

## Summary of FFD Program Performance Reports for 2002

Since the fitness-for-duty (FFD) rule (10 CFR Part 26) was published, licensees have submitted program performance reports to the NRC as required by 10 CFR 26.71(d). In the past, the NRC published a summary and analysis of calendar year data submitted by the licensee in an annual volume of NUREG/CR-5758, "Fitness for Duty in the Nuclear Power Industry - Annual Summary of Program Performance Reports." The tables below provide the information for calendar year 2002 and summarize data from 1990 to 2002.

**Table 1 - 2002 Test Results for Each Test Category**

TEST CATEGORY	NUMBER OF TESTS	2002 POSITIVE TESTS	PERCENT POSITIVE
Pre-Access	73,188	805	1.10%
Random	49,848	114	0.23%
For-Cause	1,072	112	10.45%
Followup	2,892	21	0.73%
Other	1,462	39	2.67%
TOTAL *	128,462	1,091	0.85%
TOTAL without OTHER Category	127,000	1,052	0.83%

\* These totals were calculated using the 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 2 - 2002 Test Results for Each Test Category and Work Category**

(January through December 2002)

Test Category	Licensee Employees	Long-Term Contractors	Short-Term Contractors	Total
Pre-Access				
Number Tested	8,050	1,257	63,881	73,188
Number Positive	28	10	767	805
Percent Positive	0.35%	0.80%	1.20%	1.10%
Random				
Number Tested	35,608	1,298	12,942	49,848
Number Positive	55	1	58	114
Percent Positive	0.15%	0.08%	0.45%	0.23%
For-Cause				
Number Tested	458	22	592	1,072
Number Positive	23	1	88	112
Percent Positive	5.02%	4.55%	14.86%	10.45%
Followup				
Number Tested	1,789	33	1,070	2,892
Number Positive	11	0	10	21
Percent Positive	0.61%	0.00%	0.93%	0.73%
Other				
Number Tested	618	137	706	1,462
Number Positive	6	0	33	39
Percent Positive	0.97%	0.00%	4.67%	2.67%
TOTAL				
Number Tested	46,524	2,747	79,191	128,462
Number Positive	123	12	956	1,091
Percent Positive	0.26%	0.44%	1.21%	0.85%
TOTAL without OTHER Category				
Number Tested	45,905	2,610	78,485	127,000
Number Positive	117	12	923	1,052
Percent Positive	0.26%	0.46%	1.18%	0.83%

**Table 3 - 2002 Test Results by Test Category**

(January through December 2002)

TEST CATEGORY	FIRST SIX MONTHS	SECOND SIX MONTHS	YEAR
Pre-Access			
Number Tested	39,277	33,911	73,188
Number Positive	484	321	805
Percent Positive	1.23%	0.95%	1.10%
Random			
Number Tested	25,407	24,441	49,848
Number Positive	66	48	114
Percent Positive	0.26%	0.20%	0.23%
For-Cause			
Observed Behavior			
Number Tested	336	281	617
Number Positive	68	42	110
Percent Positive	20.24%	14.95%	17.83%
Post-Accident			
Number Tested	191	264	455
Number Positive	2	0	2
Percent Positive	1.05%	0.00%	0.44%
Follow-Up			
Number Tested	1,485	1,407	2,892
Number Positive	12	9	21
Percent Positive	0.81%	0.64%	0.73%
Other			
Number Tested	835	627	1,462
Number Positive	23	16	39
Percent Positive	2.75%	2.55%	2.67%
TOTAL			
Number Tested	67,531	60,931	128,462
Number Positive	655	436	1,091
Percent Positive	0.97%	0.72%	0.85%
TOTAL without OTHER Category			
Number Tested	66,696	60,304	127,000
Number Positive	632	420	1,052
Percent Positive	0.95%	0.70%	0.83%

**Table 4 - 2002 Test Results for Licensee Employees and Contractor Personnel**

(January through December 2002)

