

Drug and Alcohol Testing in the Workplace

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Good morning, I'm Lamont Byrd, Director of the Safety and Health Department at the International Brotherhood of Teamsters. I want to discuss the very important topic of drug and alcohol testing in the workplace with you and to hopefully address any questions you may have regarding this matter. I'm not here to advocate for or against drug and alcohol testing in the workplace. The Teamsters Union represents over 500K workers who are subject to drug and alcohol testing either to comply with Federal regulations or as part of our collective bargaining agreements with employers in various industry sectors. My goal today, is to share with you, information that I've gained from working on these issues for over 25 years.

Why Drug and Alcohol Test?

- In 1986, as part of the “War on Drugs”, the Reagan Administration recommended that employers conduct drug testing.
- In 1988, to comply with the Drug-Free Workplace law, any company that received a contract with the Federal Government of \$25K or more must provide a Drug-Free Workplace
- In 1991, The Omnibus Transportation Employee Testing Act passed and required testing for workers in safety-sensitive jobs in aviation, trucking, railroads, mass transit, and pipelines.

Why Drug and Alcohol Test?

- Employers that have successful drug-free workplace policies also report:
 - Improvements in morale and productivity
 - Decreases in absenteeism, accidents, down time, turnover, and theft
 - In some states, employers with drug-free workplace programs qualify for reduced costs for workers' compensation and other kinds of insurance

According to NIDA, there are benefits to having successful drug and alcohol testing programs. One of my goals is to provide you with information and issues that you should consider should your employer attempt to implement drug and alcohol testing programs.

Why Drug and Alcohol Test?

- As noted previously, since 1991, some transportation industry sectors require testing of workers who perform safety-sensitive job tasks.
- Many non-transportation employers also implemented testing programs in an effort to reduce on-the-job impairment.
 - 90% of Fortune 1000 companies, and
 - 62% of all employers in the US have mandatory drug-testing programs

In the late 1980's and early 1990's there were several significant transportation accidents, Congress passed the Omnibus Transportation Employee Testing Act of 1991, because they recognized the safety need for ensuring drug- and alcohol-free transportation employees. The "Act" required DOT Agencies to implement drug testing of safety-sensitive transportation employees in the aviation, trucking (including school bus drivers, and certain limousine and van drivers), railroads, mass transit, and pipelines industries. In 1994, DOT added alcohol testing requirements to its regulations.

Why Drug and Alcohol Test?

- According to the National Institute on Drug Abuse (2013), roughly 68% of illicit drug users are more likely to:
 - Change jobs frequently
 - Be late or absent form work
 - Be less productive
 - Experience higher rates of workplace accidents
 - File a workers' compensation claim

The bottom line is that according to NIDA, illicit drug use among individuals in the workplace has both economic and safety-related impacts.

Drug and Alcohol Testing in the Workplace

Pros – (employers)

- Deterrence
 - Employees may be less inclined to use illicit drugs and abuse alcohol if testing is conducted
- Safety
 - If workers are performing safety-sensitive tasks, they are less likely to have accidents if not impaired
- Liability
 - Workers who are determined to have used drugs may not receive WC benefits if injured

Cons

- Cost of testing
 - Cost of testing averages \$38/test for drugs
- Privacy
 - Testing can be an invasion of employees' privacy, especially during direct observation
- Does not measure impairment
 - Positive test result means that there was exposure/ingestion of the drug at some point in the past

Drug & Alcohol Testing

Federally Mandated Testing
Employer-Based Testing

Federally Mandated Testing

- These programs require employers to use urine testing for drugs and breath testing for alcohol
- Tests cover five drug classes
 - Opiates
 - Marijuana
 - Phencyclidine (PCP)
 - Amphetamines
 - Cocaine

Federally Mandated Testing

- Types of testing
 - Pre-employment
 - Random
 - Reasonable suspicion
 - Post-accident
 - Return to duty after a non-negative test result
 - Unannounced follow up

Pre-Employment Testing - Prior to the first time a driver performs safety-sensitive functions for an employer, the driver shall undergo testing for controlled substances as a condition prior to being used, unless the employer uses the exception in paragraph (b) of this section.

