

Alcohol and Other Drug Use in Commercial Transportation

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ABSTRACT

Quite a bit of progress has been made in the United States in reducing the use of alcohol and drugs by commercial vehicle operators in all modes of transportation over the past few years. Drug use prevention and testing programs have been required by the Federal Government since the mid to late 1980's. More than 7,000,000 employees in safety-sensitive jobs are covered by the required programs.

Random drug testing of rail workers in 1993 continued to show a reduction in the number of those testing positive for the fourth consecutive year. The positive rate was again less than 1.00 percent. This percentage is down from 6 percent in 1988. The U.S. Federal Aviation Administration reported that 1993, was the fourth year in a row that aviation workers tested positive at a rate less than one percent. Because of these low rates, new regulations that became effective in 1995, will permit the random testing rates for those industries to be reduced from 50 percent to 25 percent. In the trucking industry, one survey conducted by the American Trucking Associations, compiled drug testing data from its member companies for the year 1990. A positive rate from random tests was 2.5 percent. As in the other industries, marijuana was the drug of choice followed by cocaine. More recently, the Federal Highway Administration conducted a four State roadside random pilot drug and alcohol testing program. Through the end of 1993, the positive rate for drugs was 3.8 percent and for alcohol the positive rate was 0.18 percent. Earlier studies in the trucking industry had found considerably higher positive testing rates.

This paper will discuss the progress that has been made and review current developments in the field and discuss new testing requirements.

INTRODUCTION

Much has changed in the United States since we reported to you at T-92. Indeed, there have been significant changes in alcohol-related crashes in both commercial and non-commercial areas of highway safety and in transportation safety in general. There have been similar significant changes in employee drug and alcohol testing programs and in the rate of positive drug tests in commercial transportation over a long period of time. Until recently, very little was known about the use of impairing drugs (including alcohol) by the operators of railroad trains, airplanes, ships and heavy trucks. In the United States, the data indicated that a significant problem existed and that strong action was required to control it.

I have the honor to chair the National Transportation Safety Board (NTSB). The Board is an independent accident investigation agency chartered by Congress to investigate transportation accidents, determine their probable causes, and make recommendations to

prevent their recurrence. We have no regulatory authority and no financial incentives to promote our recommendations. Keep that in mind as I address alcohol and other drugs in the commercial transportation system and as a context in which progress has been achieved.

We have already reported to you that the Safety Board began documenting the abuse of alcohol and other drugs in transportation accidents in the 1970's. By the early 1980's, it became clear that a problem existed in all modes of transportation and that not much was being done about it. In 1983, the Safety Board recommended that the Department of Transportation (DOT) issue rules to prohibit the use of alcohol or other drugs while on duty or for a specified period before duty and to require toxicological tests on all employees responsible for train operation. In 1985, the Federal Railroad Administration (FRA) of the DOT issued a final rule on "Control of Alcohol and Drug Use in Railroad Operations." The rule required alcohol/drug testing after accidents, for reasonable cause, and for those applying for employment. Following additional recommendations by the NTSB, the DOT in 1988, issued drug testing rules for more than 4,000,000 persons working in safety sensitive occupations in all areas of commercial transportation (Sweedler, 1992).

As you may know, the U.S. testing rules apply to Federal transportation employees and to private sector transportation employees in safety-sensitive positions. The original rules specified urine tests for the presence of marijuana, opiates, cocaine, amphetamines, and phencyclidine (PCP). In addition to the pre-employment, post-accident, and reasonable cause tests required for railroad workers, the rules added random testing to all modes, including railroad. The random test rate was 25 percent of covered employees in the first year and 50 percent in subsequent years. There were many differences in the rules among the various transportation modes including a lack of test result reporting in all modes except aviation and rail and omission of alcohol tests in all modes except rail. Further, the rules do not separate post-accident testing for more comprehensive blood testing as requested by the NTSB. However, as a result of landmark legislation, many of the rules changed.

