Barbara Rhloff, Data Entry Supervisor, Division of Real Estate, Department of Professional Regulation, Orlando, Florida (Jan. 15, 1987). As of March, 1985, licensed brokers and salespersons in the state of Florida numbered 135,549. FLORIDA STATISTICAL ABSTRACT 436 (1985).

and 39,989 practicing attorneys.[166] Moreover, the expense of that representation might be kept to a minimum by simply shifting the responsibilities of the *selling broker* to provide the homebuyer with a greater degree of protection.

While many people mistakenly believe that the seller is entitled to the services of two brokers by virtue of the fact that the seller is the one who pays the broker's commission, this is not, in fact, wholly true. In reality, the broker's commission is simply a transactional cost, a cost which is ultimately passed on to the *homebuyer* in the form of a higher purchase price.[167] In effect, today's homebuyer already pays for assistance from at least *two* licensed real estate professionals; but the inherent inequities built into the traditional arrangement have unnecessarily limited the extent of that assistance, and have left the homebuyer unprotected.

Lawmakers could eliminate many of the current problems surrounding residential land transfers by offering the services of the *selling broker* to the buyer. In effect, the *selling* agent would become the transactional representative of the buyer, not the seller. A state-licensed real estate broker would then represent every homebuyer. The seller would, of course, retain the services of the *listing* broker, and the parties would be dealing at arm's length.[168] Both brokers may then work to negotiate terms agreeable to all. If an agent for the buyer feels that a particular inspection is necessary, he can advise the homebuyer to insist that the purchase and sale agreement provide for it. If the homebuyer does require legal counsel or the assistance of a professional inspection service, the *selling broker* could arrange for such assistance during the course of pre-sale negotiations. As the courts would then consider the homebuyer as the principal of the *selling* agent, the failure to provide the homebuyer with adequate representation would still leave brokers open to liability, but would do so without imposing a duty to perform costly inspections on all residential transactions.

The traditional agency arrangement will require a fundamental re-

---

166. Telephone interview with Virginia Hardison, Supervisor of Membership Records, Florida Bar, Tallahassee, Florida (Jan. 15, 1987). As of June 3, 1985, members in good standing in the Florida Bar numbered 36,389. FLORIDA STATISTICAL ABSTRACT 545 (1985).

167. It is for this reason that homebuyers who purchase property from sellers without brokers expect a lower purchase price.

168. It is important to remember that the holding in *Easton* did not apply to commercial real estate transactions, where the parties are considered to be dealing at arm's length. *Easton*, 152 Cal. App. 3d at 104, 99 Cal. Rptr. at 391.

in existence. The traditional agency arrangement must undergo a fundamental change, whereby the selling broker acts as the agent for the buyer. Until then, real estate brokers must exercise extreme caution in listing property for sale, as any home can prove to be a potential liability.

Gary S. Gaffney

Products Liability Statute of Repose—A Florida Perspective

I. INTRODUCTION 849
II. HISTORICAL FACTORS CONTRIBUTING TO FLORIDA'S ADOPTION OF THE STATUTE OF REPOSE 851
III. THE FLORIDA JUDICIAL APPROACH WITH THE STATUTE OF REPOSE 853
A. *The "Access to Courts" Argument* 854
B. *Guidance from the Architectural Statute of Repose* 854
C. *Florida's Application of the Products Liability Statute of Repose* 856
IV. THE AFTERMATH OF THE FLORIDA SUPREME COURT'S INTERPRETATION 860
V. SHOULD FLORIDA CONSIDER THE ENACTMENT OF ANOTHER STATUTE OF REPOSE? 862
A. *Inherent Problems with Florida's Statute of Repose* 863
B. *The Pitfalls of an Overbroad Statute of Repose* 864
C. *Faulty Reasoning which Justified the Enactment of the Statute of Repose* 865
D. *A Statute of Repose for Durable Goods* 867
VI. FEDERAL PREEMPTION 868
VII. CONCLUSION 871

I. Introduction

On November 21, 1979, a seventeen-year-old boy, Dana Lamb, was a passenger in a 1967 Volkswagen.[1] The car left the road and overturned, ejecting Lamb.[2] The accident rendered him a permanent quadriplegic.[3]

Lamb brought suit in the United States District Court for the

1. Lamb v. Volkswagenwerk Aktiengesellschaft, 631 F. Supp. 1144, 1146 (S.D. Fla. 1986).
2. *Id.*
3. *Id.*

Southern District of Florida against the car manufacturer, alleging that defects in the design — which resulted in a rollover propensity and easily-fracturable windshield — caused his injury.[4] The allegations of the defect appeared viable at the time the plaintiff brought suit, and the defects certainly could not have appeared until an accident such as this occurred.

Nevertheless, the outcome of the lawsuit need not be discussed; the case did not go to trial.[5] The Florida legislature had terminated Lamb's cause of action before it ever arose. Based on the enactment of section 91.031(2)[6] of Florida's Limitations of Actions Statutes, commonly known as a "statute of repose," the court barred his action. This statute provided the following:

> Actions for products liability and fraud under § 95.11(3) must be begun within the period prescribed in this chapter, with the period running from the time the facts giving rise to the cause of action were discovered or should have been discovered with the exercise of diligence, instead of running from any date prescribed elsewhere in § 95.11(3), but in any event *within twelve years after the date of delivery of the completed product* to its original purchaser regardless of the date the defect in the product was or should have been discovered.[7]

As a result, the trial court exonerated the automobile manufacturer, granting it summary judgment and effectively foreclosing Lamb's opportunity for redress.[8]

The irony of the situation is this: had the accident and filing of suit taken place just *days* before it did, the court would have permitted his action to proceed on the merits.[9] Instead, the accident occurred eight days after the automobile reached its twelfth year after the date of its manufacture.[10] Although the plaintiff brought suit three years after the accident, well within Florida's statute of limitations pertaining to personal injury which provided a claimant with *four years* from the time

---

4. *Id.*
5. *Id.* at 1152.
6. FLA. STAT. § 95.031(2) (1975), *amended by* 1986 FLA. SESS. LAW SERV. 86-271 (West).
7. *Id.* (emphasis added).
8. *Lamb*, 631 F. Supp. at 1152.
9. FLA. STAT. § 95.031(2) (1975), *amended by* 1986 FLA. SESS. LAW SERV. 86-271 (West).
10. *Lamb*, 631 F. Supp. at 1146-47.

Nova Law Review, Vol. 11, Iss. 2 [1987], Art. 23

of the injury to bring an action,[11] it was not controlling.[12] Because the plaintiff's misfortune resulted in a "product liability" claim, the statute of repose applied to bar his claim.[13]

Less than four months after the *Lamb* decision, the Florida legislature repealed the products liability statute of repose.[14] While it has been temporarily put to rest in Florida, products liability statutes of repose are still a live issue in pending federal legislation.[15] Manufacturing firms and defense attorneys understandably will favor such legislation.

This Note will examine Florida's ten-year experience with a products liability statute of repose prior to its repeal in 1986. It will investigate the reasons for its enactment and the problems encountered by the courts. Consideration will also be given to the feasilibity and necessity of a future enactment of a statute of repose in Florida.

II. Historical Factors Contributing to Florida's Adoption of the Statute of Repose

Statutes of repose are legislation placing an outer time limit on negligence and related claims in contexts where the potential hardship to the defendant appears great.[16] Contrasted with the customary statute of limitations, there is a fundamental difference. The traditional *statute of limitations* establishes a time period within which an action must be brought and generally begins to run when an injury occurs.[17] By contrast, a products liability *statute of repose* is measured from a specified fixed date, such as the manufacture of a product.[18] The significant difference is its limitation period begins to run whether an injury has occurred or not, and is thereby unaffected by the date on which the cause of action accrues.[19] After the lapse of the specified period, the

---

11. FLA. STAT. § 95.11(3) (1985).
12. *Lamb*, 631 F. Supp. at 1144.
13. *Id.* at 1152.
14. FLA. STAT. § 95.031(2) (1975), *amended by* 1986 FLA. SESS. LAW SERV. 86-271 (West).
15. S. 2760, 99th Cong., 2d Sess. § 304 (1986).
16. W. KEETON, D. DOBBS, R. KEETON & D. OWEN, PROSSER AND KEETON ON THE LAW OF TORTS, 167 (5th ed. 1984). [hereinafter W. KEETON]
17. *Id.* at 165 n. 9.
18. *Id.* at 168.
19. *Id.*

statute of repose terminates any right to bring an action.[20]

Controversy has long surrounded repose statutes. Difficulty arises from the possibility that such a statute may *bar* an action before it arises.[21] When this happens, the statute operates to deny the claimant a judicial forum simply because the product has attained the age specified in the statute.[22]

Although legislative history is scarce concerning Florida's enactment of the products liability statute of repose, manufacturers' expanded liability appears to be the primary influence in its enactment.[23] Florida, as well as the rest of the country, experienced a "products liability revolution" in the past two decades.[24] Several factors have contributed to increased litigation in Florida.

At common law, courts required privity between a manufacturer and plaintiff in an action based upon the manufacturer's negligence.[25] The inequities of such a rule became obvious by the 1940's, however, when manufacturers began regularly selling products to wholesalers or retailers.[26] As a result, the Florida Supreme Court displaced the privity requirement with a duty to avoid "reasonable foreseeable injuries to those who might use the commodity."[27]

The trend toward the adoption of the strict liability doctrine imposed an added burden on manufacturers.[28] Under this theory, a manufacturer became liable simply when it placed a product on the market, knowing that it was to be used without inspection for defects, and the product proved to have a defect which caused an injury.[29] The Florida Supreme Court expressly adopted this doctrine in 1976.[30]

Another significant contribution to the expansion of liability of manufacturers was the judicial adoption of the "discovery rule" for

---

20. *Lamb*, 631 F. Supp. at 1147.
21. Overland Constr. Co. v. Sirmons, 369 So. 2d 572, 575 (Fla. 1979).
22. *Id.*
23. *Id.* at 576.
24. Martin, *A Statute of Repose for Products Liability Claims*, 50 FORDHAM L. REV. 745 (1982).
25. Huset v. J. I. Case Threshing Mach. Co., 120 F. 865, 869 (8th Cir. 1903). Public policy traditionally required this rule, as "there would be no end to litigation" if manufacturers were held liable to third parties.
26. *See generally* Hughes v. Miami Coca Cola Bottling Co., 155 Fla. 299, 19 So. 2d 862 (Fla. 1944).
27. Tampa Drug Co. v. Wait, 103 So. 2d 603, 607 (Fla. 1958).
28. West v. Caterpillar Tractor Co., 336 So. 2d 80, 88 (Fla. 1976).
29. *Id.* at 84.
30. *Id.* at 87.

statutes of limitations.[31] Under this doctrine, the accrual of a cause of action begins when the facts giving rise to the action *are known*, or *should have been known*, with the exercise of due diligence.[32] In essence, it rendered the defendant virtually "vulnerable to suit indefinitely, sometimes decades after the event."[33] The discovery rule became commonly used with regard to long-term effects of pharmaceuticals[34] or with regard to diseases acquired over a long period of time.[35]

A perceived liability "crisis" in the 1970's appears to have also given credence to the idea of a statute of repose.[36] Because courts permitted a greater number of claims to be brought against manufacturers, as well as frequent and large recoveries, products liability litigation increased nationwide.[37] Authorities claimed that the increased litigation led to unaffordable insurance rates and, in some instances, unobtainable coverage at any price.[38] In response, legislative proposals advocated the enactment of statutes of repose to remedy the insurance market.[39] The Florida legislature undoubtedly reacted to all of these factors when it enacted its statute of repose in its 1975 legislative session.

III. The Florida Judicial Approach with the Statute of Repose

The application of a statute which simply placed a cap on products liability actions was not an easy task; the Florida courts were not receptive to a statute that would terminate a claimant's action before it arose, and they quickly questioned the statute's validity on state constitutional grounds.[40] The judiciary, in an effort to uphold the legislation,

---

31. Urie v. Thompson, 337 U.S. 163 (1949).

32. Copeland v. Armstrong Cork Co., 447 So. 2d 922, 926 (Fla. 3d Dist. Ct. App. 1984) (emphasis added).

33. W.P. KEETON, *supra* note 16, at 167.

34. Diamond v. E. R. Squibb and Sons, Inc., 397 So. 2d 671 (Fla. 1981).

35. *Copeland*, 447 So. 2d at 926.

36. Dennis, *Products Liability Statutes of Repose as Conflicting with State Constitutions: The Plaintiffs are Winning*, 26 ARIZ. L. REV. 363, 364 (1984).

37. Note, *Limiting Liability: Products Liability and a Statute of Repose*, 32 BAYLOR L. REV. 137, 139 (1980), *citing The Way to Ease Soaring Product Liability Costs*, BUS. WK., Jan. 17, 1977, at 62.

38. Proust, *Toward Reform in Product Liability Law*, 45 INS. COUNSEL J. 346 (1978).

39. *Id.* at 348.

40. *See* Batilla v. Allis Chalmers Mfg. Co., 392 So. 2d 874, (Fla. 1980) (Mc-

began weaving a piecemeal group of decisions on a case-by-case method. A brief look at Florida case law will illustrate the difficulties which faced the courts as they carved out exceptions and created an anomaly out of the products liability statute of repose.

