

Response to Comment 46:

NEI's response indicates that the proposed method for reducing the random testing rate in NEI 06-06 is based on the FFD program used by DOT. Therefore, the NRC staff compared the DOT method with the method proposed in NEI 06-06 and determined that the methods are different in several important respects. The NRC staff is requesting additional information from NEI to support the proposed method in light of these differences.

- (1) The DOT's threshold criteria distinguish between random test results for drugs and random test results for alcohol because the positive rates can be quite different. In fact, for the populations tested by DOT, the positive rates are considerably lower for random alcohol tests than for random drug tests. By considering random drug positives and random alcohol positives separately, the DOT is able to set thresholds that are appropriate in each case. In contrast, if the DOT applied a single threshold to the combined random positive rate, the threshold would be inappropriately high for alcohol and inappropriately low for drugs. Therefore, the approach taken in NEI 06-06 (which presents a single threshold for the combined positive rate) is inconsistent with the DOT approach. In the absence of historical data demonstrating that random test rates for drugs and alcohol have been the same among nuclear power plant construction workers, the technical basis for the proposed threshold based on a combined rate is unclear.
- (2) The DOT's method is applicable to a permanent workforce with a long history of testing. The long history of testing (which does not exist for Subpart K) is important because (1) individuals who have had substance abuse problems that could not be resolved have left the industry and (2) it provides the DOT with sufficient testing data to justify a degree of confidence in the quality and stability of the testing results. Further, the permanent workforce means that the bulk of the individuals tested one year will be the same the next year, so one year's results will have relevance to the next year's workforce. In contrast, the method in NEI 06-06 would apply predominantly to individuals who (1) work in construction, (2) are relatively young, and (3) have short-term employment. Workers in each of these categories experience higher incidence of substance abuse, as documented on the next two pages. Moreover, given the transient nature of the construction workers who will be affected by Subpart K, it is unclear that low positive rates for one year's workforce would be predictive of positive rates for the next year's workforce.
- (3) The DOT allows adjustment of random testing rates by a regulator on a discretionary basis based on positive test results for two consecutive years. In contrast, the approach in NEI 06-06 is automatic and does not allow for discretion based on other considerations. Also, the approach in NEI 06-06 adjusts rates based on data for a single year, making it more vulnerable to calculation errors and the effect of outlier data.
- (4) The DOT's method is used in the context of standardized and well-defined drug and alcohol testing programs, whereas the guidance in NEI 06-06 does not describe important aspects of the program (e.g., frequency of testing, updates of the random testing pool). Without an adequate description of the anticipated program, the NRC staff cannot evaluate the proposed rate reduction method within the appropriate context. For example, low positive rates can be indicators of an ineffective random testing program (e.g., if testing at the site is avoidable).

Evidence of Higher Rates of Substance Abuse Among

- **Construction workers**
- **Younger workers**
- **Short-term employees**

- According to SAMHSA, the construction industry ranks 1st or 2nd in usage compared to all occupations and industries in survey (past month use):
 - Illicit drug use: 13.7 to 15.1%
 - Heavy drinking (5 or more drinks in a day, 5 or more days in past 30): 15.9% to 17.8%
- According to SAMHSA, illicit drug use and heavy alcohol use are significantly more common among younger workers (age 18-25) than for older workers:

Demographic Usage (not specific to construction – all survey respondents)

Age Range	Illicit Drugs Past Month	Heavy Drink Last month
18 to 25	19%	16.3%
26 to 34	10.3%	10.4%
35 to 49	7%	8.1%

- According to SAMHSA, illicit drug use is significantly more common among part-time workers than full-time workers:

Employment status and usage (not specific to construction - all survey respondents)

Employment	Illicit Drugs Past Month	Heavy Drink Last month
Full-Time	8.2%	8.8%
Part-Time	11.9%	8.6%

- SAMHSA representatives attended a Subpart K public meeting to advise the NRC about drug and alcohol risks associated with young workers (i.e., 18-25), including young full-time workers who are subject to drug and alcohol testing.
- NRC's FFD data show that positive drug and alcohol test results for short-term contractors are 2-3 times higher than for licensee employees (all test type categories, including pre-employment, random, for-cause). Positive test results for long-term contractors fall between those for short-term workers and those for licensee employees.
- NRC's FFD data show considerably more for-cause tests for short-term workers than for permanent licensee employees. In other words, short-term contractors were identified through observation as raising FFD concerns more times than were permanent employees (who are on site more).

Construction Employees Have More Positives than Transportation Employees

- Usage levels (information in the SAMHSA Worker Substance Use and Workplace Policies and Programs – National Survey on Drug Use and Health) are different in the transit industry and construction industry.

Past Month Heavy Alcohol Use (Full-Time Employees) – (2002-2004):

Occupational Categories

- Construction and Extraction (17.8%, highest occupational usage)
- Transportation and Material-Moving (11.2%)

Industry Categories

- Construction (15.9%, the highest occupational usage)
- Transportation and Warehousing (8.6%)

Past Month Illicit Drug Use (Full-Time Employees) – (2002-2004):

Occupational Categories

- Construction (15.1%, second highest occupational usage)
- Transportation and Warehousing (8.4%)

Industry Categories

- Construction (13.7%, second highest occupational usage)
- Transportation and Warehousing (6.2%)

- The transportation industry is a highly tested industry - one of the most tested industries in America (SAMSHA) in terms of pre-employment testing and subject to testing under large Federal testing programs while the construction industry is not.

Pre-employment testing conducted at workplaces (SAMHSA data)

- Transportation and Material-Moving (73.3% of workplaces, second highest in occupational categories)
- Construction and Extraction (34.7% of workplaces)