ADMINISTRATIVE MANUAL ON USE OF DRUGS BY FIRE DEPARTMENT MEMBERS

Federal Emergency Management Agency
United States Fire Administration
ADMINISTRATIVE MANUAL
ON USE OF DRUGS
BY FIRE DEPARTMENT MEMBERS

U.S. FIRE ADMINISTRATION
FEDERAL EMERGENCY MANAGEMENT AGENCY
WASHINGTON, DC 20472

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ACQUISITIONS
TO THE FIRE DEPARTMENTS OF THE UNITED STATES

This manual is meant to assist in the understanding of drug use by fire department members. Since much previous work has addressed alcohol abusers, this publication is devoted primarily to users and abusers of other drugs. While we have no information to indicate the existence of a major problem in fire departments nationally, we have no reason to assume that their experience is appreciably greater or less than that of the general work force or population. We certainly hope our experience is not significant but avoidance is not the solution. In addition to providing valuable background, this manual is intended to assist in the management of the problem. You will notice that the manual is adapted for loose-leaf use. This is to provide for easy integration of new developments, amendments, and revised legal opinions.

I wish to emphasize that this manual is for advisory purposes only. It is intended to provide helpful information to the fire administrators as they address identified problems. Naturally, the individual departments should design programs to meet their own needs.

Attention to this important matter will result in enhanced protection for the communities and public we serve, as well as improved safety and health of our fire department personnel. Please use this manual to good advantage. We hope that it is helpful.

Clyde A. Bragdon, Jr.
Administrator
U.S. Fire Administration
Federal Emergency Management Agency
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FOREWORD

The US Fire Administration (USFA) of the Federal Emergency Management Agency is dedicated to the increased effectiveness of fire department operations and the health and safety of department personnel. It has been recognized by the fire fighting community that substance abuse is a serious and growing threat to department operations and personnel safety. In response to this threat, the USFA has developed this manual targeted on drug abuse in fire departments (substance abuse other than alcohol and tobacco). The manual is designed to aid in the identification of department members with such problems and to suggest positive, proven intervention strategies to minimize drug abuse effects.
ACKNOWLEDGMENTS

The collection of information and the review of the manual were greatly assisted by a number of agencies and individuals. A large part of the information on drug abuse effects and prevalence of drug use was obtained from the Office of Workplace Initiatives, of the National Institute on Drug Abuse. Information on industry and government control efforts was obtained from a number of sources, most notably from the Association of Labor-Management Administrators and Consultants on Alcoholism (ALMACA), the International City Management Association, the Stanford Alcohol and Drug Treatment Center of Stanford University, and the library of the National Emergency Training Center of the Federal Emergency Management Agency (FEMA). The project consultants provided invaluable information and review comments. The consultants were Captain William Mayes of the San Jose (California) Fire Department and Nancy Sansom of the U.S. Army Alcohol and Drug Abuse Prevention Program. An important contribution was also made by the editorial staff of the Center for Planning and Research, notably Marjorie Tully. Roger Lanahan of the U.S. Fire Administration provided invaluable assistance throughout the project.
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PART I: MANAGEMENT OVERVIEW
1. BACKGROUND

Drug abuse is a widespread and expanding problem at all levels in our society. Local government agencies, such as fire departments, are not immune from this general societal problem. Increasing numbers of applicants for employment are being turned away because of some evidence of drug abuse. Many fire departments are being faced with the necessity of disciplining or terminating current staff members because of the abuse of drugs or alcohol. In the case of fire departments, the impact of drug abuse is particularly severe because of the dangers created to public safety and fire service personnel. Fire departments and other public and private agencies also have to be concerned with legal and financial issues resulting from the drug abuse problem.

Experience from both the public and private sectors has shown that the drug abuse threat can be reduced while protecting the legitimate needs and rights of fire departments, fire department employees, and the public at large. Constructive approaches have been developed, starting with the recognition that drug abuse is a treatable condition and that most afflicted employees can be restored to full work capabilities with the proper programs of detection and treatment.

While there are no simple answers, the best solution is the education of management and employees on drug abuse problems, adequate prevention and detection activities, and supportive services for employees in need. Management must also be able to operate within a well-defined structure of policies and procedures that is designed to restore troubled employees to an acceptable level of performance of their duties.
The development and maintenance of a successful drug abuse program can be greatly assisted by cooperation among all levels of local government and employee organizations, such as firefighters' unions. While differences might exist among these groups, a better understanding by everyone of the potential impact of drug abuse on the department and its employees can cause these differences to be set aside in the interests of establishing a successful program.

To further this objective, this part of the manual (Part I) covers the key elements of information needed for achieving a consensus of understanding and agreement among the various concerned groups. The elements include:

- Drug abuse patterns and types of drugs
- Prevalence and growth trends of drug abuse
- Problems created for fire departments by employee drug use
- Management initiatives for detection and intervention

Subsequent parts of the manual cover drug testing issues and legal concerns (Part II), information on how to start or improve a drug abuse program (Part III), and specific methods and procedures for the supervisor in dealing with the drug abusing employee (Part IV).
2. DRUG ABUSE PATTERNS AND TYPES OF DRUGS

Substance abuse can be defined as the use of any substance for nonmedical reasons to affect the body, the mind, or the behavior. The term drug abuse has been defined in the identical manner in some publications; however, for clarity in this manual, drug abuse refers only to the abuse of drugs other than alcohol and tobacco. The term illegal drugs includes all drugs of abuse that have been prohibited by law (such as the Federal Controlled Substance Act) unless use is authorized by other laws or by a legal prescription. The term illicit drugs, or simply drugs, as used in this manual, refers to any drugs of abuse (other than alcohol and tobacco).

The use of illicit drugs opens the individual to a range of risks including:

- **Accidents**: Drugs can result in overconfidence, confusion, the loss of self-control, and other effects that can result in accidents and injury to the person and to others.

- **Poor health**: Drugs can lead to organic damage, mental illness, malnutrition, increased risks of infection, poor health care, and death. Death from the use of too large a dose of a drug or drugs (overdose) is a frequent occurrence among drug abusers.

- **Dependence**: Continued use of drugs can cause psychological or physical dependence to develop, causing neglect of normal activities at work and at home, and even neglect of such basic needs as food and sleep.
o **Personal problems:** An increasing need for drugs can disturb personal relationships with family and friends and cause the user to give up personal goals and plans.

o **Problems with the community:** Drug abuse can lead to a range of serious legal and economic problems, including fines and imprisonment, loss of job and community standing, and unsustainable expenditures on drugs.

The degree to which any of these problems will occur for a given individual depends upon a number of factors, such as the type of drug used, the individual's physical makeup, and the pattern of drug use. However, no one is immune to the effects of drugs, and the risks become greater as use continues and intensifies.

Observation and research have shown that there is a continuous range of drug involvement ranging from the nonuser to the heavily dependent person (see Figure 1). An individual just starting on drugs is usually classified as an:

- **Experimental user:** This type of person is motivated by peer or social pressures or a need for new experiences or heightened stimulation to "try" anything at least once. The experimental user will use a drug once or twice but has no intention of going beyond that level of involvement.

A more frequent user could be classified as a:

- **Casual or recreational user:** This type of person is occasionally involved in drug use but makes a continuing effort not to lose control
Figure 1: Scale of Drug Abuse Involvement
over his use. This type of use is also classed as "recreational," since it often occurs in social settings among friends who desire to share an experience that they consider both acceptable and pleasurable.

- **Circumstantial user:** This individual is generally motivated by a need or desire to achieve a new and anticipated effect in order to cope with a specific problem situation or condition of a personal or job-related nature. Included here would be persons attempting to cope with the stress of emergency situations, and those seeking relief from tension, anxiety, or boredom.

- **Intensified user:** This person has generally developed a long-term, patterned use of drugs at a minimum level of at least once daily. The individual is motivated by a perceived need to achieve relief from a persistent problem or stressful situation or a desire to maintain a certain self-prescribed level of performance. A distinguishing characteristic of this type of abuser is the regular use of one or a combination of drugs escalating to patterns of consumption associated with drug dependence.

- **Compulsive user:** Compulsive users find that virtually every aspect of their lives revolves around obtaining, maintaining, and using a supply of the drug. These "drug dependents" (formerly called addicts) can be controlled physically, psychologically, and socially by their drug habit. (1,2)
Rehabilitation can arrest the tendency towards heavier drug abuse and can, in most cases, lead the individual to a drug-free existence. In the absence of rehabilitation most drug dependent users will eventually slide into a terminal state where death will usually result from excessive drug use (overdose), accidents, or illness related to drug abuse.

The drug abuser typically does not know where he is on the scale. Very often the user has a more intense problem than he is willing to admit to himself or to others. Without positive intervention from an outside source, his condition will generally decline into the more intense forms of abuse.

Many users are involved with more than one substance (such as alcohol and one or more drugs). Study has indicated a typical order or sequence in which substances are added by the abuser. The most typical sequence of involvement is:

1. Nonuse
2. Beer and wine
3. Cigarettes and/or hard liquor
4. Marijuana
5. Use of other drugs

The evidence is strong that a person will not generally try heroin or cocaine without having first used marijuana. Experimental users are much less likely than casual or heavier marijuana users to have used heroin or cocaine. Compulsive users of marijuana have a high probability of using cocaine. (1) A common type of user is a person who uses multiple drugs, often simultaneously.

To understand the problems of drug abuse it is necessary to consider the effects of specific drugs. A summary of effects of the major drugs of abuse is presented in Table 1. More-detailed "Fact Sheets" will be found in Appendix A.
TABLE 1
SUMMARY OF DRUG EFFECTS

<table>
<thead>
<tr>
<th>GENERIC TYPE</th>
<th>DRUG NAME</th>
<th>EARLY EFFECTS (&amp; DURATION)</th>
<th>LATE ADVERSE EFFECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CANNABIS</td>
<td>MARIJUANA</td>
<td>Intoxication (2-3 hrs.)</td>
<td>Increased lung cancer risk</td>
</tr>
<tr>
<td></td>
<td>&quot;Grass&quot;</td>
<td>Impaired memory, perception,</td>
<td>Permanent damage to memory</td>
</tr>
<tr>
<td></td>
<td>&quot;Pot&quot;</td>
<td>and judgment</td>
<td>&amp; immune system</td>
</tr>
<tr>
<td></td>
<td>&quot;Weed&quot;</td>
<td>Impaired fine motor skills</td>
<td>Psychological dependence</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(4-24 hrs.)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HASHISH</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>&quot;Mash&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STIMULANTS</td>
<td>COCAINE</td>
<td>Euphoria (1/2 hr.)</td>
<td>Chronic depression</td>
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<tr>
<td></td>
<td>&quot;Coke&quot;</td>
<td>Depression and confusion</td>
<td>Hallucinations &amp; psychosis</td>
</tr>
<tr>
<td></td>
<td>&quot;Snow&quot;</td>
<td>Occasionally hallucinations</td>
<td>Damage to nasal membranes</td>
</tr>
<tr>
<td></td>
<td>&quot;Flake&quot;</td>
<td>Overdose and death possible</td>
<td>&amp; lungs</td>
</tr>
<tr>
<td></td>
<td>CRACK</td>
<td>Greater danger of overdose</td>
<td>Tolerance &amp; physical dependence</td>
</tr>
<tr>
<td></td>
<td></td>
<td>with crack and freebase</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FREEBASE</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AMPHETAMINES</td>
<td>Rapid developing &quot;high&quot;</td>
<td>Brain damage</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(hours)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&quot;Speed&quot;</td>
<td>Excitation, extreme</td>
<td>Skin disorders, malnutri-</td>
</tr>
<tr>
<td></td>
<td>&quot;Uppers&quot;</td>
<td>talkativeness, tremors</td>
<td>tion, &amp; ulcers</td>
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<tr>
<td></td>
<td>&quot;Bennies&quot;</td>
<td>Persecutory delusions &amp;</td>
<td>Tolerance &amp; psychological</td>
</tr>
<tr>
<td></td>
<td>&quot;Pep Pills&quot;</td>
<td>hallucinations possible</td>
<td>addiction</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Confusion, anxiety, &amp; sleep</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>problems possible</td>
<td></td>
</tr>
<tr>
<td>GENERIC TYPE</td>
<td>DRUG NAME</td>
<td>EARLY EFFECTS (&amp; DURATION)</td>
<td>LATE ADVERSE EFFECTS</td>
</tr>
<tr>
<td>--------------</td>
<td>--------------</td>
<td>------------------------------------------------</td>
<td>---------------------------------------</td>
</tr>
<tr>
<td>DEPRESSANTS</td>
<td>BARBITURATES</td>
<td>Calming effects, sleep inducing</td>
<td>Physical &amp; psychological dependence</td>
</tr>
<tr>
<td>Slow down</td>
<td>&quot;Barbs&quot;</td>
<td>Confusion and poor coordination</td>
<td>Tolerance</td>
</tr>
<tr>
<td>central</td>
<td>&quot;Goofballs&quot;</td>
<td>Especially dangerous with alcohol</td>
<td>Physical withdrawal symptoms</td>
</tr>
<tr>
<td>nervous</td>
<td>&quot;Downers&quot;</td>
<td>Slurred speech, staggering gait, uncertain</td>
<td>Possible convulsions &amp; death</td>
</tr>
<tr>
<td>system</td>
<td></td>
<td>reflexes</td>
<td></td>
</tr>
<tr>
<td>TRANQUILIZERS</td>
<td>&quot;Valium&quot;</td>
<td>Poor judgment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&quot;Seconal&quot;</td>
<td>With overdose, death</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&quot;Librium&quot;</td>
<td>possible</td>
<td></td>
</tr>
<tr>
<td>METHAQUALONE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;Quads&quot;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;Soapers&quot;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;Ludes&quot;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HALLUCINOGENS</td>
<td>LYSERGIC ACID</td>
<td>Wild swings in sensations and feelings (hours)</td>
<td>&quot;Flashbacks&quot; giving prior effects</td>
</tr>
<tr>
<td>Temporarily</td>
<td>DIETHYLAMIDE</td>
<td>&quot;Bad trips&quot; with panic, confusion, anxiety,</td>
<td>without renewed drug use</td>
</tr>
<tr>
<td>distort</td>
<td>&quot;LSD&quot;</td>
<td>loss of control</td>
<td>Brain damage</td>
</tr>
<tr>
<td>reality</td>
<td>&quot;Acid&quot;</td>
<td>Impaired memory, attention span, &amp; thought</td>
<td>Tolerance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>processes</td>
<td>Possible birth defects</td>
</tr>
<tr>
<td>MESCALINE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSILOCYBIN</td>
<td>PHENCYCLIDINE</td>
<td>Feelings of strength, power, and</td>
<td>Tolerance</td>
</tr>
<tr>
<td></td>
<td>&quot;PCP&quot;</td>
<td>invulnerability</td>
<td>Memory loss, speech</td>
</tr>
<tr>
<td></td>
<td>&quot;Angel Dust&quot;</td>
<td>Sometimes anger &amp; rage</td>
<td>difficulties, depression</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Depression, hallucinations, confusion,</td>
<td>Impaired motor skills</td>
</tr>
<tr>
<td></td>
<td></td>
<td>irrational behavior</td>
<td>Mood disorders</td>
</tr>
<tr>
<td></td>
<td></td>
<td>With overdose, convulsions &amp; death possible</td>
<td></td>
</tr>
</tbody>
</table>
## TABLE 1

**SUMMARY OF DRUG EFFECTS**

<table>
<thead>
<tr>
<th>GENERIC TYPE</th>
<th>DRUG NAME</th>
<th>EARLY EFFECTS</th>
<th>LATE ADVERSE EFFECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>opiates (narcotics)</strong></td>
<td>HEROIN</td>
<td>Relaxation and euphoria (hours)</td>
<td>Heart &amp; lung damage</td>
</tr>
<tr>
<td></td>
<td>&quot;H&quot;</td>
<td>Swings from alertness to drowsiness</td>
<td>Hepatitis &amp; AIDS from injection</td>
</tr>
<tr>
<td></td>
<td>&quot;Smack&quot;</td>
<td>Restlessness, nausea, &amp; vomiting</td>
<td>Physical &amp; psychological addiction</td>
</tr>
<tr>
<td></td>
<td>&quot;Scag&quot;</td>
<td>Lethargy, apathy, poor judgment, loss of control</td>
<td>Severe withdrawal symptoms</td>
</tr>
<tr>
<td></td>
<td>&quot;Junk&quot;</td>
<td>With overdose, convulsions, coma, &amp; death</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MORPHINE</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>&quot;M&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>&quot;Dreamer&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CODEINE</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OPIUM</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Deliriants and inhalants</strong></td>
<td>SOLVENTS</td>
<td>Mild stimulation</td>
<td>Damage to nervous system, liver, kidneys, blood, &amp; bone marrow</td>
</tr>
<tr>
<td></td>
<td>AEROSOLS</td>
<td>Impaired judgment</td>
<td>Weight loss, electrolyte imbalance, &amp; muscle fatigue</td>
</tr>
<tr>
<td></td>
<td>ANESTHETICS</td>
<td>Loss of coordination</td>
<td>Tolerance</td>
</tr>
<tr>
<td></td>
<td>NITROUS OXIDE</td>
<td>With overdose, heart failure &amp; death</td>
<td></td>
</tr>
</tbody>
</table>
The large variety of abused drugs can be grouped according to the major effects produced. These would include:

- **Cannabis** (marijuana, hashish), which alters mood and perception.