A. *The "Access to Courts" Argument*

Plaintiffs whose cause of action would be terminated by the statute immediately attacked it, claiming an unconstitutional denial of their right of "access to the courts."[41] The Florida Constitution provides that "[t]he courts shall be open to every person for redress of any injury, and justice shall be administered without sale, denial or delay."[42] Claimants asserted that, according to this guarantee, their rights were unconstitutionally violated. In support of their argument plaintiffs cited *Kluger v. White*,[43] in which the Florida Supreme Court stated the following:

> [W]here a right of access to the courts for redress for a particular injury has been provided . . . the Legislature is without power to abolish such a right without providing a reasonable alternative to protect the right of the people of the State to redress for injuries, unless the Legislature can show an overpowering public necessity for the abolishment of such right, and no alternative method of meeting such public necessity can be shown.[44]

Based on this reasoning, the courts began their difficult struggle to interpret the statute of repose and its effect on the Florida Constitution.[45] This task was not easy, as the results discussed below will reveal.

B. *Guidance from the Architectural Statute of Repose*

Faced with a potential state constitution conflict in applying the products liability statute of repose and little legislative history concerning its enactment, the courts sought guidance from previous cases in-

---

Donald, J., dissenting); *but cf.* Pullum v. Cincinnati, Inc., 476 So. 2d 657 (Fla. 1985) (receding from *Batilla*).

41. *See Purk*, 387 So. 2d at 357.
42. FLA. CONST. art. I, § 21.
43. 281 So. 2d 1 (Fla. 1973).
44. *Id.* at 4.
45. *See Purk*, 387 So. 2d at 354.

volving an architectural statute of repose enacted in 1967.[46] This statute required that actions arising out of a deficiency in design would be barred if not brought "within twelve years after substantial completion of construction . . . ."[47] Two cases concerning this statute, *Bauld v. J.A. Jones Construction Co.*[48] and *Overland Construction Co. v. Sirmons*,[49] are of particular importance in a review of Florida's products liability statute.

In *Bauld*,[50] the Florida Supreme Court held that a twelve-year limit on bringing a cause of action was constitutional. Although the statute had the potential of barring Bauld's claim, a saving's clause in the statute prevented such a result.[51] The court held that, because the statute technically granted her time to bring suit, it was not a denial of access to the courts if the plaintiff's statutory period had merely been "shortened."[52]

The Florida Supreme Court handed down a holding with a different effect in *Overland Construction Co. v. Sirmons*,[53] when a plaintiff again challenged the architectural statute of repose on state constitutional grounds.[54] This time, however, the plaintiff brought his cause of action *fourteen years* after the completion of the building allegedly responsible for his injury.[55] Because the statute "absolutely barred" him from bringing an action rather than just curtailing the statutory period, the court held it unconstitutional as applied and allowed the action to proceed.[56]

Applying the two-part test enunciated in *Kluger*, the *Overland* court first attempted to determine whether the Florida Constitution guaranteed the right of an injured person to bring suit against a contractor for damages resulting from alleged negligence in construction.[57]

---

46. *See Purk*, 387 So. 2d at 357; Loughan v. Firestone Tire & Rubber Co., 624 F.2d 726, 730 (5th Cir. 1980); *Batilla*, 392 So. 2d at 874; Universal Eng'g Corp. v. Perez, 451 So. 2d 463, 466 (Fla. 1984).
47. FLA. STAT. § 95.11(c) (1985).
48. 357 So. 2d 401 (Fla. 1978).
49. 369 So. 2d 572 (Fla. 1979).
50. 357 So. 2d at 401.
51. *Id.* at 403.
52. *Id.*
53. 369 So. 2d at 572.
54. *Id.*
55. *Id.*
56. *Id.* at 575.
57. *Id.* at 573. The constitutional provision under consideration was FLA. CONST. art. 1, § 21.

It noted that this basic common law was in effect in 1776 and when the "access to courts" mandate of the constitution was re-adopted in 1968, a right of redress for plaintiffs such as Sirmons existed.[58] Thus, the court held that the statute of repose, in this case, abolished the plaintiff's right to sue and provided no alternative right to redress.[59]

In applying the next part of the test, the court attempted to find an indication that the legislature perceived a public necessity for the legislation.[60] Although it acknowledged that there are many problems associated with bringing suits after the "passage of time," it could not determine that a public necessity existed.[61] The court's ultimate conclusion was that the statute "benefits only one class of defendants, at the expense of an injured party's right to sue."[62]

From *Bauld* and *Overland*, two theories developed dealing with different factual situations. Courts would consider a statute of repose either "constitutional" or "unconstitutional," depending on the facts of the case.[63] In essence, if the construction had been completed over twelve years at the time of injury, the statute operated to bar the plaintiff's cause of action before it arose, thereby rendering the statute "unconstitutional" as applied.[64] This interpretation, however, conflicted with the ultimate purpose of the statute of repose, as expressed by its plain words, which was to bar precisely just such actions. Nevertheless, guided by this interpretation, the Florida courts embarked upon a case-by-case approach in interpreting the products liability statute.

C. *Florida's Application of the Products Liability Statute of Repose*

The Florida Supreme Court first addressed the validity of Florida's products liability statute in the 1980 case of *Purk v. Federal Press Co.*[65] The plaintiff alleged that a defect in a ten-year-old punch press machine had caused her injury, leaving her with only two years in

58. *Overland*, 369 So. 2d at 573-74.
59. *Id.* at 575.
60. *Id.* at 574.
61. *Id.*
62. *Id.*
63. *Id.* at 575.
64. *Id.* The court did not use the words "unconstitutional as applied." However, the author has used this phrase for purposes of clarity.
65. 387 So. 2d 354 (Fla. 1980).

which to bring suit.[66] Because the statute merely "shortened" her time period in which to bring an action rather than absolutely barring her action, the court held that the statute was constitutional.[67] There had not been an absolute denial of "access to the courts."

In another 1980 case, *Batilla v. Allis Chalmers Manufacturing Co.*,[68] the supreme court declared the products liability statute of repose unconstitutional as applied to the facts. The court did not discuss the specific facts of the case but stated its reliance on *Overland* and the statute "as applied to this case."[69] Later courts construed *Overland's* holding to be a declaration of invalidity as applied to products liability cases in general.[70]

The *Purk*[71] and *Batilla*[72] holdings left the products liability statute declared unconstitutional as applied to certain factual situations only. Simply stated, if the plaintiff had time to bring suit before the expiration of the twelve year limit, the statute was constitutional as applied.[73] Ironically, in such instances, the statute had no effect, even though held constitutional, because the time period had not lapsed. On the other hand, if the twelve years had passed before the injury occurred, it was unconstitutional as applied.[74]

The result was that the statute applied only to plaintiffs who were injured by a product between eight and twelve years old. This limited group merely had a reduced time period in which to bring suit. For example, a person injured by a product eleven years old had one year in which to bring an action. By contrast, a person injured by an eight year old product had a full four years in which to bring suit, confined only by the personal injury statute of limitations. Similarly, a person injured by a seven year old product had four years in which to bring suit.

The Florida courts' interpretation of the products liability statute of repose led to an incongruous situation. If the objective of the legislature was to avoid perpetual liability,[75] it clearly could not have intended for the plaintiff to bring suit when injured after the product was

66. *Id.* at 356-57.
67. *Id.* at 357.
68. 392 So. 2d 874 (Fla. 1980).
69. *Id.*
70. *See, e.g.*, Ellison v. Northwest Eng'g Co., 521 F. Supp. 199 (S.D. Fla. 1981).
71. 387 So. 2d at 354.
72. 392 So. 2d at 874.
73. *E.g.*, *Purk*, 387 So. 2d at 354.
74. *E.g.*, *Batilla*, 392 So. 2d at 874.
75. *Id.* at 875 (McDonald, J., dissenting).

twelve years old. Therefore, the courts *re-established* "perpetual liability" by refusing to apply it when it would bar an action.[76]

In the following years, the Florida legislature did not speak on the issue, and the courts continued in their struggle to apply the statute without violating the Florida Constitution. For example, in *Ellison v. Northwest Engineering Co.*,[77] the Third District Court of Appeal permitted an action to proceed in which a twenty-three year old machine mangled the plaintiff's arm. Similarly, in *Diamond v. E.R. Squibb and Sons, Inc.*,[78] a plaintiff brought an action against a drug company for effects resulting from medication given to her mother while the plaintiff was still a fetus.[79] Although the plaintiff discovered the deleterious effects twenty years later, the court allowed the action to proceed.[80]

The courts continued to declare the statute constitutional only when "reasonable time" remained to file an action,[81] and consequently were confronted with determining what constituted a "reasonable time." In *MacRae v. Cessna Aircraft Co.*,[82] the First District Court of Appeal ruled that twenty months was a reasonable amount of time for a passenger of an airplane, which crashed due to an alleged defect, to bring suit.[83] The Fourth District Court of Appeal defined the "reasonable time period" further in *Feil v. Challenge-Cook Brothers, Inc.*,[84] in which a concrete chute at a construction site struck the plaintiff on the head just *four months* before the expiration of the twelve year period.[85] The court held that four months was a reasonable time in which to bring suit and declared the statute constitutional as applied to the facts.[86]

---

76. Petitioner's Brief on the Merits at 1, Pullum v. Cincinnati, Inc., 476 So. 2d 657 (Fla. 1985).

77. 521 F. Supp. 199 (S.D. Fla. 1981).

78. 397 So. 2d 671 (Fla. 1981).

79. *Id.*

80. *Id.*

81. *See generally* Cates v. Graham, 427 So. 2d 290, 291 (Fla. 3d Dist. Ct. App. 1983) (the court may determine whether a party had a reasonable time in which to act, based on the "facts of the case."), *aff'd*, 451 So. 2d 475 (Fla. 1985).

82. 457 So. 2d 1073 (Fla. 1st Dist. Ct. App. 1984), *review denied*, 467 So. 2d 1000 (Fla. 1985).

83. *Id.* at 1095.

84. 473 So. 2d 1338 (Fla. 4th Dist. Ct. App. 1985), *review denied*, 486 So. 2d 596 (Fla. 1986).

85. *Id.* at 1339.

86. *Id.* at 1339.

Nova Law Review, Vol. 11, Iss. 2 [1987], Art. 23

Finally, in *Pullum v. Cincinnati Inc.*,[87] the First District Court of Appeal certified to the Florida Supreme Court the following question: "Does section 95.031(2), Florida Statutes, deny equal protection of the laws to persons such as appellant who are injured by products delivered to the original purchaser between eight and twelve years prior to the injury?"[88] While previous cases had generally challenged the right of access to the courts,[89] the plaintiff in *Pullum* argued that the statute irrationally applied to a very limited class of persons — specifically, "those persons injured during a time period of eight to twelve years after delivery of the completed product . . . ."[90]

The supreme court avoided answering the specific question certified to it. Instead, it expressly receded from the *Batilla* decision in which it had declared the products liability statute of repose violative of the Florida Constitution.[91] The *Pullum* court credited the dissenting opinion in *Batilla* as correctly reasoning that there is "a rational and legitimate basis for the legislature to take this action, particularly in view of the relatively recent developments in expanding the liability of manufacturers."[92] The court thus declared Florida's products liability statute of repose constitutional, regardless of whether there is access to courts.[93]

Less than one year after *Pullum*[94] came the decision in *Lamb*,[95] in which a car accident left the plaintiff a quadriplegic with no opportunity for redress.[96] Lamb's injuries occurred after the twelve year limitation.[97] Nevertheless, because the Florida Supreme Court decided *Pullum* while *Lamb* was pending, the United States District Court for the Southern District applied *Pullum* retroactively.[98]

---

87. 458 So. 2d 1136 (Fla. 1st Dist. Ct. App. 1984), *aff'd*, 476 So. 2d 657 (Fla. 1985).

88. *Id.* at 1140.

89. *See, e.g.*, *Batilla*, 392 So. 2d at 874.

90. Pullum v. Cincinnati, Inc., 476 So. 2d 657, 659 (Fla. 1985), *aff'd*, 476 So. 2d 657 (Fla. 1985).

91. *Id.*

92. *Id.* at 660 (quoting *Batilla*, 392 So. 2d at 874-75 (McDonald, J., dissenting)).

93. *Id.* at 659.

94. *Id.* at 657.

95. Lamb v. Volkswagenwerk, 631 F. Supp. 1144 (S.D. Fla. 1986).

96. *Id. See supra* text accompanying notes 1 to 6.

97. *Id.*

98. *Id.* at 1152.

IV. The Aftermath of the Florida Supreme Court's Interpretation

After the Florida courts' ten-year struggle with the statute of repose, the legislature in effect repealed it by amending section 95.031; it simply deleted the words which had constituted the limitation upon the initiation of products liability actions.[99] The *Lamb*[100] result was the misfortune of being heard after *Pullum*,[101] but before the repeal.

