

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)
Browns Ferry Unit 1

DOCKET NUMBER (2)
0 5 0 0 0 2 5 9

PAGE (3)
1 OF 0 4

TITLE (4)
Failure to Monitor Off-Gas Stack Effluent Due To Procedural Inadequacy and Personnel Error

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES	DOCKET NUMBER(S)
0 5	0 8	8 8	8 8	0 1	5	0 0	0 6	0 3	Browns Ferry Unit 2	0 5 0 0 0 2 6 0
									Browns Ferry Unit 3	0 5 0 0 0 2 9 6

OPERATING MODE (9) N

POWER LEVEL (10) 0 0 1 0

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)

20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
20.405(a)(1)(i)	50.38(c)(1)	50.73(a)(2)(v)	73.71(c)
20.405(a)(1)(ii)	50.38(c)(2)	50.73(a)(2)(vi)	OTHER (Specify in Abstract below and in Text, NRC Form 306A)
20.405(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(vii)(A)	
20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(vii)(B)	
20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(ix)	

LICENSEE CONTACT FOR THIS LER (12)

NAME: Richard L. Baker, Engineer, Plant Operations Review Staff

TELEPHONE NUMBER: 2 0 5 7 2 9 - 2 5 3 8

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE) NO

EXPECTED SUBMISSION DATE (15)

MONTH	DAY	YEAR

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

On May 8, 1988, at 1856 hours, with all three units defueled, Chemistry Laboratory personnel discovered that the power was off to the off-gas stack lighting which provided power to the radioactive gaseous stack effluent temporary monitoring system. The power was lost from 1345 hours to 1906 hours on May 8, 1988, due to the performance of Special Test 88-17, Diesel Generator B Emergency Load Acceptance Test. The normal off-gas stack radiation monitors had been declared inoperable prior to this event and temporary continuous monitoring had been established under Surveillance Instruction (SI) 4.8.B.1.a.2, Effluent Release Rate by Manual Sampling - Unit 0. This procedure did not comply with the requirement for temporary alterations to have a system status change documented in the Shift Operations Supervisors's office while the temporary condition is established. During the loss of power at the stack the 4-hour sample flow check, required by the plant's technical specifications was missed. The failure to perform the sample flow check has been attributed to personnel error. This combination of the procedural deficiencies of SI 4.8.B.1.a.2 and the personnel error caused the unmonitored flow of radioactive gaseous stack effluents for 5 hours and 21 minutes.

The immediate corrective action was to restore power to the off-gas stack lighting. This action restored the continuous monitoring of the effluent releases through the stack. Also, compensatory sampling and sample flow checks were resumed at 1906 hours. SI 4.8.B.1.a.2 will be revised to correct deficiencies. The Chemistry Laboratory Technician involved in the failure to perform the sample flow check was counselled.

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TEXT (If more space is required, use additional NRC Form 306A s) (17)

DESCRIPTION OF EVENT

On May 8, 1988, at 1856 hours, with all three units defueled Chemistry Laboratory personnel discovered that the electrical power was off to the off-gas stack lighting. This condition was immediately reported to the Shift Operations Supervisor (SOS). The loss of electrical power to the stack lighting occurred at 1345 hours due to the performance of Special Test (ST) 88-17, Diesel Generator B Emergency Load Acceptance Test, which caused the 480 volt load shed logic to actuate. This load shed caused the loss of power to the off-gas stack lighting which caused the loss of the radioactive gaseous stack effluent temporary monitoring system (EIS code IL). Both radiation monitors at the off-gas stack had been declared inoperable prior to this event and temporary monitoring had been established per Surveillance Instruction (SI) 4.8.B.1.a.2, Effluent Release Rate by Manual Sampling - Unit 0. This SI does not require a system status change to be documented in the SOS office while temporary radiation monitoring is being used. The temporary radiation monitoring equipment was connected to the stack lighting power supply which was load shed during the performance of ST 88-17. During the loss of power at the stack the 1600-hour manual sample flow check at the stack was missed which delayed the discovery of the power loss. Flow through the stack continued without samples being continuously collected with the auxiliary sampling equipment and without a manual sample flow check every 4 hours as required by the plant's technical specifications (TSs). The Chemistry Section personnel had taken manual samples at 1300 hours and had returned to take a sample at 1900 hours when the power outage was discovered. The power was restored at 1906 hours and manual sampling and sample flow checks were resumed. The end result was an unmonitored flow through the off-gas stack for 5 hours and 21 minutes. This event is reportable under the provisions of 10CFR50.73 (a)(2)(i)(B) as an operation prohibited by the plant's TSs.