TEST	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
Pre-Access									
Number Tested	4,633	3,417	8,050	774	483	1,257	33,870	30,011	63,881
Number Positive	19	9	28	6	4	10	459	308	767
Percent Positive	0.41%	0.26%	0.35%	0.78%	0.83%	0.80%	1.36%	1.03%	1.20%
Random									
Number Tested	18,106	17,502	35,608	681	617	1,298	6,620	6,322	12,942
Number Positive	28	27	55	1	0	1	37	21	58
Percent Positive	0.15%	0.15%	0.15%	0.15%	0.00%	0.08%	0.56%	0.33%	0.45%
For-Cause									
Observed Behavior									
Number Tested	138	105	243	6	2	8	192	174	366
Number Positive	12	11	23	1	0	1	55	31	86
Percent Positive	8.70%	10.48%	9.47%	16.67%	0.00%	12.56%	28.65%	17.82%	23.50%
Post-Accident									
Number Tested	79	136	215	7	7	14	105	121	226
Number Positive	0	0	0	0	0	0	2	0	2
Percent Positive	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.90%	0.00%	0.88%
Followup									
Number Tested	869	920	1,789	10	23	33	606	464	1,070
Number Positive	6	5	11	0	0	0	6	4	10
Percent Positive	0.69%	0.54%	0.61%	0.00%	0.00%	0.00%	0.99%	0.86%	0.93%
Other									
Number Tested	328	291	619	110	27	137	397	309	706
Number Positive	3	3	6	0	0	0	20	13	33
Percent Positive	0.91%	1.03%	0.97%	0.00%	0.00%	0.00%	5.04%	4.021%	4.67%
TOTAL									
Number Tested	24,153	22,371	46,524	1,588	1,159	2,747	41,790	37,401	79,191
Number Positive	68	55	123	8	4	12	579	377	956
Percent Positive	0.28%	0.25%	0.26%	0.50%	0.35%	0.44%	1.39%	1.01%	1.21%
TOTAL without OTHER Category									
Number Tested	23,825	22,080	45,905	1,478	1,132	2,610	41,393	37,092	78,485
Number Positive	65	52	117	8	4	12	559	364	923
Percent Positive	0.27%	0.24%	0.25%	0.54%	0.35%	0.46%	1.35%	0.98%	1.18%

**Table 5 - 2002 Number of Confirmed Positives by Substance**

(January through December 2002)

	FIRST SIX MONTHS		SECOND SIX MONTHS		TOTAL	
TYPE OF SUBSTANCE	Number	Percent	Number	Percent	Number	Percent
Marijuana	334	53.27%	228	51.01%	562	52.33%
Cocaine	126	20.10%	102	22.82%	228	21.23%
Opiates	14	2.23%	7	1.57%	21	1.96%
Amphetamines	29	4.63%	17	3.80%	46	4.28%
Phencyclidine	3	0.48%	0	0.00%	3	0.28%
Alcohol	121	19.30%	93	20.81%	214	19.93%
TOTAL	627		447		1,074	

**Table 6 - 2002 Confirmed Positive Test Results by Substance and Work Category**

(January through December 2002)

	LICENSEE EMPLOYEES		CONTRACTORS (Long-Term/Short-Term)	
TYPE OF SUBSTANCE	Number	Percent	Number	Percent
Marijuana	47	38.52%	515	54.10%
Cocaine	16	13.11%	212	22.27%
Opiates	1	0.82%	20	2.10%
Amphetamines	1	0.82%	45	4.73%
Phencyclidine	0	0.00%	3	0.32%
Alcohol	57	46.72%	157	16.49%
TOTAL	122		952	

**Table 7 - 2002 Confirmed Positives Test Results by Substance for Each Worker Category**

(January through December 2002)

	Licensee Employees		Contractors (Long-Term/Short-Term)	
TYPE OF SUBSTANCE	Number	Percent	Number	Percent
Marijuana	47	38.22%	515	54.10%
Cocaine	16	13.11%	212	22.27%
Opiates	1	0.82%	20	2.10%
Amphetamines	1	0.82%	45	4.73%
Phencyclidine	0	0.00%	3	0.32%
Alcohol	57	46.72%	157	16.49%
TOTAL*	122		952	

\*These numbers include tests results for the "Other" test category.