- **Stimulants** (amphetamine, cocaine, "crack"), which speed up the action of the central nervous system.

- **Depressants** (barbiturates, tranquilizers, methaqualone), which relax the central nervous system.

- **Hallucinogens** (LSD, PCP, etc.), which temporarily distort reality.

- **Narcotics** (heroin, morphine, codeine, opium), which lower the perception of pain.

- **Deliriants** (aerosol products, paint thinner, etc.), which cause mental confusion.

**Cannabis**, better known as marijuana or hashish, is the most widely used illicit drug. It is available, cheap, easy to use, and accepted by a significant part of the population. The basic effect of cannabis is to alter mood and perception. Smoking marijuana or its more concentrated form (hashish) generally results in a sense of well-being and a state of relaxation. However, in some persons, adverse reactions can occur, such as mild anxiety or delusions. The state of intoxication is usually mild and short-lived.

Adverse effects also occur of which the drug abuser may be unaware. Over the short term, the drug is known to impair memory, perception, and judgment. Fine motor skills are also
affected. The sum total of these effects is to greatly increase the risk of accidents.

Some of these adverse effects last longer than the period of intoxication. Driving skills have been shown to be affected for periods of 4 to 6 hours after one "joint." (3) In a recent study, airplane pilots experienced difficulties in trying to land airplanes 24 hours after having smoked one joint. (4) This recent evidence suggests that fire departments and other emergency response organizations cannot be indifferent to the use of this drug at any time.

Long-term or chronic use of marijuana can also lead to serious adverse effects. Known carcinogens are found in marijuana smoke in greater concentrations than in tobacco smoke, suggesting a greater risk of lung cancer from use of the drug. Psychological dependence on the drug has been observed. Long-term use can also result in permanent damage to the memory and the immune response system. This latter effect creates greater dangers of infection and serious illness. (3)

**Stimulants** are the class of drugs that speed up the action of the central nervous system. Principal drug types are cocaine and amphetamines. **Cocaine** has rapidly become the major hard drug used by the working population, especially younger adults. Cocaine is commonly found on the street as a white powder that can be ingested by snorting, or when dissolved, by injection. In recent years, increasing use has been made of "crack" and "freebase." These drugs are chemically transformed types of cocaine that can be smoked.

When cocaine is "snorted," the effects begin within a few minutes and peak in 15 to 20 minutes. During this period the user generally feels a sense of well-being and may feel more energetic or alert. The euphoria lasts about 30 minutes and all noticeable effects disappear within an hour. Injection causes
the effect to begin in about 20 seconds, and smoking crack causes the onset within about 10 seconds. (5)

Once the euphoria wears off, the user is likely to feel more depressed than before starting. Other effects are confusion and in some instances hallucinations. A large dose or even a moderate dose under some conditions can overtax the heart and may be fatal. Because of uncertainties as to the concentration of the active ingredient in the street drug and the rapid onset of effects from smoking crack, there is a very high danger of a fatal overdose. (6)

Long-term or chronic use can lead to deeper depressions, hallucinations, and psychosis. Over time, snorting can cause damage or destruction of nasal membranes, and smoking can cause lung damage. Cocaine is also one of the most addictive of drugs and can cause compulsive use to develop in a period of months or years with loss of ability to function in a normal home or work environment.

Amphetamines, or "pep pills" or "uppers," are generally a legal form of stimulant drugs and as such have been widely misused. Some people use these forms of stimulants to counteract drowsiness or maintain alertness over extended periods of time, such as might occur with truck drivers on long hauls or fire fighters on extended duty. Others use these stimulants to counteract the "down" feeling caused by sleeping pills or alcohol. This up/down cycle created by alternating use of "uppers" and "downers" is especially dangerous.

Amphetamines come in a variety of pill sizes, shapes, and colors and are also included as an ingredient in some liquid medicines. In a pure form, amphetamines are yellowish crystals. Ingestion is usually by swallowing. Abusers also sniff the crystals or inject a solution made from the crystals. The onset of effects can be rapid and effects can persist for hours,
depending on the form of the substance and method of ingestion. There can be a recurrence of early adverse effects for weeks after ingestion.

Depending on the dose, amphetamines will cause a "high" ranging from mild to wild excitement. Excitation, extreme talkativeness, tremors, and hallucinations can result. Bizarre persecutory delusions can occur after high doses. Confusion, anxiety, and sleep problems can also occur. (7) There is an adverse impact upon reflexes and decision making that increases the risk of accidents in such activities as driving or handling of complex equipment.

Long-term heavy use of amphetamines can produce brain damage that interferes with speech and thought processes. A tolerance and psychological addiction can develop over time that increase the likelihood of long-term damage. Other long-term effects include skin disorders, malnutrition, and ulcers. (7)

Barbiturates and related depressants also have legitimate medical uses but can be very dangerous when taken in high doses or without a physician's advice. These drugs are generally used as tranquilizers and sleep-inducers, and can also be helpful in cases of epilepsy and high blood pressure. There are many well-known depressants sold in the drug store, such as Seconal, Nembutal, Valium, and Librium. The drugs are sold in capsule, tablet, or liquid form or as suppositories.

While these drugs produce a relaxing effect when taken in prescribed doses, larger doses can induce a variety of adverse effects and even death. At larger doses, depressants can induce slurred speech, poor coordination, and confusion. An overdose is often fatal. When these drugs are used with alcohol, the total impact is greatly increased. (8)
Over the longer term, usage can result in physical and psychological dependence as well as a tolerance that can lead to the use of increasingly larger doses.

**LSD, PCP, and other hallucinogens** have the effect of temporarily distorting reality. Hallucinogens (or psychedelics) affect a person's perceptions, sensations, thinking, self-awareness, and emotions. Some of these drugs are derived from natural sources (such as mescaline from the peyote cactus), while others are synthetic compounds (LSD, PCP). These drugs may be found in either solid or liquid form. Usage varies with the specific drug. LSD is usually taken by mouth but is sometimes injected. Mescaline is smoked or is swallowed as capsules or tablets. PCP may be swallowed, smoked, sniffed, or injected.

Adverse effects of LSD and related psychedelics are unpredictable. "Bad trips" may last for minutes or hours and be mildly frightening to terrifying. The user may experience panic, confusion, suspiciousness, anxiety, feelings of helplessness, and loss of control. Flashbacks of these experiences can occur much later without taking the drug. Heavy users may experience impaired memory and attention span, mental confusion, and impaired thinking. (9)

PCP in small doses often gives feelings of strength, power, and invulnerability but may also appear as anger and rage. PCP can produce violent and bizarre behavior in people who are not normally that way. This behavior often leads to serious accidents and deaths from such causes as falls and automobile accidents. When large doses are taken, effects can include drowsiness, convulsions, heart and lung failure, coma, and death. (9,10)

Long-term effects of LSD, PCP, and other hallucinogens are not well known. Some brain damage is suspected from chronic use of LSD. Also there is the possibility of birth defects in the
users' children. Tolerance develops from the continued use of any of these drugs. Chronic users of PCP report memory loss, speech difficulties, depression, and weight loss. Testing has shown that PCP users have impaired motor skills and short-term memory and a range of mood disorders. (9,10)

Heroin, opium, morphine, and other opiates, sometimes referred to as narcotics, are a group of drugs that are used medically to relieve pain but also have the potential for abuse. Some opiates come from the resin of the Asian poppy (including opium, morphine, heroin, and codeine). Other opiates, such as Demerol, are synthesized. Opium appears as dark brown chunks that are usually smoked or eaten. Heroin is a refined product of opium that appears as a white or brown powder. This powder is usually dissolved in water and then injected. Other opiates come in a variety of forms, including capsules, tablets, syrups, solutions, and suppositories.

Opiates tend to relax the user and induce a sense of euphoria. When opiates are injected, the user feels an immediate rush, and a feeling of well-being may last for hours. During this period, the user may go back and forth from feeling alert to feeling drowsy ("nodding"). (11)

Adverse effects over the short term include restlessness, nausea, and vomiting. Continued use tends to induce lethargy, apathy, impaired judgment, and loss of control. Overdose can lead to convulsions, coma, and death. (11,12)

Longer-term effects include heart and lung damage, skin abscesses, and a variety of diseases from use of unsterile needles, including hepatitis and AIDS. Opiates are highly addictive, and chronic use results in physical dependence. Withdrawal symptoms are very severe, and generally medical support is required for successful withdrawal. (11,12)
Delirants or inhalants are breathable chemicals whose vapors can produce mind-altering effects. They include solvents, aerosols, some anesthetics, and such other chemicals as model plane glue, cleaning fluids, gasoline, paints, hair sprays, laughing gas (nitrous oxide), and amyl and butyl nitrites, among others.

The early effects of sniffing these chemicals are a mild stimulation and some reduction in inhibitions. Adverse effects include impaired judgment and loss of coordination. An overdose can easily occur that can cause heart failure and death. (13)

Long-term, chronic use can cause permanent damage to the nervous system, liver, kidneys, blood, and the bone marrow. Other long-term effects include weight loss, electrolyte imbalance, and muscle fatigue. Tolerance develops, so that increased amounts are used with increased risks of overdose. (13)
3. PREVALENCE AND GROWTH TRENDS OF DRUG ABUSE

In the General Population

The United States experienced explosive increases in drug abuse in the 1970s. The increase in overall drug abuse has leveled off, starting in the early 1980s, with decreases in some drugs and increases in others as lifestyle and cultural acceptance have changed. While this moderation is encouraging, the levels of abuse still remain intolerably high. The *National Household Survey on Drug Abuse, 1985*, prepared by the National Institute on Drug Abuse (NIDA), indicates that 70.4 million Americans age 12 or older have tried illicit drugs at least once in their lifetime. This represents 37% of the population. The survey also shows that in the same age group, 23 million people (12% of the population) can be classified as current users of one or more illicit drugs. (14)

The drugs of choice are shown in Figure 2. After alcohol, the principal drug of choice is marijuana/hashish, which is currently used by about 10% of the population. Over the last decade, cocaine use has increased, now ranking second with 3% of the population reported as current users. Abuse of hallucinogens, inhalants, stimulants, and sedatives is in the range of 0.5% to 1.5% of the population. Heroin is used by less than 0.5% of the population, possibly because of a cultural stigma associated with this drug and the widely publicized addictive effects. (15)

A comparison of drug abuse by age group shows more clearly the impact of the increased abuse in the '70s and '80s. NIDA survey data (15) in Figure 3 show current drug users by age groups of 12-17 years, 18-25 years, and 26 or older. For the two drugs shown (marijuana/hashish, and cocaine) the percentage of current users in the 18-25 year age group is much higher than in the younger or older groups. The use level is 3 to 4 times as
Figure 2: Drug Abuse in U.S. Population (1985)

Source: National Household Survey on Drug Abuse, 1985. (14, 15)
Figure 3: Current Drug Abuse by Age Group

Source: National Household Survey on Drug Abuse, 1985. (15)
great among the younger adults (18-25 years) than among the older adults (26 or over). The same differences occur for the other drugs of abuse.

The level of abuse of marijuana/hashish and stimulants for the younger group (12-17 years) is twice that for older adults. Abuse levels for the other drugs are similar for the two age groups.

These data suggest that the effects of increased drug abuse have not yet fully impacted on society. As the young and young adult groups move more completely into adult society, this problem could have an increasingly severe impact on the functioning of individuals, families, business, and government.

Drug abuse problems of the young could well increase with age. Not only could the percentage of adult groups abusing the softer drugs increase, but also an increase could occur in the abuse of harder drugs. Data from the National Survey on Drug Abuse: 1982 by NIDA note a "progression" in drug use by individuals from the more common "soft" drugs, such as alcohol and cigarettes, to marijuana and then on to the harder drugs like cocaine. (16) For example, among young adults (18-25), alcohol and/or cigarette use preceded marijuana use in almost 95% of the marijuana histories that could be classified. Likewise, marijuana use preceded first use of hard drugs for about 90% of the classifiable young adults who reported trying one or more of these substances.

These results do not imply, however, that a young person is impelled to follow this drug abuse progression. The evidence shows that many stop with alcohol and cigarettes and others with marijuana. About 30% of all young adults have used alcohol or cigarettes and not gone on to marijuana. An additional 25% of the total 18-25 age group have used marijuana but have not used in any other illicit drug.
Another emerging danger affecting mainly the younger age groups is the rapid increase in the use of "freebase" and "crack." The 1985 household survey data show that 44% of youth (12-17) using cocaine have smoked the drug, compared with 21% for young adults (18-25) and 19% for adults (26-34). Furthermore, 38% of current users report having smoked freebase or crack, compared with 10% over a year ago. (14) It should be noted that these data do not fully reflect the current impact of crack, since that form of the drug did not appear nationally until late in 1985. The 1985 survey also found that the more frequently people use cocaine the more likely they are to use freebase. Among the heavy users that have used the drug more than 100 times, about 57% have smoked freebase. (14)

The statistics presented in Figure 2 suggest that many drug abusers are currently using more than one drug. Since most of the total abusers (12%) are using marijuana (10%), many must be using a second drug to account for the reported use of the other drugs. Also, data from the 1982 survey indicate that three-fourths of the current abusers of hard drugs also report current use of both alcohol and marijuana. (16) Almost all the rest are at least current alcohol users. The evidence suggests that about half the time a person is using an illicit drug, that person is also simultaneously using another illicit drug or alcohol. As discussed previously, the mixing of two or more drugs can greatly increase the damaging effects.

Other factors also affect the likelihood of drug abuse. The 1982 survey indicates that the most significant factors are lifestyle and general living environment. Among adults, drug abuse is related to a lack of involvement in family life. Among all age groups, peer group influences are important. The combination of the two factors is particularly significant. The most obvious example would be the single person whose social group accepts and uses illicit drugs.
The 1982 survey indicates that geographic differences in drug abuse levels are declining, although the prevalence of abuse still tends to be higher in large metropolitan areas than in other communities. For example, in 1982, 17% of youth residing in large metropolitan areas reported current use of marijuana, as contrasted to 8% to 9% for youth in small metropolitan or nonmetropolitan areas. Nonetheless, it is apparent that no locality is immune from this problem.

Drug Abuse in the Workplace

Drug abuse is an increasingly common occurrence in the workplace. The 1985 household survey (17) indicates that among employed 20-to-40-year olds, 19% reported some recent use of illicit drugs. The Alcohol, Drug Abuse and Mental Health Administration estimated that alcohol and drug abuse is costing society about $100 billion a year in lost productivity. (4,17) Another source (18) estimated that in 1980 lost productivity among marijuana users was about $34 billion.

Studies indicate that current marijuana and cocaine users were more likely than nonusers to be absent from work. These drug users reported missing one or more days in the past month because of illness or injury 50% more often than did the nonusers. More striking was the finding that marijuana and cocaine users "skipped work" two to three times as often as the nonusers simply because they "didn't want to be there." (4,17) This behavior undoubtedly contributes to the higher than average job turnover rate of drug abusers.

A significant number of employees also reported using drugs or being high on drugs while on the job. The following industries exhibited the highest level of employees under the influence of marijuana while at work:
Age is clearly an important factor determining who is using drugs at the worksite. Younger employees commonly have different attitudes and beliefs regarding recreational use of illicit drugs than do older generations. Consequently, both familiarity and past experience with drugs increase the chances that these younger individuals will use drugs in addition to alcohol for relief of stress and to heighten performance. These tendencies could result in more cases of impaired performance at work. (4)

Figure 4 shows the percentage of employed users of marijuana broken down by age group. As with the general population, the drug abuse rates for young adults are extremely high, while the rates for older adults (35 and over) are small. The problem in the older group is predominantly alcohol abuse.

These conditions can influence an administrator's perceptions of the drug abuse problem in the work force. If the work force is mostly in their mid-thirties or older, drug abuse may seem insignificant relative to the alcohol problem. However, as more young workers enter the department, drug abuse problems could rapidly increase.