The abolition of Florida's statute of repose presents new problems for those cases that were pending at the time of the repeal. The question confronting the courts now is whether the repeal should be given retroactive or prospective effect. At this date, there has not been a decision reported. In examining several factors which the courts should consider in ruling on this question, it appears that the repeal should be applied retroactively.

In determining whether the legislation will apply retroactively, the primary factor to consider is legislative intent indicated in the language of the statute itself.[102] In amending Florida Statutes section 95.031 and providing for an effective date, the legislature indicated an intent to apply the repeal retroactively.[103] The provision states the following: "Section 1 of this act shall take effect October 1, 1986, and shall apply to causes of action accruing after that date, and Section 2 of the act shall take effect July 1, 1986."[104] The legislature clearly states that section 1 (which applies to limitations other than recovery of real property) is to be prospective.[105] On the other hand, in reference to section 2 (which deletes the limitation on products liability cases) there is no expression of future application.[106]

Recognizing that these two provisions were drafted together, the legislature clearly expressed the intention that only section 1 apply prospectively. The legislature's conscious omission of that same instruction on section 2 suggests that it knowingly intended the repeal to be ap-

---

99. FLA. STAT. § 95.031(2) (1975), *amended by* 1986 FLA. SESS. LAW SERV. 86-271 (West).
100. 631 F. Supp. at 1144.
101. 476 So. 2d at 657.
102. *See* FLA. STAT. § 95.031(2) (1985), *amended by* 1986 FLA. SESS. LAW SERV. 86-271 (West).
103. *Id.*
104. *Id.*
105. *Id.*
106. *Id.*

plied retroactively. Had this not been the intention, the legislature would have constructed the provision so that the words "shall apply to causes of action accruing after that date" modified both section 1 and section 2. Also, an alternative means would have been to repeat that clause after each section's declared effective date. Having chosen neither of these methods, the reader of the act can only conclude that the legislature intended for section 2 (repealing the statute of repose) to be applied retroactively.

Although legislative intent indicates retroactive application, the courts will have to determine another factor: whether this legislation can be constitutionally applied. In 1985, the Florida Supreme Court held that statutes which are remedial in nature generally apply to all pending cases, whereas a substantive law is to be applied prospectively only.[107] The basis for this rule is that statutes should not apply retroactively when they interfere with vested rights.[108]

Although statutes of repose have been held to be substantive in other jurisdictions,[109] the issue here is with respect to legislation constituting the *repeal* of a statute of repose. Legislation is considered remedial if it does not create new rights, and operates to further a remedy already in existence without taking away vested rights.[110]

New rights are not created through the abolition of the statute of repose because the remedy to a product liability action was recognized at common law prior to the statute's enactment. Also, the new legislation results in furthering the remedy by the removal of the twelve-year cap.

Furthermore, Florida case law appears settled that laws pertaining to limitations on time within which rights may be enforced are remedial in nature.[111] Arguably, the abolition of a law which had placed a cap on the enforcement of rights would be remedial. Nevertheless, should an argument be advanced that the repeal is substantive, the Florida Supreme Court has indicated that "an amendment to a statute of limitations *enlarging* the period of time within which an action can be brought as to pending causes of action is not retroactive legislation

---

107. Young v. Altenhaus, 472 So. 2d 1152, 1154 (citing *State v. Lavazolli*, 435 So. 2d 321 (Fla. 1983)).

108. *Young*, 472 So. 2d at 1154.

109. Cheswold Vol. Fire Co. v. Lambertson Const. Co., 489 A.2d 413, 421 (Del. 1984).

110. City of Lakeland v. Catinella, 129 So. 2d 133, 136 (Fla. 1961).

111. Walter Denson & Son v. Nelson, 88 So. 2d 120 (Fla. 1956).

and does not impair any vested rights."[112] Since the repeal of the statute clearly operates to enlarge the plaintiff's period in which to bring suit by removing the cap of twelve years, applying it to pending cases would at the outset not seem to be rendering the repeal as retroactive legislation.

Furthermore, the repeal of the statute does not affect vested rights in pending actions. Defendants will most likely assert that their defense arising from the statute of repose previously in effect has vested. However, in 1986, the United States District Court for the Southern District of Florida declared a vested right to be "*more than a mere expectation based on an anticipation of the continuance of an existing law*; it must have become a title, legal or equitable, to the present or future enforcement of a demand."[113] Thus, the repeal of the statute of repose cannot deprive a defendant of a vested right in a products liability case because the defense never vested.

Given the legislature's implicit indication that the amended statute was to have retroactive effect,[114] along with the absence of constitutional obstacles, the repeal will likely be applied to pending cases. Those claims which had not been adjudicated prior to the repeal will then be afforded the full four year statute of limitations applicable to personal injury claims without regard to the age of the product.

V. Should Florida Consider the Enactment of Another Statute of Repose?

Although the Florida courts' complex application of the statute would seem the most obvious reasons for the repeal, the Legislature stated simpler policy reasons. One of the grounds cited was that the statute was unfair to plaintiffs and in effect created a "penalty" for citizens in Florida by treating persons in the same position differently.[115] Another contributing factor was that many products, such as machinery and aircraft, are intended to be used for long periods of time, and defects may not necessarily appear in the first twelve

112. Corbett v. Gen. Eng'g & Mach. Co., 37 So. 2d 161, 162 (Fla. 1948) (en banc) (emphasis added).

113. *Lamb*, 631 F. Supp. at 1149 (citing Division of Worker's Compensation v. Brevda, 420 So. 2d 887, 891 (Fla. 1st Dist. Ct. App. 1982)) (emphasis added).

114. *See* FLA. STAT. § 95.031 (3)(1986).

115. Florida House debate on CS/HB 832 (June 6, 1986).

Nova Law Review, Vol 11, Iss. 2 [1987], Art. 23

years.[116] By repealing the statute of repose, all persons injured by a design defect have a full four years to bring suit from the time in which they learn of the defect or, with exercise of due diligence, could have discovered the defect.

Florida currently is without a products liability statute of repose.[117] After ten years of the statute's incongruous application and the foreclosure of many plaintiffs' actions, a products liability claim can now be brought at any time before the personal injury statute of limitations has run. Undoubtedly manufacturers and defense attorneys will be urging the Florida legislature to enact a statute of repose again in the future. However, the many flaws with the now-repealed statute indicate that Florida will fare better without such a law.

A. *Inherent Problems with Florida's (Now-Repealed) Statute of Repose*

Florida's products liability statute of repose was "incurably defective."[118] The statute was not comprehensive and failed to address key issues that arise in products liability litigation.[119] One case that illustrates its procedural deficiencies was decided soon after the Florida Supreme Court declared the statute constitutional.[120] In *Phlieger v. Nissan Motor Co.*,[121] the plaintiff brought a wrongful death action based on an alleged design defect of a truck.[122] However, a separate statute of limitations which governed wrongful death actions and directly conflicted with the statute of repose complicated the decision.[123]

The presence of these two competing statutes forced the *Phlieger* court to determine which statute applied to a combined wrongful death and products liability action.[124] It was able to avoid the issue, however, by acknowledging that at the moment of plaintiff's decedent's death,

---

116. *Id.*
117. FLA. STAT. § 95.031(2) (1975), *amended by* 1986 FLA. SESS. LAW SERV. 86-271 (West).
118. Brief of Amicus Curiae at 12, Pullum v. Cincinnati, Inc., 476 So. 2d 657 (Fla. 1985).
119. S. REP. NO. 99-422, 99th Cong., 2d Sess. 8 (1986).
120. Phlieger v. Nissan Motor Co., 487 So. 2d 1096 (Fla. 5th Dist. Ct. App. 1986).
121. *Id.*
122. *Id.*
123. *Id.* at 1098.
124. *Id.* at 1096.

the twelve-year statute of repose had not run.[125] In dicta, the court stated that if he had been killed after the statute had run, his survivor's action would have been barred.[126] Nevertheless, the issue in this case remained clouded because the court had stated in the outset of its opinion that the lower court should have applied the "wrongful death statute of limitations."[127] This case illustrates the confusion that is created by the enactment of a statute without considering co-existing legislation.

B. *The Pitfalls of an Overbroad Statute of Repose*

Another flaw in Florida's oversimplified statute of repose was that it applied to all three theories of recovery: negligence, breach of warranty, and strict liability. Such a broad approach for the protection of manufacturers could only result in severe inequities for plaintiffs if applied as written. Other jurisdictions, however, have attempted to avoid this problem by creating alternatives for the benefit of the consumer as well. For example, Colorado has enacted a products liability statute that includes exceptions for "hidden defects, fraud, intentional misrepresentation, express warranties and prolonged exposure."[128] Kansas also excepts "injury causing aspects not discoverable . . . until after the statutory period."[129] Had Florida's statute offered similar provisions, the courts could have more easily granted the relief desired.[130]

Along with Colorado and Kansas, Idaho[131] and Arizona[132] exclude express warranties from their repose statutes. Florida's statute ignored the fact that some manufacturers may warrant their product against defects for much longer than twelve years. Although a Florida statute did provide for the *shortening* of the limitations period by contract,[133] there was no express protection for those who may bargain to receive a warranty for longer than twelve years.

---

125. *Id.*
126. *Id.* at 1098-99.
127. *Id.* at 1098.
128. COLO. REV. STAT. § 13-80-127.6(b), (c), (d) (1985).
129. KAN. STAT. ANN. § 60-513(b) (1976); *cf.* FLA. STAT. § 95.11(3) (1975) (repealed 1986). Florida's products liability statute of repose contained no exception.
130. *Pullum*, 476 So. 2d at 659 (explanation in a footnote as to why relief granted in a previous pharmaceutical case: "it was a different factual context.").
131. IDAHO CODE § 6-1303 (1980).
132. ARIZ. REV. STAT. ANN. § 12-551 (1978).
133. FLA. STAT. § 95.031 (1975).

An example of a products liability statute that is equitable to consumers and manufacturers is one which provides that the expiration of a statutory period simply results in a "rebuttable presumption" that the product was not defective.[134] Colorado's statute includes the rebuttable presumption that the manufacturer "was not negligent and all warnings and instructions were proper and adequate."[135] This construction confers upon a manufacturer the advantage of a presumption in his favor but does not impose an absolute bar on the plaintiff's claim.[136]

Minnesota has enacted a statute that allows the manufacturer to raise as a defense the fact that an injury occurred "following the expiration of the ordinary useful life of the product."[137] While this definition may be subject to interpretation problems, it does not absolutely bar plaintiffs in products liability actions.[138] Furthermore, it does not treat all products as being equivalent in their predetermined life spans, and thereby takes into account those products that have expected useful lives of great duration, such as heavy machinery and aircraft.[139]

After a brief examination of other states' products liability statutes of repose, it is clear that there were many options available to the Florida legislature when it drafted its statute. Alternative foundations such as these which grant manufacturers some relief without providing an absolute bar to actions could have averted the "access to courts" issue that plagued the Florida courts. It is evident that Florida's statute of repose tried to solve too many problems too quickly.

C. *Faulty Reasoning which Justifies Enactment of Statutes of Repose*

In addition to the statute's broad implications, proponents of a statute of repose often lack sound reasoning to justify a statute of repose. The most common argument advanced concerns the expanded liability of manufacturers, with a statute of repose treated as a "trade-off." Since the erosion of the privity requirement, it appears logical to follow with a reprieve from liability for manufacturers.

In reality, however, the privity requirement had no place in a mod-

134. COLO. REV. STAT. § 13-21-403(3) (1985).
135. *Id.*
136. *Id.*
137. MINN. STAT. ANN. § 604.03 (West 1986).
138. *Id.*
139. *Id.*

ern consumer society. It was merely a vestige left over from an era when all members of society produced their own goods. As technology advanced and citizens began to rely on manufacturers for necessities, the privity requirement became totally unjustified. As Justice Cardozo stated in *MacPherson v. Buick Motor Co.*, "[p]recedents drawn from the days of travel by stage coach do not fit the conditions of travel today."[140] A trade-off was not necessary since consumers had only gained privileges to which they were entitled. Rather, increased responsibility furthers the public interest because it is the manufacturer who "stands in a superior position to recognize and cure defects."[141]

Another issue that has become clouded in justifying repose statutes is the misleading notion that simply because a products liability action is allowed to proceed, its success is guaranteed. Although claims initiated when a product is several years old do create difficulties for defendants, the problems with proof affect the plaintiff as well.[142] Whether the claim is brought under the theory of strict liability, negligence, or warranty, the plaintiff must establish all of the elements of each cause of action. If the necessary elements can not be shown, the case fails.

For example, a "defect" must have existed at the time of delivery.[143] There must also be an injury and a causal relationship between the defect and the injury.[144]

> At the heart of each theory is the requirement that the plaintiff's injury must have been caused by some *defect* in the product. Generally, when the injury is in no way attributable to a defect, there is no basis for imposing product liability upon the manufacturer. It is not contemplated that a manufacturer should be made the insurer for *all* physical injuries caused by his products.[145]

---

140. MacPherson v. Buick Motor Co., 217 N.Y. 382, 391, 111 N.E. 1050, 1053 (1916).

141. Auburn Mach. Works, Co. v. Jones, 366 So. 2d 1167, 1169 (Fla. 1979).

142. *Overland Constr. Co.*, 369 So. 2d at 574.

