

UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
OFFICE OF NUCLEAR REACTOR REGULATION  
WASHINGTON, DC 20555-0001

December 21, 2006

NRC INFORMATION NOTICE 2006-30: SUMMARY OF FITNESS-FOR-DUTY PROGRAM  
PERFORMANCE REPORTS FOR CALENDAR  
YEARS 2004 AND 2005

**ADDRESSEES**

All holders of operating licenses for nuclear power reactors, and licensees authorized to possess or use or to transport formula quantities of strategic special nuclear material.

**PURPOSE**

The U.S. Nuclear Regulatory Commission (NRC) is issuing this information notice (IN) to report lessons learned by licensees from their fitness-for-duty (FFD) program performance reports for 2004 and 2005. The agency expects that recipients of this IN will review the information for applicability to their reactor facilities and consider, as appropriate, taking corrective actions to improve the future performance of their FFD programs. However, suggestions contained in this Information Notice are not NRC requirements and, therefore, no specific actions or written responses is required.

**DESCRIPTION OF CIRCUMSTANCES**

As required by Title 10 of the *Code of Federal Regulations* (10 CFR) Section 26.71(d), NRC licensees have submitted their FFD program performance reports to the NRC within 60 days of the end of each 6-month reporting period (January–June and July–December). In the past, the NRC summarized and analyzed the performance data and published an annual volume, NUREG/CR-5758, “Fitness for Duty in the Nuclear Power Industry—Annual Summary of Program Performance Reports.” The IN in the enclosure provides similar FFD program performance data information for 2004 and 2005.

**DISCUSSION**

Licensees reported the following lessons learned, management initiatives and problems, and the associated corrective actions taken for 2004 and 2005.

(1) Certified Laboratories

Some licensees continue to experience problems with laboratory performance involving equipment malfunctions and have also identified potential weaknesses related to human error.

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For example, licensees reported the following for 2004:

- One licensee reported that a primary laboratory erroneously returned negative results for a specimen that was actually positive for morphine and codeine. The primary laboratory determined a crimped reagent line to be the most likely cause of the error. The laboratory has revised its daily maintenance procedures to include inspection of the lines to the reagent valves.
- One licensee reported that a laboratory returned a negative result for a sample that was actually positive. The licensee entered the issue into the plant's corrective action program. The discrepancy resulted from an isolated, individual human error in which the extraction technician may have failed to add the appropriate amount of urine specimen to the empty test tube before adding the internal standard.
- One licensee reported that a performance sample, spiked for both secobarbital and phenobarbital, tested positive for only phenobarbital at the laboratory. The laboratory reported that testing of the performance sample showed secobarbital 1000 nanograms/milliliter (ng/ml), but the laboratory staff inadvertently entered the data into the laboratory computer as 100 ng/ml. The laboratory advised that it would provide additional training to the certifying scientists on accurately entering results.
- One licensee reported that results took an inappropriate amount of time to arrive from the laboratory. Therefore, the laboratory's responsible person will change the requirements to release results to within 5 working days.
- One licensee reported a typographical error in the field containing the donor identification as reported on the laboratory drug test report. Corrected reports were issued and processed according to applicable internal procedures.

In addition, licensees reported the following for 2005:

- One licensee reported that the certifying scientist signed a certified true copy of a chain-of-custody form with a negative test result for a performance sample spiked with secobarbital and phenobarbital. The Department of Health and Human Services (HHS) certified laboratory identified the error and provided a corrected chain-of-custody form without prompting.
- One licensee reported that the HHS laboratory announced negative results for a positive blind quality assurance (QA) sample.
- One licensee reported that the HHS laboratory announced negative results for two positive blind QA samples sent in the same batch.

- One licensee reported a false negative on a blind performance test sample containing amphetamine/methamphetamine. The error occurred because (1) the confirmation analyst entered the original data incorrectly, and (2) the certifying scientist overlooked the error of the confirmation analyst. Both individuals received counseling on the error and retraining.
- One licensee reported that although the HHS laboratory returned no incorrect results, Hurricane Katrina caused a disruption with its services.

(2) Random Testing

Several licensees reported minor problems related to the random drug and alcohol selection process.

For example, licensees reported the following for 2004:

- One licensee discovered that the FFD random testing pool excluded 25 individuals. The issue was thoroughly investigated and all individuals involved were identified, and they completed an administrative FFD test without any disqualifying outcomes.
- One licensee reported that one short-term contractor was granted unescorted access but was not subject to random selection. The individual's name was not entered into the random selection pool in time for that individual to be subject to random selection. On discovery, the individual's name was immediately entered into the random testing pool, and he was chemically tested under the "other" category, with negative results. The licensee entered the problem into the corrective action process.
- One licensee reported that because a manual step was skipped, the random testing pool excluded 18 individuals for a 4-day period. Upon discovery, the licensee took the steps necessary to update the random testing pool accordingly. The licensee no longer uses the manual step in the random selection process.
- One licensee reported that three workers were not entered into the random testing pool because of a combination of overconfidence based on previous experience, substandard performance of the task, and failure to understand certain actions. The lessons learned from this situation were reviewed with the appropriate staff, and relevant management reports were developed to monitor performance in this area.
- One licensee reported that a failure to perform a self-check resulted in the incorrect coding of a pre-access FFD collection such that the worker was not placed in the random testing pool. The error was detected and

corrected before the worker was granted unescorted access. The staff has been coached on self-checking and peer-checking techniques, including the use of validation reports during peak processing periods.