Statistical results on the use of hard drugs are less complete than for marijuana. However, the earlier data presented for the population at large indicated that well over half of the regular users of marijuana "progress" to harder drugs. Government statistics (19) show a 300% increase in the number of clients entering treatment for cocaine-related problems between 1977 and 1980. Consequently, it is reasonable to assume that the abuse of harder drugs will also have an increasing impact upon the workplace in years to come. A more recent survey by a
Figure 4: Daily Use (ever) by Work Force of Marijuana

Source: 1982 Household Survey on Drug Abuse, NIDA. (16)
prominent drug "hotline" service indicates that at least 40% of the people calling were part of the work force. (19)

Drug Abuse in the U.S. Armed Services

An extremely serious drug abuse problem is known to exist in the military services. Worldwide surveys conducted by the Department of Defense indicated that in 1980 about 27% of the enlisted personnel in the military services were then currently abusing drugs other than alcohol. The problem was even more severe for certain specific groups of units. A congressional committee (20) cites a case where 60% of the enlisted personnel on the USS Forrestal admitted to being under the influence of illicit drugs while on duty.

The 1985 Worldwide Survey of Alcohol and Non-Medical Drug Use Among Military Personnel (21) presents detailed evidence of the scope of the problem and the beneficial results of vigorous drug abuse control programs (Figure 5). Largely as a result of the intervention of the Services, the prevalence of current abuse fell from 27% in 1980 to 8.9% in 1985. Service programs provide comprehensive education, testing, and treatment. The general perception is that the reductions were due primarily to the deterrent effects of testing programs and disciplinary actions. Evidence indicates that the drop in drug abuse continues. U.S. Army results show that the rate of positive tests for drugs has fallen from about 30% in 1981 to about 2% in 1987. (22)

As with the general population, a number of factors correlate with drug abuse. For enlisted personnel, these factors include: age, family status, rank, and time on active duty. The younger adults are the most likely users: 26.1% of the 17-20-year age group reported the use of illicit drugs within the last 12 months in the 1985 worldwide survey. (21) The older group (31 years or older) reported a use level only about 1/10th as high as
Figure 5: Trends in Drug Use Past Thirty Days
Total DoD, 1980 - 1985

Source: 1985 Worldwide Survey of Alcohol and Drug Use Among Military Personnel. (21)
that of the youngest group. Other age groups reported intermediate use levels.

Similar trends are noted for other factors. Generally groups composed of lower ranks and shorter periods of active duty reported much higher levels of drug abuse than groups of higher ranks and longer service periods. It is reasonable to assume that in the absence of a drug abuse control program, the Armed Services would have a significant increase over time in drug abuse among the enlisted leadership ranks.

Prevalence of Drug Abuse in Government Agencies and Fire Departments

Fire departments have recognized the problem of alcohol abuse for generations. In the 1970s and '80s with the change in cultural values and the easier access to various illicit drugs, drug abuse has also begun to emerge as a serious problem. The young adults in the department or who may be entering in the next few years are particularly susceptible to drug abuse. In the absence of drug screening as part of pre-employment procedures, it would be reasonable to assume that drug abuse is as prevalent among new employees as it is among the same age groups in the local work force. In fact, considering the stress, occasional horror, and image problems, the fire fighter may be even more susceptible than the average worker to alcohol and drug abuse. (24)

Data related to prevalence in government agencies are fragmentary. Employees of New York State have a large range of services through their benefit plan. Of the approximately 200,000 employees, about 1,000 (or 0.5% of the total) were referred to some form of drug abuse treatment. (23) This number probably does not include the bulk of the "light" abusers (experimental, recreational) who were not sufficiently impaired
to be identified as drug abusers or to seek assistance on their own.

Information on prevalence in fire departments currently is based on the judgment of people close to the problem rather than on statistical data. One fire chief cites estimates that indicated that at least 75% of fire/rescue service members have used dangerous substances at one time or another and that about 30% or more could be considered substance abusers. (25) Another recent estimate from the fire service (26) sets the prevalence of current substance abusers at 25% with about 2% to 3% being drug abusers.

In an effort to prevent the problem in the department from increasing, many departments are turning to pre-employment drug screens of applicants. In some instances, the history of prior use has been so frequent that eliminating from employment all who admitted prior use would leave too few applicants to fill available positions. (27) In other areas, long periods of observation prior to full-time employment and the local environment have tended to reduce the perceived problem. (27)

In summary, the fragmentary data and professional judgment suggest that the prevalence of current drug abusers is probably in the range of 1% to 10% of the fire fighters, depending upon the policies of the department, the age distribution of the fire fighters, and the local environment. It is likely that most of these abusers will be from the younger age groups. It is also likely that most of the abusers will have a light to moderate problem (experimental, recreational, or circumstantial users—see Section 2). The upward trend in the usage in the population at large suggests that the prevalence and severity of use in fire departments will increase significantly in the absence of adequate programs of screening and prevention.
4. PROBLEMS CREATED FOR FIRE DEPARTMENTS BY EMPLOYEE DRUG ABUSE

Drug abusing employees can add greatly to the problems faced by the fire department. Some of the principal types of problems are:

- Degraded capability to respond to emergencies
- Increased accident rates
- Increased injuries and deaths
- Increased departmental administrative costs
- Increased cases of legal liability
- Diminished public trust

In one way or another these problems result from impaired performance and behavior of the drug abuser. Simple manual tasks are less affected by drugs than complex decision processes. For example, a basic task like cleaning fire department property would be less affected than operating a complex piece of equipment in an emergency situation. Such complex tasks could be severely impaired by even very small residual effects of drugs used on previous days.

Repetitive work is less affected by drugs than work requiring learning or coping skills. Sometimes an activity may seem to be repetitive, which gives a false illusion of security to the user. For example, driving a vehicle is often a repetitive task but can turn without warning into an exercise in coping. The mechanical aspect of the driving task may be relatively unaffected by drugs. However, in such situations as when a child runs from between two cars, someone changes lanes rapidly, or mechanical failure occurs in the vehicle, the appropriate response requires coping skills. (4)

Fire fighters face many situations where coping skills are essential. In addition to driving fire equipment in response to an emergency, fire fighters can face a constantly changing set of
dangers at the scene of the emergency. For the fire fighter's own protection and the protection of others at the scene, the fire fighter must be able to recognize emerging dangers, make a timely response, and have the strength and ability to sustain that response. It is these coping skills that are significantly impaired by the minimal effects of drugs; it is the novel or rapidly changing aspects of the task that make attempts to perform in an emergency situation under the influence so dangerous.

The duration of effects of a drug also depends on the task being performed. For marijuana, reaction time for simple tasks returns to baseline performance levels within 2 to 4 hours. However, for the more complex mental tasks (divided attention and critical tracking) the effects of this drug can persist for 8 to 10 hours after use. As noted earlier, in very complex tasks, such as flying an airplane, pilots still showed significant impairment 24 hours after use of a single "joint." (4)

Even more routine tasks can be affected, which could lead to lower department efficiency and additional risks of accidents. Certain psychological states, including inattention to routine tasks, poor judgment, confusion, and the like, can affect the performance on such routine tasks as maintaining and testing fire service equipment. Increased absenteeism reduces the capability of a fire department unit to carry out normal routine as well as its capability to respond to emergencies.

Perhaps the most important effect is the impairment of the fire fighter's rational judgment. Impaired judgment results in impaired fire fighters who may believe their performance is unaffected by occasional drug use. Injuries and fatalities can be caused by fire fighters who cannot objectively evaluate either their own abilities or the circumstances at hand. (24,28)
Drug abuse translates into direct costs to the fire department. One department (29) reported that 70% of job performance difficulties were related to alcohol or drug abuse. Absenteeism for drug abusers is estimated to be more than twice as high as for the average worker. This behavior can result in added sick leave costs and possibly added pension costs associated with disability retirement. Behavioral problems of a drug abuser can also disrupt the work of others and create additional hazards, resulting in increased supervisory and other operating costs. In cases where supervisory intervention is unable to correct the problem, added costs can be incurred in taking formal disciplinary action and in training another person as a fire fighter to replace the drug abuser.

Poor performance caused by drug abuse can also result in legal liability of the department. Accidents in which drug use was a factor can result in claims and lawsuits by the public against the department. Injury to fire fighters can also add to sick leave and disability costs.

Liability can also result from an accident precipitated by an employee after leaving work if it can be established that the employee was under the influence of a substance while on duty. Recent legal cases suggest that failure to control an employee under the influence of drugs would be interpreted as negligence on the part of the fire department even if the accident occurred immediately after the employee left work. (30)

Unacceptable behavior of a drug abusing employee either on or off duty can erode the public's trust in the department. A diminished standing in the community can lower the effectiveness of the department in some of its important duties, such as fire prevention education for schools and the public at large. This condition can also reduce the department's influence within local government.
5. MANAGEMENT POLICIES FOR DETECTION AND INTERVENTION

Many modern fire departments have some type of alcohol/drug policy and procedures. One of the biggest problems arises from a lack of training. Some supervisors do not recognize chemical dependency as a causative factor in operational problems. Often fire department management, although cognizant of the problem, is reluctant to fully pursue the confrontation, intervention, and treatment approach.

The evidence indicates that early detection and treatment of drug abuse can lead to a high rate of recovery and restoration of employees at full capability to the work force. Many supervisors feel that they do not have the necessary training to identify the drug user. However, the supervisor does not have to be an expert in order to take useful and responsible action. The best basis for detection and action is the performance of the individual employee. The employee who has deteriorating performance has a problem, whether drug related or not. Established policies and rules will help the supervisor deal with such an employee. Also, expert advice either inside or outside the department should be available to determine the exact nature of the problem and recommend the proper course of action.

A fire department's concern for the individual employee must be balanced with the need of the department to conduct its primary functions. The department's overriding concern must remain for successful response to emergencies, the protection of lives of the public, and the avoidance of unnecessary risks to the fire department personnel. Being under the influence of illegal drugs on the job calls for disciplinary action. The sale or possession of such substances is a criminal act (or violation), and the department must take whatever action is necessary to eliminate this activity. (31)
In many cases, treatment has proved to be a useful alternative to disciplinary actions. Following the initial detection of drug abuse, treatment can often restore the employee to active duty with the least damage to the department, the individual, the employee's family, and the community at large.

A recent national forum sponsored by the National Institute on Drug Abuse (32) developed a general statement of policy as follows:

"The goal of an employer's policy should be to maintain a work force free from impairment by drug effects detrimental to productivity, safety, and health, and at the same time to offer any employee who does not meet those conditions an opportunity, consistent with other employer policies, to be restored to an optimal level of performance."

This policy does not mean that the department should endure an indefinite period of loss of the employee from work status or accept repeated instances of drug abuse. Disciplinary action using established department procedures could and should be used against those who do not cease the use of drugs and improve their performance to acceptable levels within a reasonable period of time.

The department will also have an important role to play on return of the employee to work after treatment. It is not uncommon for the returning employee to be treated within the department with attitudes ranging from indifference to overprotection. While the achievement and maintenance of recovery is the responsibility of the individual, the department's policy and related educational activities should be aimed at providing a supportive environment including:
A drug-free workplace
Equal treatment by supervisors
Acceptance within the group
Continued supportive counseling as required

As part of their policy and procedures, many fire departments have adopted urine testing as an added means of detecting drug abuse. Testing has its place in such a program but should be tailored to the needs of the individual department, the rights of employees, and the regulatory and legislative requirements affecting the local jurisdiction. The next part of this manual covers the legal, managerial, and technical issues surrounding urine testing for drugs of abuse.
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PART II: DRUG TESTING METHODS AND ISSUES
PART II: DRUG TESTING METHODS AND ISSUES

1. TESTING FOR DRUG ABUSE (BACKGROUND)

In the past five years, a growing concern over drug abuse in the workplace has led to an increased use of urinalysis as a way to detect and deter drug use. Drug testing by urinalysis has been used for prospective and current employees in industry; for personnel of the armed forces; for parolees and bail seekers in civilian court systems; and for individuals who serve as role models, such as nationally known athletes. Two factors have led to the widespread use of urinalysis for drugs: technical developments in testing methods and the growing demand for drug testing. Society is becoming increasingly aware of the impact of drug use on public safety and the financial impact on industry of lost time and productivity.

A number of different approaches to testing have been adopted by public and private organizations. Types of testing include:

- Pre-employment
- Post-incident
- Probable cause or reasonable suspicion
- Scheduled
- Random
- Monitoring during rehabilitation

Pre-employment testing includes testing of applicants for employment and is usually performed during the pre-employment physical examination. Such testing is performed with the knowledge and consent of the applicant.
Post-incident testing would include testing following an incident of a type that has been previously defined by organizational policy. The incident might be an accident, a fight, or bizarre behavior. Under this approach, testing should be performed on all employees involved in the incident.

Probable cause or reasonable suspicion testing refers to conditions where the supervisor has "probable cause" or "reasonable suspicion" to suspect that an employee is using illicit drugs, is intoxicated, or is under the influence of illicit drugs. With this approach, testing does not have to be triggered by an incident specified by policy but is discretionary. Probable cause is the stronger term and implies that evidence of illegal drug use is sufficiently strong to be accepted in a legal proceeding. Reasonable suspicion is a less stringent standard than probable cause. This type gives the supervisor considerable freedom in requiring tests, but some limits must be observed. Testing must be based on specific objective experience with an individual rather than a general suspicion of one or more employees.

Scheduled testing refers to tests that are administered according to a preestablished schedule during the year or as part of the annual physical. Also, scheduled testing may be administered during an employee's probationary period.

Random testing, or mass testing, refers to periodic, unannounced, or random tests of large numbers of employees. This type has been used where it is judged essential to public safety and security that the individual be free of any and all effects of illicit drugs at all times. (1) Such testing must employ neutral criteria that ensure that everyone in the group is equally likely to be tested.

Rehabilitation testing refers to testing to monitor the drug-free status of employees who have used illicit drugs in the
past and are currently involved in rehabilitation or counseling programs under an agreement with the organization.

Many government agencies and private employers have initiated drug testing programs. The vast majority of these programs have started since 1981. (2) The following paragraphs suggest the scope and variety of current testing programs:

- Military services: By far the most extensive programs of drug testing are conducted by the U.S. military services. Millions of samples are processed each year. From the early '80s, decreases in positive drug tests of about 90% were observed in the Army and Navy testing programs. (2,3) These decreases were attributed largely to random testing and related disciplinary action policies. Rehabilitation testing and other forms of testing are also used as required. (2)

- Federal Government employees: The Federal Government is currently developing a program for a broad spectrum of testing, including random testing of all Federal employees in critical positions. Covered employees are those concerned with safety of operations (such as aircraft mechanics) and employees having sensitive positions involving national security. (4,5,6)

- Transportation industry: The Federal Railroad Administration (FRA) has established regulations for drug testing for those engaged in railroad operations. The regulations require pre-employment drug testing, post-incident testing
following accidents, and testing with probable cause. (2,7)

Also, recent Federal legislative action (8) suggests that random testing of many transportation workers will soon be required. Random tests could eventually cover 300,000 aviation and railroad employees and 3 million commercial truck and bus drivers.

Several railroads had strict drug testing programs prior to the effective date of the FRA regulations. One company, Southern Pacific, indicated that human-factor accidents had gone down steadily since implementing the program. Reductions have been at a rate of 37% to 69% each year over the period 1983 through the first six months of 1986. (2)

- Large industrial companies: A survey taken toward the end of 1984 indicates that nearly 30% of the Fortune 500 companies were conducting pre-employment drug testing. A typical program would also include testing for probable cause or reasonable suspicion. A few companies have instituted random drug tests similar to those used in the military services. (2)

- Public utilities - electric and gas: Many power companies and gas companies have implemented drug testing programs. These usually involve pre-employment testing and testing for probable cause. (2) Random testing of employees performing high-risk jobs is also part of some company programs.

- Local government agencies: More and more local government agencies, including fire departments,
are instituting drug testing programs. A typical program includes pre-employment, scheduled, post-incident, and probable cause testing.

Fire departments and other public safety organizations are gradually moving towards acceptance of testing programs. The fire department of Prince Georges County, Maryland, has a well-developed drug abuse control program that includes testing. The program includes pre-employment testing and scheduled testing of full-time and volunteer fire fighters as part of regular physicals. Random testing is required for all fire fighters undergoing drug abuse treatment. (9) The Chicago and Los Angeles fire departments also make use of pre-employment testing and testing of employees on the basis of reasonable suspicion. (10,11) The Chicago fire department also requires a drug test prior to promotion. (10) Anne Arundel County, Maryland, has instituted a county-wide testing program. (12) Under this program, public safety employees will be tested on the basis of reasonable suspicion. All other employees will be tested on the more stringent basis of probable cause.
2. HOW TESTING IS PERFORMED (TEST METHODS AND PROTOCOLS)

A number of laboratory tests exist for identifying drugs of abuse. They include analysis of urine, blood, saliva, and hair. By far the most common are based on the urine tests. Urinalysis methods vary substantially in cost, accuracy, the number of drugs detected, and the expertise required to perform the tests. Understanding the characteristics of these tests is useful for the department or local jurisdiction in deciding what types of tests make sense for the organization and who should perform them.