143. Builders Shoring and Scaffolding Equip. Co. v. Schmidt, 411 So. 2d 1004, 1006 (Fla. 5th Dist. Ct. App. 1982).

144. Zyferman v. Taylor, 444 So. 2d 1088, 1091 (Fla. 4th Dist. Ct. App. 1984); *review denied sub nom.*, ITT Gen. Controls v. Zyferman, 453 So. 2d 44 (Fla. 1984) (citing Cassisi v. Maytag Co., 396 So. 2d 1140 (Fla. 1st Dist. Ct. App. 1981)). *See also* Jimenez v. Gulf & Western Mfg. Co., 458 So. 2d 58, 60 (Fla. 3d Dist. Ct. App. 1984).

145. Royal v. Black and Decker Mfg. Co., 205 So. 2d 307, 309 (Fla. 3d Dist. Ct. App. 1967), *cert. denied*, 211 So. 2d 214 (Fla. 1968).

In addition to these basic requirements of bringing a products liability action, the defendant has defenses under both common law and statute.[146] It is clear that the new found cause of action against the manufacturer was not intended to be absolute.

Before enacting a similar statute in the future, Florida must consider all aspects of products liability litigation in order to create effective legislation and equitable results. The short-sighted termination of a cause of action is not the answer.

D. *A Statute of Repose for Durable Goods*

Some commentators have suggested that statutes of repose should at least apply to capital goods or durable goods, such as aircraft and large machinery.[147] It is not uncommon for their "useful lives" to be several times that provided by a statute of repose.

There are obvious policy reasons which conflict with the justification of a statute of repose in the area of durable goods. However, if a manufacturer produces goods that are *intended* to last for long periods of time, he should be prepared to warrant these products against defects for that intended useful life. There is no logical basis for relieving a manufacturer of liability after *twelve* years when he has sold and received a profit for a product intended to be used for *fifty* years.

Another factor mitigating against a statute of repose for durable goods is that the persons injured by these products are generally "passive victims." These people usually are not purchasers of the product and are not in the position to know of their age or life expectancies. The injured persons are commonly employees working with the machinery[148] or passengers on aircraft.[149] Policy reasons mandate that these unsuspecting victims not be penalized and held accountable for knowledge they could not have easily obtained. Those who profited by the product and are responsible for the defect should continue to re-

---

146. *See West*, 336 So. 2d at 80.

147. *See* Martin, *A Statute of Repose for Products Liability Claims*, 50 FORDHAM L. REV. 745, 755 (1982). Commentators refer to these products as "durable" because they generally continue in use for long periods of time.

148. *See generally Huset*, 120 F. at 865-66, in which the plaintiff was a laborer who was employed to operate a threshing machine. To operate the machine, it was necessary for him to walk on its sheet-iron covering. However, the covering was so pliable and without support that it collapsed, causing the plaintiff's foot and leg to be crushed.

149. *E.g.*, *MacRae*, 457 So. 2d at 1093.

main liable.

VI. Federal Preemption

By repealing section 95.031(2) of the Florida Statutes during the final days of the 1986 session,[150] the Florida legislature may have thought the products liability statute of repose issue was buried, only to discover someday that the United States Congress has resurrected it. Both houses of Congress have entertained the idea of a uniform products liability statute with statute of repose provisions.

The Consumer Subcommittee of the United States Senate Committee on Commerce, Science and Transportation has been soliciting public comment on a staff draft of a bill to reform products liability law.[151] Senator Kasten, former chairman of the subcommittee, revised the draft bill and introduced it in 1983.[152] This bill would have set a time limit of twenty-five years from the date of first sale on the liability of manufacturers of capital goods only such as machinery and commodities used to produce goods.[153] The limitations of twenty-five years would not apply if (1) the manufacturer intentionally misrepresented or (2) fraudulently concealed facts about the product or (3) the product caused harm within the twenty-five year period but the injury did not actually develop until after the expiration of that period.[154]

The House Bill would limit actions for products liability to within ten years after the date of sale of the product.[155] The bar would apply to all products, rather than just capital goods.[156] The absolute ten year limit would be extended for three additional years if the manufacturer warranted the product for more than ten years, and five additional years if the product caused harm within the ten year period but the injury did not manifest itself until after the period expired.[157] Also, one could bring a claim within fifteen years of the first sale if the manufac-

---

150. Fla. House debate on CS/HB 832 (June 6, 1986) (tape recording).
151. Seiver, *Federal Product Liability Acts*, 11 THE BRIEF 2 (1982).
152. AMERICAN ENTERPRISE INSTITUTE, FEDERAL PRODUCTS LIABILITY PROPOSALS; 98TH CONG. 2D SESS. 9 (1984). Senator Kasten introduced the bill as Senate Bill 2631 (S. 2631) and as Senate Bill 44 (S. 44) in the 98th Congress.
153. AMERICAN ENTERPRISE INSTITUTE, FEDERAL PRODUCTS LIABILITY PROPOSALS: 98TH CONG. 2D SESS. 9-10.
154. *Id.*
155. *Id.* at 27.
156. *Id.*
157. *Id.*

turer's misrepresentations clearly caused the injury.[158] Neither the Senate or House bills were voted upon during the 98th Congress.[159]

The Consumer Subcommittee of the U.S. Senate Commerce Committee on Commerce, Science and Transportation has continued to analyze the need for federal tort liability legislation. A Committee report on Senate Bill 2670, a bill introduced in the 99th Congress to regulate interstate commerce by providing for uniform liability law, was printed on August 15, 1986.[160] The Committee reported Bill 2670 favorably to the Senate on a 10-7 Committee vote.[161] One section of the bill establishes uniform standards of limitations and repose.[162] It provides a two year statute of limitations that runs from the time the claimant discovered or, in the exercise of reasonable care, should have discovered the harm and its cause.[163] A person with a legal disability has two years from the date the disability ceases to file suit.[164] A claim for harm caused by capital goods, except toxic harm, must be filed within twenty-five years of the time of delivery of the product or be barred.[165] Motor vehicles, vessels, aircraft, or railroads used primarily to transport passengers for hire are not, however, subject to the twenty year limit.[166] Non-capital goods are subject to a shorter time limitation.[167] A manufacturer of a non-capital good that has caused harm is not subject to liability if the harm caused by the product occurred after the product's "useful safe life."[168] The useful life of non-capital goods is presumed to be no more than ten years after the delivery of the product to its first purchaser or lessee.[169] The presumption can be rebutted by a preponderance of the evidence.[170] The useful safe life may be extended beyond ten years through a manufacturer's express warranty, or an intentional misrepresentation causing an injury, or exposure within a

158. *Id.*
159. S. REP. NO. 99-422, 99th Cong., 2d Sess. 11 (1986).
160. *Id.* at 1.
161. *Id.* at 117 (minority views of Senator Inouye).
162. S. 2760, 99th Cong., 2 Sess. § 304 (1986).
163. *Id.* at § 304(a).
164. *Id.*
165. *Id.* at § 304(b)(1).
166. *Id.* at § 304(3).
167. *Id.* at § 304(2)(A).
168. *Id.*
169. *Id.* at § 304(2)(C).
170. *Id.*

product's useful life resulting in the manifestation of injury later.[171]

Should a bill such as these be finally enacted, it will signal a significant encroachment on states sovereignty in an area of the law traditionally reserved to the states.[172] This legislation would preempt the system of products liability in each state by a federal products liability law.[173]

The arguments for and against such federal legislation are well documented. The justification which has most often been relied upon to enact similar legislation is the need to regulate interstate commerce.[174] The principle benefits suggested are the removal of the uncertainty and inconsistency facing manufacturers and plaintiffs by the differing statutes and judicial interpretations in the various states.[175]

The Reagan administration favors federal legislation in this area.[176] Its policy is that "federal interference with traditional state rules should be kept to an absolute minimum to achieve its purpose."[177] The administration is looking at the various legislative proposals to see "which have impacts on interstate commerce and are susceptible only to federal treatment"[178] before deciding whether to lend administration support to specific legislative bills.[179]

Inevitably, plaintiffs would challenge a federal statute of repose on constitutional grounds as well as the power of the federal government to usurp the states' power to develop their own tort law. Courts would undoubtedly question the validity of preempting a part of a state's tort law while leaving the rest intact.[180] An example of the latter is an automobile accident suit in which the plaintiff joins the manufacturer of the automobile and the negligent driver in the same action. Differing federal and state rules of negligence theory and defense would have to be applied by the state court.[181]

---

171. *Id.* at § 304(2)(B).
172. Ghiardi, *Products Liability: Federal Legislation? NO!*, 11 THE BRIEF, 5-6 (1982).
173. *Federal Products Liability Proposals*, 9, 98th Cong., 2d Sess. (1982).
174. Statement of Sherman E. Unger before the ABA 5-6, (Aug. 10, 1982) (available in Nova Law Center Library).
175. *Id.* at 5.
176. *Id.*
177. *Id.* at 10.
178. *Id.*
179. *Id.* at 5.
180. Ghiardi, *supra*, note 172 at 5-6.
181. *Id.* at 7-8.

The possible court challenges to a federal products liability statute containing a statute of repose indicate that for those states which, like Florida, have experience with a statute of repose and have decided through trial and error that such a provision does not serve the needs of its citizens, the federal legislation is meddlesome, unwarranted and necessarily expensive to challenge. "To impose a national statute of repose applicable to all product actions would be met with serious and constant challenge."[182]

VII. Conclusion

Soon after the Florida Supreme Court finally determined that the products liability statute of repose was constitutional, the legislature repealed it. Currently, manufacturers can be held liable indefinitely for defective products that cause injuries. Although manufacturers will be adversely affected by this indefinite liability, another simplified version of a repose statute such as section 95.031(2) of the Florida Statutes would only do more harm than good.

Providing for an "absolute bar" based on a product's date of manufacture was a fatal flaw in Florida's products liability repose statute. Although statutes of limitations are upheld, it is fair to observe that they generally begin to run from the date of *injury* and one's action is not abolished before it has arisen. The United States Supreme Court has stated, "[A]ll statutes of limitations must proceed on the idea that the party has full opportunity afforded him to try his right in the courts . . . ."[183]

A by-product of not enacting a statute of repose is the increased litigation as a result of fewer claimants having their actions cut off arbitrarily. Legislators must decide whether the protection afforded manufacturers by a statute of repose outweighs the public right to seek compensation for injuries caused by defective products. It is clear that any enacted law must strike an even balance between limiting the manufacturer's liability without completely abrogating the plaintiff's rights. If any legislation must be enacted to curtail manufacturer's liability, the most equitable statute to achieve this result would be one that grants a manufacturer a presumption of non-liability. A statute of respose is not the answer if the law must continue to deter defective products from being placed in the market stream, and, at the same

182. *Id.* at 6.
183. Wilson v. Iseminger, 185 U.S. 55, 62 (1902).

time, not interfere with the development and availability of worthwhile products.

Linda D. Caldwell

A Practitioner's Guide to Dismissals for Failure to Prosecute Under Florida Rule of Civil Procedure 1.420(e)

I. Introduction

In a typical scenario, plaintiff's counsel files an action to rectify an alleged injury. Counsel for the plaintiff, in dereliction of his professional responsibilities and duty to his client, fails to prosecute the cause with due diligence for a period of one year. The defendant can then file a motion to dismiss pursuant to Rule 1.420(e) of the Florida Rules of Civil Procedure. Absent a showing of "good cause" to excuse the inactivity, the plaintiff's cause must be dismissed. However, the plaintiff is not through yet; as long as the applicable statute of limitations has not run, the plaintiff is free to refile his claim.

The hardship that the ability to refile works on the defendant is obvious. Not only is the defendant unfairly burdened by having to replead his defense, but the judicial system is likewise burdened by a plaintiff who has already had an opportunity to seek judicial relief. When the practical application of a rule of procedure offends notions of judicial economy, standards of professional responsibility and principles of fundamental fairness governing the adversarial process, that rule should be amended.

Rule 1.420(e) of the Florida Rules of Civil Procedure reads:

> All actions in which it appears on the face of the record that no activity by filing of pleadings, order of court or otherwise has occurred for a period of one year shall be dismissed by the court on its own motion or on the motion of any interested person, whether a party to the action or not, after reasonable notice to the parties, unless a stipulation staying the action is approved by the court or a stay order has been filed or a party shows good cause in writing at least five days before the hearing on the motion why the action should remain pending. Mere inaction for a period of less than one year shall not be sufficient cause for dismissal for failure to prosecute.[1]

1. FLA. R. CIV. P. 1.420(e).

In 1976, Judge Smith of the First District Court of Appeal noted the difficulties which courts had[2] and continue to have when applying this rule of court: "It is ironic and perhaps characteristic of human endeavor of this kind that a Rule designed to relieve the judiciary of concern for inactive litigation should itself produce such a spate of litigation, full of labored analyses of activity and nonactivity."[3]

Notwithstanding the apparent simplicity and clarity with which the rule is written, Florida district courts of appeal are in conflict in their interpretations of this rule. This continuous disagreement about and misunderstanding of its provisions have caused needless and often futile litigation in pursuit of "correct" interpretations. The difficulties suggest the need for a cohesive analysis of the conflicts (and accords) established by the various district courts.

