



Tennessee Valley Authority, 1101 Market Street, Chattanooga, Tennessee 37402-2801

February 23, 1999

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Gentlemen:

In the Matter of)	Docket Nos.	50-259	50-390
Tennessee Valley Authority)		50-260	50-391
			50-296	50-438
			50-327	50-439
			50-328	

FITNESS FOR DUTY (FFD) PROGRAM PERFORMANCE DATA: JULY-DECEMBER 1998

In accordance with 10 CFR 26.71(d), enclosed is TVA's FFD Program Performance Data for the six-month period of July 1-December 31, 1998. Enclosure 1 contains a discussion of recent FFD Program developments and FFD trends since the last reporting period. Enclosures 2-5 contain the performance data and summary of TVA management actions for TVA's nuclear plant sites (Browns Ferry, Sequoyah, Watts Bar, and Bellefonte, respectively). Enclosure 6 consolidates the data for TVA's Nuclear corporate organization (primarily employees assigned to Chattanooga and Knoxville). Enclosure 7 includes two FFD events which occurred during this six-month period and are reportable to NRC pursuant to 10 CFR 26.73.

The random testing rate of drug and alcohol use for the workforce that is subject to random testing is in accordance with the requirements prescribed in 10 CFR 26.24 (a) (2).

If you have any questions concerning this information, please telephone Terry Knuettel at (423) 751-6673.

Sincerely,

Ralph H. Shell

Mark J. Burzynski
Manager
Nuclear Licensing

Enclosures
cc: See page 2

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cc (Enclosures):

Mr. Luis Reyes, Regional Administrator
U.S. Nuclear Regulatory Commission
Region II
Atlanta Federal Center
61 Forsyth Street, SW, Suite 23T85
Atlanta, Georgia 30303

Mr. L. Raghavan, Senior Project Manager
U.S. Nuclear Regulatory Commission
One White Flint, North
11555 Rockville Pike
Rockville, Maryland 20852

Mr. Ronald W. Hernan, Senior Project Manager
U.S. Nuclear Regulatory Commission
One White Flint, North
11555 Rockville Pike
Rockville, Maryland 20852

Mr. Robert E. Martin, Senior Project Manager
U.S. Nuclear Regulatory Commission
One White Flint, North
11555 Rockville Pike
Rockville, Maryland 20852

Mr. M. C. Thadani, Project Manager
U.S. Nuclear Regulatory Commission
One White Flint, North
11555 Rockville Pike
Rockville, Maryland 20852

NRC Senior Resident Inspector
Browns Ferry Nuclear Plant
10833 Shaw Road
Athens, Alabama 35611

NRC Resident Inspector
Sequoyah Nuclear Plant
2600 Igou Ferry Road
Soddy Daisy, Tennessee 37379

NRC Resident Inspector
Watts Bar Nuclear Plant
1260 Nuclear Plant Road
Spring City, Tennessee 37381

ENCLOSURE 1

TENNESSEE VALLEY AUTHORITY (TVA)
FITNESS FOR DUTY (FFD) PERFORMANCE DATA
JULY 1-DECEMBER 31, 1998

The following summarizes two matters associated with TVA's FFD Program that occurred during this reporting period:

I. TVA's "Re-screening of Specimens"

Summary

Reference: TVA's policy to re-screen specimens with a creatinine level less than 20 mg/dl, which was addressed in the February 28, 1997, FFD Performance Report

TVA Nuclear (TVAN) screened ninety-eight specimens at the lower cutoff for marijuana during this reporting period. Three positive tests were identified from this group. Refer to Enclosure 2, Page 3 of 3, and Enclosure 3, Page 3 of 3 for additional information.