In addition, licensees reported the following for 2005:

- Five licensees reported that individuals were not placed in the random testing pool following pre-access drug and alcohol testing as intended. Upon discovery, the licensees identified the affected individuals and manually placed their names in the random testing pool. The affected individuals did not know that they were not in the random FFD pool.
- One licensee reported that two names were not entered into the random testing pool in time for random selection. Upon discovery, the individuals' names were immediately entered into the random test testing pool, and they were chemically tested under the "other" category, with negative results.
- One licensee reported that two chemical tests were conducted for two long-term contractor employees who had been inadvertently terminated from the unescorted access database and removed from the FFD random testing pool. Upon discovery, the individuals' names were immediately entered into the random test selection pool, and they were chemically tested under the "other" category, with negative results.

(3) Policies and Procedures

Several licensees reported initiatives to improve their FFD program policies and procedures.

For example, licensees reported the following for 2004:

- Two licensees did not meet the 10 percent blind sample submittal requirement. They are implementing corrective actions and follow-up actions to prevent future recurrence.
- One licensee reported that it listed all the for-cause tests administered under the subcategory "observed behavior," although it should have listed the for-cause test for a particular licensee employee under the sub-category "post-accident."
- One licensee reported that a supervisor did not effectively implement the FFD for-cause testing procedure for an employee who displayed problem behavior. The licensee entered this issue into the plant's corrective action program. The supervisor was required to review the FFD for-cause testing procedure with his manager and received counseling on management expectations for use of the procedure. In addition, the supervisor was required to attend and complete the initial FFD training

class. The licensee distributed information about this event via email to all supervisors and managers. In addition, the supervisors and managers who received the email were required to review the FFD program for-cause testing procedure and confirm by return email that they had read and understood the testing requirements.

- One licensee reported that beer was found in the plant owner controlled area, outside the protected area, during this reporting period. No individual was in the area at the time of discovery. Five days after the discovery of the beer, a contract worker admitted to his supervisor that this beer was his and that he had consumed two cans of beer by himself. Given that the individual had violated site policies regarding bringing alcohol on site and drinking the beer on site, the licensee revoked his unescorted access.
- One licensee reported that a contract employee who did not hold unescorted access attempted to subvert his pre-access urine specimen test, which resulted in a positive test for illegal drugs. The contractor was denied unescorted access to the protected area.
- One licensee reported a contractor employee's intentional falsification of the chain-of-custody form during the pre-access testing process.
- One licensee reported that two for-cause tests were administered on visitors for alcohol discovered in their vehicle during a security search prior to entering the protected area.
- One licensee reported that an individual experienced a confirmed positive test for a single substance based on medication obtained out of the country that is not considered legal in the United States without a prescription.
- One licensee reported that four individuals were tested after alcohol was discovered in their vehicle at the owner controlled area access control point. All tests were negative.
- One licensee reported that an employee and a contractor were tested for-cause after finding marijuana in a coin purse in the protected area. Initially, the coin purse was thought to belong to the contractor so that individual was tested first. However, the licensee employee admitted to inadvertently bringing the coin purse into the protected area, stating that it belonged to his son. The licensee employee and the contractor both tested negative.
- One licensee discovered that it had not submitted its semi-annual FFD performance data report to the NRC. It took immediate action to electronically submit the report to the applicable representative.

In addition, licensees reported the following for 2005:

- One licensee reported that follow-up testing had not been completed when an individual's increased test frequency had not been implemented as required by the Medical Review Officer (MRO). The apparent cause was that the FFD program staff did not update the follow-up tracking sheet to show the increase. To address this issue, the licensee (1) made FFD program staff aware of the issue and (2) developed and implemented a work instruction, including a checklist.
- One licensee reported that two FFD tests were lost between the courier and the laboratory.
- One licensee reported that it sent an insufficient number of positive blind specimens to the laboratory as required by site procedures. Although the number of blind specimens submitted did meet regulatory requirements, the site procedural requirements were more restrictive.
- One licensee did not meet the 10 percent blind sample submittal requirement because of the large number of contractors brought in to support the outage during the last weeks of the third quarter. A condition report was generated and additional blind samples were sent to the laboratory in the beginning of the fourth quarter to raise the average above 10 percent.
- One licensee reported that two individuals were tested after alcohol was discovered in their vehicle at the entrance to the protected area.
- One licensee reported that additional denials were issued for falsification of their chain-of-custody form, and in some cases falsification of their self-disclosure questionnaires.
- One licensee reported that one contractor was asked to provide a second sample during pre-access testing because of his behavior during the collection. The individual started the process and then refused to complete the second collection.
- One licensee reported that a contractor discovered a can of beer that had been inadvertently placed in his lunch-box. The individual was escorted off site and security was notified. The individual was interviewed by the FFD program manager, who determined that the introduction of alcohol was not intentional.
- One licensee determined that a non-supervisory, station contract employee was incorrectly granted access to the protected area.
- One licensee reported that it overstated the number of tests originally reported as for-cause.

