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U. S. Nuclear Regulatory Commission
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SUBJECT: Arkansas Nuclear One - Unit 1
Docket No. 50-313
License No. DPR-51
Licensee Event Report 50-313/92-002-00

Gentlemen:

In accordance with 10CFR50.73(a)(2)(i)(B), enclosed is the subject report concerning the seismic qualification of Post Accident Monitoring instrumentation.

Very truly yours,

for James J. Fisicaro
Director, Licensing

JJF/EKH/mmg
Enclosure
cc: Regional Administrator
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NRC Form 366
(6-89)

U.S. Nuclear Regulatory Commission
Approved OMB No. 3150-0104
Expires: 4/30/92

LICENSEE EVENT REPORT (LER)

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TITLE (4) Seismic Qualification of Post Accident Monitoring Instrumentation Compromised Due To The Installation of Non-Seismically Qualified Equipment Which Resulted From Inadequate Configuration Control

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 0 0
0 4	2 1	9 2	9 2	-- 0 0 2	-- 0 0	0 5	2 1	9 2		0 5 0 0 0

OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)							
POWER LEVEL (10)	N	0 0 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 (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)
Elizabeth F lbert, Nuclear Safety and Licensing Specialist	5 0 1 9 6 4 - 5 0 0 0

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	

SUPPLEMENT 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 April 21, 1992, while performing an Engineering walkdown to evaluate the acceptability of leaving certain non-permanent items inside the Reactor Building (RB) during plant operation, it was identified that a seismic Category II scaffolding storage rack could have potentially rendered one channel of Technical Specifications related RB water level instrumentation inoperable if a seismic event had occurred. Two channels of seismic Category I RB water level instrumentation provide post Loss of Coolant Accident water level indication in the RB basement in accordance with the recommendations of NUREG-0578. The seismic Category II scaffolding storage rack is located in close proximity to the sensors for one level channel. This condition represented a seismic II/I concern since the RB water level instrumentation could have been struck by the scaffolding during a design basis earthquake and rendered inoperable. The root cause of this condition was determined to be inadequate configuration control regarding work processes in the RB which failed to consider the potential impact that the scaffolding could have on the seismic qualification of the level instrumentation. A seismic structural barrier has been installed to protect the RB water level instrumentation from being impacted by scaffolding stored in the storage rack.

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

A Plant Status

At the time this condition was identified, Arkansas Nuclear One Unit 1 (ANO-1) was in cold shutdown conditions with Reactor Coolant System (RCS) [AB] temperature at 88 degrees and pressure at 0 psig. Refueling outage 1R10 was in progress.

B. Event Description

On April 21, 1992, while performing an Engineering walkdown to evaluate the acceptability of leaving certain non-permanent items inside the Reactor Building (RB) [NH] during plant operation, it was identified that a seismic Category II scaffolding storage rack could have potentially rendered one channel of Technical Specifications related RB water level instrumentation inoperable if a seismic event had occurred.

Two channels of seismic Category I RB water level instrumentation (LI-5645, LI-5646) were installed in 1981 per a Design Change Package in order to provide post Loss of Coolant Accident (LOCA) water level indication in the Reactor Building basement in accordance with NUREG-0578.

The seismic Category II scaffolding storage rack, which was installed in 1982 through the Job Order process, is located in close proximity to the sensors for level channel LI-5646. This condition represented a seismic II/I concern since the RB water level instrumentation could have been struck by the scaffolding and rendered inoperable during a design basis earthquake.

C. Root Cause

The root cause of this condition was determined to be inadequate configuration control at the time the scaffolding rack was installed in the Reactor Building. The potential impact the scaffolding rack could have on the seismic qualification of the level instrumentation was not taken into consideration.

D. Corrective Actions

A seismic structural barrier was installed to protect the RB water level instrumentation from being impacted by scaffolding stored in the storage rack thus returning these instruments to operable status.

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

A policy will be established regarding the acceptability of items to be left inside the RB during operation. Implementation of this policy is intended to result in a list of acceptable components and material that may be stored in each unit. The policy will be in place prior to restart from the next Unit 2 refueling outage, estimated to be December 1, 1992.

Procedural controls presently in place are considered adequate to prevent the occurrence of similar conditions. These controls include:

- An Impact Statement is required to be included in all Job Order Packages with the exception of those packages which inspect, calibrate or repair equipment which is not scheduled to be put in a plant system after work is complete. The Impact Statement must address the effect the identified work activity may have on the component, system or plant.

- Modifications to the plant which involve changes to plant equipment or structures are required to have an engineering evaluation.

- Existing design review requirements for Design Change Package development contain clear and specific instructions concerning the qualified configuration of components or systems and should prevent a similar occurrence due to Design Change Package installation.

- In addition, an engineering evaluation is required for identified equipment which is not a permanent fixture of the RB but required to be left inside the building during operation.

E. Safety Significance

Two channels of RB water level instrumentation (LI-5645, LI-5646) are installed to provide post-LOCA water level indication in the RB basement in accordance with the recommendations of NUREG-0578. The scaffolding had the potential of damaging the sensing elements for one channel (LI-5646) of the level instrumentation if a design basis earthquake had occurred. However, the redundant channel (LI-5645) was not affected by this condition and would have remained operable. In addition, the safety analysis of the plant does not require that both a seismic event and a LOCA be considered to occur simultaneously. Therefore, since the function of the instrumentation would not be credited following a seismic event and the failure mechanism would not be present following a LOCA, this condition is considered to have been of minimal safety significance.

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

F. Basis For Reportability

On January 31, 1985, the ANO-1 Technical Specifications were amended to include post accident monitoring instrumentation in accordance with the requirements of NUREG-0737. Included in the amendment was the requirement for two channels of RB water level instrumentation to be operable. In the event one channel becomes inoperable and containment entry is required to facilitate repair, the inoperable channel must be restored by the next refueling outage. Since level channel LI-5646 was inoperable for more than one refueling cycle this condition represented an operation prohibited by Technical Specifications reportable pursuant to 10CFR50.73(a)(2)(i)(B).

G. Additional Information

There have been no previous similar events reported as Licensee Event Reports by ANO.

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