II. Attempted FFD Testing Subversions Detected

Summary

Between September 4, 1998 and November 9, 1998, four incidents of urine substitution and two incidents of urine adulteration were identified by the TVAN Corporate Nuclear Security FFD Staff. Prior to these recent incidents, there had been only one proven case of substitution and no cases of adulteration within TVAN. Therefore, Corporate Nuclear Security identified these recent incidents as a negative trend to be addressed. Problem Evaluation Report (PER) No. CHPER980143 was initiated by Corporate Nuclear Security on November 17, 1998. The following corrective actions were taken to address this negative trend:

- A spreadsheet was compiled detailing information on substituted and adulterated specimens to monitor for trends, i.e., common work groups, etc.
- A special section was included in the annual TVAN FFD Collector's Training that emphasized how to detect subversion.
- Posters were placed in the collection waiting areas informing the individuals to be tested that any type of subversion of the testing process would result in a permanent TVAN work restriction.
- Posters were placed on the collection area doors and inside the collection area informing individuals that they must return urine to the collector within four minutes or be subject to witnessed collection.

TVAN Corporate Nuclear Security and its contract laboratories continue to research and implement the most effective methods to detect FFD testing subversion.

JULY 1-DECEMBER 31, 1998

TRENDS

The confirmed positive test rate for all categories (pre-employment, pre-access, for-cause, post-accident, random, follow-up, and other) for this reporting period was 0.92 percent (37 positive tests) which is 0.66 percent higher than the last reporting period. The rate of random confirmed positives was 0.39 percent (six positive tests) which is 0.10 percent higher than the last reporting period. For this reporting period, there is no adverse trend regarding the positive rate, since the percentage increase of confirmed positive tests (.66 percent and .10 percent) is statistically insignificant.

The 0.66 percent increase in the positive test rate for all categories was primarily attributed to the large increase in pre-access testing associated with Browns Ferry (BFN) and Sequoyah (SQN) Nuclear Plants' fall outages and the number of first-time nuclear workers attempting to check-in.

ENCLOSURE 2

SUMMARY OF MANAGEMENT ACTIONS FOR
BROWNS FERRY NUCLEAR PLANT

In the pre-access test category, one licensee employee (LE) and 16 contract employees (CEs) tested positive. The LE was denied access, removed from the site, and returned to a non-nuclear organization with a three year restriction from TVAN work. The LE requested that a split specimen test be performed. The split specimen test reconfirmed the positive results. The LE requested an appeal. The positive test result decision was upheld in the appeals process. The 16 CEs were denied access, removed from the site, and returned to their contract company. Fourteen of the 16 CEs were restricted from TVAN work for three years. Two of the 16 CEs requested that a split specimen test be performed. Both split specimen tests reconfirmed the positive results. One of the 16 CEs requested an appeal. The positive test result decision was upheld in the appeals process. Two of the 16 CEs were detected attempting to subvert the FFD testing process, one by substitution and one by adulteration. In addition to the previously listed management actions, the two CEs attempting to subvert the FFD testing process were permanently restricted from TVAN work.

In the random test category, two CEs tested positive and one contract supervisor (CS) was detected attempting to subvert the FFD testing process by adulteration. Due to the adulteration, the CS's test results could not be reported as negative or positive. The CEs' unescorted access was revoked, they were removed from site, returned to their contract company, and restricted from TVAN work for three years. One CE requested that a split specimen test be performed. The split specimen test reconfirmed the positive results. Neither CE requested an appeal. The CS's unescorted access was revoked, and the CS was removed from site and returned to the contractor. The CS was permanently restricted from TVAN work.

Fitness for Duty Program Performance Data Personnel Subject to 10 CFR 26

TENNESSEE VALLEY AUTHORITY	DECEMBER 31, 1998
Company	6 Months Ending
BROWNS FERRY NUCLEAR PLANT	
Location	
REBECCA A. STANFIELD	(423) 751-8822
Contact Name	Phone (include area code)
Cut-offs: Screen/Confirmation	
<input checked="" type="checkbox"/> Appendix A to 10 CFR 26 * 50 ng/ml initial cut-off	
Marijuana *	/
Amphetamines	/
Cocaine	/
Phencyclidine	/
Opiates	/
Alcohol (%BAC)	/

*Specimens with a creatinine level less than 20 mg/dl are evaluated using a 20 ng/ml cutoff on the initial marijuana screen and the limit of quantitation as a cutoff on the GC/MS for marijuana metabolite.