It is generally agreed that a two-stage process is desirable in establishing the presence of drugs of abuse in the individual employee. A screening test that is convenient and inexpensive is the first step, and it can be applied widely to the staff. For a test sample giving a positive indication of drugs of abuse, a second test on the sample should be performed by a different and more accurate method to avoid "false positive" results (a sample not containing illicit drugs that gives a positive result). (12) The confirmation step is essential to ensure the protection of the innocent employee's job and to provide the organization with supporting evidence in the event of legal actions.

The most commonly used screening methods are called thin layer chromatography (TLC) and immunoassay techniques. A summary of some of the important characteristics is given here. (2) A more complete description is given in the references to this handbook.

- The TLC method involves separating drug compounds from a drop of urine that has been placed on a specially prepared plate. The drop is initially held in a spot by a thin layer of inert material that is fixed to the plate.
Separation is accomplished by allowing a small amount of solvent to move through the fixed layer to move soluble compounds in the urine spot. The solvent is chosen to separate known drug-related compounds from other chemicals in the urine. After application of a dye to the plate, the separated compounds can be identified by the distance moved during a specified period of time as compared with standards for a known drug. The quantity of the drug in the urine is measured by comparing the color intensity of the separated compounds with concentration standards.

This procedure requires a considerable amount of expertise and judgment on the part of the laboratory technician. The test is less expensive than other test methods. However, it is less accurate and will not detect as small amounts of drugs. Also, the dye can fade quickly, so that a photograph must be taken to provide a permanent record.

- The immunoassay method—either radioimmunoassay (RIA) or enzyme immunoassay (EIA)—is a newer and more sensitive technique than the TLC method. The method uses chemical reactions of the drug being tested for (called an antigen) with an added chemical (an antibody) to form an antigen-antibody compound. Each antibody is selective and usually reacts with a specific drug. False positives may occur when one or more acceptable chemicals in the urine react with the antibody during the test.

In the RIA method a known amount of a radioactive drug of the type being tested for (the labeled drug) is added to the sample
solution containing a known amount of urine and the antibody. The labeled drug and any of the same type of drug originally in the urine "compete" to combine with the antibody. As a result, the amount of radioactivity detected in the antigen-antibody component when it is separated from the solution provides an accurate measure of the amount of the drug originally in the urine. This estimate is made by comparing the test results with calibration standards. The RIA method is extremely sensitive and can detect very minute amounts of a drug in the urine.

The EIA method is analogous to the RIA method, except that an enzyme (protein) rather than a radioactive isotope is used to measure the amounts of a drug originally in the urine sample. In this method, a chemical reaction causes a color change that can be measured by an instrument (a spectrophotometer). The EIA can be used either in the laboratory or in the workplace, while the RIA is restricted to the laboratory. However, the EIA method is generally less sensitive than the RIA.

The screening methods can detect small amounts of drugs with a fairly high degree of accuracy if properly conducted by the laboratory. A confirmation test is, however, necessary because the screening tests occasionally produce false readings for various reasons. Human error occasionally occurs. Such errors are reduced to very low levels by laboratories that provide experienced laboratory personnel and good quality control. (2) Cross-reactivity can also occur, which is a condition where the test misreads the presence of an acceptable compound in the sample as a drug of abuse. For example, some nonprescription cold and diet medications may produce a positive amphetamine test
result. Test manufacturers supply brochures that detail the extent to which other compounds cross-react with their tests. (12)

While one screening test can be used to confirm another, the best and most acceptable from a legal standpoint is to use a more sophisticated method, such as:

- **Gas chromatography** (GC) or gas/liquid chromatography uses an inert gas (such as nitrogen) to transport a vaporized urine sample through a column (tube) packed with coated solid particles. Individual compounds in the sample move through this column at different speeds depending on how soluble they are in the particle coating. The coating is chosen to separate known drug-related compounds from other chemicals in the urine sample. One or more detectors at the end of the column determine the amount of each compound as it exits the tube. Identification of each compound is determined by measuring the time taken for the compound to go through the tube and comparing this time with known standards.

  False positives with the GC method can result from some acceptable drug compound in the urine that takes the same time to pass through the tube as an illicit drug compound.

- **The gas chromatography mass spectrograph (GC-MS)** method decreases the number of false positives found with the GC by using a special detector at the end of the GC column. The MS detector breaks each molecule into parts or fragments and measures the amount of each type of fragment. The identification of each compound in the urine...
is thereby confirmed both by its detection time and by the comparison of the amounts of each type of fragment with a calibration standard.

The actual measured concentration of a drug is expressed as a certain amount per volume of urine. Depending on the drug being analyzed, urine concentrations may be expressed either as nanograms per milliliter (ng/ml) or as micrograms per milliliter (µg/ml). These are very small units of measure: there are 28 million micrograms in an ounce, and a thousand nanograms in a microgram.

There are inherent limits in the concentration of drugs below which any drug test becomes unreliable. These are called the "sensitivity" or "detection" limits of the test. The term more commonly used is the "cutoff" point, which is an administrative breakpoint used in labeling a sample result as positive or negative. Manufacturers set their cutoff points well above the sensitivity limits of the test to minimize the likelihood of a "false positive." (2)

Cutoff values for screening and confirmatory tests in use in the Federal Government are given in Table 2. (14) Cutoff values vary among laboratories serving the public, depending on their technical capabilities and methods used.

The validity of test results will also depend on careful handling and accurate documentation of the samples from the time of collection through the laboratory analysis and recording of results. Such a secure chain of custody is essential for reliable results and for admissibility of the results in legal proceedings.

In the collection process the possibility of intentional adulteration of the samples must be prevented. Direct witnessing of the specimen collection by a reliable individual is the most
### TABLE 2
CUTOFF LEVELS FOR DRUG TESTING

<table>
<thead>
<tr>
<th>Drug Type</th>
<th>Cutoff Levels (ng/ml)</th>
<th>Screen*</th>
<th>Confirmatory**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marijuana</td>
<td>100</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Cocaine</td>
<td>300</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Opiates</td>
<td>300</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td>Phencyclidine</td>
<td>25</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Amphetamines</td>
<td>1000</td>
<td>300</td>
<td></td>
</tr>
</tbody>
</table>

* Immunoassay method
** GC/MS method

effective means of avoiding adulteration. However, this method may not always be acceptable. In public and private sector test programs, privacy of the individual may often take precedence over sample security. Where individual privacy is the prime consideration, other protocols are available to limit the chances of adulteration (see Appendix B).

Security of the samples after collection is also important. Post-collection security includes positive control of the sample by the collection group, provision of locked storage, and provision of complete documentation. Documentation includes a specimen label, affixed to the urine container, that records all the relevant data for identification and an invoice to the laboratory identifying all samples in the package (a complete listing of information required is given in Appendix B). The package must be securely sealed to prevent tampering and must be transported by secure means. A transmittal invoice must accompany the samples, which will allow the laboratory to confirm that all samples were received. Samples may be delivered to the laboratory by a bonded courier. If a staff member delivers the samples, a receipt must be issued by the laboratory. (2)
3. DRUG TESTING ISSUES

The whole question of drug testing is a very sensitive issue in many organizations, including fire departments. Testing programs are currently undergoing discussion among many management and employee groups, and other programs are currently being reviewed in the courts. Eventually there will emerge a consensus view that balances the needs for safety and efficiency in the workplace with individual rights. At the present time, knowledge of the issues should help a fire department achieve a balance of these factors in its own program.

There have been a number of issues raised by concerned groups. One widespread concern is that inaccurate testing could unfairly stigmatize a nonuser or not detect an actual drug abuser. Many also believe that drug testing invades the individual's right to privacy and abridges the individual's constitutional rights. Another criticism is that urine tests cannot show impairment on the job. Since drug compounds may be in the urine for hours to days after ingestion, there is no way to determine from a positive urine sample whether the drug actually affected job performance. Concern has also been expressed that drug testing might be used by management as another means of harassing or disciplining employees rather than as a means of improving efficiency and safety.

The view of most experts on test accuracy is that with well-trained staff and acceptable procedures, a laboratory should have a very high accuracy rate. Test manufacturers claim accuracies as high as 99%; however, much depends on the specific laboratory. To achieve high accuracy levels, laboratories must maintain good quality control procedures, follow manufacturers' protocols, and perform a confirmation test on all positives.
Quality assurance checks of laboratories are regularly made by government health organizations (for example, county health departments), and these organizations are available to assist fire departments or local jurisdictions in the selection of a laboratory for individual testing programs. Quality assurance procedures are documented programs that the laboratory follows to ensure that samples are properly handled, so that instruments and human errors are minimized. Quality assurance checks involve the submission for analysis of standard samples and blank samples along with the samples taken from individuals to ensure that the total laboratory system is producing results of the highest possible reliability. (13) The Department of Health and Human Services has recently published in the Federal Register standards for certification of drug testing laboratories used by Federal agencies. (14)

Although urine screening technology is extremely effective in determining drug use, the positive results of a urine screen cannot be used to prove impaired on-the-job performance. A positive result from a test does not tell anything about how recently a drug was used, how the drug was ingested, or how the drug affected work performance. Since drug compounds appear in the urine hours to weeks after ingestion, the employee may have used the drug during off-duty hours and may not exhibit observable effects of the drug during his duty hours.

A positive result is, however, direct evidence of drug use in the recent past (within the time required for elimination of the drug from the body). Depending on the organizational policy, evidence of recent drug use may be sufficient reason to take action. It must be remembered that, depending on the type of drug and regularity of use, there can be lingering or recurring effects that are detrimental to work performance and can occur well after the drug-related compounds have disappeared from the urine.
Another concern is that passive inhalation of marijuana smoke could lead to a positive urine sample even if the person did not smoke a joint. Evidence indicates that passive inhalation of marijuana smoke does occur and can result in detectable levels of the drug in body fluids. Clinical studies have shown, however, that it is highly unlikely that a nonsmoking individual could inhale sufficient smoke by passive inhalation to produce drug concentrations in the urine sufficient for detection at the cutoff levels of currently used testing methods. (13)

The misuse of the drug testing option by a supervisor is a concern that can largely be eliminated by a carefully spelled out organizational policy. Testing needs to be part of a broader program that has ample protection for the individual employee and meets the legitimate concerns of the organization. Testing for reasonable suspicion is the approach that appears the most likely to be abused. Conditions or events that are an acceptable basis for invoking this form of test should therefore be carefully detailed in the organizational policy, and supervisors should be trained to implement the policy fairly. Some departments require that two supervisors agree that reasonable suspicion exists before testing can be required. It may also be appropriate to include the specifics in union contracts and other employment agreements and procedures.

How best to deal with the problems associated with employee drug use is a complex issue. Principles of public safety and efficient performance must be balanced against the individual's reasonable expectations of privacy and confidentiality. Job situations where there is a substantial risk to the public safety will surely justify greater permissible intrusions than would be acceptable where risks to the employee or community are perceived as minimal. On the one hand, an employer and an employee have the right to demand a drug-free workplace; on the other, an employee may have reasonable concerns as to privacy and confidentiality. Since substance abuse is a diagnosable and
treatable condition, policies and procedures should be written to ensure the confidentiality of employee medical records, as with any other medical or health-related condition. Urinalysis test results, which could be part of such a diagnosis, should be treated with the same confidentiality. (13)
4. LEGAL ISSUES SURROUNDING DRUG TESTING IN THE WORKPLACE

Legal challenges to urine testing have been largely based on five doctrines and legal areas: the right to privacy, unreasonable search and seizure, due process, negligence law, and contract law. Legal decisions have restricted some types of testing more than others. For instance they have restricted random drug testing more than such other types as pre-employment screening and testing for probable cause.

**Right to privacy** grows out of constitutional guarantees against intrusion into private affairs by government bodies (including Federal, state, and local governments). The courts have used this doctrine as a basis for individual decisions relating to the family and person. The Supreme Court has recognized the right of privacy, including that of a person's medical record. On the other hand the courts have specifically held that the constitutional right to privacy does not apply to the use or possession of illegal substances, even in one's own home. The growing body of case law clearly indicates that a properly designed drug testing program for a fire department would not violate the constitutional right to privacy. (15,16)

**Unreasonable search and seizure** by governmental bodies are prohibited by the Fourth Amendment to the Constitution. This amendment has been the principal basis of most lawsuits against urine testing by government agencies. Well-designed government programs have generally withstood court challenges alleging that such programs violate the Fourth Amendment. In particular, some forms of testing have been upheld where worker or public safety is an important consideration. In these instances, the courts acknowledge that testing is "search and seizure" but find that the testing is "reasonable" because of the overriding importance of safety. Recent developments in state and local statutes, however, may place added limits on drug testing programs in some
areas, even where safety is an important consideration. (15,16,17)

Due process is covered under the Fifth and Fourteenth Amendments to the Constitution. These amendments require that government not deprive a person of "life, liberty, or property without due process of law." Due process arguments against government urine-testing programs generally challenge the accuracy of the tests, the relevance of the results to work performance, or the fairness of the disciplinary procedures used following a positive test.

Courts have consistently upheld the accuracy and reliability of urine tests when such tests were conducted in a responsible manner by qualified people. Some other forms of tests, notably with lie detectors, have been held to be unconstitutional because of their inaccuracy. Also, a single positive result on a screening test should not be considered conclusive without a confirming test by an alternative method. (17) However, protocols and methods of urine drug tests have been considered sufficiently accurate by the courts that no challenge to their constitutionality has been upheld.

Some challenges have been based on the proposition that there is no certain relationship between a positive test result and job performance. In spite of the technical problem associated with proving impaired job performance, courts continue to uphold drug testing on the basis that such testing is the best available current method of detecting potentially serious job impairment. (15)

The opportunity to contest the test results is a basic requirement under due process amendments. There have been a number of cases where the employee prevailed against the government employer because the administrative actions taken following a positive drug test have not sufficiently considered
the employee's rights. As is the case with other disciplinary problems, the employee has the right to procedural due process (notification, hearings, etc.). Administrative actions based on drug testing pose some additional requirements for careful procedures and record keeping. In one case involving the Federal Aviation Administration, the courts ruled that the agency violated workers' due process rights because the agency did not preserve the test samples so that employees could have an independent analysis made by a second laboratory. On the other hand, courts have upheld employer rights to temporarily remove an employee from a job involving risk, prior to a hearing. (15,18)

Negligence law provides an opportunity for legal challenges of testing. An employer may be liable for negligence if he or his contractor fails to conduct drug screen procedures with due care. In addition, an employer can be held liable if the confidentiality of test records is not adequately protected. (19)

To avoid charges of negligent testing, employers must use reasonable care in selecting laboratories that have adequate procedures and protocols. An organization must also ensure that any of its own employees involved in handling or testing do so according to accepted protocols and that these employees are properly trained.

Contract law can be the basis for legal challenges to testing where labor contracts exist. Various case precedents indicate that unilateral imposition of a testing program could violate the labor contract because it was not the result of collective bargaining between labor and management. Such a practice may also be considered an unfair labor practice under Federal and state statutes. Clearly in this situation any proposed drug program should be checked first to ensure that it complies with employment or union contracts, and the organization should renegotiate those contracts if necessary before instituting a testing program. (16)
The legal status of a testing program will also depend on the types of tests that are employed.

Pre-employment screens do not violate any existing state or Federal statutes or any common law doctrine if performed reasonably. Under most circumstances, drug testing of applicants will be upheld in the courts. The employer, however, must administer the tests for job-related reasons and must administer them in a nondiscriminatory manner. The need for fire fighters to be free from drugs would probably be sufficient reason for pre-employment testing in fire departments to be considered valid. (16)

Probable cause or reasonable suspicion as a basis for testing is generally accepted by the courts. Federal district courts have recently reaffirmed the validity of testing police and fire fighters in cases with local jurisdictions where there is reasonable suspicion of drug use. Courts indicated that tests for such public safety employees do not violate the Fourth Amendment. Rules requiring drug testing of transit employees after they were involved in accidents have also been found to be permissible. Rules and evidence triggering this form of testing must be formulated in advance of application.