It is not the purpose of this article to delineate the origins of this procedural rule or its statutory predecessor,[4] or to compare this rule with those of other states. Instead the intent is to illustrate the contemporary issues raised by this rule of court, to precisely define the application of its provisions, and to resolve some of the interpretational difficulties which consistently accompany its application.

II. Procedure Under the Rule

A discussion of the procedural mechanics employed in the administration of this rule will be useful. Furthermore, this will provide an opportunity to illustrate some of the conflicts and agreements among the five district courts of appeal.[5] A treatment of the rule's provisions, as they arise, provides the most logical progression for this discussion.

Rule 1.420(e), Failure to Prosecute, has two purposes: "(1) To require prompt and efficient prosecution of the case up to the point of submission for disposition or determination by the judge or the jury;

---

2. Smith v. St. George Island Gulf Beaches, Inc., 343 So. 2d 847 (Fla. 1st Dist. Ct. App. 1976).

3. *Id.* at 848.

4. FLA. STAT. § 45.19(1) (1947) (repealed 1967).

5. The Supreme Court of Florida has intervened several times to resolve such conflicts. *See* Govayra v. Straubel, 466 So. 2d 1065 (Fla. 1985); Mikos v. Sarasota Cattle Co., 453 So. 2d 402 (Fla. 1984); Koppers Co. v. Victoire Dev. Corp., 284 So. 2d 193 (Fla. 1973); Musselman Steel Fabricators, Inc. v. Radziwon, 263 So. 2d 221 (Fla. 1972); Chrysler Leasing Corp. v. Passacantilli, 259 So. 2d 1 (Fla. 1972); Little v. Sullivan, 173 So. 2d 135 (Fla. 1965); Adams Eng'g Co. v. Construction Prod. Corp., 156 So. 2d 497 (Fla. 1963).

Nova Law Review, Vol. 11, Iss. 2 [1987], Art. 23

[and] (2) To prevent the clogging of the dockets of the trial courts with litigation that has been, essentially, abandoned for the stated period."[6] To effectuate its purpose, the rule imposes the sanction of mandatory dismissal against litigants who allow cases to stagnate.[7]

It is now well settled among the district courts of appeal that this rule inures to the entire action, not simply to the individual parties involved in the action.[8] Therefore, when a motion to dismiss for want of diligent prosecution is pending, the entire action is subject to dismissal and the motion will not lie as to an individual party. Accordingly, where the court has acquired jurisdiction over all the parties,[9] record activity of any party or the staying of an action as to one or more of the parties, either by court order or automatic stay, tolls the one-year time period and precludes dismissal of the action.[10]

A plaintiff's lawsuit will be dismissed for lack of prosecution unless he files something of record within a period of one year from the last record activity or, if he fails to do so, shows "good cause" to excuse the inactivity. The language relating to dismissal, "shall be dismissed,"[11] is mandatory if the requirements are not met.[12] It is *not* permissive. In

---

6. Strader v. Morrill, 360 So. 2d 1137, 1138 (Fla. 1st Dist. Ct. App. 1978); *accord* City of Miami v. Dade County, 321 So. 2d 140 (Fla. 3d Dist. Ct. App. 1975), *cert. denied*, 334 So. 2d 604 (Fla. 1976); Madeira Management v. Chapman Realty Co., 459 So. 2d 1177 (Fla. 2d Dist. Ct. App. 1984).

7. American Eastern Corp. v. Henry Blanton, Inc., 382 So. 2d 863, 865 (Fla. 2d Dist. Ct. App. 1980); *see also* Sudduth Realty Co. v. Wright, 55 So. 2d 189 (Fla. 1951).

8. *See supra* note 1 and accompanying text.

9. An action cannot advance toward trial unless the court has jurisdiction over the party sued. Crouse-Hinds Co. v. Capellia, 302 So. 2d 800 (Fla. 4th Dist. Ct. App. 1974).

10. Bowman v. Peele, 413 So. 2d 90 (Fla. 2d Dist. Ct. App.), *appeal dismissed*, 419 So. 2d 1199 (Fla. 1982); Harris v. Winn-Dixie Stores, Inc., 378 So. 2d 90 (Fla. 1st Dist. Ct. App. 1979); Nektaredes v. Sagonias, 432 So. 2d 769 (Fla. 2d Dist. Ct. App. 1983); Kenet v. Stein, 326 So. 2d 36 (Fla. 3d Dist. Ct. App. 1976); Phillips Petroleum Co. v. Heimer, 339 So. 2d 284 (Fla. 3d Dist. Ct. App.), *cert. denied*, 348 So. 2d 948 (Fla. 1976); Sandini v. Florida East Coast Properties, 454 So. 2d 578 (Fla. 4th Dist. Ct. App. 1984); Magers v. Walker's Cay Air Terminal, Inc., 451 So. 2d 867 (Fla. 4th Dist. Ct. App. 1983), *review denied*, 458 So. 2d 273 (Fla. 1984); Eastern Elevator v. Page, 263 So. 2d 218 (Fla. 1972).

11. FLA. R. CIV. P. 1.420(e).

12. *Koppers Co.*, 284 So. 2d at 193, *quashing* 261 So. 2d 211 (Fla. 4th Dist. Ct. App. 1972). In the latter case, the Fourth District had affirmed a conditional dismissal. *Accord* Reddish v. Forlines, 207 So. 2d 703 (Fla. 1st Dist. Ct. App. 1968) (stating that if no affirmative action in the prosecution of a cause is taken within a period of one

fact, it is an abuse of discretion if an action is not dismissed where there has been no activity within the statutory one-year period and "good cause" is not demonstrated.[13]

Despite its mandatory nature, it is clear from its language that Rule 1.420(e) is not self-executing or automatic. The mere passing of a one-year period without activity does not invoke its provisions or sanction. Rule 1.420(e) requires the filing of a Motion to Dismiss by the court itself, or by any interested person, whether a party to the action or not, and a subsequent hearing on the motion. Furthermore, the rule requires that the party seeking dismissal undertake that action prior to any further active prosecution of the cause.[14] In one case, the First District Court of Appeal held that it was error for the trial court to deny a motion to dismiss for want of prosecution in the absence of the evidentiary hearing[15] which provides the opportunity to demonstrate "good cause." Were this rule amended to provide for automatic dismissal (under which the passing of the one-year period would invoke its provisions and sanction, as opposed to the filing of a motion), while retaining the opportunity to demonstrate "good cause" for failure to prosecute, it would be more effective in eliciting the kind of diligent prosecution which it currently seeks to provoke.

Effective January 1, 1977, Rule 1.420(e) was amended in two important aspects.[16] The first sentence of the rule, which previously read, "All actions in which it affirmatively appears that no activity . . . ,"[17] was amended to read, "All actions in which it appears *on the face of the record* that no activity . . . ."[18] In addition to that amendment, and

---

year, upon motion of any interested party, the court has no choice but to dismiss the action for want of prosecution); *see also Govayra*, 466 So. 2d at 1065; *Little*, 173 So. 2d at 135.

13. Industrial Trucks v. Gonzalez, 351 So. 2d 744, 746 (Fla. 3d Dist. Ct. App. 1977).

14. Shalabey v. Memorial Hosp., 253 So. 2d 712 (Fla. 4th Dist. Ct. App. 1971), *cert. denied*, 257 So. 2d 562 (Fla. 1972) (citing Pollack v. Pollack, 110 So. 2d 474 (Fla. 1st Dist. Ct. App.), *cert. denied*, 116 So. 2d 761 (Fla. 1959)); *accord* Carter v. DeCarion, 400 So. 2d 521 (Fla. 3d Dist. Ct. App. 1981), *review denied*, 412 So. 2d 464; Beigel v. Simon, 210 So. 2d 473 (Fla. 3d Dist. Ct. App. 1968); City of Jacksonville v. Hinson, 202 So. 2d 806 (Fla. 1st Dist. Ct. App.), *cert. denied*, 207 So. 2d 688 (Fla. 1967).

15. Withers v. Flagship Peoples Bank of Tallahassee, 473 So. 2d 789 (Fla. 1st Dist. Ct. App. 1985).

16. *In re* Fla. Bar, Rules of Civil Procedure, 339 So. 2d 626, 629 (Fla. 1976).

17. *In re* Fla. Bar, Rules of Civil Procedure, 211 So. 2d 206 (Fla. 1968).

18. *In re* Fla. Bar, Rules of Civil Procedure, 339 So. 2d 626, 629 (Fla. 1976)

of real significance, this concluding sentence was appended to the rule: "Mere inaction for a period of less than one year shall not be sufficient cause for dismissal for failure to prosecute."[19] Both of these amendments had a notable effect on case law. Overall, they have served to clarify the application of this rule.

First, a superficial analysis of the amendment, "on the face of the record," invites the conclusion that it precludes non-record activity from preventing dismissal for failure to prosecute.[20] The Second District Court of Appeal was quick to erroneously assert that as amended, the new rule required that only activity appearing "on the face of the record" was sufficient to save a cause from dismissal for failure to prosecute.[21] In dicta, the court solidified its assertion by adding, "Non-record activity as defined in the decisional law construing the former rule can no longer be good cause to avoid dismissal for lack of prosecution."[22] This analysis, however, is incorrect and within two years, the Fourth District Court of Appeal properly took issue with that interpretation of the amendment, stating: "[W]e must stop short of complete agreement, for to do so would render the excerpt from the rule '. . . , unless a party shows good cause . . . ,' mere surplusage."[23]

Therefore, noting that the effect of the amendment is not to preclude all types of non-record activity from establishing "good cause," when afforded the opportunity to revisit the issue, the Second District retreated from its earlier reasoning. It aligned itself with the Fourth District, stating that the purpose of "on the face of the record" was to eliminate most non-record activity of the type recognized before the amendment as a basis to establish "good cause" to avoid dismissal for want of diligent prosecution.[24]

Some examples of non-record activity formerly accepted as "good cause" which will no longer suffice under that guise to avoid dismissal

---

(emphasis added).

19. *Id.*

20. *See* H. TRAWICK, TRAWICK'S FLORIDA PRACTICE AND PROCEDURE § 21-7 (1985).

21. Sainer Constructors v. Pasco County School Bd., 349 So. 2d 1212 (Fla. 2d Dist. Ct. App. 1977).

22. *Id.* at 1214.

23. F.M.C. Corp. v. Chatman, 368 So. 2d 1307 (Fla. 4th Dist. Ct. App.), *cert. denied*, 379 So. 2d 203 (Fla. 1979).

24. *American Eastern*, 382 So. 2d at 863; *see also* Tosar v. Sladek, 393 So. 2d 61 (Fla. 3d Dist. Ct. App. 1981).

et al.: Nova Law Review Full Issue

for want of prosecution[25] are: defense counsel's mailing to plaintiff's counsel photographic copies of exhibits;[26] the furnishing of a medical report by plaintiffs in accordance with defendant's specific directions;[27] a verbal request by plaintiff's counsel to produce certain logs and records;[28] and correspondence between the attorneys requesting cancelled checks and check stubs.[29] "Good cause" and non-record activity are treated more fully in section III of this Note.

The other 1977 amendment, that mere inaction for less than one year shall not be sufficient cause for dismissal,[30] abridges a court's inherent power to dismiss based upon want of prosecution for less than one year. Prior to the amendment, Florida courts had consistently followed the principle that the power of the trial court to dismiss an action for want of diligent prosecution was inherent and independent of any such rule of court; the inherent power was necessarily vested to achieve orderly and expeditious disposition of cases.[31]

The Third District Court of Appeal held that this amendment abrogated exercise of a trial court's inherent power to dismiss a cause for want of prosecution.[32] The court stated: "It is obvious that the effect of the amendment is to preclude a trial court from exercising its supposed inherent, discretionary power to dismiss a case for failure to prosecute,

25. *E.g.*, *American Eastern*, 382 So. 2d at 865 nn.2-3; *but cf. Sainer Constructors*, 349 So. 2d at 1214 (stating that such non-record activity may still constitute "good cause" despite the amendment).

26. Musselman Steel Fabricators v. Radziwon, 263 So. 2d 221 (Fla. 1972).

27. Eddings v. Davidson, 302 So. 2d 155 (Fla. 1st Dist. Ct. App. 1974).

28. Dukes v. Chemicals, Inc., 277 So. 2d 298 (Fla. 2d Dist. Ct. App.), *cert. denied*, 283 So. 2d 560 (Fla. 1973).

29. Whitney v. Whitney, 241 So. 2d 436 (Fla. 2d Dist. Ct. App. 1970), *cert. denied*, 245 So. 2d 88 (Fla. 1971).

30. *See supra* note 16 and accompanying text.