The Omnibus Transportation Employee Testing Act of 1991 was sparked by the derailment of a New York City subway train. The train operator had a BAC of 0.21 percent more than 13 hours after the crash. The Omnibus Testing Act is the legislation that changed the face of alcohol and other drug testing in the United States. The legislation required the DOT to issue regulations to include testing for alcohol, the most commonly used and abused substance in the United States. It expanded the drugs for which tests would be conducted from a maximum of five to a minimum of five and allowed for expansion to a greater number based on analysis by the Departments of Transportation and Health and Human Services. Mass transportation was specifically included in the drug testing programs to override a court decision that the Federal Transit Administration lacked specific regulatory authority in this area. It did not include the commercial maritime industry as regulated by the United States Coast Guard. Nearly 8 million transportation personnel in safety sensitive positions are now included in the alcohol and other drug testing program. Notably, every holder of a commercial drivers license (CDL) is included. That means every driver of a bus and large truck is now subject to testing regardless of whether the driver operates in intra or interstate commerce (Federal Register, 1994).

During the regulatory process of implementing the legislation, a number of key changes were made in the commercial transportation alcohol and drug testing system. The drug test rules now allow the random drug test rate to be reduced from 50 percent to 25 percent of covered

employees if the industry-wide drug test positive rate on random tests is below 1 percent for 2 consecutive years. When an industry qualifies for the 25 percent testing rate, it must maintain the positive rate below 1 percent. If it doesn't, the random test rate will increase to 50 percent of covered employees. All transportation industries are now required to report test results.

Alcohol testing is the major change required by the Omnibus Testing Act. In general, the rules implementing the act prohibit covered employees from performing safety sensitive functions: 1) when test results indicate an alcohol concentration of 0.04 or greater; 2) within 4 hours after using alcohol (8 in aviation); 3) while using alcohol on the job; 4) during the 8 hours following an accident if their involvement has not been discounted as a contributing factor or until they are tested; and 5) if they refuse to submit to required alcohol tests. Employers must remove an employee from the safety-sensitive function if they violate any of these prohibitions and keep them off duty until they have met the conditions. If an employee has an alcohol concentration of 0.02 or greater, but less than 0.04, or is otherwise impaired by behavior, speech, and performance indicators, that person is removed from duty for 8 hours or until a test result below 0.02 is obtained. The rules require employers to conduct pre-employment, reasonable suspicion, post-accident, return-to-duty, and follow-up alcohol testing. The random alcohol test rate for covered employees was set at 25 percent. However, this rate could be reduced to 10 percent if the industry-wide random test positive rate is below 1 percent for 2 consecutive years. I hasten to point out that there are differences in each mode of transportation that are specific to that mode. For additional detail, the rules were published in the Federal Register on February 15, 1994.

In general, the rules require implementation on January 1, 1995 for large employers (generally 50 or more covered employees) and January 1, 1996 for all other employers. All other existing drug testing rules and alcohol testing in rail remain in effect until the new rules are implemented. Certain transportation industries have filed suit regarding certain aspects of the rules. For example, some trucking industry organizations objected to pre-employment alcohol tests as "an intelligence test." The Secretary of Transportation has supported elimination of pre-employment alcohol tests as an unnecessary burden on the industry.

I am able to report on some exciting results in two industries where drug test results have been reported for several years and on a special program in the trucking industry.

AVIATION

At T-92, we reported that the felony conviction of three former Northwest Airlines pilots of flying a passenger jetliner while intoxicated brought new focus to the problem of flying under the influence of alcohol. (ICADTS Reporter, 1991). In 1990, the FAA issued new rules designed to identify and ground pilots involved in alcohol or drug-related motor vehicle offenses that result in convictions or administrative actions. Pilots applying for a medical certificate must consent to the release of information from the National Driver Register (NDR) to enable the FAA to obtain and review motor vehicle offense information pertaining to the applicant. The FAA can deny or take action to suspend a certificate of a pilot who receives two or more alcohol or drug-related convictions or administrative actions within a

3-year period (ICADTS Reporter, 1990). To date, over 1,000 cases have been referred to the FAA's chief counsel for administrative action (FAA, 1994).

From 1983 to 1988, no pilot in a fatal commuter crash tested positive for alcohol. However, the pilot of one of these fatal crashes did test positive for a metabolite of cocaine. In 1988, a Trans-Colorado Airlines, Fairchild Metro III, operating as Continental Express, with two crew members and 15 passengers on board, crashed short of the runway at Durango, Colorado, killing the two crew members and seven passengers. The NTSB found that the captain's use of cocaine degraded his performance and contributed to the accident (NTSB, 1989). For on-demand (unscheduled) air taxi fatal accidents, the percentage of those pilots tested that were positive for alcohol declined from 7.4 in the 1975 to 1981 period to 1.8 in the 1983 to 1988 period (NTSB, 1984 and NTSB, 1992).