Testing Results		Licensee Employees		Long-Term Contractor Personnel		Short-Term Contractor Personnel	
		# Tested	# Positive	# Tested	# Positive	# Tested	# Positive
Average Number with Unescorted Access		1,327				646	
Categories		# Tested	# Positive	# Tested	# Positive	# Tested	# Positive
Pre-Access		79	1	N/A	N/A	1,139	16
For Cause	Post-accident	0	0	N/A	N/A	0	0
	Observed Behavior	0	0	N/A	N/A	2	0
Random		340	0	N/A	N/A	181	2
Follow-up		6	0	N/A	N/A	N/A	N/A
Other **		0	0	N/A	N/A	0	0
Total		425	1	N/A	N/A	1,322	18

** The other test category includes: transfer to TVAN from other TVA organizations; administrative follow-up; program integrity clearance/update; assignment to emergency response duties.

Breakdown of Confirmed Positive Tests for Specific Substances

	Marjuana	Cocaine	Opioids	Amphetamines	Phencyclidine	Alcohol	Verbal toxic	1	2	3	4	5
Likemore Employees	1	0	0	0	0	0	0	0	0	0	0	0
Long-Term Contractors	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Short-Term Contractors	14*	1	0	0	0	2	0	0	1	0	0	0
Total	15	1	0	0	0	2	0	0	1	0	0	0

* One of these specimens tested negative at the 50 ng/ml cutoff limit, but positive using the 20 ng/ml cutoff limit.

Cutoff Levels of Additional Drugs

DRUG NUMBER	SUBSTANCE	Cut-off Level (ng/ml)	
		Screen	Confirmation
1	Barbiturates	300	200
2	Benzodiazepines	300	250
3	Methadone	300	250
4	Methaqualone	300	250
5	Propoxyphene	300	300

ENCLOSURE 3

SUMMARY OF MANAGEMENT ACTIONS FOR
SEQUOYAH NUCLEAR PLANT

In the pre-access testing category, 14 contract employees (CEs) tested positive. One of the 14 CEs tested positive for two substances. The CE was denied access, removed from site, and returned to their contract company. Twelve of the 14 CEs were restricted from TVAN work for three years. Eight of the 14 CEs requested that a split specimen test be performed. All eight of the split specimen tests reconfirmed the positive results. None of the 14 CEs requested an appeal. Two of the 14 CEs were detected attempting to subvert the FFD testing process by substitution. In addition to the previously listed management actions, the two CEs attempting to subvert the FFD testing process were permanently restricted from TVAN work.

In the random testing category, one licensee employee (LE) and one CE tested positive. The LE's unescorted access was revoked. The LE was removed from the site, returned to a non-nuclear organization, and restricted from TVAN work for three years. The LE requested that a split specimen test be performed. The split specimen test reconfirmed the positive results. The LE requested an appeal. The positive test result decision was upheld in the appeals process. The CE's unescorted access was revoked, the CE was removed from site and returned to a contract company with a three year restriction from TVAN work. The CE requested that a split specimen test be performed. The split specimen test reconfirmed the positive results and the CE did not request an appeal.

Fitness for Duty Program Performance Data Personnel Subject to 10 CFR 26

TENNESSEE VALLEY AUTHORITY		DECEMBER 31, 1998	
Company		6 Months Ending	
SEQUOYAH NUCLEAR PLANT			
Location			
REBECCA A. STANFIELD		(423) 751-8822	
Contact Name		Phone (include area code)	
Cut-offs: Screen/Confirmation		<input checked="" type="checkbox"/> Appendix A to 10 CFR 26 * 50 ng/ml initial cut-off	
Marijuana *	/	Amphetamines	/
Cocaine	/	Phencyclidine	/
Opiates	/	Alcohol(%BAC)	/

*Specimens with a creatinine level less than 20 mg/dl are evaluated using a 20 ng/ml cutoff on the initial marijuana screen and the limit of quantitation as a cutoff on the GC/MS for marijuana metabolite.