Scheduled testing of employees has found a degree of acceptance in the courts. Urine tests as a routine component of periodic physical examinations are considered permissible as long as the physical is related to the nature of the job. Tests that are administered only infrequently or not administered to all employees would be in danger of being invalidated. Urine tests for new or current employees moving into "sensitive" Federal Government positions have been upheld. In a recent Supreme Court decision, the U.S. Customs Service was allowed to resume testing of applicants for a job or for promotion to certain "key" drug-enforcement positions. (5)
Random testing is the most controversial form of testing and the extent to which it will be allowed remains to be determined in the courts. Random testing is well established in the U.S. military and has begun to be accepted for use in well-defined groups of civilian workers in the Federal Government. The random testing program of the Federal Government was widened to include civilians applying for or holding jobs classified as "sensitive." (4)

Random testing outside of the Federal Government has been less successful in standing up to court challenges. Lower courts tend to view random drug testing as unconstitutional, although many cases are now on appeal. In recent cases involving fire fighters and police in local jurisdictions, random drug testing was held to be unconstitutional, while testing for reasonable suspicion was upheld. (20)
5. OTHER RELATED LEGAL ISSUES

The application of negligence law extends beyond the issue of testing. The employer may be in danger of civil liability arising out of "negligent hiring" of an employee, failure to provide a safe workplace, or libel and slander of an employee.

Court decisions have held that employers have a duty to foresee the dangers presented by an impaired employee and that negligent employers can be held liable. Employers therefore have the obligation to screen prospective employees for substance abuse and observe and control the impaired employees on the job. Recent court decisions have also indicated that the employer is responsible for unacceptable behavior of an employee even immediately after leaving duty if such behavior resulted from impairment while on duty. (15,16)

Libel and slander can result from wrongful accusations of drug use. The uncontrolled release of information on a positive drug test that later proves to be untrue could under some circumstances be considered libel. While the employer has the qualified privilege to communicate test results to those in the company who need to know them, careless and malicious spreading of untrue reports would not be protected by the courts. (15,16)

Federal and some state handicap laws have also been used to protect the drug abusing employee. Some recent court decisions establish alcoholism and drug addiction as conditions that may be treated as handicaps. For those covered by such laws (Rehabilitation Act of 1973, and state laws) the employer must make reasonable accommodation to the employee's condition and allow him an opportunity to perform his job. One of the standards for "reasonable accommodation" is the type of support the employer customarily provides (sick leave, health benefits, etc.). (16,20)
REFERENCES FOR PART II


   o Banks v. F.A.A., 687 F. 2nd 92 (5th Cir. 1982).


PART III: STARTING OR IMPROVING A PROGRAM
PART III: STARTING OR IMPROVING A SUPPORT PROGRAM

1. DETERMINING THE NEED FOR A PROGRAM

Fire departments generally provide a range of benefits to full-time employees, including health and disability insurance, among others. Volunteer fire departments generally provide fewer benefits but often assist their members in cases of need. Many departments or associated labor unions also have comprehensive programs (employee assistance programs) that provide a range of services to the employee and his family. In some cases, however, management has given little attention to the potential drug abuse problem. Management may believe that no problem exists within the department. Even if one or two cases are possible, supervisors may be reluctant to take action, through lack of knowledge about the problem and its consequences.

Experience suggests that such a hands-off attitude could lead to serious problems for the fire department in the future. Management would therefore be well advised to review and assess department vulnerability to drug abuse by employees. There are a number of objective indicators of performance that can alert management to the existence of a problem, including:

- Increasing absenteeism
- Increasing accidents
- Increasing claims for health benefits
- Decreasing job performance
- Increasing interpersonal strife
- Increasing numbers of disciplinary actions and arbitrations
- Employee complaints about drug or alcohol abuse on the job
- Reports from outside the department (complaints, arrests, etc.)
- Increasing incidence of reported drug use among job applicants

Many of these indicators are already followed by department administrators. Poor results may be caused by several socio-cultural factors, but the possible contribution of drug abuse should not be ignored.
2. **PRINCIPAL CONSIDERATIONS IN THE DESIGN OF A DRUG ABUSE PROGRAM**

The response of fire departments to the drug abuse problem is still evolving. Some departments are treating the problem on a case-by-case basis. This approach can increase the reluctance of supervisors to become involved and generally increases the concern of employees. There are several steps that can be taken by any department that will do much to reduce the problem.

- **Education of management and employees:** As a first step, fire department administrators need to educate themselves sufficiently to pick policies and procedures that could be supported in their own organizations. Subsequently, supervisors and employees should receive orientation so that they can understand drug abuse effects, the policies and procedures that will be followed by the department on evidence of drug abuse, and the supervisor's and employee's options in addressing the problem.

- **The department policy with regard to drug abuse:** A clear written statement of the department's position with regard to drug abuse sets the standards for employee behavior and management action. Employees should understand that the use of illegal drugs cannot be excused by the department whether such use occurs on or off the job. While it would not be appropriate for the department to actively intrude on the employee's off-duty private activities, policies need to be established for the department's response to any evidence of drug abuse.

- **Active support of the program by the employees:** The cause of drug abuse control can be greatly
advanced by the cooperation of the employees. Any program will receive a higher degree of compliance if it is perceived to be a supportive rather than a punitive program. Voluntary use (self-referral) of the program by an employee can also be an important first step in the treatment of substance abuse. Employees need to be convinced of the health and safety benefits of working in a drug-free environment.

- **Methods of obtaining evidence of illegal drug use:** Management needs to determine the acceptability and need for testing for drugs. If drug testing is to be part of the program, the types of testing, the conditions for application, and the coverage of employees need to be clearly understood by everyone in the department.

- **Administrative procedures to be followed on evidence of drug abuse:** Procedures to be followed on evidence of drug abuse should be spelled out so that supervisors can take action in a consistent and fair manner. The department should establish the procedures and the resources needed to process each case, including the mechanisms for disciplinary action and other appropriate options, such as treatment and rehabilitation. Protection of employee rights, including confidentiality of information, should be ensured by the procedures adopted.

- **Cost coverage of programs:** Coverage of program costs needs to be established. Administrative and training would generally be part of a department's budget. Supervisors and employees
need to be aware of what treatment costs are covered by the department and what costs would be borne by the employee.
3. THE EMPLOYEE ASSISTANCE PROGRAM (EAP) MODEL

Efforts made by fire departments vary in size and scope depending on the department's philosophy, perceived need, and available resources. All fire departments have some form of supportive benefits for employees, which may or may not currently include services or procedures for handling drug abuse. Many departments now have some form of organized activity that deals with alcoholism or mental health problems. Such activity is the logical starting point for building an employee assistance program (EAP).

Employee Assistance Programs have been active in private industry since the 1940s. A general model based on existing programs has proved to be useful for some local government agencies. This section presents a general model for an EAP, which can be adapted to the particular needs of an individual fire department or local jurisdiction.

The most successful approach has been the EAP that pulls together a wide variety of employee benefits and services under a single management structure. EAPs can take various forms, depending on such factors as: (1) ownership and management of the program, (2) means of referral of employees to the program, (3) services offered, and (4) sources of payment for services.

A key point in the establishment of an EAP is the focus on prevention. Although difficult to quantify and/or evaluate, prevention efforts are one way to keep substance abuse problems from becoming disruptive for the work force. Prevention efforts include clear policy statements and measures and drug testing as deterrence techniques. Informative education on the procedures of the EAP for supervisors and employees as well as on the signs of substance abuse for supervisors is also a strong prevention technique.
Programs can be classified as in-house programs or contractor-run programs. In larger organizations, EAPs are often staffed by specialists employed by the sponsoring organization (e.g., employer, union). The specialists assess employee needs and either provide counseling directly or refer the individual to outside services. Contractor-run EAPs are administered by large specialized health service providers (such as a local hospital or a large health service corporation) who provide the initial entry point into the mental health service system. They generally take the responsibility for counseling and referral of the employee. Coordinators within the employer's organization provide a link between the EAP and the employer and engage in other important activities, such as educating and training department staff and helping employees and supervisors to use EAP resources.

Whether the department sets up its own EAP or obtains the services from outside, program elements should include:

- Written policy and procedures
- Labor-management coordination
- Supervisory training
- Employee education
- Professional staff services
- Record keeping
- Ongoing evaluation (1, 2)

A written policy statement should be developed that clearly states the intent and benefits of the program. Topics to be covered include:

- Department philosophy on drug abuse
- Statement of the supportive function of the EAP (and labor cooperation, if possible)
- Statement of the responsibility of the individual for remaining drug free
o Means of referral (voluntary self-referral, referral by supervisors or union representatives, referral by co-workers, etc.)

o Services offered

o Protections for employees using the EAP (confidentiality, job security)

o Applicability of employee benefits (sick leave, disability leave, health insurance, etc.)

o Administrative actions to be taken if an employee's job performance problems are uncorrected

o Testing policy

o Coordination of the drug abuse policy with existing administrative policies, contracts, and applicable laws and regulations

This written policy statement should be a public document. It should be given to all employees and families or be posted on the department bulletin boards. All supervisors should be familiar with the policy statement. (2)

There are many private consultants and organizations that can provide help to the department or the local government jurisdiction. Most of these groups have already developed policy statements, so it is a matter of adapting these statements to meet individual needs (see Appendix C for a detailed policy and procedures statement).

In any case, it is a good idea to set up a policy and procedures committee composed of such people as the personnel director, union representatives, department heads, and employee representatives to discuss and design a policy and procedures statement. At the start, this group should be given sufficient education on the drug abuse program to be convinced of the value of an EAP.
Written procedures can be part of the policy statement or can be a separate document. Employees need to know how to use the EAP in order to refer themselves or co-workers. Also, supervisors should know the procedures to use in discussing possible drug-related problems with an employee and in referring the employee to the EAP. Procedures for initiating a drug test need to be spelled out, including the responsibilities of the employee and the supervisor.

Labor-management coordination: The EAP model includes formal activities to enhance labor-management cooperation. While the union may adopt an adversarial position on specific cases, labor-management cooperation may still be possible in the design and management of the EAP. Cooperative efforts might include labor participation on the policy and procedures committee and in the referral of drug abusers, shared training experiences for supervisors and union representatives, and united labor-management endorsement of the program. Visible support from the union can cause employees to be more willing to voluntarily use EAP services than if the program is put forward by management alone. Another important step in gaining trust and support is to keep the EAP separate from any disciplinary procedures (see Part IV).

Supervisory training should be provided so that supervisors can more readily identify the warning signs of declining job performance and will know how to intervene constructively with the employee. While the supervisor is not expected to be an expert in substance abuse, it would be advantageous for the supervisor to be familiar with the information in this manual. Specific guidance on detecting, intervening, and confronting the employee is presented in the next section (Part IV).

Employee education has two purposes: to educate employees and their families about the existence of the EAP and how to use it, and to educate the employees and their families about the
ways in which substance abuse can affect job performance and undermine family life. Efforts toward this second objective can do much to encourage people to seek help on their own before the problem seriously affects their health and job performance. (2) For employee education, selected information from Parts I, II, and III of this manual can be used together with examples from local experience, recent news releases, and discussions by local experts. Educational brochures mailed to homes are generally useful in ensuring contact of family members.

Professional staff services offered by the EAP may include counseling and referral services for employees. Counseling and referral to specific types of treatment require the services of thoroughly trained mental health professionals. Some large organizations provide these services, using in-house staff. Other organizations arrange for services to be provided by outside contractors. In the latter case, the internal staff should include an EAP coordinator to provide a link with the contractor and to assist in training employees and supervisors. Types of counseling and treatment for drug abuse are also discussed in Part IV of this manual.

The EAP may offer other services in addition to the substance abuse problem area, including family counseling and counseling for financial and legal problems. The greater the range of services that the EAP can deliver, the greater the likelihood of acceptance and use of the program by employees.

Record keeping is an important part of the program. Records must be kept by the EAP on all employees using the EAP services. These records are treated as confidential. Written rules should specify how records will be maintained. Records of the EAP are kept separate from the employee's official department personnel file, and information from the records is generally not released to management unless written consent is given by the employee. (3) Federal, state, and local regulations are often applicable.
The legal counsel of the local jurisdiction will generally have access to any pertinent regulations.

Supervisors making a referral to an EAP also need to keep their own records. These records should provide documentation of poor work performance, steps taken to talk with the employee, whether the employee accepted referral, and whether job performance improved. (2) The recommended approach is to keep these records separate from the normal employee personnel file; however, the information can be used if formal disciplinary procedures are undertaken. In the latter event, the supervisor's records become part of the formal record and can be used in the event that legal or grievance actions are undertaken by the employee.

Evaluation of the performance of the EAP on an ongoing basis is important to ensure that the EAP is meeting its objectives. Since the focus of the EAP is on helping employees improve work performance, the employer has to know whether the employees using the services are actually being helped. The types of data from the EAP that the employer should obtain include:

- Access to and utilization of the program (including outreach training activities)
- Assessment and referral resource effectiveness
- Treatment results (e.g., number of treatment completions and dropouts, current census)

Very often the EAP will provide these data on a regular basis in an aggregate form. Names of specific individuals are not generally included in such listings to preserve confidentiality. Peer reviews of the quality and efficiency of contractor-run EAPs should be performed at reasonable intervals by the appropriate local, county, or state mental health and audit agencies.
The department should also conduct internal evaluations of the outcomes of EAP support services, independent of the data supplied directly by the EAP. Management may do this by checking its own records for reduced absenteeism and sick leave, reduced on-the-job accidents, lower insurance payments, and reductions in disciplinary actions. The department administrator may also want to compare results with other local agencies using the same services.

Other administrative functions: Facilities for counseling and other treatment should be separate from department facilities to preserve the confidentiality of employee visits.

The department or local jurisdiction should conduct a legal review of all aspects of the program. Such a review may be needed to ensure that there is adequate malpractice/liability protection of department staff associated with the EAP.

The EAP (if in-house) or the EAP coordinator should be positioned at a high enough level within the department organization to ensure involvement of senior management and union representatives in sustaining the program. (1)
4. FIRE DEPARTMENT EMPLOYEE ASSISTANCE PROGRAMS

The origin and management of EAPs vary considerably in fire departments throughout the United States. In some instances, fire departments and local government jurisdictions have been the prime movers in forming department EAP organizations. (4,5,6) Some EAPs have been established by fire departments in cooperation with the local unions. (7) Other EAPs have been formed by labor unions under contractual arrangements with fire departments and the local jurisdictions. (8,9) The department and/or union role generally includes coordination, education, and information activities, and in some cases, initial referral of employees to contractor-provided facilities. Most often, outside contractors provide mental health counseling, identification of specific treatment regimens, and other forms of treatment.

Department Philosophy and Policy

In view of the evolutionary nature of philosophy and policy among fire departments, it would be inappropriate to attempt to characterize the philosophy and policy of individual fire departments at one point in time. Therefore, this and succeeding paragraphs will give a general appraisal of positions taken by departments for which information was available. (4-13)

Generally departments have taken the position that the use of illegal drugs on or off the job is not excused. Evidence of drug abuse is often viewed as a basis for disciplinary action, particularly if evidence of drug abuse or impairment occurs on the job. While drug abuse is generally recognized as a treatable condition, the degree to which the treatment option is used varies from department to department. In some departments, evidence of drug abuse would result in the initiation of disciplinary proceedings. In these instances, the treatment alternative would be considered on a case-by-case basis. In
other departments the treatment alternative for first offenders is part of the EAP policy statements.

Employees accepting supervisor referral or referring themselves are generally not subject to disciplinary action unless there is subsequent evidence of drug abuse, failure to carry out a treatment regimen, or poor work performance.

Services Provided

Most departments use outside contractors for substance abuse treatment services. Education and prevention activities are generally provided by the EAP staff or the department or union EAP coordinator. Other services provided by fire department EAPs include stress management and physical fitness programs. Some EAPs also provide services for family and marriage counseling, and legal and financial counseling.

Costs of EAP Program and Drug Abuse Treatment

Costs of the EAP management are generally borne by the fire department either directly through use of department personnel and services or indirectly by a subsidy to a labor union or by contract with an outside source. Payment for employee salaries during treatment for drug abuse varies with departments. Departments generally allow the use of sick leave where required by an authorized course of treatment. In most instances, treatment is on an outpatient basis, so that the impact on sick leave is minimized. When in-patient treatment is indicated, extended leave with or without benefits has been allowed by some departments on a case-by-case basis.

Costs of treatment for full-time employees are often covered by department or union health insurance programs. Limits are generally set on the number of visits or total expenditures covered by insurance or other programs. The employee may
therefore have to cover part of the costs of extended treatment or other treatment not covered by department or union benefits.

The services for part-time or volunteer firemen can be considerably less complete. In some instances, part-time employees have other jobs that provide some health insurance or other benefits. Fire departments, including volunteer organizations, often provide guidance and support to part-time employees on a case-by-case basis.

Drug Testing

The use of drug testing is increasing in departments throughout the United States. In particular, pre-employment drug tests for full-time and volunteer positions are now widespread. More departments are also using drug tests as part of regular physical examinations, promotion qualification, investigations of on-the-job accidents and incidents, and during and after rehabilitation from drug abuse. The policies and procedures of some departments provide for testing employees on reasonable suspicion of being under the influence of alcohol or drugs on the job.