31. *Reddish*, 207 So. 2d at 707; *accord* Popkin v. Crispen, 213 So. 2d 445, 448 (Fla. 4th Dist. Ct. App. 1968), *cert. denied*, 222 So. 2d 748 (Fla. 1969); Fields v. Fields, 291 So. 2d 663 (Fla. 1st Dist. Ct. App. 1974); Nicholson v. Eli Lilly and Co., 285 So. 2d 648 (Fla. 3d Dist. Ct. App. 1973), *cert. denied*, 293 So. 2d 717 (Fla. 1974); *Shalabey*, 253 So. 2d at 715; Gonzalez v. Ryder Sys., 327 So. 2d 826 (Fla. 3d Dist. Ct. App. 1976); *see also* 24 AM. JUR 2D *Dismissal, Discontinuance and Nonsuit*, § 48 at 38-39 (1983); Annotation, *Dismissal for Delay in Prosecution*, 167 A.L.R. 1058 (1947).

32. American Salvage and Jobbing Co. v. Salomon, 367 So. 2d 716 (Fla. 3d Dist. Ct. App. 1979); *accord* Bair v. Palm Beach Newspapers, 387 So. 2d 517 (Fla. 4th Dist. Ct. App. 1980) (inherent power abrogated by the amendment); *but cf.* Szabo v. Essex Chem. Corp., 461 So. 2d 128 (Fla. 3d Dist. Ct. App. 1984) (suggesting such power still exists despite the amendment).

when, as in this case, there is activity within the one year period prior to the dismissal."[33] In light of the Committee Note to the amendment which states that dismissal is prevented for inactivity alone unless one year has elapsed since the occurrence of record activity,[34] no other reasonable conclusion can be drawn from the clear terms of this amendment.

Absent a procedural error, a party seeking reversal of an order dismissing a cause for lack of prosecution must prove that the trial court abused its discretion, and the judge's discretion will not be lightly disturbed.[35] The heavy burden of proving an abuse of discretion is borne by the losing party.[36]

Another difficulty encountered when applying Rule 1.420(e) is the computation of the one-year period. Florida Rule of Civil Procedure 1.090(a)[37] governs any period of time prescribed or allowed by the Florida Rules of Civil Procedure, and this rule is used for computation of the one-year period.[38] To compute the one-year period, the date of

33. *American Salvage*, 367 So. 2d at 717.

34. FLA. R. CIV. P. 1.420(e).

35. *Adams Eng'g*, 156 So. 2d at 499; *Little*, 173 So. 2d at 137.

36. *Popkin*, 213 So. 2d at 447. There is accord among the district courts of appeal on this issue. *See* Barrentine v. Vulcan Materials Co., 216 So. 2d 57 (Fla. 1st Dist. Ct. App. 1968); Frank v. Amara, 235 So. 2d 537 (Fla. 1st Dist. Ct. App. 1970); *Harris*, 378 So. 2d at 92; 107 Group v. Gulf Coast Paving & Grading, 459 So. 2d 466 (Fla. 1st Dist. Ct. App. 1984); *Shalabey*, 253 So. 2d at 715; Eli Einbinder, Inc. v. Miami Crystal Ice Co., 317 So. 2d 126 (Fla. 3d Dist. Ct. App. 1975); Waldman v. Frankel, 343 So. 2d 1325 (Fla. 3d Dist. Ct. App. 1977); Metropolitan Transit Auth. v. Kaneva, 351 So. 2d 748 (Fla. 3d Dist. Ct. App. 1977). In Taicher v. City of Hallandale, 442 So. 2d 281 (Fla. 4th Dist. Ct. App. 1983), *review denied*, 450 So. 2d 489 (Fla. 1984), the Fourth District recently reaffirmed that standard of review and set forth the following test, approved by the Florida Supreme Court in Canakaris v. Canakaris, 382 So. 2d 1197, 1203 (Fla. 1980)(citing Delno v. Market Street Ry., 124 F.2d 965, 967 (9th Cir. 1942)) for review of a judge's discretionary acts:

> Discretion, in this sense, is abused when judicial action is arbitrary, fanciful, or unreasonable, which is another way of saying that discretion is abused only where no reasonable man would take the view adopted by the trial court. If reasonable men could differ as to the propriety of the action taken by the trial court, then it cannot be said that the trial court abused its discretion.

Taicher, 442 So. 2d at 281.

37. FLA. R. CIV. P. 1.090(a).

38. *See* Johnson v. Mortgage Investors, 410 So. 2d 541 (Fla. 2d Dist. Ct. App. 1982); Henzel v. Golstein and S.W.F.P. Co., 349 So. 2d 824 (Fla. 3d Dist. Ct. App. 1977); Parker v. Gordon, 442 So. 2d 273 (Fla. 4th Dist. Ct. App. 1983); Leithauser v. Harrison, 206 So. 2d 222 (Fla. 4th Dist. Ct. App. 1968); Zentmeyer v. Ford, 464 So.

Published by NSUWorks, 1987

for want of prosecution[25] are: defense counsel's mailing to plaintiff's counsel photographic copies of exhibits;[26] the furnishing of a medical report by plaintiffs in accordance with defendant's specific directions;[27] a verbal request by plaintiff's counsel to produce certain logs and records;[28] and correspondence between the attorneys requesting cancelled checks and check stubs.[29] "Good cause" and non-record activity are treated more fully in section III of this Note.

The other 1977 amendment, that mere inaction for less than one year shall not be sufficient cause for dismissal,[30] abridges a court's inherent power to dismiss based upon want of prosecution for less than one year. Prior to the amendment, Florida courts had consistently followed the principle that the power of the trial court to dismiss an action for want of diligent prosecution was inherent and independent of any such rule of court; the inherent power was necessarily vested to achieve orderly and expeditious disposition of cases.[31]

The Third District Court of Appeal held that this amendment abrogated exercise of a trial court's inherent power to dismiss a cause for want of prosecution.[32] The court stated: "It is obvious that the effect of the amendment is to preclude a trial court from exercising its supposed inherent, discretionary power to dismiss a case for failure to prosecute,

---

25. *E.g.*, *American Eastern*, 382 So. 2d at 865 nn.2-3; *but cf. Sainer Constructors*, 349 So. 2d at 1214 (stating that such non-record activity may still constitute "good cause" despite the amendment).

26. Musselman Steel Fabricators v. Radziwon, 263 So. 2d 221 (Fla. 1972).

27. Eddings v. Davidson, 302 So. 2d 155 (Fla. 1st Dist. Ct. App. 1974).

28. Dukes v. Chemicals, Inc., 277 So. 2d 298 (Fla. 2d Dist. Ct. App.), *cert. denied*, 283 So. 2d 560 (Fla. 1973).

29. Whitney v. Whitney, 241 So. 2d 436 (Fla. 2d Dist. Ct. App. 1970), *cert. denied*, 245 So. 2d 88 (Fla. 1971).

30. *See supra* note 16 and accompanying text.

31. *Reddish*, 207 So. 2d at 707; *accord* Popkin v. Crispen, 213 So. 2d 445, 448 (Fla. 4th Dist. Ct. App. 1968), *cert. denied*, 222 So. 2d 748 (Fla. 1969); Fields v. Fields, 291 So. 2d 663 (Fla. 1st Dist. Ct. App. 1974); Nicholson v. Eli Lilly and Co., 285 So. 2d 648 (Fla. 3d Dist. Ct. App. 1973), *cert. denied*, 293 So. 2d 717 (Fla. 1974); *Shalabey*, 253 So. 2d at 715; Gonzalez v. Ryder Sys., 327 So. 2d 826 (Fla. 3d Dist. Ct. App. 1976); *see also* 24 AM. JUR 2D *Dismissal, Discontinuance and Nonsuit*, § 48 at 38-39 (1983); Annotation, *Dismissal for Delay in Prosecution*, 167 A.L.R. 1058 (1947).

32. American Salvage and Jobbing Co. v. Salomon, 367 So. 2d 716 (Fla. 3d Dist. Ct. App. 1979); *accord* Bair v. Palm Beach Newspapers, 387 So. 2d 517 (Fla. 4th Dist. Ct. App. 1980) (inherent power abrogated by the amendment); *but cf.* Szabo v. Essex Chem. Corp., 461 So. 2d 128 (Fla. 3d Dist. Ct. App. 1984) (suggesting such power still exists despite the amendment).

when, as in this case, there is activity within the one year period prior to the dismissal."[33] In light of the Committee Note to the amendment which states that dismissal is prevented for inactivity alone unless one year has elapsed since the occurrence of record activity,[34] no other reasonable conclusion can be drawn from the clear terms of this amendment.

Absent a procedural error, a party seeking reversal of an order dismissing a cause for lack of prosecution must prove that the trial court abused its discretion, and the judge's discretion will not be lightly disturbed.[35] The heavy burden of proving an abuse of discretion is borne by the losing party.[36]

Another difficulty encountered when applying Rule 1.420(e) is the computation of the one-year period. Florida Rule of Civil Procedure 1.090(a)[37] governs any period of time prescribed or allowed by the Florida Rules of Civil Procedure, and this rule is used for computation of the one-year period.[38] To compute the one-year period, the date of

---

33. *American Salvage*, 367 So. 2d at 717.

34. FLA. R. CIV. P. 1.420(e).

35. *Adams Eng'g*, 156 So. 2d at 499; *Little*, 173 So. 2d at 137.

36. *Popkin*, 213 So. 2d at 447. There is accord among the district courts of appeal on this issue. *See* Barrentine v. Vulcan Materials Co., 216 So. 2d 57 (Fla. 1st Dist. Ct. App. 1968); Frank v. Amara, 235 So. 2d 537 (Fla. 1st Dist. Ct. App. 1970); *Harris*, 378 So. 2d at 92; 107 Group v. Gulf Coast Paving & Grading, 459 So. 2d 466 (Fla. 1st Dist. Ct. App. 1984); *Shalabey*, 253 So. 2d at 715; Eli Einbinder, Inc. v. Miami Crystal Ice Co., 317 So. 2d 126 (Fla. 3d Dist. Ct. App. 1975); Waldman v. Frankel, 343 So. 2d 1325 (Fla. 3d Dist. Ct. App. 1977); Metropolitan Transit Auth. v. Kaneva, 351 So. 2d 748 (Fla. 3d Dist. Ct. App. 1977). In Taicher v. City of Hallandale, 442 So. 2d 281 (Fla. 4th Dist. Ct. App. 1983), *review denied*, 450 So. 2d 489 (Fla. 1984), the Fourth District recently reaffirmed that standard of review and set forth the following test, approved by the Florida Supreme Court in Canakaris v. Canakaris, 382 So. 2d 1197, 1203 (Fla. 1980)(citing Delno v. Market Street Ry., 124 F.2d 965, 967 (9th Cir. 1942)) for review of a judge's discretionary acts:

> Discretion, in this sense, is abused when judicial action is arbitrary, fanciful, or unreasonable, which is another way of saying that discretion is abused only where no reasonable man would take the view adopted by the trial court. If reasonable men could differ as to the propriety of the action taken by the trial court, then it cannot be said that the trial court abused its discretion.

Taicher, 442 So. 2d at 281.

37. FLA. R. CIV. P. 1.090(a).

38. *See* Johnson v. Mortgage Investors, 410 So. 2d 541 (Fla. 2d Dist. Ct. App. 1982); Henzel v. Golstein and S.W.F.P. Co., 349 So. 2d 824 (Fla. 3d Dist. Ct. App. 1977); Parker v. Gordon, 442 So. 2d 273 (Fla. 4th Dist. Ct. App. 1983); Leithauser v. Harrison, 206 So. 2d 222 (Fla. 4th Dist. Ct. App. 1968); Zentmeyer v. Ford, 464 So.

filing the last affirmative act should be excluded, and the corresponding future date of the motion to dismiss should be included.[39] For example, if the last affirmative (record) act occurred on January 1, 1987, the one-year period would run from January 2, 1987 through January 2, 1988. To be timely, the motion to dismiss must be filed after January 2, 1988.[40]

If activity appears on the face of the record after the running of the one-year period, but before the filing of a motion pursuant to Rule 1.420(e), dismissal cannot be ordered.[41] The date of *filing*, not service, determines the date of the last affirmative act and the date of the proceedings to abate the action.[42] Record activity, even on the 365th day of the succeeding year, defeats a motion to dismiss for want of diligent prosecution.[43] Therefore, the rule requires dismissal of a case only where it has not been prosecuted toward a final judgment for the requisite one-year period. Once final judgment has been rendered, Rule 1.420(e) is no longer applicable.[44]

Courts have repeatedly held that an order of dismissal based upon a lack of diligent prosecution is to be without prejudice.[45] Thus, a dismissal pursuant to Rule 1.420(e) is not an adjudication on the merits

---

2d 673 (Fla. 5th Dist. Ct. App. 1985); *see also Shalabey*, 253 So. 2d at 714; H. TRAWICK, *supra* note 20, at 271.

39. *See supra* notes 37 and 38.

40. *E.g.*, *Zentmeyer*, 464 So. 2d at 673. For a discussion of the effects of a leap-year, or the 365th day falling on a Saturday, Sunday or legal holiday, see Carter v. Cerezo, 495 So. 2d 202 (Fla. 5th Dist. Ct. App. 1986).