Random Testing - Every driver (who possesses a CDL and operates a CMV covered by the rule) shall submit to random alcohol and controlled substance testing as required in this section.

Reasonable Suspicion Testing - An employer shall require a driver to submit to an alcohol and/or controlled substances test when the employer has reasonable suspicion to believe that the driver has violated the regulations. The employer's determination must be based on specific, contemporaneous, articulable observations concerning the appearance, behavior, speech or body odors of the driver.

Post-Accident Testing - As soon as practicable following a crash each employer shall test for alcohol and controlled substances for each of its surviving drivers: if there was a fatality; or the driver receives a citation within 8 hours of the occurrence (within 32 hours for controlled substances) under State or local law for a moving traffic violation arising from the accident, if the accident involved: Bodily injury to any person who, receives medical treatment away from the scene of the accident; or One or more vehicles incurred disabling damage requiring the motor vehicle to be transported away from the scene by a tow truck or other motor vehicle.

Return-to-Duty Testing – A driver who violated the drug and/or alcohol testing regulation, i.e., non-negative test result, refusal to test, etc., must submit to return-to duty testing and have a negative test result prior to resuming driving duties.

Unannounced Follow Up Testing – A driver who violated the drug and/or alcohol testing regulation must submit to at least 6 unannounced follow up tests during the first 12 months of his/her return to duty, unless the Substance Abuse Professional who evaluates the driver determines that additional tests are necessary. The follow up testing period may be extended for an additional 48 month, per the SAPs recommendations.

Federally Mandated Testing

- Specimen collection personnel must be trained to properly collect specimens, complete documentation, package, and transport specimens to laboratory for analysis
- Specimen collection facilities must meet specific requirements to ensure the privacy of the donor and to minimize the risk of the specimens being adulterated or substituted

Specimen Collection Personnel – Must receive specific training on how to properly collect specimens. These technicians must also use/complete specific chain-of-custody forms (custody and control form).

Collection Site Requirements

If you are operating a collection site, you must have all necessary personnel, materials, equipment, facilities and supervision to provide for the collection, temporary storage, and shipping of urine specimens to a laboratory, and a suitable clean surface for writing.

* Must include a facility for urination

* Must have a source of water for washing hands, that, if practicable, should be external to the closed room where urination occurs. If an external source is not available, you may meet this requirement by securing all sources of water and other substances that could be used for adulteration and substitution (*e.g.*, water faucets, soap dispensers) and providing moist towelettes outside the closed room.

Federally Mandated Testing

- The specimen testing laboratories used must be approved by the Department of Health and Human Services per the National Laboratory Certification Program.

As a drug testing laboratory located in the U.S., you are permitted to participate in DOT drug testing only if you are certified by HHS under the National Laboratory Certification Program (NLCP) for all testing required.

A list of approved laboratories is published in the Federal Register on a monthly basis.

Federally Mandated Testing

- Testing conducted by the approved laboratory is a two-stage test
 - Screening (immunoassay)
 - Identifies the presence of drugs through a process that binds an antibody to antigens (drugs or metabolites)
 - There is a risk of a “false positive” as a result of cross reactivity with a substance of similar structure
 - Confirmatory (gas chromatography/mass spectroscopy)
 - Identifies drugs by looking at the unique mass/charge ratio

The Screening Test is conducted to eliminate obvious negative specimens. If a screening test result exceeds the established cutoff level for one or more drugs, a confirmatory test is conducted to provide final confirmation that the test result is positive. GC/MS is the “gold standard” for confirmatory drug testing.

If a donor has a test result that is not negative, he/she can request that the split specimen be tested. This specimen will be shipped to another approved laboratory for analysis.