Education and Training

EAP coordinators have been active in providing orientations to supervisors and employees. EAP coordinators may also make frequent visits to various fire units for meetings on stress management, substance abuse, and other specific problems surfacing during day-to-day operations.

Evaluation of Outcomes

There is little evidence of formal evaluation of EAPs, but some departments report informal efforts to observe the performance of fire fighters returning from treatment.
5. DESCRIPTION OF DRUG ABUSE TREATMENT

A large number of terms are currently used to describe the various approaches to drug abuse treatment. Not all of these terms have a precise or generally agreed-upon meaning. Nonetheless, a general understanding of this terminology is helpful. (14,15) Some of the more common terms are given below:

- **Encounter**: any meeting between a client and a provider for purposes of treatment.

- **Ambulatory or outpatient approach**: refers to a client relationship in which the client visits the treatment center for scheduled or unscheduled encounters but lives outside the center. "Outpatient" usually refers to an encounter in a medical or hospital setting.

- **Residential or inpatient approach**: refers to the approach when the client remains in the treatment facility for long periods of time (usually weeks or months). "Inpatient" refers to a patient who is hospitalized.

- **Day care**: refers to a treatment approach in which clients reside outside the treatment center but have regularly supervised functions and responsibilities inside the center.

- **Chemotherapy**: in drug abuse treatment, refers to the use of chemical agents in the treatment or control of drug dependence.

- **Medical approach**: refers to a treatment approach that includes chemotherapy and/or psychiatric care.
- **Drug-free**: refers to maintaining a physical condition that is free of drugs of abuse.

- **Maintenance**: refers to an approach in which withdrawal from drugs of abuse occurs, if at all, only very gradually over an extended period of treatment.

Some of the specific forms of treatment are:

- **Individual counseling**: refers to individual counseling sessions that are directed toward a supportive result, such as motivating the client to undertake rehabilitation, increasing the client's self-awareness, or counseling the client with respect to problems on the job.

- **Psychotherapy**: refers to traditional techniques provided by a professional psychotherapist. The process is aimed primarily at identifying and correcting deep-seated mental or emotional disorders that may give rise to drug abuse and other unacceptable behavior.

- **Family therapy or counseling**: refers to any counseling or supportive activities involving the client and his family.

- **Encounter group therapy (light)**: refers to the use of the feelings and attitudes generated by a small group as nontargeting supportive therapy (group discussion of personal problems, analysis of the psychological significance of verbal exchanges between group members, and other techniques).
○ **Encounter group therapy** (heavy): refers to the use of group-generated feelings in an aggressive manner to explore and attack beliefs of group members, as a means of changing or reinforcing these beliefs.

○ **Detoxification**: refers to the treatment to eliminate drug dependence by withdrawal from drugs of abuse over a relatively short time (usually one to three weeks). Detoxification from addictive drugs should be conducted in a hospital setting. (14-16)

○ **Aftercare**: refers to continued support services provided after successful completion of a treatment regimen. These services are aimed at assisting the client to remain drug-free and to successfully adjust to his/her regular occupational and living environment.

The basic treatment approaches are used by centers and networks in a variety of ways, depending on the types of clients and financial support available. Many of the treatment groups serving public and private organizations have adapted their approaches to suit the needs of the working public and to accommodate the insurance or other coverage. Among the types of treatment centers are the following. (14-17)

○ The **outpatient or ambulatory drug-free modality** covers a wide variety of approaches to treatment. Programs vary widely, from the use of drop-in "rap" centers to highly structured programs, most of which provide counseling or psychotherapy as the core of the treatment.
approach. Group therapy is also practiced in some programs.

- **Therapeutic community (TC) (heavy):** Covers client-run residential programs featuring strict discipline and well-structured phases of treatment. Treatment techniques include individual and group meetings, including "heavy" encounter groups; strict work regimens; and control of outside contacts of the client. Treatment involves a stay in the community measured in months or, in some cases, years.

- **Residential (light) or therapeutic community (light):** Generally refers to a less disciplined, less structured residential program run by clients or non-client staff. Emphasis in treatment is generally on individual counseling and light encounter group therapy. More-aggressive techniques may be applied in some instances. Depending on the type of program, stay time may be from less than one to several months.

- **Methadone maintenance:** These programs provide the drug methadone to opiate abusers who have been unable to stop opiate abuse by other means. Since the drug is dispensed in individual doses on an outpatient basis, costs of treatment are greatly reduced over hospitalization or residential treatment and the client is able to function in the outside world. Most programs have the goal of helping clients achieve a drug-free state, but in practice this has been possible for only a minority of clients.
Hospitalization: This method consists of two and sometimes three stages directed toward withdrawal and convalescence from drug abuse. The first stage is detoxification of the patient from the drugs of abuse. After withdrawal is complete, the second stage of inpatient psychological care begins. This stage may include individual psychiatric counseling, psychotherapy, group therapy, and work therapy. A third stage, which may be included by some programs, is supervised outpatient care in the community where the client lives. The stay time in the hospital may be weeks to months.

Multimodality programs and networks: Multimodality programs are those combining two or more of the types of drug treatment previously described. These programs have the advantage of providing patients a variety of treatment methods at the start and also facilitating movement among treatment modalities as conditions indicate. "Networks" refers to arrangements between organizationally distinct treatment groups to provide different types of treatment on a referral basis.

Referral to a specific type of treatment or treatment center is generally the function of a qualified mental health professional. Several client characteristics can be considered in making this referral decision:

- Medical condition
- Intensity of substance abuse
- Employment environment
- Family relationships
- Legal status
For fire fighters, government workers, and most other working people, all modalities of treatment with the exception of therapeutic communities (heavy) and maintenance programs could be considered. The heavy TCs would generally be inappropriate either because of the long stay time required or possibly because of the extent of the restructuring of the individual's basic value systems; maintenance programs are inappropriate for government workers on both policy and efficiency grounds.

Drug abusers with relatively mild problems in terms of the various treatment factors (low-severity cases) can generally be treated successfully in an outpatient drug-free program. (17) This would include most experimental or occasional drug users without psychiatric problems or severe family or workplace problems.

People with heavier drug abuse problems (mid-severity cases) may require detoxification and evaluation prior to assignment to a longer-term treatment regimen. Some in this group could also be placed in an outpatient program, while those with severe drug abuse (compulsive) and/or other severe problems could be placed in hospitals or residential (light) programs. (17)

The drug usage statistics given in Part I suggest that most of the younger fire fighters with drug abuse problems would likely be in the low-severity classification, so that users in this group could be available for duty while receiving outpatient treatment. The longer the period during which the drug abuse problems are undetected or tolerated, the greater the chance that the employee will require residential treatment or hospitalization.

The cost of treatment varies with the provider, the treatment regimen, and the severity of the drug abuser's problem.
Costs can range from a few hundred dollars for a low-severity user attending counseling sessions at an outpatient clinic to ten thousand dollars or more for a high-severity user undergoing extended treatment in a residential or hospital setting. In most cases, the fire department would not be paying these costs on a fee-for-service basis, but the costs would be reflected in the capitation rates and the level of coverage provided by the health insurer or the contractor-run EAP. As a practical matter, the treatment given to an individual and the resulting cost of treatment may be partially determined by the limitations written into the health insurance policy or EAP coverage. These practical limitations on treatment suggest the need for continued observation of the returning fire fighter and aftercare. This continued concern can be important in assessing whether the treatment has been successful and in identifying any early indications of relapse.

The probability of successful treatment of a drug abuser will depend on many factors, including all the factors discussed for referral (intensity of the problem, living environment, etc.). Also, there have been different meanings assigned to the term "success." For fire departments and other government agencies it would appear that success can only mean the ability of a returning person to successfully take up his duties and remain drug-free for an indefinite period.

The probability of success can also depend on how well "matched" the abuser is to the treatment type and treatment center. Low-severity users appear to do well in almost any modality of treatment. For this group, success rates of 60% to 80% might be anticipated. The mid-severity and high-severity cases must be much more carefully evaluated prior to being referred to a treatment modality. The probability of success for these groups (in terms suitable for fire departments) is much lower than for the low-intensity group. (17,18,20)
From a practical point of view, much more can be learned by examination of the specific provider of services than from national statistics. Even for a given type of treatment group (outpatient counseling, light residential, etc.) there can be considerable variation in success rates. Much will depend on the quality of services delivered and the qualifications of the staff. Anyone concerned with selecting a service or monitoring results should make efforts to discover the track record of the specific provider group by discussing the results with other agencies and individuals who have used the provider.
REFERENCES FOR PART III

1. Standards for Employee Alcoholism and/or Assistance Programs, Association of Labor-Management Administrators and Consultants (ALMACA), n.d.


11. "Alcohol and/or Drug Abuse Employee Assistance Programs," Department Operating Instruction, Seattle Fire Department, August 1985.


20. Hubbard, R.L. and M.E. Marsden, "Relapse to Use of Heroin, Cocaine, and Other Drugs in the First Year after Treatment,"
PART IV: METHODS AND PROCEDURES FOR THE FIRE DEPARTMENT SUPERVISOR
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1. THE ROLE OF THE SUPERVISOR IN COMBATTING DRUG ABUSE

Supervisors play a critical role in any program to control drug abuse in the department. They are responsible for learning the department policies and procedures related to drug abuse, observing personnel problems, informing the employees about the drug abuse control program, and referring employees who need assistance to the program. While the supervisor is not expected to be an expert in recognizing drug abuse or in counseling the abuser, he should be familiar with the elements of the problem at least to the depth presented in this manual and should be capable of using the administrative procedures developed by the department to manage the problem.

One of the most difficult factors in dealing with substance-abusing employees is the issue of not enabling them to continue disruptive or dysfunctional behavior. Although a supervisor may feel guilty about "squealing" or informing on an employee, it is this open disclosure of information that can help the employee get better. Substance abusers are in a state of denial about their true involvement with the substances. They will often have excuses for their behavior, e.g., my spouse doesn't understand me, I'm having financial problems, I'm under too much stress. These excuses are the abuser's way of covering up that a problem with a substance exists.

Individuals close to the abuser, such as a family member, co-worker, supervisor, or friend, may accept the excuses at face value and help the abuser cover up the abnormal behavior. This type of "help" only allows the abuser to continue the abuse and escape the consequences that could make him or her face up to the problem. Although the supervisor should not accuse an employee
of substance abuse, the supervisor should point out any evidence of poor work performance, absenteeism, etc., and should not allow the employee to continue such behavior without appropriate disciplinary action or referral and participation in the EAP. This restrained, but firm approach of "confronting" the employee has proved to be the most successful way of resolving work problems that may include drug abuse.

To be successful in confronting an employee, the supervisor should:

- Observe
- Prepare
- Document
- Confront
- Follow up
2. OBSERVING CHANGES IN EMPLOYEE BEHAVIOR

The supervisor is not generally expected to directly identify a drug abuse problem. Unless there is objective evidence (e.g., employee admission, drug possession), the supervisor should rely on observing adverse changes in an employee's behavior. Such changes can signify that the individual is having personal problems that are interfering with work performance. (1,2) Examples of symptoms to watch for include:

Performance Deterioration

- Irregular work pace, diminished ability to concentrate, confusion, and signs of fatigue
- Increased mistakes, carelessness, and errors in judgment
- Poor short-term memory

Poor Attendance and Absenteeism

- Increased leave use, particularly before and after weekends
- Frequent complaints of flu, stomach distress, sore throat, headache, or other vaguely defined illnesses
- Early departures and extended lunch periods
- Unexplained disappearances from the job ("on-the-job" absenteeism)
- Improbable excuses for absences

Changes in Attitude and Physical Appearance

- Assignments handled sloppily
- Blaming others for the individual's shortcomings
- Often deliberately avoiding colleagues and the supervisor
- Decline in personal hygiene
- Irritability or withdrawal from fellow co-workers
- Unexplained bursts of energy especially after periods of extreme physical and/or mental activity
- Reporting or returning to work in an obviously abnormal condition
- Decrease in office morale, possibly because of the time spent "covering up" for the problem employee

Increase in Health and Safety Hazards

- Higher-than-average accident rate
- Careless handling and maintenance of machinery and equipment
- Needless risk-taking
- Disregard for the safety of others

Preoccupation with Home Concerns

- Increased concern about family or marital difficulties, financial worries, and/or poor health

Observation of these symptoms should alert the supervisor to a possible problem. However, it is well to remember that not all individuals having personal problems will exhibit these traits. Nor does it mean that all individuals exhibiting these traits have personal problems. That is why it is so important to prepare before taking further actions that could adversely affect relations with the employee.
3. PREPARATIONS FOR PROBLEM INTERVENTION

The supervisor should keep in mind that the primary objective is not to determine the employee's underlying problem. It is to give specific details of the employee's poor performance and to get an agreement with the employee on how performance will be improved in the future. (1-3)

To deal with the problem employee, the supervisor must be prepared to take a number of steps. These steps should be taken with full cognizance of department-level policies and procedures and with the help of the EAP or EAP coordinator as needed. Figure 6 indicates the preferred sequence of steps in handling the problem.

In many instances the best initial approach is to discuss performance difficulties with the employee informally before they become serious enough to require mandatory departmental action. The hope at this point is that the individual will accept a friendly word of concern by the supervisor and correct the deficiencies or take the initiative to seek assistance. This approach will often work especially with employees who are not drug-dependent (experimental or recreational users). To further these objectives, the supervisor should indicate a desire to help the employee and should review for the employee the services offered by the department program, EAP, or other applicable benefits. (4)

If the informal discussion is not feasible or does not yield the desired results, the supervisor should prepare to intervene in the problem in a more formal manner. This step would require a second private conference during which the supervisor should confront the employee with the work problem and its consequences.

Prior to taking this step, the supervisor may find it desirable to discuss the problem with his or her immediate
DEPARTMENT LEVEL POLICIES AND PROCEDURES

Identifies Employee Problem

Informal Talk with Employee

Documents Employee Performance

Employee Performance Improves

Formal Discussion with Employee

Employee Accepts Referral

Rejects Treatment

Fails Treatment

Regular Disciplinary Action

1st Interview with EAP Counselor

Treatment Regimen

No Further Action

Primary Action

Supportive Action

Figure 6: Schematic for Handling Problem Employees
supervisor or with the EAP coordinator or counselor. They can help to ensure that the correct procedures are used in future meetings with the employee and that the full range of options open to the supervisor and the employee is understood.

An essential part of the preparations for the formal discussion is the documentation of observable and verifiable facts related to the employee's job performance. Documentation of the types of observations discussed in the preceding section will provide an adequate basis for further action. Such documentation should be nonjudgmental and should be consistent with the level of performance expected from other members of the fire department unit.

Preparations of the supervisor also include getting ready at the personal level, setting the stage, and anticipating what to expect. (1)

- **Getting ready.** The supervisor needs to get in touch with his or her own feelings about the employee and the problem—and accept the fact that those feelings are normal responses to a stressful situation. The supervisor also needs to accept as legitimate his/her own apprehension or misgivings about confronting the employee. The supervisor's ability to control his/her own reactions and to anticipate the employee's reactions will help set the tone for a confrontation that will accomplish its purpose.

- **Setting the stage.** There are additional steps the supervisor can take to ensure effective communication of the message. A positive, constructive atmosphere can be created by:
(1) Making an appointment with the employee "to discuss a matter of importance"

(2) Arranging a meeting with the employee as soon as possible so that neither party spends excessive time worrying about the confrontation

(3) Ensuring that the meeting will be private, with no interruptions from telephone calls, visitors, or other employees

(4) Allowing sufficient time for the meeting and setting a time limit

- Anticipating the employee's reaction. Having attained objectivity, the supervisor can further prepare by assessing the situation from the employee's point of view. Anticipating the employee's reaction and planning accordingly can help make the confrontation less stressful. The EAP counselor can assist by helping the supervisor to assess past incidents and to recognize common reaction patterns.

The supervisor should be prepared for the possibility that the employee may become extremely defensive—even if questions or allegations about a "personal" problem are avoided. It is important to recognize that the employee may become anxious and hostile when his or her job security is suddenly in jeopardy. As a result of this anxiety, the employee may react by making up elaborate excuses, blaming others for past failures, or trying to gain sympathy.

