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October 4, 1995

OCAN109508

U. S. Nuclear Regulatory Commission  
Document Control Desk  
Mail Station P1-137  
Washington, DC 20555

Subject: Arkansas Nuclear One - Units 1 and 2  
Docket No. 50-313/368  
License No. DPR-51/NPF-6  
Licensee Event Report 50-313/95-010-00

Gentlemen:

In accordance with 10CFR50.73(a)(2)(i)(B), enclosed is the subject report concerning radioactive gaseous effluent sampling.

Very truly yours,

*Dwight C. Mims*

Dwight C. Mims  
Director, Licensing

DCM/dc

enclosure

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cc: Mr. Leonard J. Callan  
Regional Administrator  
U. S. Nuclear Regulatory Commission  
Region IV  
611 Ryan Plaza Drive, Suite 400  
Arlington, TX 76011-8064

Institute of Nuclear Power Operations  
700 Galleria Parkway  
Atlanta, GA 30339-5957

**LICENSEE EVENT REPORT (LER)**

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)  
Arkansas Nuclear One - Unit 1

DOCKET NUMBER (2)  
05000313

PAGE (3)  
1 OF 3

TITLE (4)  
Failure to Establish Alternate Radioactive Gaseous Effluent Sampling Within One Hour Due to Lack of Guidance Regarding Prioritization for Restoration of Sampling Capability Upon Loss of Multiple SPING Channels

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 NAME	DOCKET NUMBER
09	04	95	95	010	00	10	04	95	Arkansas Nuclear One-Unit 2	05000368
									FACILITY NAME	DOCKET NUMBER

OPERATING MODE (9)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR: (Check one or more) (11)
N/1	20.402(b) <input type="checkbox"/> 20.405(c) <input type="checkbox"/> 50.73(a)(2)(iv) <input type="checkbox"/> 70.71(b) <input type="checkbox"/>
POWER LEVEL (10) 100/45	20.405(a)(1)(i) <input type="checkbox"/> 50.36(c)(1) <input type="checkbox"/> 50.73(a)(2)(v) <input type="checkbox"/> 70.71(c) <input type="checkbox"/>
	20.405(a)(1)(ii) <input type="checkbox"/> 50.36(c)(2) <input type="checkbox"/> 50.73(a)(2)(vii) <input type="checkbox"/> OTHER <input type="checkbox"/>
	20.405(a)(1)(iii) <input checked="" type="checkbox"/> X 50.73(a)(2)(i) <input type="checkbox"/> 50.73(a)(2)(viii)(A) <input type="checkbox"/> Specify in
	20.405(a)(1)(iv) <input type="checkbox"/> 50.73(a)(2)(ii) <input type="checkbox"/> 50.73(a)(2)(viii)(B) <input type="checkbox"/> Abstract Below
	20.405(a)(1)(v) <input type="checkbox"/> 50.73(a)(2)(iii) <input type="checkbox"/> 50.73(a)(2)(x) <input type="checkbox"/> and in Text

LICENSEE CONTACT FOR THIS LER (12)

NAME  
Dee Cantwell, Nuclear Safety and Licensing Specialist

TELEPHONE NUMBER (Include Area Code)  
501-858-5589

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
C	EC	BKR	G182	N					

SUPPLEMENTAL REPORT EXPECTED (14)

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

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

At 0623 on September 4, 1995, alternate sampling capability for inservice effluent paths was not established within one hour, as required by ANO's current interpretation of the applicable Technical Specifications, upon loss of normal radioactive gaseous effluent instrumentation. This event, initiated by rain water that leaked through the Post Accident Sampling System (PASS) Building roof into a motor control center, resulted in a loss of power to electrical buses supplying the Super Particulate Iodine Noble Gas (SPING) channels. Chemistry personnel immediately began preparations for the installation of alternate sampling equipment. Efforts were complicated by the loss of power to electrical outlets needed for alternate sampling pumps. Extension cords were routed to alternate outlets and the required pumps were obtained. However, alternate sampling was not established for either the Unit 1 or Unit 2 radwaste area ventilation until 0750, exceeding ANO's self imposed one hour time limit. This event can be attributed to lack of guidance regarding prioritization for establishment of alternate sampling upon the loss of SPING channels for multiple release paths. Guidance will be developed to provide instructions to Chemistry personnel in the event of a similar incident. The PASS Building rain water leak was contained and leads were lifted to isolate the fault so that power could be restored to the Unit 2 SPINGs. Unit 2 equipment was inspected and returned to service that same day. The damaged Unit 1 equipment was replaced and returned to service on September 6, 1995.