Testing Results		Licensee Employees		Long-Term Contractor Personnel		Short-Term Contractor Personnel	
		# Tested	# Positive	# Tested	# Positive	# Tested	# Positive
Average Number with Unescorted Access		1,360		N/A		693	
Pre-Access		25	0	N/A	N/A	1,003	14
For Cause	Post-accident	0	0	N/A	N/A	0	0
	Observed behavior	0	0	N/A	N/A	0	0
Random		332	1	N/A	N/A	186	1
Follow-up		5	0	N/A	N/A	N/A	N/A
Other **		0	0	N/A	N/A	0	0
Total		362	1	N/A	N/A	1,189	15

** The other test category includes: transfer to TVAN from other TVA organizations; administrative follow-up; program integrity clearance/update; assignment to emergency response duties.

Breakdown of Confirmed Positive Tests for Specific Substances

	Marijuana	Cocaine	Opiates	Amphetamines	Phencyclidine	Alcohol	Refusal to test	1	2	3	4	5
Licensee Employee:	1	0	0	0	0	0	0	0	0	0	0	0
Long Term Contractors	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Short-Term Contractors	9*	4	0	2	0	1	0	0	0	0	0	0
Total	10	4	0	2	0	1	0	0	0	0	0	0

* Two of these specimens tested negative at the 50 ng/ml cutoff limit, but positive using the 20 ng/ml cutoff limit.

Cutoff Levels of Additional Drugs

DRUG NUMBER	SUBSTANCE	Cut-off Level (ng/ml)	
		Screen	Confirmation
1	Barbiturates	300	200
2	Benzodiazepines	300	250
3	Methadone	300	250
4	Methaqualone	300	250
5	Propoxyphene	300	300

ENCLOSURE 4

SUMMARY OF MANAGEMENT ACTIONS FOR
WATTS BAR NUCLEAR PLANT

In the random testing category, one contract employee (CE) and one contract foreman (CF) tested positive. The CF was also detected attempting to subvert the FFD testing process by substitution. The CE's and the CF's unescorted access were revoked. The CE and the CF were removed from site and returned to their contract company. The CE was restricted from TVAN work for three years. Neither the CE nor the CF requested a split specimen test or an appeal. The CF was permanently restricted from TVAN work.

Fitness for Duty Program Performance Data Personnel Subject to 10 CFR 26

TENNESSEE VALLEY AUTHORITY		DECEMBER 31, 1998	
Company		6 Months Ending	
WATTS BAR NUCLEAR PLANT			
Location			
REBECCA A. STANFIELD		(423) 751-8822	
Contact Name		Phone (include area code)	
Cut-offs: Screen/Confirmation		<input checked="" type="checkbox"/> Appendix A to 10 CFR 26 * 50 ng/ml initial cut-off	
Marijuana *	/	Amphetamines	/
Cocaine	/	Phencyclidine	/
Opiates	/	Alcohol(%BAC)	/

*Specimens with a creatinine level less than 20 mg/dl are evaluated using a 20 ng/ml cutoff on the initial marijuana screen and the limit of quantitation as a cutoff on the GC/MS for marijuana metabolite.

Testing Results		Licensee Employees		Long-Term Contractor Personnel		Short-Term Contractor Personnel	
		# Tested	# Positive	# Tested	# Positive	# Tested	# Positive
Average Number with Unescorted Access		980		N/A		354	
Pre-Access		21	0	N/A	N/A	191	0
For Cause	Post-accident	0	0	N/A	N/A	0	0
	Observed behavior	0	0	N/A	N/A	1	0
Random		222	0	N/A	N/A	113	2
Follow-up		7	0	N/A	N/A	N/A	N/A
Other **		0	0	N/A	N/A	0	0
Total		250	0	N/A	N/A	305	2

** The other test category includes: transfer to TVAN from other TVA organizations; administrative follow-up; program integrity clearance/update; assignment to emergency response duties.