In extreme cases, where the employee is clearly unfit for duty for whatever reason, department disciplinary procedures
would apply. Generally the supervisor or the supervisor and his or her immediate supervisor would have responsibility for relieving the employee from duty and reporting the incident to the next higher level of supervision. When reasonable grounds for suspecting substance abuse exist, the supervisor should use measures spelled out in department policies and procedures. Options that might be open to the supervisor include immediate referral for testing, initiation of disciplinary action, and referral to an EAP program.
4. FORMAL DISCUSSIONS WITH EMPLOYEE

Any formal discussion should be held in private with the employee. The primary focus of the discussion should be on the employee's deficiencies in work performance rather than suspected drug abuse. In the area of work performance, the supervisor has the clear authority and experience to advise the employee and to take required remedial actions in accordance with department policies and procedures. The supervisor need not completely avoid the subject of drug abuse if evidence of on-the-job intoxication or other clear evidence is already part of the record. However, in general, the supervisor should emphasize the work performance deficiencies and avoid trying to diagnose underlying causes.

The principal points to be conveyed to the employee during a formal discussion when substance abuse is suspected are:

- Corrective action must be taken by the employee to improve work performance.

- A visit by the employee to the department EAP or other support program for counseling on personal problems is recommended.

- Further disciplinary actions will be taken by the supervisor unless work improves within a reasonable time and evidence of counseling visits is received by the supervisor.

In discussing corrective actions, the supervisor should be specific about the problems that have been observed. The supervisor should describe behavior observed, not interpretations of behavior. While an expression of concern for the possible loss of the employee is advisable, the supervisor should be firm about the need for improvement. The supervisor should be
consistent in the evaluation of employees and demonstrate fairness by not being judgmental about any suspected personal problem. (1-4)

The "Do's and Don'ts" of the formal meeting are summarized in Table 3. (1)

As part of the discussion, the supervisor should review with the employee the services available through the department, and indicate that the employee should make use of the EAP or other counseling services. It is always a good idea for the supervisor to make an appointment for the employee if such services are available through the department. In any event, the department policy may allow the supervisor to suspend disciplinary action for a reasonable period to observe work improvement and to receive notification of attendance of the employee at counseling sessions. Release of information from the EAP to the supervisor may require the approval of the employee. The employee should therefore be advised that disciplinary action can be deferred or forgone only if evidence is received by the supervisor of the employee's attendance at the EAP and the employee's acceptance of the treatment regimen proposed by the EAP counselor.
TABLE 3

CONFRONTING AN EMPLOYEE: DO'S AND DON'TS

**DO**  
base confrontation on JOB PERFORMANCE, ATTENDANCE, and/or DISRUPTIVE BEHAVIOR—not alcoholism, drug addiction, depression, physical illness, or personality "quirks"—and offer help.

**DO**  
have on hand written documentation of the declining job performance so you can "let the record speak for itself." This documentation should include a record of leave abuse, late reports, reduced productivity, errors, accidents, trouble with other employees, changes in personal appearance, increased breaks, long lunches, and early departures.

**DO**  
be consistent. DON'T tolerate more with one employee than you would with another FOR ANY REASON. DON'T permit age, seniority, long acquaintance, or sympathy sway an honest evaluation.

**DO**  
maintain a firm and formal, yet considerate, attitude. If the interview becomes a casual or intimate conversation, the impact of the message will be lessened.

**DO**  
explain that help is available through the EAP or other benefit program.

**DO**  
emphasize that all aspects of the program are completely confidential.

**DO**  
explain that the employee must make the decision whether to seek assistance.

**DO**  
state that the employee's decision will be considered in reevaluating performance at a later date.

**DON'T**  
try to find out "what is wrong" with the employee, and don't allow yourself to get involved in the employee's personal life.

**DON'T**  
make generalizations or insinuations about the employee's performance.

**DON'T**  
be misled by sympathy-evoking tactics. Stay focused on your right to expect appropriate behavior and satisfactory job performance.

**DON'T**  
threaten discipline unless you're willing and able to carry out the threat.

**DON'T**  
make emotional appeals that may only increase feelings of guilt and resistance to accepting help.
TABLE 3 (Cont'd)

| DON'T | allow yourself to back down from the confrontation by making excuses or shielding the employee from the realistic consequences of his or her behavior. |
| DON'T | leave the employee completely defenseless with no sense of importance or dignity. |
| DON'T | try to negotiate with a person who is out of control. (1) |
5. SUPERVISING THE EMPLOYEE DURING OR AFTER TREATMENT

The supervisor may face the problem of dealing with an employee remaining on duty while undergoing treatment or an employee returning to the unit after completing treatment. The supervisor may know very little about what has happened during treatment, since most or all of this information is confidential unless released with the employee's approval. On the other hand, the supervisor may have considerable information. Commonly shared information within the fire department unit may indicate the nature and seriousness of the problem. The employee may have told the supervisor about the drug abuse problem. In another instance, the counselor and employee may have asked the supervisor to participate in a counseling session.

Past experience with returning fire department employees indicates that they can be treated with attitudes ranging from indifference to overprotection. Neither of these extremes is likely to be helpful to the returning employee in maintaining a drug-free condition. A firm but fair attitude supported by established department policies and procedures is best suited to the needs of the employee and the department. It is particularly important that the supervisor not allow the past experience to prejudice him or her against the employee and the employee's on-the-job efforts.

Some useful guidelines for supervisors have been developed for dealing with the returning employee: (5,6)

- Be specific about performance expectations: The employee who knows specifically what will be expected has a better chance of providing satisfactory performance. If duties are changed from the previous assignment, a constructive
explanation of the reasons for change would be helpful.

- **Be open and honest with the employee**: The supervisor should follow normal principles of good management practice. The projection of openness and honesty could do much to set the returning employee at ease and provide the motivation to succeed.

- **Evaluate the employee's performance by consistently applied standards**: Standards of performance should be the same as those applied to other members of the same unit.

- **Avoid being protective or overly demanding**: The employee will not benefit from being sheltered from shortcomings in performance. Neither will there be any benefit from constant scrutiny and criticism. Correction should be applied uniformly to all members of the unit, as required.

- **Promptly correct emerging job problems**: It is particularly important that the returning employee's job problems be promptly recognized and corrected. This approach will reinforce the employee's perception of the supervisor's firmness in expecting a good job and may also bring to light the beginning of a relapse.

- **Take a positive attitude**: A positive attitude toward the success of the returning employee's job performance will do much to encourage the employee and to resolve uncertainties among other employees of the unit. Don't expect or
dwell on problems deriving from the substance abuse.

- **Assist in maintaining the confidentiality of the returning employee's problems:** The employee's problems and treatment are considered to be confidential. The supervisor can assist in keeping this information confidential by not volunteering information on the subject to other employees. In the department unit at least some of the information is likely to be common knowledge; however, the supervisor should do whatever possible, within the bounds of confidentiality, to limit the scope and impact of this information.

- **Discuss supervisory problems with cognizant staff members:** When the returning employee's performance drops or other problems with dealing with the employee arise, the supervisor should discuss the matter with the EAP coordinator, the mental health counselor, or other cognizant staff member.
REFERENCES FOR PART IV


APPENDIX A: DRUG ABUSE FACT SHEETS

MARIJUANA AND HASHISH

- Marijuana and hashish are derivatives of the cannabis plant, which has been cultivated for centuries for its fiber, oil, and psychoactive resin. Marijuana consists of the dried leaves of the plant. Hashish is made from the dried or pressed flowers and from the resin. Hashish contains a much more concentrated form of the psychoactive ingredients.

- The principal method of intake is the smoking of the substance.

- In low to moderate doses, the drug produces a sense of well-being and a state of relaxation. The state of intoxication is usually mild and short lived (two to three hours for one joint). In some users, a single dose can produce adverse reactions ranging from mild anxiety, detachment from reality, delusions, hallucinations or illusions, and bizarre behavior.

- At doses commonly used, marijuana impairs memory, perception, judgment, and fine motor skills, thus increasing the risk of serious accident while performing such complex tasks as driving or operating machinery.

- Marijuana impairs driving skills for at least 4-6 hours after a single cigarette. When it is used in combination with alcohol, driving skills are even more erratic.
Although no instance of human lung cancer has been attributable solely to marijuana smoking, abnormalities suggestive of precancerous lesions have been reported. Since most marijuana smokers also smoke cigarettes, the combined carcinogenic effect must also be investigated. There are more known carcinogens in marijuana smoke than in cigarette smoke. Marijuana has a significant negative effect on gas exchange in the lungs, greater than tobacco.

Smoking marijuana immediately accelerates the heartbeat and, in some persons, increases blood pressure. These changes pose a threat for people with abnormal heart and circulatory conditions, such as high blood pressure and hardening of the arteries.

Marijuana may have serious effects on reproduction. Some studies have shown that women who smoke marijuana during pregnancy give birth to babies with defects similar to the fetal alcohol syndrome.

New studies show that, in animals, marijuana interferes with the body's immune response to various infections and diseases. The significance of this for humans is currently being investigated.

Statistical evidence shows that use of marijuana increases chances of using harder drugs.

Long-term use impairs the memory and may create a psychological dependence.
COCAINE AND "CRACK"

- Cocaine in its pure form is a white crystalline powder that is extracted from the leaves of the South American coca plant. The drug sold on the street is a mixture of the pure substance (cocaine hydrochloride) and various additives that are added to increase the quantity. These additions make the actual concentration of the drug unknown to the buyer and highly variable.

- The street cocaine is generally ingested by "snorting" the powder; however, a solution of the powder can be injected.

- Other forms of the drug are called "freebase" and "crack." They are made by chemically converting the street drug into more basic forms, which can be smoked.

- When cocaine is "snorted," the effects begin within a few minutes, peak in 15 to 20 minutes, and disappear within an hour. Injection causes the effect to begin in about 20 seconds. Smoking crack causes the onset of effects within about 10 seconds.

- The immediate effects of cocaine use include dilated pupils and increases in blood pressure, heart rate, breathing rate, and body temperature. The user usually feels a sense of well-being and may feel more energetic or alert.

- About 30 minutes after the initial euphoria disappears, users are likely to feel more depressed than before they started.
With continued use, depression can become chronic, and hallucinations and signs of psychosis may appear.

A large dose, or even a moderate dose under some conditions can overtax the heart and may be fatal. Regular use of cocaine can cause heart palpitations, angina, arrhythmia, and even a heart attack.

With the uncertainty as to the concentration of the active ingredient in the street cocaine powder and the rapid onset of effects from smoking crack, there is a very high danger of overdose.

Regular snorting of the drug can destroy the nasal membranes. Smoking crack can result in lesions in the lungs. Injecting cocaine carries the added hazards of serious infections (including AIDS) and the possible adverse reactions to the impure injected mixture.

Cocaine is one of the most powerfully addictive drugs of abuse. It is estimated that about 10% of people who begin to use the drug will go on to serious, heavy use. Addiction can occur within a few months. Others may take 3-5 years. It appears that compulsive cocaine use can develop even more rapidly if the substance is smoked.

The use of alcohol (a depressant) with cocaine is common and tends to increase the level of use of the drug. Alcohol is often used to reduce
the anxiety, insomnia, and agitation that result from too much cocaine. The typical pattern involves an escalation of both cocaine and alcohol use.
AMPHETAMINES AND RELATED DRUGS

- "Pep pills," also known as "speed," "bennies," and "uppers," are all forms of the general class of stimulants called amphetamines. These drugs have legitimate medical uses and are often prescribed by doctors for dietary purposes and to dispel mild depression.

- Depending on the dose, amphetamines will cause a "high," which can range from mild to wild excitement. Excitation, extreme talkativeness, tremors, and hallucinations can result. Bizarre persecutory delusions can occur after high doses.

- Continued high doses can cause heart problems, malnutrition, and death.

- Even mild dosages can affect physical reactions. Excitation and tremors can adversely impact the reflexes and decision making sufficiently to make driving or other mechanical operations very hazardous.

- Although amphetamines are nonaddictive, tolerance and psychological dependence can develop.

- MDMA, called "Adam," "Ecstasy," or "X-TC" on the street, is a synthetic or "designer drug" with properties similar to the amphetamines. Because of its effects, the drug has been declared illegal.
Psychological difficulties induced by MDMA include confusion, depression, sleep problems, drug craving, severe anxiety, and paranoia. These effects can appear over a period of weeks after taking the drug.

Physical symptoms include muscle tension, involuntary teeth clenching, nausea, blurred vision, rapid eye movements, faintness, chills, and sweating.

Initial effects include an increase in heart rate and increased blood pressure. These effects create a special risk for people with circulatory or heart disease.

Brain damage is also suspected to occur from use of this drug. Although the damage may not immediately become apparent, scientists feel that with aging or exposure to other toxic agents, symptoms similar to Parkinson's disease may emerge, beginning with lack of coordination, tremors, and eventually some form of paralysis.

MDA, the parent drug of MDMA, is also an amphetamine-like drug. According to recent research, MDA causes damage to brain processes that play a direct role in regulating aggression, mood, sexual activity, sleep, and sensitivity to pain.
BARBITURATES, TRANQUILIZERS, AND RELATED DRUGS

- These drugs slow down the body's functions. Their effects range from calming down anxious people to promoting sleep. Some of these drugs are sold both as prescriptions and non-prescriptions in the form of capsules or tablets and in the case of barbiturates are sometimes in liquid form or as suppositories.

- Some well-known barbiturates are Seconal and Nembutal. Tranquilizers include Valium and Librium. Another class of depressants that are widely abused includes methaqualone (Quaalude), chloral hydrate (Noctec), and meprobamate (Miltown).

- The effects of these drugs are in many ways similar to the effects of alcohol. Small amounts produce calmness and relax muscles. Somewhat larger doses can cause slurred speech; staggering gait; poor judgment; and slow, uncertain reflexes. These effects make it dangerous to drive a car or operate machinery.

- Depressants are widely misused by adults attempting to cope with tension-filled environments in which they live. When not taken according to physicians' instructions, these drugs can result in confusion and loss of coordination. At high doses or when they are abused, many of these drugs can cause unconsciousness and death.
o Use of these drugs with other drugs that slow down the body, such as alcohol, multiplies their effects and greatly increases the risk of death.

o These drugs can cause both physical and psychological dependence. Regular use over a long period of time may result in tolerance, which means people have to take larger and larger doses to get the same effects.

o When regular users stop using large doses of these drugs suddenly, they may develop physical withdrawal symptoms ranging from restlessness, insomnia, and anxiety, to convulsions and death.
LSD, PCP, AND OTHER HALLUCINOGENS

- LSD is manufactured from an acid found in ergot, a fungus that grows on rye and other grains. It is odorless, colorless, and tasteless. LSD is sold on the street in tablets, capsules, or occasionally in liquid form.

- LSD is usually taken by mouth but sometimes is injected. Often it is added to absorbent paper, such as a blotter, and divided into small decorated squares, with each square representing one dose.

- The effects of LSD and related drugs depend on the amount taken; the user's personality, mood, and expectations; as well as the surroundings in which the drug is used. Usually, the user feels the first effects within 30 to 90 minutes of ingestion. The physical effects include dilated pupils, higher body temperature, increased heart rate and blood pressure, sweating, loss of appetite, sleeplessness, dry mouth, and tremors.

- Drowsiness is not usually associated with LSD reactions (nor with some other drugs in this group). The main effects are likely to be extreme excitability and hallucinations. Rapid swings in sensations and emotions may be experienced, which can be frightening and can lead to panic, confusion, suspiciousness, anxiety, feelings of helplessness, and loss of control.
LSD and similar drugs can unmask mental and emotional problems that were previously unknown to the user. Flashbacks, in which the person experiences a drug's effects without having taken the drug again, can also occur.

Heavy users sometimes develop signs of organic brain damage, such as impaired memory and attention span, mental confusion, and difficulty with abstract thinking. It is not yet known whether these changes are permanent after use of LSD is stopped.

Some other drugs have effects similar to LSD. Mescaline comes from the peyote cactus and is not as strong as LSD. Mescaline is usually smoked, but it can be swallowed in the form of capsules or tablets. Psilocybin comes from certain mushrooms. DMT is another related drug.

PCP is a synthetically derived substance that is available in a number of forms. It can be a pure white crystal-like powder or a tablet or capsule. It can be swallowed, smoked, sniffed, or injected. PCP is sometimes sprinkled on marijuana or other materials and smoked.

PCP affects the senses, vital signs, behavior, and motor functions. Users feel a sense of distance and removal from their surroundings and exhibit a slowdown in time and body movements and spare and mangled speech. They tend to stagger and have a decreased awareness of touch and pain.
The drug can cause wild distortions of sight, sound, and other environmental stimuli. These effects can result in bizarre behavior and self-injury.

PCP can give the user the illusion of strength, power, and invulnerability. The drug can also produce a numbing effect on the mind that often results in anger, rage, and the disappearance of unpleasant memories.