CAUSE OF EVENT

A combination of the procedural deficiencies in SI 4.8.B.1.a.2 and the Chemistry Section personnel error caused the unmonitored flow of radioactive gaseous stack effluents for 5 hours and 21 minutes. The performance of ST 88-17 caused the loss of electric power to the off-gas stack lighting. The procedural deficiencies of SI 4.8.B.1.a.2 allowed the radioactive gaseous stack effluent temporary radiation monitoring system to be inoperable by not adequately communicating the temporary alteration of the radiation monitors to operations or test personnel. During the power outage at the stack the 4-hour sample flow check required by the plant's TSs was missed. The missed sample flow check was a violation of the plant's TSs and also delayed the discovery of the power loss to the temporary radiation monitoring system. This failure to perform the sample flow check has been attributed to personnel error.

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TEXT (if more space is required, use additional NRC Form 365A (17))

CORRECTIVE ACTION

The immediate corrective action was to restore power to the off-gas stack lighting. This action restored the continuous monitoring of effluent releases through the stack. Also, compensatory sampling and sample flow checks were resumed at 1906 hours.

The Technical Support Services Chemistry Laboratory Technician involved in the failure to perform the sample flow check was counselled.

SI 4.8.B.1.a.2 will be revised to require a system status change be documented in the SOS office while temporary radiation monitoring is being used.

All responsible sections which have procedures that control temporary alterations to the plant will be given a copy of this report so that they will be made aware of this problem.

ANALYSIS OF EVENT

Manual samples of radioactive gaseous stack effluents were taken at 1300 hours and 1900 hours which is within the plant's TS limits. However, flow through the stack continued without particulate and iodine samples being continuously collected and a manual sample flow check taken every 4 hours as required by the plant's TSs. There is nothing to indicate that any radiation release limits were exceeded during this event. Radioactivity levels did not increase during this event. There was no adverse affect on public health and safety. The event had no adverse affect on the safe operation of the plant. The electric power to the stack lighting is designed to load shed when the diesel generator is subjected to full load under emergency conditions. This is not the normal power supply for the radiation monitors at the off-gas stack. The stack lighting power supply is the normal power source for the temporary monitoring system. The system responded as designed and electric power was restored to the stack temporary radiation monitoring system after 5 hours and 21 minutes. When the system is under normal configuration and the stack radiation monitors are connected to their normal power supply an inadvertent load shed of the electric power to the stack lighting would not affect the stack radiation monitors.

PREVIOUS SIMILAR EVENTS

- BFRO 50-259/88010
- BFRO 50-259/85010

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TEXT (If more space is required, use additional NRC Form 366A 2) (17)

COMMITMENTS

SI 4.8.B.1.a.2 will be revised to include a precaution that a system status change shall be documented in the SOS office when normal radiation monitors are declared inoperable and temporary radiation monitoring is established.

All responsible sections which have procedures that control temporary alterations to the plant will be given a copy of this report so that they will be made aware of this problem.

TENNESSEE VALLEY AUTHORITY

Browns Ferry Nuclear Plant
Post Office Box 2000
Decatur, Alabama 35602

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

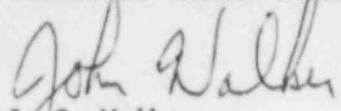
Dear Sir:

TENNESSEE VALLEY AUTHORITY - BROWNS FERRY NUCLEAR PLANT UNIT 1 - DOCKET
NO. 50-259 - FACILITY OPERATING LICENSE DPR-33 - REPORTABLE OCCURRENCE REPORT
BFRO-50-259/88015

The enclosed report provides details concerning the failure to monitor off-gas
stack effluents due to procedural inadequacy and personnel error. This report is
submitted in accordance with 10 CFR 50.73 (a)(2)(i).

Very truly yours,

TENNESSEE VALLEY AUTHORITY



J. G. Walker
Plant Manager
Browns Ferry Nuclear Plant

Enclosures

cc (Enclosures):

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U.S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region II
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NRC Resident Inspector, Browns Ferry Nuclear Plant

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