**Table 8 - Significant Fitness-for-Duty Events (1990-2002)**

Type of Event	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	Total
Reactor Operators	19	16	18	8	7	8	8	9	5	5	5	4	3	115
Licensee Supervisors	26	18	22	25	11	16	19	16	10	2	11	9	3	186
Contract Supervisors	12	24	28	16	11	10	8	10	10	12	8	12	12	173
FFD Program Personnel	1	5	0	0	1	0	2	0	3	2	0	0	3	17
Substances Found	6	8	6	2	0	5	5	4	0	2	3	0	1	42
Total	64	69	74	51	30	39	42	39	28	23	27	25	22	533

**Table 9 - Trends in Testing by Test Type (1990 - 2002)**

Type of Test	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	Total
Pre-Access														
Number Tested	122,491	104,508	104,842	91,471	80,217	79,305	81,041	84,320	69,146	69,139	68,333	63,744	73,188	1,091,712
Number Positive	1,548	983	1,110	952	977	1,122	1,132	1,096	822	934	965	720	805	13,166
Percent Positive	1.26%	0.94%	1.06%	1.04%	1.22%	1.41%	1.40%	1.30%	1.19%	1.35%	1.41%	1.13%	1.10%	1.21%
Random														
Number Tested	148,743	153,818	156,730	146,605	78,391	66,791	62,307	60,829	56,969	54,457	51,955	50,080	49,848	1,137,416
Number Positive	550	510	461	341	223	180	202	172	157	140	204	148	114	3,402
Percent Positive	0.37%	0.33%	0.29%	0.23%	0.28%	0.27%	0.32%	0.28%	0.28%	0.26%	0.39%	0.30%	0.23%	0.30%
For-Cause														
Number Tested	732	727	696	751	758	763	848	722	720	736	883	730	1,072	10,138
Number Positive	214	167	178	163	122	139	138	149	100	120	138	101	112	1,841
Percent Positive	29.23%	22.97%	25.27%	21.70%	16.09%	18.22%	16.27%	20.64%	13.89%	16.30%	15.67%	13.84%	10.45%	18.16%
Followup														
Number Tested	2,633	3,544	4,283	4,139	3,875	3,262	3,262	3,296	2,863	3,008	2,861	2,649	2,892	42,567
Number Positive	65	62	69	56	50	35	40	31	43	30	49	35	21	586
Percent Positive	2.47%	1.75%	1.61%	1.35%	1.29%	1.07%	1.23%	0.94%	1.50%	1.00%	1.71%	1.32%	0.73%	1.38%
TOTAL*														
Number Tested	274,599	262,597	266,551	242,966	163,241	150,121	147,458	149,167	129,698	127,340	124,032	117,203	127,000	2,281,973
Number Positive	2,377	1,722	1,818	1,512	1,372	1,476	1,512	1,448	1,122	1,224	1,356	1,004	1,052	18,995
Percent Positive	0.87%	0.66%	0.68%	0.62%	0.84%	0.98%	1.03%	0.97%	0.87%	0.96%	1.09%	0.86%	0.83%	0.83%

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



**Table 10 - Trends in Substances Identified (1990-2002)**

Substance	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Marijuana	1,153	746	953	781	739	819	868	842	606	672	620	523	562
Cocaine	706	549	470	369	344	374	352	336	269	273	251	225	228
Alcohol	452	401	427	357	251	265	281	262	212	230	211	212	214
Amphetamines	69	31	31	51	54	61	53	49	46	40	50	50	46
Opiates	45	24	8	13	11	17	14	39	19	16	32	17	21
Phencyclidine	8	11	4	5	1	7	2	0	1	2	1	2	3
Total*	2,433	1,762	1,893	1,576	1,400	1,543	1,570	1,528	1,153	1,233	1,168	1,029	1,074

\* 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 11 - Trends In Positive Test Rates For Workers With Unescorted Access (1990 - 2002)\***

Year	Positive Test Rate
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%

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