Breakdown of Confirmed Positive Tests for Specific Substances

	Marijuana	Cocaine	Opioids	Amphetamines	Phencyclidine	Alcohol	Refusal to test	1	2	3	4	5
Licensee Employees	0	0	0	0	0	0	0	0	0	0	0	0
Long-Term Contractors	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Short-Term Contractors	1	0	0	1	0	0	0	0	0	0	0	0
Total	1	0	0	1	0	0	0	0	0	0	0	0

Cutoff Levels of Additional Drugs

DRUG NUMBER	SUBSTANCE	Cut-off Level (ng/ml)	
		Screen	Confirmation
1	Barbiturates	300	200
2	Benzodiazepines	300	250
3	Methadone	300	250
4	Methaqualone	300	250
5	Propoxyphene	300	300

ENCLOSURE 5

SUMMARY OF MANAGEMENT ACTIONS FOR
BELLEFONTE NUCLEAR PLANT

There were no positive tests at Bellefonte during this reporting period.

Fitness for Duty Program Performance Data Personnel Subject to 10 CFR 26

TENNESSEE VALLEY AUTHORITY		DECEMBER 31, 1998	
Company		6 Months Ending	
BELLEFONTE NUCLEAR PLANT			
Location:			
REBECCA A. STANFIELD		(423) 751-8822	
Contact Name		Phone (include area code)	
Cut-offs: Screen/Confirmation		<input checked="" type="checkbox"/> Appendix A to 10 CFR 26 * 50 ng/ml initial cut-off	
Marijuana *	/	Amphetamines	/
Cocaine	/	Phencyclidine	/
Opiates	/	Alcohol (%BAC)	/

*Specimens with a creatinine level less than 20 mg/dl are evaluated using a 20 ng/ml cutoff on the initial marijuana screen and the limit of quantitation as a cutoff on the GC/MS for marijuana metabolite.

Testing Results		Licensee Employees		Long-Term Contractor Personnel		Short-Term Contractor Personnel	
		N/A		N/A		N/A	
Average Number with Unescorted Access **		N/A		N/A		N/A	
Categories		# Tested	# Positive	# Tested	# Positive	# Tested	# Positive
Pre-Access		N/A	N/A	N/A	N/A	N/A	N/A
For Cause	Post-accident	0	0	N/A	N/A	0	0
	Observed behavior	0	0	N/A	N/A	0	0
Random		18	0	N/A	N/A	4	0
Follow-up		0	0	N/A	N/A	N/A	N/A
Other ***		0	0	N/A	N/A	2	0
Total		18	0	N/A	N/A	6	0

** This is a construction site at which unescorted access has not been established.

*** The other test category includes: employment (2)-contract; transfer to TVAN from other TVA organizations; administrative follow-up; program integrity clearance/update.

Breakdown of Confirmed Positive Tests for Specific Substances

	Marijuana	Cocaine	Opiates	Amphetamine	Phencyclidine	Alcohol	Refusal to test	1	2	3	4	5
Licensee Employees	0	0	0	0	0	0	0	0	0	0	0	0
Long-Term Contractors	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Short-Term Contractors	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0

Cutoff Levels of Additional Drugs

DRUG NUMBER	SUBSTANCE	Cut-off Level (ng/ml)	
		Screen	Confirmation
1	Barbiturates	300	200
2	Benzodiazepines	300	250
3	Methadone	300	250
4	Methaqualone	300	250
5	Propoxyphene	300	300

ENCLOSURE 6

SUMMARY OF MANAGEMENT ACTIONS FOR
CORPORATE TVAN OFFICES

There were no positive tests in the Corporate TVAN offices during this reporting period.