41. Carter v. DeCarion, 400 So. 2d 521 (Fla. 3d Dist. Ct. App. 1981), *review denied*, 412 So. 2d 464 (Fla. 1982); *accord* Pollack v. Pollack, 110 So. 2d 474 (Fla. 1st Dist. Ct. App.), *cert. denied*, 116 So. 2d 761 (Fla. 1959); Barnes v. Escambia County Employees Credit Union, 488 So. 2d 879 (Fla. 1st Dist. Ct. App. 1986).

42. *See* Ace Delivery Serv. v. Pickett, 274 So. 2d 15 (Fla. 2d Dist. Ct. App. 1973); Fund Ins. Co. v. Preskitt, 231 So. 2d 866 (Fla. 4th Dist. Ct. App. 1970).

43. *See, e.g.*, Parker v. Gordon, 442 So. 2d 273 (Fla. 4th Dist. Ct. App. 1983); *Johnson*, 410 So. 2d at 542.

44. Ravel v. Ravel, 326 So. 2d 223 (Fla. 2d Dist. Ct. App. 1976).

45. Harrison v. Griffin, 443 So. 2d 499 (Fla. 1st Dist. Ct. App. 1984); Gibbs v. Trudeau, 283 So. 2d 889 (Fla. 1st Dist. Ct. App. 1973); Hamilton v. Millnul Assoc., 443 So. 2d 485 (Fla. 2d Dist. Ct. App. 1984); Nektaredes v. Sagonias, 432 So. 2d 769 (Fla. 2d Dist. Ct. App. 1983); McDaniel v. Onkey, 422 So. 2d 70 (Fla. 2d Dist. Ct. App. 1982); *but cf.* List v. St. Petersburg Hotel Ass'n, 466 So. 2d 1258 (Fla. 2d Dist. Ct. App. 1985); National Carloading Corp. v. Gemini Transp., 364 So. 2d 504 (Fla. 3d Dist. Ct. App. 1978); Bair v. Palm Beach Newspapers, 387 So. 2d 517 (Fla. 4th Dist. Ct. App. 1980); Spolter Elec. Supplies v. Kalb, 275 So. 2d 594 (Fla. 4th Dist. Ct. App. 1973); Babb v. State of Fla., 397 So. 2d 399 (Fla. 5th Dist. Ct. App. 1981).

and therefore does not bar a subsequent suit on the same subject matter or controversy.[46] In light of its stated purpose and Florida Rule of Civil Procedure 1.010,[47] "[t]hese rules shall be construed to secure the just, speedy and inexpensive determination of every action,"[48] it is contrary to its purpose that dismissal should be without prejudice. Dismissal without prejudice allows a party to simply refile his claim ad infinitum, limited only by the applicable statute of limitations. In a concurring opinion, Judge Walden of the Fourth District Court of Appeal stated:

> In sum, I feel a claimant who files suit and fails to prosecute it for a year and cannot show good cause to prevent its dismissal should be deemed to have exhausted his right to court access and action with reference to the particular claim. He has had an abundant fair chance and the matter should be then finally terminated and way made for other litigants who are sincere in wishing their action brought to a speedy and inexpensive conclusion.[49]

This facet of Rule 1.420(e) deserves reconsideration. An amendment which specifies that dismissal for failure to prosecute is to be *with prejudice* should be adopted as it would effectuate the stated purpose of the rule.

III. Interpretational Difficulties

The Rule's greatest interpretational difficulties involve what constitutes record and non-record activity. "All actions in which it appears on the face of the record that no *activity* by filing of pleadings, order of court *or otherwise* has occurred for a period of one year shall be dismissed . . . unless . . . a party shows *good cause* . . . ."[50] Non-record activity must demonstrate either "good cause," or be activity under the guise of "or otherwise" to prevent dismissal. Logically, a discussion of record activity should precede that of non-record activity.

Florida courts have uniformly applied the following test of the sufficiency of the record activity offered to prevent dismissal: "[A] step in

---

46. Zukor v. Hill, 84 So. 2d 554 (Fla. 1956).
47. FLA. R. CIV. P. 1.010.
48. *Id.*
49. Spolter Elec. Supplies v. Kalb, 275 So. 2d 594, 595 (Fla. 4th Dist. Ct. App. 1973).
50. FLA. R. CIV. P. 1.420(e) (emphasis added).

the prosecution of a suit means something more than a mere passive effort to keep the suit on the docket of the court; *it means some active measure taken by plaintiff, intended and calculated to hasten the suit to judgment.*"[51]

In general, the filing of formal pleadings, the filing of notices of proceedings and the filing of court orders have been held sufficient record activity to prevent dismissal for failure to prosecute.[52]

---

51. Gulf Appliance Distrib. v. Long, 53 So. 2d 706, 707 (Fla. 1951); *see also* Eastern Elevator v. Page, 263 So. 2d 218 (Fla. 1972); *accord* Harris v. Winn-Dixie Stores, 378 So. 2d 90 (Fla. 1st Dist. Ct. App. 1979) (more than a mere passive effort must be shown; stated another way, an affirmative act directed toward disposition of the case is required to prevent dismissal); Nektaredes v. Sagonias, 432 So. 2d 769 (Fla. 2d Dist. Ct. App. 1983); Overseas Dev. v. Amerifirst Fed. Sav. & Loan Ass'n, 433 So. 2d 587 (Fla. 3d Dist. Ct. App.), *review dismissed*, 438 So. 2d 833 (Fla. 1983) (reasonably calculated to advance the case toward resolution); Bair v. Palm Beach Newspapers, 387 So. 2d 517 (Fla. 4th Dist. Ct. App. 1980); Hunter v. Cal-Maine Foods, 477 So. 2d 642 (Fla. 5th Dist. Ct. App. 1985), *review denied*, 488 So. 2d 67 (Fla. 1986).

52. For specific examples, the following have been held to be sufficient record activity under the Rule to prevent dismissal: Grooms v. Garcia, 482 So. 2d 407 (Fla. 2d Dist. Ct. App. 1985) (the filing of a notice of hearing); Gelb v. Miranda, 456 So. 2d 548 (Fla. 3d Dist. Ct. App. 1984) (same); Mikos v. Sarasota Cattle Co., 453 So. 2d 402 (Fla. 1984) (the filing of plaintiff's motion for trial); Churruca v. Miami Jai-Alai, Inc., 454 So. 2d 37 (Fla. 3d Dist. Ct. App. 1984), *review denied*, 461 So. 2d 114 (Fla. 1985)(same); Thomas v. Personal Representative of Estate of DeLoach, 400 So. 2d 204 (Fla. 1st Dist. Ct. App. 1981) (the filing of court's notice of trial); Hale v. Hart Properties, 436 So. 2d 1093 (Fla. 3d Dist. Ct. App. 1983) (sheriff's filing of return of service on a summons); Sittser v. General Motors Corp., 488 So. 2d 577 (Fla. 4th Dist. Ct. App. 1986) (same); Silverman v. Equifax Services, 420 So. 2d 928 (Fla. 3d Dist. Ct. App. 1982) (filing of a notice of deposition); Hunter v. Cal-Maine Foods, 477 So. 2d 642 (Fla. 5th Dist. Ct. App. 1985), *review denied*, 488 So. 2d 67 (Fla. 1986) (plaintiff's filing of notice to produce); Hersey v. Batchelor, 433 So. 2d 558 (Fla. 5th Dist. Ct. App. 1983), *appeal dismissed*, 444 So. 2d 416 (Fla. 1984) (filing in trial court of opinion and mandate of the district court of appeal); Candy Store Corp. v. Caribbean Trade Winds Condominium Ass'n, 478 So. 2d 119 (Fla. 4th Dist. Ct. App. 1985), *review denied*, 488 So. 2d 67 (Fla. 1986) (filing of trial court order which had ordered plaintiff to retain new counsel); Marschall v. Water-Boggan Int'l, Inc., 401 So. 2d 1157 (Fla. 3d Dist. Ct. App. 1981) (order requiring reservice of process, return of the alias summons and substituted service); Bair v. Palm Beach Newspapers, 387 So. 2d 517 (Fla. 4th Dist. Ct. App. 1980) (court's order vacating original dismissal and parties' stipulation to permit the filing of an amended complaint); Harris v. Winn-Dixie Stores, 378 So. 2d 90 (Fla. 1st Dist. Ct. App. 1979) (filing an answer to a third amended complaint); American Salvage and Jobbing Co. v. Salomon, 367 So. 2d 716 (Fla. 3d Dist. Ct. App. 1979) (filing and service of interrogatories and notice of hearing on the motion to compel answers to interrogatories); Philips v. Marshall Berwick Chevrolet, 467 So. 2d 1068 (Fla. 4th Dist. Ct. App. 1985) (filing of interrogatories consisting of

Some examples of record activity held *insufficient* to preclude dismissal under Rule 1.420(e) are: filing a motion for substitution of counsel;[53] filing a motion to reflect name change and court order thereon;[54] filing of a stipulation and order for substitution of counsel;[55] filing an order to show cause for lack of diligent prosecution;[56] attempted settlement negotiations;[57] and filing of a court order intended to spur activity.[58]

A confusing application of Rule 1.420(e) has led to a conflict among the district courts of appeal. In *Johnson v. Mortgage Investors*,[59] the Second District held that filing a motion to dismiss one day premature to the running of the statutory one-year period constituted record activity within that one-year period and, therefore, the action was not subject to dismissal.[60] The Fourth District Court of Appeal later disagreed, holding that such a motion was *not* record activity that would prevent dismissal.[61] The court supplied no reasoning to support the conclusion reached. In May of 1986, the Second District revisited the issue in *Fleming v. Barnett Bank*,[62] and receded from its earlier statement that a prematurely filed motion to dismiss for want of dili-

---

two questions); Strader v. Morrill, 360 So. 2d 1137 (Fla. 1st Dist. Ct. App. 1978) (filing a motion for summary judgement); O'Neal v. Midgette, 356 So. 2d 1261 (Fla. 2d Dist. Ct. App. 1978) (filing of motion and order to substitute personal representative of deceased party); Kenet v. Stein, 326 So. 2d 36 (Fla. 3d Dist. Ct. App. 1976) (filing of plaintiff's notice of hearing on motion to dismiss third party complaint); Cypress Corp. v. Smith, 218 So. 2d 481 (Fla. 2d Dist. Ct. App.), *cert. denied*, 225 So. 2d 525 (Fla. 1969) (filing of an answer).

53. Gulf Appliance Distrib. v. Long, 53 So. 2d 706 (Fla. 1951).

54. Overseas Dev. v. Amerifirst Fed. Sav. & Loan Ass'n, 433 So. 2d 587 (Fla. 3d Dist. Ct. App.), *petition dismissed*, 438 So. 2d 833 (Fla. 1983).

55. Appraisal Group, Inc. v. Visual Communications, Inc., 426 So. 2d 1155 (Fla. 3d Dist. Ct. App. 1983).

56. Boeing Co. v. Merchant, 397 So. 2d 399 (Fla. 5th Dist. Ct. App. 1981), *review denied*, 412 So. 2d 468 (Fla. 1982); Chemical Bank v. Polakov, 448 So. 2d 1148 (Fla. 4th Dist. Ct. App. 1984).

57. Laug v. Murphy, 205 So. 2d 695 (Fla. 4th Dist. Ct. App. 1986); *accord* Steisel v. Birnholz, 313 So. 2d 125 (Fla. 3d Dist. Ct. App. 1975), *cert. denied*, 330 So. 2d 14 (Fla. 1976); Leeks v. Dolling, 350 So. 2d 10 (Fla. 4th Dist. Ct. App. 1977), *cert. denied*, 357 So. 2d 185 (Fla. 1978).

58. Nelson v. Stonewall Ins. Co., 440 So. 2d 664 (Fla. 1st Dist. Ct. App. 1983).

59. 410 So. 2d 541 (Fla. 2d Dist. Ct. App. 1982).

60. *Id.*

61. *See Chemical Bank*, 448 So. 2d at 1148.

62. Fleming v. Barnett Bank of E. Polk County, 490 So. 2d 126 (Fla. 2d Dist. Ct. App. 1986) (plurality opinion), *review granted*, No. 69-023 (Fla. Oct. 22, 1986).

gent prosecution constitutes record activity.[63] The court reasoned that a premature motion did not fall within the category of an affirmative act reasonably calculated to hasten the suit to judgment.[64]

In June 1986, the Third District Court of Appeal stated[65] that: (1) a premature motion to dismiss for lack of prosecution is "undeniably record activity,"[66] but that (2) "because the goal of the motion is to *terminate* the cause, the motion is the antithesis of activity reasonably calculated, as it must be, 'to advance the cause to resolution.' "[67] Continuing, the court said, "just as a court order designed to spur activity is held not to constitute affirmative activity advancing the cause, a court order, as here, which rejects the defendant's request to terminate the prosecution, although concededly not impeding the cause, *does absolutely nothing to advance it*."[68] In August of 1986, following the reasoning of the Second, Third and Fourth Districts, the Fifth District Court of Appeal agreed.[69]

The First District Court of Appeal, in contrast, has stated that such a motion *is* record activity sufficient to toll the one-year period.[70] In *Gant v. Tallahassee Regional Memorial Medical Center*,[71] the First District has clearly confused the effect of such a motion — the termination of the cause — with the record activity standard requiring an active measure intended to hasten the suit to judgment. Contrary to the assertion of the First District, "hasten the suit to judgment" implicitly suggests a decision on the merits of a cause, and that idea is not interchangeable with the effect and intent of the rule: to terminate the cause or prosecution altogether. Therefore, when the Florida Supreme Court addresses this issue,[72] it would do well to observe the distinction be-

---

63. *Fleming*, 490 So. 2d at 127.