An aviation success story in the United States is the effectiveness of the drug testing program. Testing program results have shown a low rate of positive drug tests in aviation from the beginning of the testing program, especially among flight crews. In 1991, FAA statistics from drug tests conducted on 279,881 aviation employees and job applicants in safety and security-related positions showed that 0.96 percent of the tests were positive for drugs of abuse. In 1992, 275,176 tests were conducted and 2,605 were positive, a rate of .95 percent. These results include repair facilities workers, contractors, and airline personnel and applicants. The positive rate for airline employees and applicants remained about the same in 1991 (0.46 percent) as 1990 (0.40 percent).

Pre-employment tests accounted for 49 percent of the positive total in 1991 and 44 percent in 1992. Random tests of current employees accounted for the 46 percent of the positives in 1991 and 50 percent in 1992. Return to duty, reasonable cause, and periodic tests, in that order, accounted for the remaining positive tests in 1992. There were no positive post-accident tests in 1992 and four in 1991. Positive results from random tests remained below 1 percent for the third consecutive year. Flight crew accounted for 42 positive tests in 1991 and 32 in 1992. By far the largest number of positive tests come from maintenance personnel (1,586 in 1991 and 1,598 in 1992). Positive tests for both years indicated that marijuana was most prevalent (52 percent in 1991 and 57 percent in 1992), followed by cocaine (42 percent in 1991 and 33 percent in 1992), amphetamines (4 percent in 1991 and 4.7 percent in 1992), opiates (5 percent in 1991 and 4 percent in 1992), and PCP (1 percent in 1991 and 0.7 percent in 1992). Some persons tested positive for more than one drug (DOT, 1992,1994). Clearly, progress has been made and the aviation industry has now been permitted to reduce the random drug test rate to 25 percent of covered employees.

RAILROAD

In 1972, the Safety Board recommended that the FRA, "...prohibit the use of narcotics and intoxicants by employees for a specific period prior to their reporting for duty and while they are on duty." Accidents in which alcohol and other drugs were involved continued to occur. In 1987, the Safety Board investigated a total of 156 selected accidents in which toxicological tests for alcohol and/or drug use were available in 103 cases (88 under the FRA rule, 14 transit, and 1 other). In 29 of these accidents, 1 or more railroad or rail/rapid transit employees used alcohol and/or drugs (including prescription drugs) (NTSB, 1988a).

Perhaps the most serious railroad accident involving drugs or alcohol took place at Chase, Maryland in January, 1987. A freight train improperly passed a stop signal and entered a main line track and stopped. A passenger train travelling at 120 miles per hour crashed into the freight train killing 15 passengers, the engineer and injured 174 others. Both the freight train engineer and brakeman were found to be heavy or frequent users of marijuana and were impaired by marijuana at the time of the crash (NTSB, 1988b).

The results of the FRA's employee testing program showed significant reductions when we last reported the 1991 results to you. I am pleased to report that the trend of lower positive test rates has continued in 1992 and 1993. In mandatory tests conducted on rail workers after accidents, 1.5 percent tested positive for alcohol or other prohibited drugs in 1991, 2.1 percent in 1992 and 2.0 percent in 1993. This is a substantial decrease from the 6.0 percent level in 1988. In the reasonable cause tests, 2.1 percent were positive in 1991 and 1.9 percent were positive in 1992 and 1993. This, too, is a substantial decrease from 5.4 percent in 1988. In 1990, random testing was introduced. In 1991, 0.9 percent were found positive for drugs and by 1993 the random drug test positive rate decreased to 0.7 percent (FRA, 1994). The railroad industry has also been permitted to reduce its random drug test rate to 25 percent of covered employees.

COMMERCIAL TRUCKING

At T-92, we reported that drivers of heavy and medium trucks with positive BACs are involved in about 750 fatal crashes each year, 7,700 injury crashes, and 4,750 property damage-only crashes (TRB, 1987). We also reported on the Insurance Institute for Highway Safety roadside voluntary survey of truck drivers in which 29 percent had evidence of drugs in their blood or urine. Cannabinoids were found in 15 percent, nonprescription stimulants in 12 percent, prescription stimulants in 5 percent, cocaine metabolites in 2 percent, and alcohol in less than 1 percent. In 1992, we reported on a 1989 FHWA audit of more than 143,000 truck driver drug tests. The overall positive test result rate was 2.1 percent. By category of tests, 2.8 percent were positive on pre-employment test, 0.8 percent positive on biennial tests and 14.2 percent positive for reasonable cause tests. However, these results were not consistent with the IIHS or the Safety Board's study.