Fitness for Duty Program Performance Data Personnel Subject to 10 CFR 26

TENNESSEE VALLEY AUTHORITY		DECEMBER 31, 1998	
Company		6 Months Ending	
CORPORATE OFFICES (CHATTANOOGA, KNOXVILLE, OTHER)			
Location			
REBECCA A. STANFIELD		(423) 751-8822	
Contact Name		Phone (include area code)	
Cut-offs: Screen/Confirmation		<input checked="" type="checkbox"/> Appendix A to 10 CFR 26 * 50 ng/ml initial cut-off	
Marijuana *	/	Amphetamines	/
Cocaine	/	Phencyclidine	/
Opiates	/	Alcohol(%BAC)	/

*Specimens with a creatinine level less than 20 mg/dl are evaluated using a 20 ng/ml cutoff on the initial marijuana screen and the limit of quantitation as a cutoff on the GC/MS for marijuana metabolites.

Testing Results		Licensee Employees		Long-Term Contractor Personnel		Short-Term Contractor Personnel	
		# Tested	# Positive	# Tested	# Positive	# Tested	# Positive
Average Number with Unescorted Access **		N/A		N/A		N/A	
Categories		# Tested	# Positive	# Tested	# Positive	# Tested	# Positive
Pre-Access		N/A	N/A	N/A	N/A	N/A	N/A
For Cause	Post-accident	0	0	N/A	N/A	0	0
	Observed behavior	0	0	N/A	N/A	0	0
Random		135	0	N/A	N/A	9	0
Follow-up		0	0	N/A	N/A	N/A	N/A
Other ***		1	0	N/A	N/A	8	0
Total		136	0	N/A	N/A	17	0

** Persons assigned to the corporate organization, but with unescorted access at a TVAN site, are included in the average for the site or sites where they hold the unescorted access authorization.

*** The other test category includes: employment (7)-contract; transfer to TVAN from other TVA organizations; administrative follow-up; program integrity clearance/update; assignment to emergency response duties (1)-TVA, (1)-contract.

Breakdown of Confirmed Positive Tests for Specific Substances

	Marijuana	Cocaine	Opiates	Amphetamines	Phencyclidine	Alcohol	Refusal to test	1	2	3	4	5
Licensee Employees	0	0	0	0	0	0	0	0	0	0	0	0
Long-Term Contractors	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Short-Term Contractors	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0

Cutoff Levels of Additional Drugs

DRUG NUMBER	SUBSTANCE	Cut-off Level (ng/ml)	
		Screen	Confirmation
1	Barbiturates	300	200
2	Benzodiazepines	300	250
3	Methadone	300	250
4	Methaqualone	300	250
5	Propoxyphene	300	300

ENCLOSURE 7

SUMMARY OF FITNESS FOR DUTY EVENTS
 REPORTED TO THE NUCLEAR REGULATORY COMMISSION OPERATIONS CENTER

EVENTS	DATE OF NOTIFICATION	JOB TITLE	SUBSTANCE	METHOD DISCOVERED	ACTION TAKEN
98-001	October 21, 1998	Contractor Supervisor	N/A--attempted FFD testing subversion	Random testing at BFN Nitrites were detected by TVAN's contract laboratory.	The individual's unescorted access was revoked. The individual was removed from site and returned to the contractor. A review of the individual's work was performed, and no problems were identified. The individual's termination and permanent restriction from TVAN were effective October 21, 1998.
98-002	November 13, 1998	Contractor Foreman	Marijuana--attempted FFD testing subversion	Random testing at WBN The first specimen's temperature was below acceptable range. The second (observed) specimen tested positive.	The individual's unescorted access was revoked. The individual was removed from site and returned to the contractor. A review of the individual's work was performed, and no problems were identified. The individual's termination and permanent restriction from TVAN were effective November 13, 1998.