- One licensee reported that two steroid tests were conducted on an individual per MRO recommendation. Both tests results were negative.
- One licensee reported that during compilation of the semiannual data, it identified that a computer error had persisted throughout 2005 and invalidated the report. The licensee submitted a revision.
- One licensee reported that United Parcel Service delivered three packages to the plant. When a clerk in the administration building, located in the main protected area, opened the packages, the clerk discovered that they contained unopened wine bottles. The clerk notified plant security and removed all three packages from the plant protected area and later removed the material from the plant site. It was determined that all the wine bottles were unopened and no one consumed any wine inside the plant protected area.
- One licensee reported that it misrepresented a return-to-duty test for a long-term contractor following a positive alcohol result as a follow-up test.
- One licensee reported that on two occasions the Collection Site Person failed to administer breath tests as required, as a result of inexperience.
- One licensee identified instances in which unescorted access was erroneously granted. The licensee is conducting an evaluation to determine the cause of the error and to take corrective action.

(4) Program and System Management

In general, most licensees continue to report improvements in their overall FFD program and its management.

For example, licensees reported the following for 2004:

- One licensee met with the laboratory, collection site, MRO, employee assistant program, and psychological assessment personnel to ensure consistent and effective implementation of the FFD program.
- One licensee recertified collection personnel for proficiency in urine specimen collection and breath alcohol measurement, continued cross-training with the In-Processing Center, attended quality improvement program testing to help align access authorization and FFD programs, revised office instructions and protocols, and is implementing a new computer program that will benefit access authorization and FFD activities.
- Ten licensees reported more restrictive cut-off levels for marijuana.

- Two licensees reported more stringent cut-off levels for alcohol.
- One licensee reported more stringent cut-off levels for opiates.
- Two licensees reported more stringent cut-off levels for amphetamines.
- One licensee tests for two additional substances (names of substances not listed).
- One licensee reported improving the electronic database used for initiating and approving working-hour deviation requests.

In addition, licensees reported the following for 2005:

- One licensee reported more stringent cut-off levels for opiates.
- Ten licensees reported more stringent cut-off levels for marijuana.
- Two licensees reported more stringent cut-off levels for amphetamines.
- Two licensees reported more stringent cut-off levels for alcohol.
- One licensee reported testing for two additional substances (substances not named).
- Two licensees reported testing for four additional substances (barbiturates, benzodiazepines, methadone, and propoxyphene).
- One licensee reported meeting with laboratory staff, collection site staff, MROs, employee assistance program staff, and psychological assessment staff to assure consistent effective implementation of the FFD program.
- One licensee met with the MROs to assure consistent effective implementation of the FFD program.



## CONTACT

This information notice requires no specific action or written response. Please direct any questions about this matter to the technical contact listed below.

*/RA by Theodore Quay for/*

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Enclosure: Tables for Fitness-for-Duty (FFD) 2004–2005

Note: NRC generic communications may be found on the NRC public Web site, <http://www.nrc.gov>, under Electronic Reading Room/Document Collections.

**TABLES FOR FITNESS-FOR-DUTY (FFD) 2004-2005**

**Table 1A  
2004 Test Results for Each Test category**

<b>TEST CATEGORY</b>	<b>NUMBER OF TESTS</b>	<b>POSITIVE TESTS</b>	<b>PERCENT POSITIVES</b>
<b>Pre-Access</b>	76,119	737	0.97%
<b>Random</b>	51,239	127	0.25%
<b>For-Cause</b>	1,159	139	11.99%
<b>Follow-Up</b>	3,752	31	0.83%
<b>Other</b>	1,221	41	3.36%
<b>TOTAL*</b>	<b>133,490</b>	<b>1,075</b>	<b>0.81%</b>
<b>TOTAL without OTHER Category</b>	<b>132,269</b>	<b>1,034</b>	<b>0.78%</b>

\*These totals were calculated using "Other" test category. This category includes results from the periodic testing done by some reporting units during annual physicals or similar periodic activities. Although some reporting units specified the nature of the "Other" tests (e.g., return to work), most reporting units did not give this information.

**Table 1B  
2005 Test Results for Each Test category**

<b>TEST CATEGORY</b>	<b>NUMBER OF TESTS</b>	<b>POSITIVE TESTS</b>	<b>PERCENT POSITIVES</b>
<b>Pre-Access</b>	79,005	648	0.82%
<b>Random</b>	50,286	147	0.29%
<b>For-Cause</b>	1,161	106	9.13%
<b>Follow-Up</b>	4,057	31	0.76%
<b>Other</b>	1,193	47	3.94%
<b>TOTAL*</b>	<b>135,702</b>	<b>979</b>	<b>0.72%</b>
<b>TOTAL without OTHER Category</b>	<b>134,509</b>	<b>932</b>	<b>0.69%</b>

\*These totals were calculated using "Other" test category. This category includes results from the periodic testing done by some reporting units during annual physicals or similar periodic activities. Although some reporting units specified the nature of the "Other" tests (e.g., return to work), most reporting units did not give this information.