NRC FORM 366A (5-92)		U.S. NUCLEAR REGULATORY COMMISSION		APPROVED BY OMB NO. 3150-0104 EXPIRES 5/31/95	
<b>LICENSEE EVENT REPORT (LER)</b> <b>TEXT CONTINUATION</b>				ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.	
FACILITY NAME (1)		DOCKET NUMBER (2)	LER NUMBER (6)		PAGE (3)
Arkansas Nuclear One - Unit 1		005000313	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER
			95	010	00
					2 OF 3

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

**A. Plant Status**

At the time this event occurred, Arkansas Nuclear One, Unit 1 (ANO-1) was operating at 100 percent full power and Unit 2 (ANO-2) was operating at 45 percent full power.

**B. Event Description**

At 0629 on September 4, 1995, rain water leakage through the roof of the Post Accident Sampling System (PASS)[IP] Building created a phase-to-phase short on the supply side of a circuit breaker resulting in loss of power to two Motor Control Centers (MCCs), one for each unit. Loss of power to these MCCs rendered the PASS instrumentation and multiple Super Particulate Iodine Noble Gas (SPING) channels inoperable for both units and resulted in a loss of power to local electrical outlets.

ANO-1 Technical Specification 3.5.7.3 and ANO-2 Technical Specification 3.3.3.9 state that, with less than the minimum number of iodine and particulate channels operable, effluent releases via the affected pathways may continue provided samples are continuously collected with auxiliary sampling equipment. Although not specifically stated in the specifications, ANO's current interpretation requires that alternate sampling capability be established within one hour for inservice effluent paths upon loss of normal radioactive gaseous effluent instrumentation.

Chemistry personnel immediately began installation of alternate sampling equipment. Efforts were complicated due to the loss of power to multiple SPING channels and to electrical outlets needed for alternate sampling pumps. Extension cords were routed to alternate outlets and the required pumps were obtained. Although all required alternate sampling equipment was installed within one hour and twenty-one minutes, ANO's self imposed one hour time limit was exceeded.

Leads were lifted to isolate the electrical fault so that power could be restored to the ANO-2 MCC. The ANO-2 PASS and SPINGs were returned to service that same day. The damaged ANO-1 circuit breaker was replaced and all associated equipment was inspected and returned to service on September 6, 1995.

**C. Root Cause**

The failure to comply with the self imposed time limit for establishing alternate sampling was due to lack of guidance provided to Chemistry personnel regarding prioritization for the establishment of alternate sampling upon loss of multiple SPING channels. Timely response was complicated by the need to install multiple sample pumps and because of the loss of power to outlets needed for the pumps.

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**D. Corrective Actions**

The ANO-2 electrical equipment was inspected and returned to service on September 4, 1995.

The damaged ANO-1 circuit breaker was replaced, all associated equipment was cleaned and inspected, and leads were reterminated to restore the system to normal operation on September 6, 1995.

The leak in the Pass Building roof was contained and temporary repairs were completed. The original type roof sealant was procured and preparations have begun for permanent repairs. Design Engineering will inspect and evaluate the PASS Building roof installation and make recommendations for roof modifications and future maintenance practices by March 1, 1996.

Instructions for prioritizing restoration of sampling capability upon the loss of multiple SPING channels will be developed by December 1, 1995.

**E. Safety Significance**

Based on data obtained before and after this event, it was determined that no significant or abnormal releases of radioactivity occurred. Therefore, this condition was not safety significant.

**F. Basis for Reportability**

Failure to establish alternate sampling for inservice effluent paths within one hour did not meet ANO's current interpretation of Unit-1 Technical Specification 3.5.7.3 and Unit 2 Technical Specification 3.3.3.9. This is reportable pursuant to 10CFR50.73(a)(2)(i)(B) as an operation or condition prohibited by the plant's Technical Specifications.

**G. Additional Information**

No previous similar occurrences requiring a Licensee Event Report were identified concerning the failure to establish alternate sampling within the time specified by ANO's current interpretation of Technical Specifications.

Energy Industry Identification System (EIIS) codes are identified in the text as [XX].