Federally Mandated Testing

- Laboratories use scientifically valid cut off levels for all of the drugs and metabolites for which testing is conducted
- Validity testing conducted to ensure that specimens have not been adulterated or substituted

Cutoff Levels

Initial test analyte	Initial test cutoff concentration	Confirmatory test analyte	Confirmatory test cutoff concentration
Marijuana metabolites	50 ng/mL	THCA ¹	15 ng/mL.
Cocaine metabolites	150 ng/mL	Benzoylcegonine	100 ng/mL.
Opiate metabolites			
Codeine/Morphine ²	2000 ng/mL	Codeine	2000 ng/mL.
		Morphine	2000 ng/mL.
6-Acetylmorphine	10 ng/mL	6-Acetylmorphine	10 ng/mL.
Phencyclidine	25 ng/mL	Phencyclidine	25 ng/mL.
Amphetamines ³			
AMP/MAMP ⁴	500 ng/mL	Amphetamine	250 ng/mL.
		Methamphetamine ⁵	250 ng/mL.
MDMA ⁶	500 ng/mL	MDMA	250 ng/mL.
		MDA ⁷	250 ng/mL.
		MDEA ⁸	250 ng/mL.

¹Delta-9-tetrahydrocannabinol-9-carboxylic acid (THCA).

²Morphine is the target analyte for codeine/morphine testing.

³Either a single initial test kit or multiple initial test kits may be used provided the single test kit detects each target analyte independently at the specified cutoff.

⁴Methamphetamine is the target analyte for amphetamine/methamphetamine testing.

⁵To be reported positive for methamphetamine, a specimen must also contain amphetamine at a concentration equal to or greater than 100 ng/mL.

⁶Methylenedioxymethamphetamine (MDMA).

⁷Methylenedioxyamphetamine (MDA).

⁸Methylenedioxyethylamphetamine (MDEA).

- Laboratories are required to participate in Proficiency Analytical Testing (PAT) to ensure that they can accurately and precisely identify and quantify drugs and metabolites of interest.

Federally Mandated Testing

- Medical Review Officer reviews all test results
 - Ensures that all aspects of the specimen collection, chain-of-custody, and analytical procedures comply with regulations
 - Consults with the donor prior to providing final validation of test result, if result is other than negative
 - Instructs laboratory to allow the testing of a split specimen if the donor challenges the validity of the test result

Medical Review Officer (MRO) - You must be a licensed physician (Doctor of Medicine or Osteopathy) and be knowledgeable in the following areas:

(1) You must be knowledgeable about and have clinical experience in controlled substances abuse disorders, including detailed knowledge of alternative medical explanations for laboratory confirmed drug test results.

(2) You must be knowledgeable about issues relating to adulterated and substituted specimens as well as the possible medical causes of specimens having an invalid result.

(3) You must be knowledgeable about this part, the DOT MRO Guidelines, and the DOT agency regulations applicable to the employers for whom you evaluate drug test results, and you must keep current on any changes to these materials.

Federally Mandated Testing

- If an employee tests positive, has an adulterated or substituted specimen, or refuses to submit to testing, prior to resuming driving or other safety-sensitive duties he/she:
 - Must submit to an evaluation by a Substance Abuse Professional
 - Successfully complete recommended education and/or treatment
 - Have a negative return to duty test result
 - Participate in the recommended follow up testing

Motor carriers and other employers are not obligated to retain drivers or other covered employees who test positive for drugs/alcohol. However, the employer must provide the employee with information regarding where to find a Substance Abuse Professional and education/treatment facilities. Covered employees may not resume driving or performing other safety-sensitive functions until he/she has been evaluated, treated, passes a return to duty test and participates in follow up testing....even if he/she changes employers.

Federally Mandated Testing

- Summary
 - All aspects of the program must comply with stringent government regulations
 - Training of all personnel involved in the testing process is required
 - Laboratories are highly regulated and proficiency testing is required
 - Cutoff levels for substances are established by the government
 - Test results are reviewed by competent professions prior to final disposition
 - Employees who violate testing requirements are provided with information concerning education/rehabilitation
 - Strict return to duty process after rehabilitation

- The testing programs are highly structured and regulated by government agencies.
- Employees who are subject to testing, designated employer representatives, specimen collectors, medical review officers, and substance abuse professionals must all be properly trained and credentialed.
- Laboratories that analyze specimens are on an approved list and meet all of the technical and regulatory requirements as set forth by the government.
- Test results are reviewed by technical/regulatory expert and the donor is contacted prior to determining if a specimen is not negative.
- Employers are required to provide employees who violate the testing regulations with information on how/where to obtain education and/or rehabilitation.
- If an employee is retained on his/her job after a non-negative test result, he/she must submit to a strict return to duty and follow up testing procedure.