In the Safety Board's study of fatally-injured truck drivers, we found that 33 percent of the drivers tested positive for one or more drugs of abuse. The most prevalent drugs found were alcohol and marijuana (13 percent each), followed by cocaine (9 percent), methamphetamines/amphetamines (7 percent), other stimulants (8 percent), and other drugs at less than 1 percent. Forty one percent of those drivers tested positive for drugs of abuse were found to be multiple drug users. Almost 11 percent were positive for three or more drugs of abuse (NTSB, 1990b). In that study, we recommended that the Federal Highway Administration conduct a study of roadside drug and alcohol testing. The Omnibus Testing Act I referred to earlier included a provision requiring that study and results are now available.

A 1-year pilot study was conducted on interstate and major State roads in Nebraska, Utah, Minnesota, and New Jersey. Only Nebraska and Utah could conduct random, suspicionless drug and alcohol tests. Minnesota and New Jersey conducted probable-cause based testing supplemented by voluntary tests. The study found an overall positive test rate of 4.6 percent

for drugs and 0.20 percent for alcohol. The positive drug test rate was substantially lower than the 29 percent found in the IIHS study. Both the IIHS and FHWA studies found an alcohol positive test rate of less than 1 percent. The test refusal rate was 4.2 percent for drugs and 1.0 percent for alcohol. The refusal rate in this study was much lower than the 12 percent refusal rate in the IIHS roadside testing study.

Marijuana was the most frequently identified drug, followed by cocaine, amphetamines, opiates, and PCP. Rates varied markedly among the States with amphetamine usage higher in Utah and cocaine usage highest in New Jersey. Study data may be subject to interpretation because the reporting procedures included both a medical review officer and a drug hierarchy in which some drugs were not counted, for example in multiple drug cases. Further, the type of roadway and truck included in the sample led the authors to believe that "the results presented, understate the actual level of alcohol and drug use." (FHWA, 1995) Nevertheless, this random roadside study provides the best data currently available on the prevalence of alcohol and drug use by commercial truck drivers in these States.

Approximately 7 million holders of a commercial drivers license are now subject to alcohol and other drug testing and the regulations now require test result reporting. Therefore, I have great confidence that we will soon have even more comprehensive data to report to you and that we can, as in aviation and rail, report reductions in positive drug and alcohol test rates.

OTHER MODES OF TRANSPORTATION

The maritime industry was not included in the Omnibus Testing Act. We remain concerned that the U.S. Coast Guard does not include uninspected fishing vessels in its post-accident testing program. We note, however, that all merchant mariners are now required to be tested for drug use when applying for new or renewed licenses, certificates of registry, or other credentials. (Federal Register, 1995) We look forward to better data reporting as well.

As I noted earlier, the crash of a subway train at Union Station in New York sparked Congressional passage of the Omnibus Testing Act and granted specific safety and testing authority to the Federal Transit Administration. Most of the rail rapid transit systems in the U.S. have had some sort of alcohol/ drug testing programs. A study of substance abuse in the transit industry showed that drug and alcohol use was highest at transit agencies with limited or no testing programs. We believe that the Omnibus Testing Act will help standardize and improve the testing and prevention programs used by the industry.

CONCLUSIONS

I believe that the U.S. Federal Government has been exceptionally successful in its drug testing programs and that at least one agency with a history of alcohol testing has been very successful in reducing positive test rates. I have every expectation that other transportation industries will achieve similar success and that we will be able to document that success as fully as the rail and aviation industries have done. Any attempts to further weaken our currently successful programs should be very carefully considered.

I would like to note that the transportation workforce has a very low positive drug test rate compared to the total workforce in the United States. A large independent testing lab

reported that less than 3 percent of transportation workers in safety-sensitive positions tested positive for drugs in 1992 and 1993 while about 10 percent of the general workforce tested positive in these years. (SKB, 1994) That said, there must be no tolerance, absolutely zero, for alcohol and drug use in transportation. We have had great success, but we are only half-way there. Obviously, testing alone will not solve this problem. Testing does have a deterrent effect, but effective programs must also include strategies to identify and treat abusers before it is too late.

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