**Table 2A**  
**2004 Test Results for Each Test Category and Work Category**

(January through December 2004)

<b>TEST CATEGORY</b>	<b>LICENSEE EMPLOYEES</b>	<b>LONG-TERM CONTRACTORS</b>	<b>SHORT-TERM CONTRACTORS</b>	<b>TOTAL</b>
<b>Pre-Access</b>				
Number Tested	7,661	1,095	67,363	<b>76,119</b>
Number Positive	35	8	694	<b>737</b>
Percent Positive	0.46%	0.73%	1.03%	<b>0.97%</b>
<b>Random</b>				
Number Tested	34,723	1,399	15,117	<b>51,239</b>
Number Positive	51	6	70	<b>127</b>
Percent Positive	0.15%	0.43%	0.46%	<b>0.25%</b>
<b>For-Cause</b>				
Number Tested	458	46	655	<b>1,159</b>
Number Positive	23	1	115	<b>139</b>
Percent Positive	5.02%	2.17%	17.56%	<b>11.99%</b>
<b>Follow-Up</b>				
Number Tested	2,058	55	1,639	<b>3,752</b>
Number Positive	14	0	17	<b>31</b>
Percent Positive	0.68%	0.00%	1.04%	<b>0.83%</b>
<b>Other</b>				
Number Tested	630	117	474	<b>1,221</b>
Number Positive	4	0	37	<b>41</b>
Percent Positive	0.63%	0.00%	7.81%	<b>3.36%</b>
<b>TOTAL</b>				
Number Tested	45,530	2,712	85,248	<b>133,490</b>
Number Positive	127	15	933	<b>1,075</b>
Percent Positive	0.28%	0.55%	1.09%	<b>0.81%</b>
<b>TOTAL without OTHER Category</b>				
Number Tested	<b>44,900</b>	<b>2,595</b>	<b>84,774</b>	<b>132,269</b>
Number Positive	<b>123</b>	<b>15</b>	<b>896</b>	<b>1,034</b>
Percent Positive	<b>0.27%</b>	<b>0.58%</b>	<b>1.06%</b>	<b>0.78%</b>

**Table 2B**  
**2005 Test Results for Each Test Category and Work Category**

(January through December 2005)

<b>TEST CATEGORY</b>	<b>LICENSEE EMPLOYEES</b>	<b>LONG-TERM CONTRACTORS</b>	<b>SHORT-TERM CONTRACTORS</b>	<b>TOTAL</b>
<b>Pre-Access</b>				
Number Tested	8,210	767	70,028	<b>79,005</b>
Number Positive	28	12	608	<b>648</b>
Percent Positive	0.34%	1.56%	0.87%	<b>0.82%</b>
<b>Random</b>				
Number Tested	33,587	1,533	15,166	<b>50,286</b>
Number Positive	60	5	82	<b>147</b>
Percent Positive	0.18%	0.33%	0.54%	<b>0.29%</b>
<b>For-Cause</b>				
Number Tested	509	59	593	<b>1,161</b>
Number Positive	19	2	85	<b>106</b>
Percent Positive	3.73%	3.39%	14.33%	<b>9.13%</b>
<b>Follow-Up</b>				
Number Tested	2,099	79	1,879	<b>4,057</b>
Number Positive	15	0	16	<b>31</b>
Percent Positive	0.71%	0.00%	0.85%	<b>0.76%</b>
<b>Other</b>				
Number Tested	548	87	558	<b>1,193</b>
Number Positive	2	0	45	<b>47</b>
Percent Positive	0.36%	0.00%	8.06%	<b>3.94%</b>
<b>TOTAL</b>				
Number Tested	<b>44,953</b>	<b>2,525</b>	<b>88,224</b>	<b>135,702</b>
Number Positive	<b>124</b>	<b>19</b>	<b>836</b>	<b>979</b>
Percent Positive	<b>0.28%</b>	<b>0.75%</b>	<b>0.95%</b>	<b>0.72%</b>
<b>TOTAL without OTHER Category</b>				
Number Tested	<b>44,405</b>	<b>2,438</b>	<b>87,666</b>	<b>134,509</b>
Number Positive	<b>122</b>	<b>19</b>	<b>791</b>	<b>932</b>
Percent Positive	<b>0.27%</b>	<b>0.78%</b>	<b>0.90%</b>	<b>0.69%</b>

**Table 3A**  
**2004 Test Results by Test Category**

(January through December 2004)

<b>TEST CATEGORY</b>	<b>FIRST SIX MONTHS</b>	<b>SECOND SIX MONTHS</b>	<b>YEAR</b>
<b>Pre-Access</b>			
Number Tested	38,390	37,729	76,119
Number Positive	381	356	737
Percent Positive	0.99%	0.94%	0.97%
<b>Random</b>			
Number Tested	25,465	25,774	51,239
Number Positive	54	73	127
Percent Positive	0.21%	0.28%	0.25%
<b>For-Cause</b>			
<i>Observed Behavior</i>			
Number Tested	344	357	701
Number Positive	68	66	134
Percent Positive	19.77%	18.49%	19.12%
<i>Post-Accident</i>			
Number Tested	211	247	458
Number Positive	2	3	5
Percent Positive	0.95%	1.21%	1.09%
<b>Follow-Up</b>			
Number Tested	1,825	1,927	3,752
Number Positive	18	13	31
Percent Positive	0.99%	0.67%	0.83%
<b>Other</b>			
Number Tested	681	540	1,221
Number Positive	18	23	41
Percent Positive	2.64%	4.26%	3.36%
<b>TOTAL</b>			
Number Tested	<b>66,916</b>	<b>66,574</b>	<b>133,490</b>
Number Positive	<b>541</b>	<b>534</b>	<b>1,075</b>
Percent Positive	<b>0.81%</b>	<b>0.80%</b>	<b>0.81%</b>
<b>TOTAL without OTHER Category</b>			
Number Tested	<b>66,235</b>	<b>66,034</b>	<b>132,269</b>
Number Positive	<b>523</b>	<b>511</b>	<b>1,034</b>
Percent Positive	<b>0.79%</b>	<b>0.77%</b>	<b>0.78%</b>