Effects of use include increased heart rate and blood pressure, flushing, sweating, dizziness, and numbness. When large doses are taken, effects include drowsiness, convulsions, and coma. Overdose can also cause death from repeated convulsions, heart and lung failure, or ruptured blood vessels in the brain.
HEROIN, OPIUM, MORPHINE, AND OTHER OPIATES

Opiates, sometimes referred to as narcotics, are a group of drugs that are used medically to relieve pain but also have the potential for abuse. Some opiates come from the resin of the seed pod of the Asian poppy. This group includes opium, morphine, heroin, and codeine. Some other opiates, such as meperidine (Demerol), are manufactured.

Opium appears as dark brown chunks or as a powder and is usually smoked or eaten. Heroin can be a white or brownish powder; it is usually dissolved in water and then injected. Street heroin is usually diluted with other substances, such as sugar or quinine. Other opiates come in a variety of forms, including capsules, tablets, syrups, solutions, and suppositories.

Symptoms of use of opiates may include euphoria, drowsiness, respiratory depression, constricted pupils, and nausea. Lethargy, apathy, and loss of judgment and self-control may occur. Symptoms of a heroin overdose include shallow breathing, clammy skin, convulsions, and coma, possibly resulting in death.

Opiates tend to relax the user. When opiates are injected, the user feels an immediate "rush." Subsequent unpleasant effects may include restlessness, nausea, and vomiting.

The physical dangers depend upon the specific opiate used, its source, the dose, and the way
it is used. Most immediate dangers are from overdose, unsterile needles, contamination of the drug, or combining the drug with other substances. Use of unsterile needles is one of the means for transmission of such diseases as hepatitis and AIDS.

- Over the long term, opiate users may develop infections of the heart lining and valves, skin abscesses, and congested lungs.

- A physical dependence on the drug usually develops from use over a long period of time. When an opiate-dependent person stops taking the drug, withdrawal usually begins within 4 to 6 hours. Withdrawal symptoms include uneasiness, diarrhea, abdominal cramps, chills, sweating, nausea, and runny nose and eyes. Symptoms rise in intensity for the first 24 to 72 hours and then subside within 7 to 10 days. Some symptoms, such as sleeplessness and drug craving, can last for months. Elevations in blood pressure, pulse, respiratory rate, and temperature occur as withdrawal progresses.
INHALANTS OR DELIRIANTS

- Inhalants are breathable chemicals with vapors that have mind-altering effects. The chemicals include solvents, aerosols, some anesthetics, and others. Examples include model plane glue, nail polish remover, lighter and cleaning fluids, and gasoline. Such chemicals as paints and hair sprays have also been abused. Anesthetics in this group include halothane and nitrous oxide (laughing gas). Amyl nitrite and butyl nitrite are also inhalants that have been abused.

- These chemicals produce effects similar to anesthetics that act to slow down the body's functions. At low doses, users may feel slightly stimulated. At higher amounts, they may feel less inhibited and less in control. At high doses the user can lose consciousness.

- Initial negative effects can include nausea, sneezing, coughing, nosebleeds, feeling and looking tired, bad breath, lack of coordination, and loss of appetite. Deep breathing of vapors may result in losing touch with one's surroundings, loss of self-control, violent behavior, unconsciousness, or death.

- Long-term use can cause weight loss, fatigue, salt imbalance, and muscle fatigue. Sniffing of concentrated vapors over a number of years can cause permanent damage to the nervous system, resulting in greatly reduced physical and mental
capabilities. Long-term use can also damage the liver, kidneys, blood, and bone marrow.
APPENDIX B: URINE SAMPLE COLLECTION AND HANDLING
The validity of the results of a urine drug test is dependent on the integrity of the specimen. The urine container obviously must be clean, unbreakable, and leakproof. Since the analysis procedure used by laboratories has defined limitations, anything that might cause the urine to be outside these limitations would produce an invalid test. The way to achieve many of these limitations is common knowledge to some individuals who undergo urinalysis. There are many ways for a urine specimen to be invalidated if the individual has the opportunity.

- Individuals have reportedly placed various chemical substances under their fingernails and released them into the urine sample to affect the subsequent analysis.

- Placing a pinhole in the bottom of the urine container would result in a leak that would not be detected at the collection site. During shipping, however, most or all of the urine could leak out.

- Ordinary table salt, detergent, and other commonly available household chemicals can destroy the drugs or affect the assay in such a manner as to generate a false negative analysis. Frequently, soap dispensers or cleansers in toilet areas offer the opportunity to add effective adulterants to the sample.

- Use of a fluid-filled bulb placed under the arm, with a tube leading to the genital area, is
another method. The subject can squeeze the bulb and release water or another substance that would dilute or contaminate the urine.

- The subject can obtain urine from friends not using drugs or save his/her own urine from drug-free periods. This urine can be placed in the container during the collection period.

- The subject can scoop water from the commode into the collection container and dilute the urine.

It is important that specimen collection be directly witnessed if at all possible by a reliable individual to prevent this sort of intentional adulteration. While direct-observation collections provide the greatest credibility to a drug deterrent program, the procedures can be embarrassing to both parties. Where it is determined that privacy of the individual must take precedence over other considerations (and such was the determination in President Reagan's recent Executive Order for urine drug testing in the Federal work force), there are means by which adulteration of samples can be minimized. The temperature of the specimen will be close to body temperature (37 degrees centigrade)* if the sample has not been diluted with water. This can be checked by thermometer. Collection facilities can be set up with no soap dispensers or cleaning agents available that can be used to adulterate the sample. The water in the toilet can be dyed or the toilet itself can be a chemical one, eliminating in both cases the availability of water for dilution. Such a facility should be considered in circumstances where specimens

cannot be witnessed as a matter of policy or where the possibility of the subject's bringing in something to contaminate or dilute the sample is unlikely. A patient undergoing a physical, for instance, may not be dressed and could not likely conceal anything to invalidate a sample by adulteration.

In most cases, the laboratory is capable of detecting the adulteration of urine specimens. If adulteration is suspected, the laboratory should be notified and requested to make such a determination.

Other means of influencing the outcome of a urinalysis that are more difficult to detect involve the ingestion of large quantities of water before providing a sample, which in effect dilutes the urine produced. Drinking large volumes of water or other liquid several hours prior to the urine collection could easily result in a tenfold dilution of urine. This dilution could lower the concentration of the drug sufficiently so that it could not be detected by the laboratory analysis.

There is a widespread belief that drinking vinegar can produce negative urinalysis results. While it is theoretically possible, it is highly unlikely that a sufficient quantity could be drunk without toxic consequences.

SECURITY

The security of samples as well as empty cups, laboratory invoices, cup labels, and other packing or shipping material is critical. If subjects can obtain empty cups or other laboratory material, it becomes quite easy to substitute other urines for their own. Computer-printed labels should be attached to the cup, rather than to the top, to make it more difficult for subjects to switch samples.
The specimen donors should not generally be permitted to have any involvement in the collection, labeling, boxing, packing, or transporting of samples to the laboratory. It is important, however, that donors witness the sealing of the bottle and sign or initial the seal. Access to collection urines or any of the boxes, cups, tape, labels, or other laboratory materials should not be allowed.

After collection, urine specimens should be stored under locked storage conditions. If transport of the specimens is inordinately delayed, they should be kept refrigerated (4 degrees centigrade) if possible.

SPECIMEN LABEL

The specimen label should be affixed to the urine container and not to the lid. This will prevent accidental or intentional switching of specimens and identifying labels.

The label should contain the following information:

- Name or other identification of the collection site or client
- Date and time the sample was collected
- Name or identification (social security numbers are frequently used) of the subject (subjects should initial the label and thereby acknowledge that the specimen is their urine)
- Name or identification of the individual who witnessed the urine collection (the witness's initials should also be on the label)
- Log number to link the specimen to the transmittal invoice, although the subject ID number from the label along with the site code number is generally sufficient for this purpose
- Approximate volume of urine collected
If possible, certain information on the labels, such as the name of the laboratory and/or the identification of the collection, should be preprinted. This will reduce the chances of subjects' switching labels or samples. All writing on the labels should be in ink that will not run if it becomes wet from condensation of water or urine spillage. Clear plastic tape over the label provides an excellent mechanism for preserving the integrity of the information.

**INVOICE**

A transmittal invoice that accompanies the urines will allow the laboratory to check the individual urines against the invoice to confirm that all the specimens collected actually reach the laboratory. The minimum information the transmittal invoice should contain is:

- Collection site or client name or identification number
- Subject name or identification code
- Accession number of the specimen (if used)
- Specimen collection date
- Desired tests to be run on the urine specimen (if they are not preset)
- Name or identification number of the witness and/or persons responsible for collection, handling, storage, or packing of specimens at the collection site

**PACKING AND SHIPPING**

Sample identifications should be checked against the shipping invoice as they are placed in the shipping box. The
staff member should ensure that the number of urines shipped and
the tests desired correspond with the invoice and the urine cups.

The shipping container should be sealed at all openings with
tape that cannot be removed. Additional security may be provided
by the staff member's signing his or her name across the box and
tape. In this manner, if the tape is removed, it will not be
possible to reseal the box without detection. The laboratory
should be supplied with a list of acceptable signatures.

Samples should be transported to the laboratory either by
the courier or by a reliable staff member. If a bonded courier
transports the samples, a record is kept that acts as proof of
delivery for legal purposes. Courts have upheld shipment of such
samples by U.S. mail, however. If the samples are delivered by a
staff member, a receipt must be issued by the laboratory when the
samples are received. Specimen donors should never be permitted
to transport samples to the laboratory.

If the samples are delivered by courier, the invoice should
be checked to make sure that the invoice accurately states the
number of boxes sent. If the samples are delivered to the
laboratory by a staff member, the staff member should request a
hand receipt stating the number of boxes delivered.

If fewer than the number of boxes or samples stated on the
invoice are received by the laboratory, or if a discrepancy is
noted between the information on the container label and the
invoice, a report of the discrepancy should be sent by the laboratory to the collection site.

APPENDIX C: ALCOHOL AND DRUG POLICY STATEMENT
ST. LOUIS FIRE DEPARTMENT
1. Purposes. The purposes of this policy are as follows:
   a. to establish and maintain a safe, healthy, working environment for all members;
   b. to insure the reputation of the St. Louis Fire Department and its firefighters as good, responsible citizens worthy of public trust;
   c. to reduce the incidents of accidental injury to person or property;
   d. to reduce absenteeism, tardiness and indifferent job performance;
   e. to provide assistance toward rehabilitation for any member who seeks the Fire Department's help in overcoming any addiction to, dependence upon or problem with alcohol or drugs.

2. Benefits; Inconvenience; Cooperation

   Those members with drug and alcohol abuse problems make up only a small fraction of the work force, and the Fire Department regrets any inconvenience that may be caused the many nonabusers by the problems of the few. It is believed, however, that the benefits to be derived from the reduction in numbers of accidents, the greater safety of all members, and the rehabilitation or suspension or termination of those who because of alcohol or drugs, are a burden upon all other members, will more than make up for any inconvenience or loss the rest of us must be subject to. The Fire Department earnestly solicits the understanding and cooperation of all members and employee organizations in implementing the policies set forth herein.

3. Definitions:
   a. alcohol or alcoholic beverages - means any beverage that has an alcoholic content;
b. drug - means any substance (other than alcohol) capable of altering the mood, perception, pain level or judgement of the individual consuming it;

c. prescribed drug - means any substance prescribed for the individual consuming it by a licensed medical practitioner;

d. illegal drug - means any drug or controlled substance, the sale or consumption of which is illegal;

e. Supervisor - means the Officer or Acting Officer who is the member's immediate superior in the chain of command;

f. Employee Assistance Program - means Employee Assistance Program provided by the Department of Personnel, City of St. Louis.

4. Employee Assistance Program of the Department of Personnel
   a. Any member who feels that he has developed an addiction to, dependence upon or problem with alcohol or drugs, legal or illegal, is encouraged to seek assistance. Entrance into the Assistance Program can occur by self referral, recommendation or referral by a supervisor.

   b. Request for assistance through "recommendation" or "supervisor referral" will be treated as confidential. "Self referral" confidentiality will be maintained between the individual seeking help and employee assistance personnel.

   c. Member progress will be monitored by the Fire Chief's Office.

   d. Rehabilitation itself is the responsibility of the member. For members enrolled in a formal treatment program, the Fire Dept. will grant rehabilitation leave at full pay up to accumulated sick leave. Outpatient care will be charged to sick leave. Members using up accumulated sick leave will be allowed to use vacation and accumulated C.T. time.

   e. To be eligible for continuation of employment on a rehabilitation pay basis, the member must have been
employed at least one year; must maintain at least weekly contact with the Fire Chief's Office; and must provide certification that he is continuously enrolled in a treatment program and actively participating in that program.

f. Upon successful completion of treatment, the member will be returned to active status without reduction of pay or seniority.

5. Alcoholic Beverages:
   a. No alcoholic beverages will be brought into or consumed upon Fire Dept. premises. The Disciplinary Code of the Fire Dept. will be invoked for said violations.
   b. Drinking or being under the influence of alcoholic beverages while on duty is cause for suspension or termination.
   c. Any member whose off-duty use of alcohol results in any violation of the Rules and Regulations of the Fire Dept., including, but not limited to, excessive absenteeism or tardiness, accidents or inability to perform duties in a satisfactory manner, may be referred to the Employee Assistance Program for rehabilitation in lieu of disciplinary action being taken. In the event the member refuses or fails rehabilitation, disciplinary action for the violation committed may be imposed.

6. Prescription Drugs:
   a. No prescription drug shall be brought upon Fire Department premises by any person other than the person for whom the drug is prescribed - by a licensed medical practitioner - and shall be used only in the manner, combination and quantity prescribed.
   b. Any member whose use of prescription drugs results in any violation of the Rules and Regulations of the Fire Dept., including, but not limited to, excessive absenteeism or tardiness, accidents or inability to perform duties in a satisfactory manner, may be referred
to the Employee Assistance Program for rehabilitation in lieu of disciplinary action being taken. In the event the member refuses or fails rehabilitation, disciplinary action for the violation committed may be imposed.

7. Illegal Drugs:
   a. The use of an illegal drug or controlled substance or the possession of them on or off duty is cause for suspension or termination.
   b. The sale, trade or delivery of illegal drugs or controlled substances by an employee to another person is cause for suspension or termination and for referral to law enforcement authorities.
   c. The "occasional," "recreational" or "off-duty" use of illegal drugs will not be excused.

8. Procedures:
The procedures of the St. Louis Fire Department in regards to members using, possessing or under the influence of alcohol, drugs or chemicals while on duty are as follows:

   A. Members shall report to their places of assignment fit and able to perform their required duties and shall not by any improper act render themselves unfit for duty.
   Step 1 - Supervisors who have reasonable grounds to believe a member is under the influence of alcohol, drugs or chemicals shall immediately relieve said member from duty in order to protect said member, fellow members, and the public from harm.
   Step 2 - The supervisor shall notify his supervisor immediately.
   Step 3 - Both supervisors will interview the member and if they both believe, based upon reasonable grounds, that the member is under the influence of alcohol, drugs, or chemicals, then said member will be taken to the Fire Department's designated hospital emergency room for testing.
Step 4 - The decision to relieve the member from duty should be documented as soon as possible. Both supervisors should document reasons and observations while the cause is fresh in their minds and details can be recalled. For example: glazed eyes, smell of alcohol, slurred speech, wobbly walk, change in attitude, aggressiveness, passed out, change in normal appearance, etc.

Step 5 - If the member is willing to sign the appropriate release form, the hospital will perform a drug and alcohol test.

a) It should be made clear to the member before he signs the release form that the results will be made available to his supervisors in the Fire Department and may be used in disciplinary proceedings against the member.

b) If the tests are not given and the results not provided, the member will be considered in violation of the St. Louis Fire Department Rules and Regulations.

d) The member will be relieved of duty and removed from the payroll.

Step 6 - When an alcohol drug test is administered the member will be placed on limited duty until results are available.

a) When test results are positive the member will be relieved of duty and may be referred to the Employee Assistance Program in lieu of disciplinary action being taken.

b) Both supervisors shall make final determination whether member returns to active status or remains off duty regardless of test outcome.

c) Rejection of treatment or failure to complete the program will be cause for suspension or termination.
d) Upon successful completion of treatment, the member will be returned to active status without reduction of pay or seniority.

e) No member will be eligible for the Employee Assistance Program more than one time.

B. Any member driving a Fire Department apparatus involved in an accident shall be tested for drugs and alcohol.

C. Any supervisor who does not relieve a member suspected of being under the influence of alcohol, drugs, or chemicals will be subject to disciplinary action.

9. Effective Date - Notice to Members - State Law
   a. The policies set forth in the Policy Guide are effective immediately upon notice to members. Each present member will be furnished a copy of this policy and will sign a receipt for same. Members hired in the future will be furnished a copy before hiring.
   b. These policies will be implemented in a manner that will comply with all applicable federal and state laws.

10. YOU are responsible for YOUR actions.