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June 1, 1990

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
Effluent Sample Analysis
Exceeds Time Limit Due to
Personnel Error
LER 90-006
AECM-90/0101

Attached is Licensee Event Report (LER) 90-006 which is a final report.

Yours truly,

WTC:cg
Attachment

cc: Mr. D. C. Hintz (w/a)
Mr. T. H. Cloninger (w/a)
Mr. R. B. McGehee (w/a)
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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 5

TITLE (4)
Effluent Sample Analysis Exceeds Time Limit 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 5	0 2	9 0	9 0	0 0 2 6	0 0	0 6	0 1	9 0	NA	0 5 0 0 0
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OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10)	0 8 0	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
		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)	X OTHER (Specify in Abstract below and in Text, NRC Form 366A)
		20.405(a)(1)(iii)	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)	Voluntary Report
		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 May 2, 1990, a review of a gaseous effluent sample analysis revealed that the Turbine Building Ventilation (TBV) exhaust sample obtained on April 18, 1990 had not been analyzed within 48 hours as required by notation "C" of Technical Specification Table 4.11.2.1.2-1. The Radwaste Building Ventilation (RWBV) exhaust filter was analyzed twice; once labeled properly as the "RWBV" filter and again incorrectly labeled as the "TBV" filter. As a result, the TBV filter was not analyzed until discovery of the situation on May 2. The conditions of the Limiting Condition for Operation and its associated action statement were met at all times.

The failure to analyze the TBV sample within 48 hours was caused by personnel error due to inattention to detail and a lack of a proper self-verification. Training and counseling of appropriate Chemistry personnel is being conducted.

NRC Form 366A (9-83)

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Grand Gulf Nuclear Station	0 5 0 0 0 4 1 6	9 0	— 0 0 6	— 0 0	0 2 OF 0 5

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

A. Reportable Occurrence

On May 2, 1990 a review of a gaseous effluent sample analysis revealed that a Turbine Building Ventilation (EIIS system code: VK) exhaust sample had not been analyzed within 48 hours after removal as required by notation "C" of Technical Specification Table 4.11.2.1.2-1. Since the conditions of Limiting Condition for Operation (LCO) 3.11.2.1 and its associated action statement were met, the situation is not considered to be an operation or condition prohibited by the Technical Specifications and, therefore, is not reportable pursuant to 10CFR50.72 nor 10CFR50.73. We believe this position to be consistent with the guidance provided in NUREG 1022, Supplement 1. This report is submitted as a voluntary report.

B. Initial Conditions

The plant was operating at approximately 80 percent power at the time of discovery.

C. Description of Occurrence

Technical Specification Table 4.11.2.1.2-1 establishes a radioactive gaseous effluent sampling and analysis program to ensure that the dose rate due to radioactive materials in gaseous effluents from the site to areas at and beyond the site boundary remains less than the limits of Technical Specification 3.11.2.1. As part of this program, ventilation exhaust samples are removed weekly, counted, and analyzed for I-131, I-133, and other principal gamma emitters. Each sample consist of a charcoal cartridge and a particulate filter. Note "C" of Table 4.11.2.1.2-1 requires the analysis to be performed within 48 hours of removing the samples.

On April 18, 1990, samples were removed from the four building ventilation exhaust monitors for the above surveillance. The filters and charcoal cartridges were counted and analyzed on April 19, 1990. The results were confirmed to be less than Technical Specification limits and the completed surveillance was approved as acceptable.

NRC FORM 366A (9-83)

NRC Form 366A (9-83)

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

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Grand Gulf Nuclear Station	0 5 0 0 0 4 1 5	9 0	— 0 0 6	— 0 0	0 3 OF 0 5

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On May 2, a Chemistry specialist compling the data noted that the surveillance data for the Radwaste Building Ventilation (RWBV) exhaust filter and that for the Turbine Building Ventilation (TBV) exhaust filter were the same. An investigation was conducted which concluded that the RWBV filter had been analyzed twice. One analysis was properly labeled as the "RWBV" filter; the other analysis was incorrectly labeled as the "TBV" filter. As a result, the TBV filter was not counted nor analyzed.

Upon discovery of the error, the TBV filter was retrieved from storage and analyzed in accordance with the Offsite Dose Calculations Manual (ODCM) utilizing half-life data to compensate for the longer decay time. The effect of the longer decay time was insignificant.

D. Apparent Cause

The missed TBV filter analysis was due to a computer entry error which incorrectly identified the RWBV filter analysis as the "TBV" filter analysis. The computer operator erred primarily due to inattention to detail and lack of a self-verification.

The analysis is performed utilizing a Germanium Counting and Computer system. Each sample is removed from its holder assembly and placed in a Petri-dish that is labeled to identify the specific sample. After a specified decay time, the Petri-dish containing the sample is placed in a detector for counting and analysis. The identification of the sample is manually entered into the computer. The identification also appears on the completed analysis data sheet printed from the computer program.

When the analysis of the RWBV filter began, the sample was incorrectly entered into the computer as the "TBV" filter. Another individual assigned to continue the surveillance noted that the RWBV filter sample in the detector did not match the computer identification. This individual corrected the computer identification and performed the analysis again believing that the TBV filter analysis had already been completed. As a result, the RWBV filter was analyzed twice and the TBV filter was missed. The surveillance package included a completed data sheet for each RWBV filter analysis; one properly labeled and one incorrectly labeled as the "TBV" filter analysis.

NRC FORM 366A (9-83)

NRC Form 366A (5-83)

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Grand Gulf Nuclear Station	0 5 0 0 0 4 1 6	9 0	— 0 0 6	— 0 0	0 4 OF 0 5

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A previous event of personnel error affecting performance of this surveillance was reported in LER 89-011. In that incident, personnel installed an empty sample holder assembly in the Fuel Handling Area Ventilation System. As a result, the sample holders were modified and labeled for easier identification and the procedure was changed to require a documented inspection of the sample assembly prior to installation. These corrective actions addressed the concerns associated with sample holder identification. An overall review of the Chemistry Program was conducted, but the particular situation of incorrectly identifying a sample filter during analysis was not perceived.

E. Supplemental Corrective Actions

An Incident Review Board convened on May 3, 1990 to investigate the incident. A Human Performance Enhancement System (HPES) evaluation was also conducted. The following corrective actions have been completed or are planned to preclude recurrence.

- Chemistry personnel involved in this event were counseled by the Chemistry Superintendent.
- All applicable Chemistry personnel were informed of the event and the fundamental causes of the situation; i.e., inattention to detail and lack of self-verification.
- Meetings were held with all Chemistry shift supervisors to discuss the event and stress the practice of self-verification.
- Additional training will be conducted which will include the expectations of personnel performing such tasks, the particular elements of a detailed data package review, and the proper actions that should be taken whenever errors or uncertainties are identified.
- The computer program will be evaluated to determine if enhancements can be made relative to sample title entries.

All actions are expected to be completed by July 3, 1990.

NRC Form 366A (5-83)

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APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/88

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Grand Gulf Nuclear Station	0 5 0 0 0 4 1 6	9 0	— 0 0 6	— 0 0	0 5 OF 0 5

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F. Safety Assessment

The weekly samples are stored in the labeled Petri-dishes pending completion of quarterly analyses. The TBV sample was readily retrieved, counted, and analyzed with results quite different from that of the other samples.

The results of the TBV sample analysis confirmed that no Technical Specification limits were exceeded. The effect of the longer decay time was insignificant, but was compensated for in accordance with the methodology of the ODCM.