**Table 3B**  
**2005 Test Results Test Category**

(January through December 2005)

<b>TEST CATEGORY</b>	<b>FIRST SIX MONTHS</b>	<b>SECOND SIX MONTHS</b>	<b>YEAR</b>
<b>Pre-Access</b>			
Number Tested	45,885	33,120	79,005
Number Positive	373	275	648
Percent Positive	0.81%	0.83%	0.82%
<b>Random</b>			
Number Tested	28,866	23,420	50,286
Number Positive	70	77	147
Percent Positive	0.26%	0.33%	0.29%
<b>For-Cause</b>			
<i>Observed Behavior</i>			
Number Tested	352	319	671
Number Positive	68	37	105
Percent Positive	19.32%	11.60%	15.65%
<i>Post-Accident</i>			
Number Tested	233	257	490
Number Positive	0	1	1
Percent Positive	0.00%	0.39%	0.20%
<b>Follow-Up</b>			
Number Tested	2,114	1,943	4,057
Number Positive	15	16	31
Percent Positive	0.71%	0.82%	0.76%
<b>Other</b>			
Number Tested	545	648	1,193
Number Positive	20	27	47
Percent Positive	3.67%	4.17%	3.94%
<b>TOTAL</b>			
Number Tested	<b>49,129</b>	<b>36,287</b>	<b>85,416</b>
Number Positive	<b>476</b>	<b>356</b>	<b>832</b>
Percent Positive	<b>0.97%</b>	<b>0.98%</b>	<b>0.97%</b>
<b>TOTAL without OTHER Category</b>			
Number Tested	<b>75,450</b>	<b>59,059</b>	<b>134,509</b>
Number Positive	<b>526</b>	<b>406</b>	<b>932</b>
Percent Positive	<b>0.70%</b>	<b>0.69%</b>	<b>0.69%</b>

**Table 4A**  
**2004 Test Results for Licensee Employees and Contractor Personnel**

(January through December 2004)

	Licensee Employees		Long-Term Contractors		Short-Term Contractors			
TEST CATEGORY	First Six Months	Second Six Months	Year	First Six Months	Second Six Months	Year	First Six Months	S
<b>Pre-Access</b>								
Number Tested	4,183	3,478	7,661	476	619	1,095	33,731	
Number Positive	22	13	35	2	6	8	357	
Percent Positive	0.53%	0.37%	0.46%	0.42%	0.97%	0.73%	1.06%	
<b>Random</b>								
Number Tested	17,613	17,110	34,723	594	805	1,399	7,258	
Number Positive	24	27	51	1	5	6	29	
Percent Positive	0.14%	0.16%	0.15%	0.17%	0.62%	0.43%	0.40%	
<b>For-Cause</b>								
<i>Observed Behavior</i>								
Number Tested	139	127	266	7	11	18	198	
Number Positive	13	10	23	0	0	0	55	
Percent Positive	9.35%	7.87%	8.65%	0.00%	0.00%	0.00%	27.78%	
<i>Post-Accident</i>								
Number Tested	108	84	192	8	20	28	95	
Number Positive	0	0	0	1	0	1	1	
Percent Positive	0.00%	0.00%	0.00%	12.50%	0.00%	3.57%	1.05%	

**Table 4A**  
**2004 Test Results for Licensee Employees and Contractor Personnel Continued**

(January through December 2004)

TEST CATEGORY	Licensee Employees			Long-Term Contractors			Short-Term Contractors		
	First Six Months	Second Six Months	Year	First Six Months	Second Six Months	Year	First Six Months	Second Six Months	Year
<b>Follow-Up</b>									
Number Tested	986	1,072	2,058	22	33	55	817	822	1,639
Number Positive	8	6	14	0	0	0	10	7	17
Percent Positive	0.81%	0.56%	0.68%	0.00%	0.00%	0.00%	1.22%	0.85%	1.04%
<b>Other</b>									
Number Tested	331	299	630	76	41	117	274	200	474
Number Positive	4	0	4	0	0	0	14	23	37
Percent Positive	1.21%	0.00%	0.63%	0.00%	0.00%	0.00%	5.11%	11.50%	7.81%
<b>TOTAL</b>									
Number Tested	<b>23,360</b>	<b>22,170</b>	<b>45,530</b>	<b>1,183</b>	<b>1,529</b>	<b>2,712</b>	<b>42,373</b>	<b>42,875</b>	<b>85,248</b>
Number Positive	<b>71</b>	<b>56</b>	<b>127</b>	<b>4</b>	<b>11</b>	<b>15</b>	<b>466</b>	<b>467</b>	<b>933</b>
Percent Positive	<b>0.30%</b>	<b>0.25%</b>	<b>0.28%</b>	<b>0.34%</b>	<b>0.72%</b>	<b>0.55%</b>	<b>1.10%</b>	<b>1.09%</b>	<b>1.09%</b>
<b>TOTAL w/o OTHER Category</b>									
Number Tested	<b>23,029</b>	<b>21,871</b>	<b>44,900</b>	<b>1,107</b>	<b>1,488</b>	<b>2,595</b>	<b>42,099</b>	<b>42,675</b>	<b>84,774</b>
Number Positive	<b>67</b>	<b>56</b>	<b>123</b>	<b>4</b>	<b>11</b>	<b>15</b>	<b>452</b>	<b>444</b>	<b>896</b>
Percent Positive	<b>0.29%</b>	<b>0.26%</b>	<b>0.27%</b>	<b>0.36%</b>	<b>0.74%</b>	<b>0.58%</b>	<b>1.07%</b>	<b>1.04%</b>	<b>1.06%</b>



