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February 6, 1990

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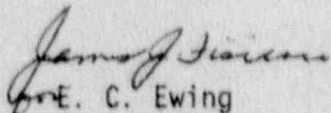
U. S. Nuclear Regulatory Commission  
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SUBJECT: Arkansas Nuclear One - Unit 1  
Docket No. 50-313  
License No. DPR-51  
Licensee Event Report No. 50-313/89-034-01

Gentlemen:

In accordance with 10CFR50.73(a)(2)(i)(B), attached is a supplement to the subject report concerning the Control Room Emergency Air Conditioning System being rendered inoperable by removing ANO-2 equipment from service due to inadequate guidance with respect to equipment common to both units.

Very truly yours,

  
E. C. Ewing  
General Manager,  
Technical Support  
and Assessment

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Approved OMB No. 3150-0104  
Expires: 8/31/85

## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Arkansas Nuclear One, Unit One DOCKET NUMBER (2) PAGE (3)  
050000 31 310F013

TITLE (4) Control Room Emergency Air Conditioning System Rendered Inoperable by Removing ANO-2  
Equipment From Service Due to Inadequate Guidance with Respect to Equipment Common  
to Both Units

EVENT DATE (5)			LER NUMBER (6)		REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
Month	Day	Year	Sequential Number	Revision Number	Month	Day	Year	Facility Names	Docket Number(s)
10	31	89	034	01	10	20	06		050000
OPERATING MODE (9) N THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more of the following) (11)									
POWER LEVEL (10)	07	14	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			
			20.405(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	Abstract below and			
			20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	in Text, NRC Form			
			20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	366A)			

LICENSEE CONTACT FOR THIS LER (12)

Name	Telephone Number
Larry A. Taylor, Nuclear Safety and Licensing Specialist	Area
	Code
	5001964-1311010

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 October 31, 1989, it was determined by plant personnel that the provisions of ANO-1 Technical Specification (TS) 3.9.1 had likely been violated during previous ANO-2 outages. The TS requires two independent circuits of the Control Room Emergency Air Conditioning System (CREACS) be operable whenever reactor building integrity is required. Control Room unit coolers 2VUC-27A and B and their associated condenser/compressors supply air conditioning to the combined ANO-1 and ANO-2 Control Rooms during emergency conditions. These units are powered from the ANO-2 Engineered Safeguards busses. During previous ANO-2 outages, when an EDG was removed from service for maintenance, the applicable cooler was rendered technically inoperable since its emergency power source was inoperable. This condition is believed to have resulted in operation of ANO-1 in violation of the Technical Specifications. The cause of this event was inadequate guidance regarding removal from service of equipment common to both units. Corrective actions which will be taken include revising appropriate procedures for both units to provide additional guidance related to equipment common to both units. Additionally, the Systems Information Management System will be modified to flag equipment common to both units to ensure that job orders affecting common equipment will be approved by the Operations Supervisors of both units.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
Arkansas Nuclear One, Unit One		Year	Sequential Number	Revision Number	
	015101013113	89--	034--	0	102101013

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

A. Plant Status

At the time of discovery of this condition, Arkansas Nuclear One, Unit One (ANO-1) was operating at approximately 74 percent of rated power.

B. Event Description

On October 31, 1989, it was determined by plant personnel that the provisions of ANO-1 Technical Specification (TS) 3.9.1, had likely been violated during past ANO-2 refueling outages when the Emergency Diesel Generators (EDG) [EK] were removed from service for maintenance. The TS requires two independent circuits of the Control Room Emergency Air Conditioning System (CREACS) [VI] be operable whenever reactor building integrity is required.

The CREACS consist of two independent, redundant trains of air conditioning equipment powered from the ANO-2 vital Engineered Safeguards (ES) electrical busses which provide emergency air conditioning for the combined ANO-1 and ANO-2 Control Rooms. Each train consists of a cooling unit (cooling coil and fan) and a condenser/compressor unit. The units are manually started, when required.

On October 3, 1989, while ANO-2 was in a refueling outage (Mode 6), it was identified by Operations personnel that Control Room cooling unit 2VUC-27B and its associated condenser/compressor unit (2VE-1B) were technically inoperable because the ANO-2 EDG which is their emergency power source had been removed from service for an 18 month surveillance activity on September 27, 1989. The ANO-2 Technical Specifications do not require the CREACS to be operable in Mode 6.

ANO-1 Technical Specifications allows continued operation with one circuit of the CREACS inoperable for a period of 7 days. If the inoperable circuit cannot be restored within that time, the reactor must be placed in cold shutdown within an additional 36 hours.

Upon discovery of the condition, actions were initiated to provide power to the CREACS 'B' train components from the ANO-1 electrical distribution system. A work plan was initiated and completed within the time frame allowed by the Technical Specifications providing normal and emergency power to 2VUC-27B and 2VE-1B from an ANO-1 vital ES bus.

An investigation was initiated to determine if similar conditions had existed during previous ANO-2 refueling outages. On October 31, 1989, it was concluded that the provisions of the ANO-1 Technical Specifications regarding CREACS operability requirements had likely been violated when the EDGs were removed from service for maintenance during outages.

C. Safety Significance

The safety significance of this condition is minimized by the fact that only the emergency power supply to one of the CREACS trains was removed during EDG surveillance activities and because the redundant CREACS train remained operable.

D. Root Cause

The cause of this event was determined to be inadequate controls defining requirements related to plant activities such as maintenance which could affect operability of equipment common to both ANO-1 and ANO-2. Job orders used to perform Technical Specifications surveillances do not identify that equipment applicable to both units might be affected, or require obtaining authorization from both unit's Shift Supervisor prior to performance. In addition, the procedure used to perform the EDG surveillance did not indicate that removing an EDG from service would affect equipment required to be operable by ANO-1 Technical Specifications.

E. Basis for Reportability

This condition is reportable pursuant to 10CFR50.73(a)(2)(i)(B) as operation in a condition prohibited by the plant's Technical Specifications because it was determined that during previous ANO-2 outages, ANO-1 had likely operated with one train of the CREACS inoperable for a time period longer than allowed by the plant's Technical Specifications.



LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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TEXT (If more space is required, use additional NRC Form 366A's) (17)	015101013113	89--	034--	01	0130F013

F. Corrective Actions

Immediate corrective actions taken with respect to this event were to provide normal and emergency power to 2VUC-27B and 2VE-1B from an ANO-1 ES bus.

As an interim corrective action, discussions of this event and the lessons learned from it were conducted with the operating crews of ANO-1 and ANO-2.

Future corrective actions which should aid in preventing the occurrence of similar events include:

- The operating procedures for ANO-1 and ANO-2 will be evaluated and the appropriate changes will be made to alert Operations personnel to the applicability of equipment inoperability on the opposite unit. These procedure changes are scheduled to be completed by March 31, 1990.
- A review will be conducted to identify equipment and components required to be operable by both units Technical Specifications. The Systems Information Management System (SIMS) database will then be modified to "flag" the identified equipment as being applicable to both units. This action, which is scheduled to be completed by March 31, 1990, will ensure that job orders issued to work or perform surveillances on equipment common to both units will require approval by both ANO-1 and ANO-2 Operations prior to being worked.

G. Additional Information

There have been no previous events reported in which removing equipment from service in one unit resulted in violation of the opposite units Technical Specifications.

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