Employer Based Testing Programs

Non-mandatory

Employer Based Testing Non-mandatory

- There is wide variation among these programs in many ways.
 - Some employers follow the federally mandated testing programs, especially those that employ both workers who are federally mandated to be tested and those who are not required to do so.
 - Other programs are based strictly on employer policy
 - Drug and alcohol testing programs are mandatory subjects of collective bargaining

Programs that are based strictly on employer policy have significant variation regarding the types of testing conducted, the types of specimens collected, how specimens are analyzed, and what happens to workers who may violate the policies.

Employer Based Testing Non-mandatory

- Typically these programs
 - Test for 10 to 12 substances
 - May only use screening tests
 - Have wide-ranging cutoff levels
 - Use various types of specimens
 - Urine
 - Blood
 - Saliva
 - Sweat
 - Hair

Because there are no national standards, there is wide variation among laboratories regarding how specimens are analyzed. The cutoff levels may also vary widely.

Employer Based Testing

The Substances

Federal Testing

- Cocaine
- Phencyclidine
- Marijuana
- Amphetamines*
- Opiates

Non-Mandatory Testing

- Benzodiazepines
- Barbiturates
- Propoxyphene
- Extended Opiates (semi- synthetic)*
 - Hydrocodone – (Vicodin)
 - Oxycodone – (OxyContin)
 - Hydromorphone – (Dilaudid)
 - Oxymorphone – (Numorphone)
- Ecstasy/MDMA*
- Methadone

Non-mandatory testing programs – typically test for the drugs tested in the federal program and the other drugs listed on the slide.

Benzodiazepines are widely abused in the U.S. and includes drugs such as Xanax and valium

Barbiturates include drugs such as phenobarbital

Propoxyphene – is a narcotic pain killer

Extended Opiates - Oxycodone, Hydrocodone, Hydromorphone, and Oxymorphone are all prescription pain killers

Ecstasy/MDMA – 3,4 methylenedioxymethamphetamine aka (E) is a “party drug”

Methadone - is a drug that is used to treat heroin addiction

Employer Based Testing The Specimens

- Urine Testing
 - Analytical processes are scientifically valid and significant quality control/quality assurance tests are conducted to ensure that the results are precise and accurate
 - Cut off levels are established by the Federal Government

Although there are limitations in urine testing, especially relative to the ability to associate positive test results with impairment, it is a tried and tested method. This is only the case for laboratories that are certified and approved by the Federal Government.

Employer Based Testing The Specimens

- Blood Testing
 - Invasive
 - Expensive
 - Narrow window of detection
 - Can be and has been used to conduct other types of testing

Blood testing is invasive, certain people can have significant aversions to needles, specimen collection personnel have to be properly trained. There are cases where employers collected blood specimens and conducted genetic testing in addition to drug and alcohol tests.

Employer Based Testing The Specimens

- Oral Fluids (Saliva) Testing
 - Non-invasive
 - Simple collection process
 - Observed collection reduces risk of adulteration
 - Donors tend to prefer when compared to hair or urine
 - Has been approved by the Substance Abuse and Mental Health Services Administration as an alternative specimen for Federal Drug Testing Program

Saliva (oral fluids) testing is a very promising technology that has already received approval from SAMHSA to be used in federal testing programs.

