

June 25, 1997

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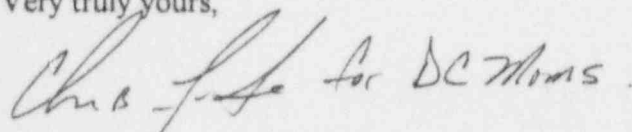
U. S. Nuclear Regulatory Commission
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Washington, DC 20555

Subject: Arkansas Nuclear One - Unit 2
Docket No. 50-368
License No. NFF-6
Licensee Event Report 50-368/97-004-00

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
Director, Nuclear Safety

DCM/dc

enclosure

IE221



U. S. NRC

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NRC FORM 366 (5-92)		U.S. NUCLEAR REGULATORY COMMISSION			APPROVED BY OMB NO. 3150-0104 EXPIRES 5/31/95					
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 2					DOCKET NUMBER (2) 05000368		PAGE (3) 1 OF 3			
TITLE (4) Alternate Radioactive Gaseous Effluent Sampling Not Established Within One Hour As Required Due To Inadequate Alarming Capabilities On Radiological Dose Assessment Computer System Terminals										
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
05	26	97	97	004	00	06	25	97	FACILITY NAME	DOCKET NUMBER
OPERATING MODE (9)		5	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR: (Check one or more) (11)							
POWER LEVEL (10)		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)		OTHER	
			20.405(a)(1)(iii)		X 50.73(a)(2)(i)		50.73(a)(2)(viii)(A)		Specify in Abstract Below and in Text	
			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 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
SUPPLEMENTAL REPORT EXPECTED (14)						EXPECTED SUBMISSION DATE (15)		MONTH		DAY
YES (If yes, complete EXPECTED SUBMISSION DATE)					NO X					
ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)										
<p>At 2046 on May 26, 1997, alternate sampling capability for an inservice effluent path was not established within one hour upon loss of normal radioactive gaseous effluent instrumentation. This event, initiated by a tripped sample pump breaker, resulted in an unmonitored release for one hour and twelve minutes. At 2145 on May 26, 1997, an ANO-2 shift engineer noticed the Radiological Dose Assessment Computer System (RDACS) terminal indicated that the sample pump on the containment building Super Particulate Iodine Noble Gas (SPING) radiation monitor was inoperable. Chemistry was contacted to investigate the apparent failure. Upon verification of the failed sample pump, chemistry personnel immediately began preparations for the installation of alternate sampling equipment. Prior to installation of the alternate sample pump, the chemist determined that the breaker for the sample pump was tripped. The chemist reset the breaker and started the SPING sample pump. Thirteen minutes had elapsed from the time of discovery of the failed sample pump until sampling was restored. However, upon reviewing the RDACS computer logs, it was determined that the sample pump had been out of service for one hour and twelve minutes, exceeding ANO's self-imposed one hour time limit. This event can be attributed to inadequate alarming capabilities on the RDACS terminals. A software change to RDACS was implemented to allow annunciation for conditions requiring a one hour response.</p>										

NRC FORM 366A (5-92)		U.S. NUCLEAR REGULATORY COMMISSION		APPROVED BY OMB NO. 3150-0104 EXPIRES 5/31/95	
LICENSEE EVENT REPORT (LER) TEXT CONTINUATION				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 (MNBB 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)	
Arkansas Nuclear One - Unit 2		005000368		YEAR	SEQUENTIAL NUMBER
				97	004
				REVISION NUMBER	PAGE (3)
				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 2 (ANO-2) was in cold shutdown during Refueling Outage 2R12.

B. Event Description

At 2145 on May 26, 1997, an ANO-2 shift engineer noticed that the Radiological Dose Assessment Computer System (RDACS)[IL] terminal indicated that the sample pump on the containment building Super Particulate Iodine Noble Gas (SPING) radiation monitor was inoperable. The shift engineer contacted chemistry to investigate the apparent failure. Chemistry personnel confirmed inoperability of the pump and immediately proceeded to the SPING to install alternate sampling equipment. ANO-2 Technical Specification 3.3.3.9 states 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 specification, 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. Prior to installation of the alternate sample pump, the chemist determined that the breaker for the sample pump was tripped. The chemist reset the breaker, started the SPING sample pump, and instructed the count room chemist to clear the alarms. Operations was notified at 2158 that the SPING was back in service. Thirteen minutes had elapsed from the time of discovery of the failed sample pump until sampling was restored. However, upon review of the alarm logs of the RDACS computer, the count room chemist was able to determine that the SPING pump was de-energized at 2046. The SPING had been out of service one hour and twelve minutes, which was twelve minutes longer than the allowed time specified in the Technical Specification Interpretation.

C. Root Cause

The SPINGs perform the gaseous effluent monitoring required by technical specifications. Each SPING monitors the data it produces and assigns a status flag to the data. RDACS provides a status screen that displays status messages sent to RDACS by the SPING. When a status changes from a "normal" value, the RDACS terminal will beep and a message will appear at the top of the screen. To observe these alarms, it is necessary for personnel to be present at the terminal when the alarming condition occurs. The RDACS terminal for Unit 2 is located at the back of the control room on the shift engineer's desk. Personnel were not present at the terminal at the time of the sample pump failure. There is one RDACS terminal in each control room and one in the chemistry laboratory. The terminal located in the chemistry laboratory does not have visual or audible alarms for SPING channels. The root cause of this condition was a design inadequacy in the alarming capabilities of the RDACS terminals.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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 (MNBB 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)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Arkansas Nuclear One - Unit 2	005000368	97	004	00	3 OF 3

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

D. Corrective Actions

A software change was implemented on June 9, 1997, that will cause the RDACS trouble annunciator located in the front of the control room to alarm when a sample pump failure has existed for ten minutes. The annunciator will indicate a condition requiring a one hour response.

E. Safety Significance

Based on data obtained before and after this event, it was determined that no significant or abnormal releases of radioactivity occurred. A radiation monitor in service during the time that the sample pump was de-energized, and containment ventilation samples collected before and after this event, indicated no significant activity during the release. 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-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 Specification.

G. Additional Information

An event was reported in Licensee Event Report 50-313/95-010-00, letter 0CAN109508 dated October 4, 1995, with some similarity to this condition in that alternate sampling capability for inservice effluent paths was not established within one hour, as required by ANO's interpretation of the applicable Technical Specifications, upon loss of normal radioactive gaseous effluent instrumentation. The events differ in that the previous event was attributed to lack of guidance regarding prioritization for establishment of alternate sampling upon the loss of SPING channels for multiple release paths.

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