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

Subject: Arkansas Nuclear One - Unit 1
Docket No. 50-313
License No. DPR-51
Licensee Event Report 50-313/93-007-00

Gentlemen:

In accordance with 10CFR50.73(a)(2)(i)(B), enclosed is the subject report concerning an unmonitored effluent release.

Very truly yours,

J W Yelverton

JWY/jmt

enclosure

cc: Regional Administrator
Region IV
U. S. Nuclear Regulatory Commission
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NRC FORM 366 (5-92) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104
EXPIRES 5/31/95

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.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Arkansas Nuclear One, Unit One	05000313	1 OF 4

TITLE (4) Radwaste Area Effluent Flowpath Not Continuously Monitored During Release Due to a Separated Sample Line Connection Which Resulted From Inadequate Procedural Guidance.

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
11	22	93	93	-- 007 --	00	12	21	93	FACILITY NAME	DOCKET NUMBER

OPERATING MODE (9)	N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR: (Check one or more) (11)					
		20.402(b)		20.405(c)		50.73(a)(2)(iv)	70.71(b)
POWER LEVEL (10)	100	20.405(a)(1)(i)		50.36(c)(1)		50.73(a)(2)(v)	70.71(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	TELEPHONE NUMBER (Include Area Code)
R. H. Scheide, Nuclear Safety and Licensing Specialist	501-964-5000

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 15 single-spaced typewritten lines) (16)

On November 21, 1993, at approximately 1400, the radwaste area ventilation effluent flow monitor failed. Therefore, the associated gaseous effluent monitoring channel was declared inoperable. Since the Radwaste Area ventilation system was in operation, alternate sampling equipment was installed and placed in service as required by Technical Specifications. On November 22 at approximately 1430, a Chemist preparing to collect a gas sample discovered that the sample tubing was disconnected from one end of the filter cartridge. This condition resulted in the pump taking its sample from the room instead of the release path, as required. The sample tubing was immediately reconnected. The root cause of this event was inadequate procedural guidance regarding alternate sampling equipment hookup. Procedures for ANO-1 and ANO-2 were revised to include appropriate guidance for sampling equipment hookup. It was verified that no significant radioactive release occurred while the effluent flowpath was unmonitored.

A. Plant Status

At the time of this event, Arkansas Nuclear One, Unit One (ANO-1) was operating at approximately 100% of rated power.

B. Event Description

On November 22, 1993, at approximately 1430, it was identified by ANO Chemistry personnel that continuous monitoring of the Radwaste Area ventilation effluent was not being conducted as required by the Technical Specifications.

Technical Specification 3.5.7.1 requires that the radioactive gaseous effluent monitoring instrumentation shown in Table 3.5.7.1 shall be operable with their alarm/trip setpoints set to ensure that the dose rate in unrestricted areas will be within the limits of 10CFR20. Table 3.5.7.1 requires that effluent monitoring instrumentation be operable during releases via its associated flowpath. The table also stipulates that effluent releases may continue with less than the required number of operable channels providing samples are continuously collected with auxiliary sampling equipment.

On November 21, 1993, at approximately 1400, the radwaste area ventilation effluent flow monitor failed. Therefore, the associated gaseous effluent monitoring channel was declared inoperable. Since the Radwaste Area ventilation system was in operation, alternate sampling equipment was installed and placed in service as required by Technical Specifications.

The alternate sampling equipment is comprised of a sample pump, flow meter, iodine and particulate filter cartridge and associated tubing and connectors. The equipment is also set up to allow for gaseous grab sample collection. When alternate sampling equipment is in service, Technical Specifications require that sample pump flow rate be estimated every 4 hours and gas grab samples taken every 12 hours.

On November 22 at approximately 1430, a Chemist preparing to collect a gas sample discovered that the sample tubing was disconnected from one end of the filter cartridge. This condition resulted in the pump taking its sample from the room instead of the release path, as required. The sample tubing was immediately reconnected and all other connections were inspected and equipment secured in place, as needed.

C. Root Cause

Alternate sampling equipment is routinely installed whenever effluent monitoring channels are removed from service for surveillance testing or maintenance. There have been no previous instances recorded in which connections have separated.

Investigation into the cause of this event identified that the tubing which connected the filter cartridge to the flow meter was not long enough to allow the cartridge to rest on the floor. This configuration, although typical of previous sampling equipment hookups, placed stress on the filter cartridge connections. Since no other deficiencies were identified, it was concluded that the weight of the cartridge hanging from the tubing had apparantly caused the connection to separate.

The procedure controlling alternate sampling equipment hookup did not contain guidance regarding minimization of stress on connections or verification of tightness. Therefore, the root cause of this event is considered to be inadequate procedural guidance regarding hookup of alternate sampling equipment.

D. Corrective Actions

The sample tubing was immediately reconnected upon discovery of the problem. All other connections were inspected and equipment secured in place as needed.

The procedures for both ANO-1 and ANO-2 containing guidance regarding alternate sampling equipment hookup were revised to include instructions to secure equipment to ensure a minimal amount of stress on connections and to reinforce connections as necessary.

The Training Department was notified to include alternate sampling equipment installation in the "On the Job Training" program.

E. Safety Significance

The sample tubing was identified as being disconnected at 1430 on November 22. It was observed as being properly connected at 1040 on the same day by Chemistry personnel during the collection of flow rate data. Therefore, the ventilation effluent flowpath was unmonitored for less than 3 hours and 50 minutes. The activities released before and subsequent to this time frame were verified to be less than minimum detectable for all gases, tritium, particulates and iodines. In addition, Operations reported that no venting of high activity systems took place during the time period that the flowpath was unmonitored. Therefore, this event is considered to be of no safety significance.

F. Basis for Reportablilty

Techr cal Specifications requires that an effluent flowpath must be continuously monitored any time that a release is being made via that pathway. Since the radwaste area ventilation effluent was unmonitored for some period of time (less than 3 hours 50 minutes) while a release was being made, this condition is reportable pursuant to 10CFR50.73(a)(2)(i)(B) as an operation prohibited by Technical Specifications.

G. Additional Information

There have been no previous similar events reported in which an inadequate procedure resulted in an unmonitored effluent release.