SYSTEM ENERGY RESOURCES, INC.
A Middle South Utilities Company

WILLIAM T. COTTLE
Vice President
Nuclear Operations

August 22, 1989

U.S. Nuclear Regulatory Commission
Mail Station P1-137
Washington, D.C. 20555

Attention: Document Control Desk

Gentlemen:

SUBJECT: Grand Gulf Nuclear Station
Unit 1
Docket No. 50-416
License No. NPF-29
Missed Chemistry Surveillance
Due to Personnel Error
LER 89-011-00
AECM-89/0159

Attached is Licensee Event Report (LER) 89-011-00 which is a final report.

Yours truly,

WTC:cwg
Attachment

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PCOM LER 89-011-00

NRC Form 366 (9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/88

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Grand Gulf Nuclear Station - Unit 1	0 5 0 0 0 4 1 6	1 OF 0 4

TITLE (4)
Missed Chemistry Surveillance Due to 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 7	2 6	8 9	8 9	— 0 1 1	— 0 0	0 8	2 2	8 9	NA	0 5 0 0 0
										0 5 0 0 0

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

OPERATING MODE (9)					
1	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10) 0 9 9	20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
	20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
	20.405(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
	20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
	20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (AREA CODE)
Ronald W. Byrd/Licensing Engineer	6 0 1 4 3 7 - 2 1 8 2

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

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

On July 26, 1989 it was discovered that a filter and cartridge holder used for a sample collection of the Fuel Handling Area Ventilation (FHAV) effluent had been installed on July 19, 1989 without the particulate filter and iodine cartridge installed. Hence no particulate or iodine sample for the FHAV exhaust was collected and analyzed for the period July 19 - 26, 1989 as required by Technical Specification 4.11.2.1.2.

Personnel error by the Chemistry Technician in installing an empty filter and cartridge holder in the FHAV sample panel was the cause of not meeting the surveillance requirement. The surveillance procedure did not require inspection of the holder prior to its installation. The surveillance procedure has been changed to require the individual to confirm by inspection that the sample holder is loaded with a filter and cartridge prior to its installation. Other evolutions involving the changing of filters were reviewed to ensure the potential for similar errors did not exist. Based on an evaluation of available data it has been concluded that the FHAV effluent during the week of July 19-26 posed no threat to the health and safety of the public.

A. REPORTABLE OCCURRENCE

On July 26, 1989 at 1600 hours, it was discovered that a required Technical Specification surveillance requirement had not been adequately performed for Technical Specification 4.11.2.1.2, Reference Table 4.11.2.1.2-1. This condition is reported as an operation prohibited by the Technical Specifications pursuant to 10CFR50.73(a)(2)(i)(B).

B. INITIAL CONDITION

The plant was operating at approximately 99 percent power at the time of discovery.

C. DESCRIPTION OF OCCURRENCE

Chemistry surveillance procedure 06-CH-1D17-W-0017 is performed weekly and involves changing out the particulate filters and iodine cartridges from each of four building ventilation panels with new filters and cartridges. The samples collected with the filters and cartridges are analyzed and the results used to calculate a dose rate due to I-131, I-133, tritium and particulates with half-lives greater than eight days. This satisfies Technical Specification requirements of 4.11.2.1.2 for the Radwaste Building, Fuel Handling Area (FHA), Containment, and Turbine Building Ventilation Exhausts.

On July 7, 1989, the FHA Ventilation Radiation Monitoring System (EIIS System Code: IL) was removed from service to replace a noble gas sample pump. Auxiliary sampling equipment was temporarily installed to satisfy Technical Specification Table 3.3.7.12-1, Action 122 to continuously collect iodine and particulate samples. The filter and cartridge were removed from the primary panel on July 7, 1989 and analyzed. On July 12, 1989 the regular surveillance was performed as scheduled on all four building vents. The auxiliary sampling equipment was used for the FHA surveillance sample since the primary FHA sample panel was out of service.

After the noble gas pump in the FHA primary sample panel was replaced, an empty filter and cartridge holder was installed on the primary sample panel to establish the flow required to retest the new noble gas pump. The retest was completed on July 13, 1989. The auxiliary sample panel was then removed and the filter and cartridge in the auxiliary sample panel were removed for analysis. A new filter and cartridge holder was installed on the primary sample panel to replace the empty one which had been used for the retest.

The filter and cartridge holder removed from the auxiliary sample panel was labeled both "SBGT" and "FHAV" because it had been previously used to collect Standby Gas Treatment (SBGT) samples. A new filter and cartridge were installed in the holder and then placed in a carrying box with other holders for subsequent use in the next performance of 06-CH-1D17-W-0017. The empty holder, labeled "FHAV", was removed from the primary sample panel and subsequently placed in the same box as the other loaded holders without being reloaded. This was a deviation from Chemistry's normal practice of loading the holders when they are emptied.

On July 19, 1989, when the next scheduled surveillance was performed, the empty holder labeled "FHAV" was installed in the FHA sample panel. The Chemistry Technician who installed the holder was not aware that it was empty nor that there was an additional holder in the carrying box for the FHAV. The error was discovered when the surveillance was performed again on July 26, 1989. Hence, no particulate or iodine sample for the FHA Ventilation Exhaust was collected and analyzed for the period July 19 - 26, 1989.

D. APPARENT CAUSE

Personnel error by the Chemistry Technician in installing an empty filter and cartridge holder in the FHA Ventilation Exhaust sample panel was the cause of not meeting the surveillance requirement. The surveillance procedure did not require inspection or verification of the holder prior to installation in the sample panel.

E. SUPPLEMENTAL CORRECTIVE ACTIONS

Chemistry personnel verified that the holders on all four sample panels were loaded correctly with filters and cartridges. Surveillance procedure 06-CH-1D17-W-0017 was performed again on July 28, 1989 to determine the activity in this release pathway.

Chemistry personnel were notified of the occurrence of the event and the need to physically open and inspect each charcoal cartridge and particulate filter prior to installation. 06-CH-1D17-W-0017 was revised to require the individual to document this inspection by initialing this step on the procedure data sheet.

A modified holder assembly is being fabricated to be used when required for testing instead of an empty holder. The modified holder will be easily distinguished from other filter and cartridge holders. In addition, there will be two filter and cartridge holders provided for each building ventilation sample panel. Each holder will be permanently labeled for easy identification and color coded to distinguish the holders for primary sample panels from the holders for auxiliary sample panels. These changes will be completed by September 15, 1989.

Chemistry personnel reviewed evolutions involving the changing of filters in other sampling and analysis programs to ensure the potential for similar errors did not exist. These programs were deemed adequate to preclude a similar occurrence.

F. SAFETY ASSESSMENT

The dose rate due to I-131, I-133 and particulates with half-lives greater than eight days was estimated for the period July 19 - 26, 1989 for the FHA Ventilation Exhaust. Previous FHA ventilation data and Health Physics air samples results from the FHA, continuous air monitor results, Noble Gas Monitor readings, and maintenance activities in the FHA were reviewed and used to make this estimate and to determine any abnormalities or fluctuations from previous, expected data.

Based on this evaluation, the dose rate was amended to add 1.99E-2 mrem/year to the total release tracked by 06-CH-1D17-W-0017. The cumulative dose was amended to include an additional 4.31E-4 mrem. These numbers are well within expected release rates and pose no threat to the health or safety of the public.