64. *Id. See* Mason v. Boyung, 12 FLA. L. WEEKLY 220 (Fla. 2d Dist. Ct. App. January 16, 1987) (reiterating that a prematurely filed motion to dismiss is not record activity and therefore is not a bar to dismissal under the rule).

65. Inman v. Miami Dade Water and Sewer Auth., 489 So. 2d 218 (Fla. 3d Dist. Ct. App. 1986).

66. *Id.* at 219.

67. *Id.* (citation omitted).

68. *Id.* (citations omitted) (emphasis added).

69. Carter v. Cerezo, 495 So. 2d 202 (Fla. 5th Dist. Ct. App. 1986).

70. Gant v. Tallahassee Regional Memorial Medical Center, 490 So. 2d 1020 (Fla. 1st Dist. Ct. App. 1986), *review granted*, No. 69-063 (Fla. Jan. 26, 1987).

71. 490 So. 2d at 1020.

72. The Supreme Court of Florida obtains discretionary jurisdiction pursuant to Florida Rule of Appellate Procedure 9.030(a) (2)(A)(iv), which permits review of decisions of district courts of appeal that expressly and directly conflict with a decision of

tween record activity intended to terminate the cause (for example, a motion pursuant to Rule 1.420(e)) and record activity intended to hasten the suit to judgment on the merits. In doing so, it should quash the decision in *Gant*[73] and align the First District Court of Appeal with its sister courts on this point of law.

The final interpretational issues warranting discussion concern: (1) which types of non-record activities or events are sufficient to constitute prosecution of the cause falling within the "or otherwise" provision of the rule,[74] and (2) which events are sufficient to demonstrate "good cause" as to why no active prosecution or record activity occurred in the year preceeding the motion to dismiss.[75] Although this distinction may be somewhat elusive, it must be acknowledged to eliminate the interpretational difficulties encountered when applying this rule of court. Those events or non-record activities put forth to prevent dismissal fall in one category or the other. The "good cause" and "or otherwise" provisions are not interchangeable, and it is incumbent upon the courts to recognize this when analyzing the sufficiency of non-record activities or events put forth to prevent dismissal at the evidentiary hearing. The standards for the two categories are not the same because one calls for activity, although not of record, which moves the case forward, while the other centers on events preventing activity altogether.

First, in treating the "*or otherwise*" provision found in Rule 1.420(e), the supreme court has held that non-record activity which moves the case toward ultimate resolution is sufficient prosecution

---

another district court of appeal on the same question of law. *Fleming*, 490 So. 2d at 126, and *Gant*, 490 So. 2d at 1020, were both heard by the Florida Supreme Court on March 5, 1987, in a consolidated oral argument.

73. 490 So. 2d at 1020.

74. *See, e.g.*, Rapport v. Weisberg, 316 So. 2d 73 (Fla. 3d Dist. Ct. App. 1975) (holding that non-record activity which results in contact with the opposing party and which hastens the suit to judgment or moves the case toward its ultimate resolution is sufficient prosecution to avoid dismissal under Rule 1.420(e)); Musselman Steel Fabricators v. Radziwon, 263 So. 2d 221 (Fla. 1972) (same); Adams Eng'g Co. v. Construction Prod. Corp., 156 So. 2d 497 (Fla. 1963) (same).

75. *See, e.g.*, American Eastern Corp. v. Henry Blanton, Inc., 382 So. 2d 863 (Fla. 2d Dist. Ct. App. 1980) (holding that non-record activity may constitute "good cause" under the present rule so as to prevent a dismissal for failure to prosecute); Barnes v. Ross, 386 So. 2d 812 (Fla. 3d Dist. Ct. App. 1980) (same); F.M.C. Corp. v. Chatman, 368 So. 2d 1307 (Fla. 4th Dist. Ct. App.), *cert. denied*, 379 So. 2d 203 (Fla. 1979) (same).

under the rule to prevent dismissal.[76] In a prior opinion, the supreme court unequivocally held that the Rule makes clear and specific provision for other forms of prosecution by the use of the words "or otherwise."[77] Following this reasoning,[78] the Third District Court of Appeal laid down a standard to determine whether non-record activity is sufficient to avoid dismissal under the rule: "[A]ny activity of record or non-record which results in contact by one party with the opposing party or the court and which moves the cause of action towards its ultimate resolution is sufficient prosecution under [Rule 1.420(e)]."[79]

In general, examples of non-record activity which fall under the "or otherwise" provision of the rule and which meet this standard of affirmative prosecution are action of the trial court itself, activity in a related action and compliance in discovery matters.[80]

Realizing that the 1977 amendment, "on the face of the record,"

---

76. *Musselman*, 263 So. 2d at 223.

77. *Adams Eng'g*, 156 So. 2d at 500.

78. *E.g.*, *Musselman*, 263 So. 2d at 221.

79. *Rapport*, 316 So. 2d at 74. Note the similarity between this standard and that established for determining the sufficiency of record activity; *see supra* note 52 and accompanying text.

80. It should be noted that some of these examples of non-record activity, although meeting this standard for the "or otherwise" provision, have been held not to establish "good cause" by the Second District Court of Appeal. *See American Eastern*, 382 So. 2d at 863; *see also supra* text accompanying notes 20 to 29 for a discussion of the effect of the 1977 amendment, "on the face of the record." However, simply because these examples of non-record activity may no longer establish "good cause" does not mean they can no longer prevent dismissal by falling within the "or otherwise" provision of Rule 1.420(e). Specific examples of non-record activity which fall under the "or otherwise" provision of the rule and which meet the standard of affirmative prosecution are: Strader v. Morrill, 360 So. 2d 1137 (Fla. 1st Dist. Ct. App. 1978) (action of the trial court in studying and determining motions for summary judgment); Smith v. St. George Island Gulf Beaches, Inc., 343 So. 2d 847 (Fla. 1st Dist. Ct. App. 1976) (purposeful activity involving the attorneys for plaintiff and defendant, taken in connection with a related action, which nevertheless advanced the action toward resolution); Eddings v. Davidson, 302 So. 2d 155 (Fla. 1st Dist. Ct. App. 1974); Leverenz v. Schneider, 294 So. 2d 690 (Fla. 3d Dist. Ct. App.), *cert. denied*, 305 So. 2d 203 (Fla. 1974) (the furnishing of a medical report in accordance with defendant's specific directions); *Musselman*, 263 So. 2d at 221 (defense counsel's mailing to plaintiff's counsel photographic copies of exhibits); Dukes v. Chemicals, Inc., 277 So. 2d 298 (Fla. 2d Dist. Ct. App.), *cert. denied*, 283 So. 2d 560 (Fla. 1973) (a verbal request by plaintiff's counsel to produce certain logs and records); Whitney v. Whitney, 241 So. 2d 436 (Fla. 2d Dist. Ct. App. 1970), *cert. denied*, 245 So. 2d 88 (Fla. 1971) (correspondence between attorneys requesting cancelled checks and check stubs).

has been interpreted[81] to preclude most types of non-record activity as establishing "good cause" does not interfere with the observation that such non-record activities may nevertheless fall within the "or otherwise" provision of Rule 1.420(e).

The second category of non-record activity or events which preclude dismissal are those sufficient to demonstrate "good cause" as to why no active prosecution or record activity occurred in the year preceeding the motion to dismiss. As mentioned before, this provision encompasses those events which actually prevented record activity altogether.

The district courts of appeal have settled on a test for "good cause": "[G]ood cause must include contact with the opposing party *and* some form of excusable conduct or happening which arises other than by negligence or inattention to pleading deadlines."[82] The Second District Court of Appeal subsequently held:

> [T]he standard in determining whether particular non-record activity constitutes good cause must be set high, and a party must now show a compelling reason to avoid dismissal where there has been no record activity. For example, the party might show estoppel, as in the present case, or a calamity preventing record activity.[83]

Thus, examples of circumstances evincing "good cause" sufficient to preclude dismissal are: plaintiff's prosecution of the case to the point where judgment could be entered, with formal entry withheld only at the request of defendants,[84] physical disability of counsel,[85] and severe illness of plaintiff caused by a stroke.[86] The Supreme Court of Florida recently held that once a plaintiff had given notice that the case was ready for trial, the trial judge had to enter an order fixing a date for

---

81. *American Eastern*, 382 So. 2d at 865.

82. F.M.C. Corp. v. Chatman, 368 So. 2d 1307, 1308 (Fla. 4th Dist. Ct. App.), *cert. denied*, 379 So. 2d 203 (Fla. 1979); *accord* Tosar v. Sladek, 393 So. 2d 61 (Fla. 3d Dist. Ct. App. 1981); Kotoski v. Florida Power & Light, 455 So. 2d 1327 (Fla. 4th Dist. Ct. App. 1984); Withers v. Flagship Peoples Bank, 473 So. 2d 789 (Fla. 1st Dist. Ct. App. 1985).

83. *American Eastern*, 382 So. 2d at 865 (footnotes omitted).

84. *Id.* at 866.

85. Douglas v. Eiriksson, 347 So. 2d 1074 (Fla. 1st Dist. Ct. App.), *cert. denied*, 353 So. 2d 674 (Fla. 1977); *Eli Einbinder*, 317 So. 2d at 128; *Barnes*, 386 So. 2d at 814; Diaz v. Public Health Trust of Dade County, 490 So. 2d 1279 (Fla. 3d. Dist. Ct. App. 1986).

86. *Chrysler Leasing*, 259 So. 2d at 5.

the trial and was therefore precluded from dismissing the action for lack of prosecution.[87] Furthermore, it is inappropriate for a trial attorney to pressure a judge into setting a date.[88] Therefore, this shifting of the burden to take the next step in the prosecution of a cause to the trial court, after a cause is noticed for trial, has been held "good cause" for subsequent inactivity.[89]

Examples of events held *not* to constitute good cause under Rule 1.420(e) are: plaintiff's lengthy absence in Europe;[90] plaintiff's attorney's misimpressions and erroneous assumptions;[91] misunderstandings between attorneys;[92] office errors, attorney's inadvertent failure to prosecute, or plaintiff's change of counsel;[93] a litigant who was too busy or otherwise found it inconvenient to give attention to the cause of action;[94] settlement negotiations which failed to reach fruition;[95] and plaintiff's participation in another appeal related to the same cause.[96]

IV. Conclusion

Rule 1.420(e) of the Florida Rules of Civil Procedure has a valid purpose and remains useful in expediting litigation and encouraging prosecution. However, the Rule would be more effective in accomplishing its purpose were it amended so that dismissals for failure to prosecute were with prejudice. Further, if the rule were automatic or self-executing, its purpose would be accomplished more frequently. The dis-

---

87. Mikos v. Sarasota Cattle Co., 453 So. 2d 402 (Fla. 1984).

88. *Id.*

89. Pierstorff v. Stroud, 454 So. 2d 564 (Fla. 2d Dist. Ct. App. 1983); Madeira Management v. Chapman Realty Corp., 459 So. 2d 1177 (Fla. 2d Dist. Ct. App. 1984); *cf.* General Guarantee Ins. v. Bolivar, 460 So. 2d 1011 (Fla. 2d Dist. Ct. App. 1984) (no shift of burden if the action is not at issue when the notice for trial is filed).

90. Railway Express Agency v. Hoagland, 62 So. 2d 756 (Fla. 1953).

91. Shanley v. Allen, 346 So. 2d 548 (Fla. 1st Dist. Ct. App. 1976).

92. Blakewell v. Shepard, 310 So. 2d 765 (Fla. 2d Dist. Ct. App. 1975).

93. Florida Power & Light Co. v. Gilman, 280 So. 2d 15 (Fla. 3d Dist. Ct. App. 1973).

94. Barrentine v. Vulcan Materials Co., 216 So. 2d 57 (Fla. 1st Dist. Ct. App. 1968); *see* Katoski v. Florida Power & Light Co., 455 So. 2d 1327 (Fla. 4th Dist. Ct. App. 1984).

95. Appraisal Group, Inc. v. Visual Communications, Inc., 426 So. 2d 1155 (Fla. 3d Dist. Ct. App. 1983); Laug v. Murphy, 205 So. 2d 695 (Fla. 4th Dist. Ct. App. 1968).

96. Perez v. Cohen, 362 So. 2d 985 (Fla. 3d Dist. Ct. App.), *cert. denied*, 365 So. 2d 710 (Fla. 1978).

trict courts of appeal in Florida must recognize the distinction between non-record activities which seek to abate the sanction of the rule: one set of events falls within the "or otherwise" provision and the other seeks relief under the guise of "good cause." Only the Supreme Court of Florida, a consensus among the district courts of appeal, or a series of amendments can end this spate of litigation promulgated by superficial and erroneous interpretations of the provisions of Rule 1.420(e) of the Florida Rules of Civil Procedure.

Diran V. Seropian