**Table 4B**  
**2005 Test Results for Licensee Employees and Contractor Personnel**

(January through December 2005)

TEST CATEGORY	Licensee Employees			Long-Term Contractors			Short-Term Contractors		
	First Six Months	Second Six Months	Year	First Six Months	Second Six Months	Year	First Six Months	Second Six Months	Year
<b>Pre-Access</b>									
Number Tested	4,827	3,383	8,210	404	363	767	40,654	29,374	70,028
Number Positive	19	9	28	5	7	12	349	259	608
Percent Positive	0.39%	0.27%	0.34%	1.24%	1.93%	1.56%	0.86%	0.88%	0.87%
<b>Random</b>									
Number Tested	17,897	15,690	33,587	753	780	1,533	8,216	6,950	15,166
Number Positive	30	30	60	2	3	3	38	44	82
Percent Positive	0.17%	0.19%	0.18%	0.27%	0.38%	0.33%	0.46%	0.63%	0.54%
<b>For-Cause</b>									
<i>Observed Behavior</i>									
Number Tested	155	154	309	8	8	16	189	157	346
Number Positive	11	8	19	0	2	2	57	27	84
Percent Positive	7.10%	5.19%	6.15%	0.00%	25.00%	12.50%	30.16%	17.20%	24.28%
<i>Post-Accident</i>									
Number Tested	106	94	200	20	23	43	107	140	247
Number Positive	0	0	0	0	0	0	0	1	1
Percent Positive	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.71%	0.40%
<b>Follow-Up</b>									
Number Tested	1,054	1,045	2,099	39	40	79	1,021	858	1,879
Number Positive	6	9	15	0	0	0	9	7	16
Percent Positive	0.57%	0.86%	0.71%	0.00%	0.00%	0.00%	0.88%	0.82%	0.85%

**Table 4B**  
**2005 Test Results for Licensee Employees and Contractor Personnel Continued**

(January through December 2005)

TEST CATEGORY	Licensee Employees			Long-Term Contractors			Short-Term Contractors		
	First Six Months	Second Six Months	Year	First Six Months	Second Six Months	Year	First Six Months	Second Six Months	Year
<b>Other</b>									
Number Tested	281	267	548	36	51	87	228	330	558
Number Positive	1	1	2	0	0	0	19	26	45
Percent Positive	0.36%	0.37%	0.36%	0.00%	0.00%	0.00%	8.33%	7.88%	8.06%
<b>TOTAL</b>									
Number Tested	<b>24,320</b>	<b>20,633</b>	<b>44,953</b>	<b>1,260</b>	<b>1,265</b>	<b>2,525</b>	<b>50,415</b>	<b>37,809</b>	<b>88,224</b>
Number Positive	<b>67</b>	<b>57</b>	<b>124</b>	<b>7</b>	<b>12</b>	<b>19</b>	<b>472</b>	<b>364</b>	<b>836</b>
Percent Positive	<b>0.28%</b>	<b>0.28%</b>	<b>0.28%</b>	<b>0.56%</b>	<b>0.95%</b>	<b>0.75%</b>	<b>0.94%</b>	<b>0.96%</b>	<b>0.95%</b>
<b>TOTAL w/o OTHER Category</b>									
Number Tested	<b>24,039</b>	<b>20,366</b>	<b>44,405</b>	<b>1,224</b>	<b>1,214</b>	<b>2,438</b>	<b>50,187</b>	<b>37,479</b>	<b>87,666</b>
Number Positive	<b>66</b>	<b>56</b>	<b>122</b>	<b>7</b>	<b>12</b>	<b>19</b>	<b>453</b>	<b>338</b>	<b>791</b>
Percent Positive	<b>0.27%</b>	<b>0.27%</b>	<b>0.27%</b>	<b>0.57%</b>	<b>0.99%</b>	<b>0.78%</b>	<b>0.90%</b>	<b>0.90%</b>	<b>0.90%</b>

**Table 5A**  
**2004 Number of Confirmed Positives by Substance**

(January through December 2004)

TYPE OF SUBSTANCE	FIRST SIX MONTHS		SECOND SIX MONTHS		TOTAL	
	Number	Percent	Number	Percent	Number	Percent
Marijuana	275	50.74%	239	46.32%	514	48.58%
Cocaine	115	21.22%	132	25.58%	247	23.35%
Opiates	8	1.48%	6	1.16%	14	1.32%
Amphetamines	34	6.27%	26	5.04%	60	5.67%
Phencyclidine	1	0.18%	0	0.00%	1	0.09%
Alcohol	109	20.11%	113	21.90%	222	20.98%
<b>TOTAL</b>	<b>542</b>		<b>516</b>		<b>1,058</b>	

