

Fitness for Duty Programs

Drug and Alcohol Testing at Commercial Nuclear Power Plants and Fuel Facilities

“Its Direct Contribution to Safety and Security”

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Overview

- 10 CFR Part 26, Fitness for Duty (FFD) Programs
 - Parallels HHS Guidelines and leverages DOT requirements
 - Drug & alcohol testing for non-federal workers at NRC-licensed facilities
- Fitness for Duty Strategy
- Drug & Alcohol Testing Data
 - CYs 2009 and 2010, results provided separately
 - Why reported separately? FFD electronic reporting initiated in CY 2009
- Challenges
 - Synthetic opiates, marijuana, and urine
 - Drug cocktailing
 - Prescription shopping

Fitness for Duty

- Fit, reliable, trustworthy workers
 - Background checks
 - Drug and alcohol testing
 - Training and behavioral observation
 - Fatigue management

NRC Drug and Alcohol Testing Results (CYs 2005-2009)

Type of Test	2005	2006	2007	2008	2009
Pre-Access					
Number Tested	79,005	79,980	81,932	87,468	95,878
Number Positive	648	747	668	664	677
Percent Positive	0.82%	0.93%	0.82%	0.76%	0.71%
Random					
Number Tested	50,286	52,557	51,665	54,759	60,877
Number Positive	147	132	117	127	154
Percent Positive	0.29%	0.25%	0.23%	0.23%	0.25%
For Cause					
Number Tested	671	716	720	797	547
Number Positive	105	104	81	94	108
Percent Positive	15.65%	14.53%	11.25%	11.79%	19.74%
Post-Event					
Number Tested	490	905	895	986	893
Number Positive	1	5	10	7	1
Percent Positive	0.20%	0.55%	1.12%	0.71%	0.11%
Followup					
Number Tested	4,057	4,766	4,991	5,756	6,252
Number Positive	31	37	31	44	53
Percent Positive	0.76%	0.78%	0.62%	0.76%	0.85%
TOTAL*					
Number Tested	134,509	138,924	140,203	149,766	164,447
Number Positive	932	1,025	907	936	993
Percent Positive	0.69%	0.74%	0.65%	0.62%	0.60%

Positive Testing Rates by Work Category (CYs 1993 – 2009)

Year	Licensed Employees	Contractor Employees
1993	0.26%	0.94%
1994	0.34%	1.19%
1995	0.34%	1.40%
1996	0.43%	1.39%
1997	0.34%	1.35%
1998	0.33%	1.22%
1999	0.33%	1.38%
2000	0.45%	1.47%
2001	0.33%	1.21%

Year	Licensed Employees	Contractor Employees
2002	0.26%	1.16%
2003	0.33%	1.10%
2004	0.28%	1.03%
2005	0.28%	0.90%
2006	0.25%	0.99%
2007	0.24%	0.86%
2008	0.22%	0.83%
2009	0.28%	0.78%

Positive Rates by Work Category and Site (50% Random Testing Results for CY 2009)

Percent (%) Positive Rates	Number of Sites, Licensee Employees	Number of Sites, Contractors
0	34	29
>0-0.2	14	
>0.2-0.4	19.5	12
>0.4-0.6	4.5	13
>0.6-0.8	1.0	7
>0.8-1.0		6
>1.0-1.2		4
>1.2-1.4		1
>1.4-1.6		
>1.6-1.8		1

CY 2009 Subversion Attempts

- Number of subversion attempts by reason for test

Reason	Physical evidence	Refusal to cooperate	Other subversion	Observed Actions
Follow-up	1	2		
For cause	5			
Random	3	7		1
Pre-access	11		3	1

- Number of subversion attempts by labor category

Labor category	Physical evidence	Refusal to cooperate	Other subversion	Observed Actions
Security	1			
HP/RP			2	
Other	7	1	1	
Maintenance (Craft)	12	8		2

Tests Results for Each Test Category (CY 2010, e-Reporting only*)

- *Draft results as of 4.29.11

Test category	Number of tests	Positive Tests	Percent Positive, %
Pre-access	62,331	457	0.73
Random	38,549	110	0.29
For cause	382	61	15.97
Post-event	530	2	0.38
Follow-up	4,295	38	0.88
Other	356	10	2.81
Total	106,443	678	

CY 2010 Positive Results by Substances and Reason for Test

- Licensed employees: positive results by substance and reason for test (draft)

Reason	Alcohol	Marijuana	Cocaine	Amphet- amines	Opiates	Refusal to test
Follow-up	5	1	4			1
Post-event	5		1			
For cause	5	1		1	1	1
Random	16	15	6	1		2
Pre-access	5	11				3

CY 2010 Results for Contractor/Vendors

- Contractors/vendors: pre-access positive results by substance (draft)

	Marijuana	Cocaine	Alcohol	Amphetamines	Refusal to test	Opiates
Results	264	58	67	53	25	3

- Contractors/vendors: positive results by substance and reason for test (draft)

Reason	Marijuana	Alcohol	Cocaine	Amphetamines	Opiates
Other	8				
Follow-up	10	7	6		
Post-event	2	1			
For cause	14	13	1	5	
Random	31	17	11	2	4

CY 2010 Positive Results by Substance

(Top 4 Labor Categories)

- Positive results by labor category (top 4 labor categories (draft results CY 2010))

Drugs	Maintenance (Craft)	Other	Security	HP/RP
PCP	1			
6-AM	1			
Opiates	4	2		
Refusal to test	46	10	2	
Amphetamines	28	4	2	
Cocaine	66	10	4	
Alcohol	96	12	6	4
Marijuana	256	54	12	14

CY 2010 Positive Results for Labor Categories (Draft)

- Results: other employees

Drugs	Results
Marijuana	56
Alcohol	12
Refusal to test	12
Cocaine	11
Amphetamines	4
Opiates	2
PCP	1

- Results: HP/RP employees

Drugs	Results
Marijuana	14
Alcohol	5

- Results: Maintenance (Craft)

Drugs	Results
Marijuana	257
Alcohol	97
Cocaine	67
Refusal to test	46
Amphetamines	29
Opiates	3
6-AM	1

- Results: security employees

Drugs	Results
Marijuana	13
Alcohol	8
Cocaine	4
Refusal to test	2
Amphetamines	2

CY 2010 Positive Results for Reactor Operators (Draft)

Labor Category	Substances	Random	Followup	Total
Licensed Operator	Alcohol	2		2
	Marijuana	1		1
Non-Licensed Operator	Alcohol	1		1
	Cocaine		1	1
	Marijuana	1		1
Total		5	1	6

Conclusions

- Drug and alcohol positive rates remain low
- Electronic reporting is improving data evaluation
- Staff is researching the possibility of rulemaking for:
 - Synthetic opiates (with established “assessment concentration levels” established for hydrocodone, hydromorphone, oxycodone, oxymorphone, and perhaps benzodiazepines)
 - Drug cocktailing
 - Prescription shopping
- Hair testing will be a strong deterrence; however, the administration of pre-access results could be difficult
- NRC’s defense-in-depth approach to a person’s fitness helps ensure that NRC can meet its strategic objectives