Employer Based Testing The Specimens

- Hair Testing
 - Currently is a very controversial topic
 - Considerable amount of work is being done
 - Technically
 - Politically (legislatively)
 - Continues to have significant gaps
 - Specimen preparation
 - Impact of environmental exposure
 - Impact of hair color
 - Impact of other factors
 - Hair treatments
 - Grooming

Hair testing for drugs offers an employer the opportunity to “look back” into an individual’s use of and/or exposure to drugs for a period of time ranging from weeks to many months and possibly years. Employer groups, especially in the transportation sector, have actively lobbied Congress to pass legislation to include hair testing of safety sensitive workers who are covered by Federal Transportation regulations in the federal testing program. There have been numerous studies, both pro and con, regarding this issue. At present, there appears to be significant technical hurdles to overcome and several privacy and worker protection issues to address prior to hair testing being allowed in the federal testing program.

Drug and Alcohol Testing

Things to Consider

Programs

- Ideally the scope of the drug and alcohol testing program should be narrow
 - Provide training for workers and managers
 - Limit testing to pre-employment and reasonable suspicion testing
 - Limit the types of drugs for which testing is conducted
 - Limit the type(s) of specimens that are collected
 - Include education/treatment pre-violation and post-violation

Workplace testing should be limited to only tests and processes that have been validated by government agencies.

Programs

- Training for workers
 - Familiarize about issues concerning drug and alcohol abuse
 - Provide detailed information about the testing program and how it will be implemented
 - Provide training about the consequences of violating the policies
 - Inform workers that the testing program will not be retaliatory
 - Familiarize workers with information about education and treatment (rehabilitation) and how to obtain it prior to and after having a positive test result.

Programs

- Collective Bargaining Language
 - If testing is conducted in the workplace, it is extremely to include language that details how the testing will be conducted, who will be tested, and disciplinary actions to be taken if there is a non-negative test result.

Drug	Class	Street Name	Prescription Brand Name Examples	Detection Time in Urine
Amphetamine	Stimulant	speed	Dexedrine, Benzedrine	Up to 2 days
Barbiturates	depressants / sedatives / hypnotics	downers, barbs, rebs	Amytal, Fiorinal, Nembutal, Donna	short-acting: 2 days long-acting: 1-3 weeks (based on half-life)
Benzodiazepines	depressants / sedatives / hypnotics	bennies	Valium, Ativan, Xanax, Serax	therapeutic dose: 3 days chronic use: 4-6 weeks or longer
Cocaine (benzoyl ecgonine metabolite)	Stimulant	coke, crack, rock cocaine	N/A	Up to 4 days
Codeine	Analgesic / Opiate	N/A	N/A	2 days
Ethyl alcohol, ethanol	depressants / sedatives / hypnotics	alcohol, liquor, beer, wine, booze	N/A	urine: 2 to 12 hours serum/plasma: 1 to 12 hours
Heroin	Analgesic / Opiate	smack, tar, chasing the tiger	N/A	2 days
Marijuana, Cannabinoids	Hallucinogen	pot, dope, weed, hash, hemp	Marinol, Cesamet	Single use: 2 to 7 days Prolonged, chronic use: 1 to 2 months or longer
Methadone	Analgesic / Opiate	fizzies	Dolophine	3 days
Methamphetamine	Stimulant	speed, ice, crystal, crank	Desoxyn, Methedrine	Up to 2 days
Methaqualone	depressants / sedatives / hypnotics	ludes, disco biscuits, 714, lemmons	Quaalude (off U.S. market)	Up to 14 days
MDMA (methylenedioxy-methamphetamine)	Stimulant	ecstasy, XTC, ADAM, lover's speed	N/A	Up to 2 days
Morphine	Analgesic / Opiate	N/A	Duramorph, Roxanol	2 days
Phencyclidine	Hallucinogen	PCP, angel dust	N/A	8-14 days, but up to 30 days in chronic users
Propoxyphene	Analgesic / Opiate	N/A	Darvocet, Darvon (all form of propoxyphene withdrawn from US market in November 2010)	6 hours to 2 days

*Note: This table should be used as a general guideline only. Many variables may affect the amount of time that a drug remains detectable in the urine or other biological samples, including a drug's half-life, the subject's state of hydration and fluid balance, frequency of use, route of administration, cut-off concentration used by the testing lab to detect the drug, or other variables.

For More Information

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