**Table 5B**  
**2005 Number of Confirmed Positives by Substance**

(January through December 2005)

TYPE OF SUBSTANCE	FIRST SIX MONTHS		SECOND SIX MONTHS		TOTAL	
	Number	Percent	Number	Percent	Number	Percent

Marijuana	240	44.86%	192	46.15%	432	45.43%
Cocaine	140	26.17%	106	25.48%	246	25.87%
Opiates	7	1.31%	9	2.16%	16	1.68%
Amphetamines	40	7.48%	19	40.57%	59	6.20%
Phencyclidine	1	0.19%	1	0.24%	2	0.21%
Alcohol	107	20.00%	89	21.39%	196	20.61%
<b>TOTAL</b>	<b>535</b>		<b>416</b>		<b>951</b>	

**Table 6A**  
**2004 Confirmed Positive Test Results by Substance and Work Category**

(January through December 2004)

TYPE OF SUBSTANCE	LICENSEE EMPLOYEES		CONTRACTORS (Long-Term/Short-Term)	
	Number	Percent	Number	Percent
Marijuana	43	33.82%	471	50.81%
Cocaine	23	17.56%	224	24.16%
Opiates	3	2.29%	11	1.19%
Amphetamines	5	3.82%	55	5.93%
Phencyclidine	0	0.00%	1	0.11%
Alcohol	57	43.51%	165	17.80%
<b>TOTAL</b>	<b>131</b>		<b>927</b>	

**Table 6B**  
**2005 Confirmed Positive Test Results by Substance and Work Category**

(January through December 2005)

TYPE OF SUBSTANCE	LICENSEE EMPLOYEES		CONTRACTORS (Long-Term/Short-Term)	
	Number	Percent	Number	Percent
Marijuana	35	29.66%	397	47.66%
Cocaine	22	18.64%	224	26.89%
Opiates	3	2.54%	13	1.56%
Amphetamines	6	5.08%	53	6.36%
Phencyclidine	0	0.00%	2	0.24%
Alcohol	52	44.07%	144	17.29%
<b>TOTAL</b>	<b>118</b>		<b>833</b>	

**Table 7**  
**Significant Fitness-for-Duty Events (1990-1999)**

Type of Event	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Total
Reactor Operators	19	16	18	8	7	8	8	9	5	5	103
Licensee Supervisors	26	18	22	25	11	16	19	16	10	2	165
Contract Supervisors	12	24	28	16	11	10	8	10	10	12	141
FFD Program Personnel	1	5	0	0	1	0	2	0	3	2	14
Substances Found	6	8	6	2	0	5	5	4	0	2	38
Adulterated Specimen											0
<b>Total</b>	<b>64</b>	<b>71</b>	<b>74</b>	<b>51</b>	<b>30</b>	<b>39</b>	<b>42</b>	<b>39</b>	<b>28</b>	<b>23</b>	<b>461</b>

**Significant Fitness-for-Duty Events (2000-2005) Continued**

Type of Event	2000	2001	2002	2003	2004	2005	Total
Reactor Operators	5	4	3	6	9	5	32
Licensee Supervisors	11	9	3	3	7	13	46
Contract Supervisors	8	12	12	8	4	14	58
FFD Program Personnel	0	0	3	0	0	1	4
Substances Found	3	0	1	2	9	9	24
Adulterated Specimen				9	23	29	61
<b>Total</b>	<b>27</b>	<b>25</b>	<b>22</b>	<b>28</b>	<b>52</b>	<b>71</b>	<b>225</b>

**Table 8**  
**Trends in testing by test type (1990-1999)**

<b>Type of Test</b>	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	<b>Total</b>
<b>Pre-Access</b>											
Number Tested	122,491	104,508	104,842	91,471	80,217	79,305	81,041	84,320	69,146	69,139	<b>888,480</b>
Number Positive	1,548	983	1,110	952	977	1,122	1,132	1,096	822	934	<b>10,676</b>
Percent Positive	1.26%	0.94%	1.06%	1.04%	1.22%	1.41%	1.40%	1.30%	1.19%	1.35%	<b>1.20%</b>
<b>Random</b>											
Number Tested	148,743	153,818	156,730	146,605	78,391	66,791	62,307	60,829	56,969	54,457	<b>985,640</b>
Number Positive	550	510	461	341	223	180	202	172	157	140	<b>2,936</b>
Percent Positive	0.37%	0.33%	0.29%	0.23%	0.28%	0.27%	0.32%	0.28%	0.28%	0.26%	<b>0.30%</b>
<b>For-Cause</b>											
Number Tested	732	727	696	751	758	763	848	722	720	736	<b>7,453</b>
Number Positive	214	167	178	163	122	139	138	149	100	120	<b>1,490</b>
Percent Positive	29.23%	22.97%	25.27%	21.70%	16.09%	18.22%	16.27%	20.64%	13.89%	16.30%	<b>20.00%</b>



**Table 8**  
**Trends in testing by test type (1990-1999) Continued**

<b>Type of Test</b>	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	<b>Total</b>
<i>Follow-up</i>											
Number Tested	2,633	3,544	4,283	4,139	3,875	3,262	3,262	3,296	2,863	3,008	<b>34,165</b>
Number Positive	65	62	69	56	50	35	40	31	43	30	<b>481</b>
Percent Positive	2.47%	1.75%	1.61%	1.35%	1.29%	1.07%	1.23%	0.94%	1.50%	1.00%	<b>1.41%</b>
<b>TOTAL*</b>											
Number Tested	<b>274,599</b>	<b>262,597</b>	<b>266,551</b>	<b>242,966</b>	<b>163,241</b>	<b>150,121</b>	<b>147,458</b>	<b>149,167</b>	<b>129,698</b>	<b>127,340</b>	<b>1,913,738</b>
Number Positive	<b>2,377</b>	<b>1,722</b>	<b>1,818</b>	<b>1,512</b>	<b>1,372</b>	<b>1,476</b>	<b>1,512</b>	<b>1,448</b>	<b>1,122</b>	<b>1,224</b>	<b>15,583</b>
Percent Positive	<b>0.87%</b>	<b>0.66%</b>	<b>0.68%</b>	<b>0.62%</b>	<b>0.84%</b>	<b>0.98%</b>	<b>1.03%</b>	<b>0.97%</b>	<b>0.87%</b>	<b>0.96%</b>	<b>0.81%</b>

\* Does not include test results from the "Other" test category.

**Table 8**  
**Trends in testing by test type (2000-2005) Continued**

<b>Type of Test</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>Total</b>
<b>Pre-Access</b>							
Number Tested	6 8,333	63,744	7 3,155	72,988	7 6,119	79,005	<b>433,344</b>
Number Positive	965	720	805	757	737	648	<b>4,632</b>
Percent Positive	1.41%	1.13%	1.10%	1.04%	0.97%	0.82%	<b>1.07%</b>
<b>Random</b>							
Number Tested	5 1,955	50,080	4 9,741	49,402	5 1,239	50,286	<b>302,703</b>
Number Positive	204	148	114	132	127	147	<b>871</b>
Percent Positive	0.39%	0.30%	0.23%	0.27%	0.25%	0.29%	<b>0.29%</b>
<b>For-Cause</b>							
Number Tested	883	730	1,072	1,052	1,159	1,161	<b>6,053</b>
Number Positive	138	101	112	126	139	106	<b>721</b>
Percent Positive	15.67%	13.84%	10.45%	11.98%	11.99%	9.13%	<b>11.91%</b>
<b>Follow-up</b>							
Number Tested	2,861	2,649	2,892	3,142	3,752	4,057	<b>19,314</b>
Number Positive	49	35	21	42	31	31	<b>209</b>
Percent Positive	1.71%	1.32%	0.73%	1.34%	0.83%	0.76%	<b>1.08%</b>
<b>TOTAL*</b>							
<b>Number Tested</b>	<b>124,032</b>	<b>118,730</b>	<b>128,321</b>	<b>127,785</b>	<b>132,269</b>	<b>134,509</b>	<b>764,701</b>
<b>Number Positive</b>	<b>1,356</b>	<b>1,036</b>	<b>1,091</b>	<b>1,094</b>	<b>1,034</b>	<b>932</b>	<b>6,538</b>
<b>Percent Positive</b>	<b>1.09%</b>	<b>0.87%</b>	<b>0.85%</b>	<b>0.86%</b>	<b>0.78%</b>	<b>0.69%</b>	<b>0.85%</b>

\* Does not include test results from the "Other" test category.

**Table 9**  
**Trends in Substances Identified (1990-1999)**

<b>Substance</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>
Marijuana	1,153	746	953	781	739	819	868	842	606	672
Cocaine	706	549	470	369	344	374	352	336	269	273
Alcohol	452	401	427	357	251	265	281	262	212	230
Amphetamines	69	31	31	51	54	61	53	49	46	40
Opiates	45	24	8	13	11	17	14	39	19	16
Phencyclidine	8	11	4	5	1	7	2	0	1	2
<b>Total*</b>	<b>2,433</b>	<b>1,762</b>	<b>1,893</b>	<b>1,576</b>	<b>1,400</b>	<b>1,543</b>	<b>1,570</b>	<b>1,528</b>	<b>1,153</b>	<b>1,233</b>

\* These totals do not equal the total number of positives for each year because some positives were for multiple substances and for other substances than those listed above.

**Table 9**  
**Trends in Substances Identified (2000-2005) Continued**

<b>Substance</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
Marijuana	620	523	560	518	514	432
Cocaine	251	225	228	228	247	246
Alcohol	211	212	214	199	222	196
Amphetamines	50	50	47	64	60	59
Opiates	32	17	21	17	14	16
Phencyclidine	1	2	3	0	1	2
<b>Total*</b>	<b>1,168</b>	<b>1,029</b>	<b>1,069</b>	<b>1,026</b>	<b>1,056</b>	<b>951</b>

\* These totals do not equal the total number of positives for each year because some positives were for multiple substances and for other substances than those listed above.

**Table 10**  
**Trends in Positive Test Rates For Workers With Unescorted Access (1990-2005)\***

<b>Year</b>	<b>Positive Test Rate</b>
1990	0.54%
1991	0.47%
1992	0.44%
1993	0.37%
1994	0.48%
1995	0.50%
1996	0.57%
1997	0.54%
1998	0.50%
1999	0.50%
2000	0.70%
2001	0.53%
2002	0.46%
2003	0.56%
2004	0.51%
2005	0.49%

\* Includes random, for-cause, testing results. The reduction in random test rate from 100% to 50% has been in effect since 1994.