



Nebraska Public Power District

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CNSS913667

April 24, 1991

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

Dear Sir:

Cooper Nuclear Station Licensee Event Report 91-003, Revision 0, is being forwarded as an attachment to this letter.

Sincerely,

J. M. Meacham
Division Manager of
Nuclear Operations
Cooper Nuclear Station

JMM/bjs

Attachment

cc: R. D. Martin
G. R. Horn
R. E. Wilbur
V. L. Wolstenholm
D. A. Whitman
INPO Records Center
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LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Cooper Nuclear Station										DOCKET NUMBER (2) 0 5 0 0 0 2 9 8				PAGE (3) 1 OF 4								
TITLE (4) Unplanned Actuation of Group VI Isolation During Surveillance Testing Due to Personnel Error and Deficient Procedure																						
EVENT DATE (5)			L/R 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	3	2	5	9	1	9	1	0	0	3	0	0	0	4	2	9	1	0	5	0	0	0
OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5. (Check one or more of the following) (11)																				
N		20.402(b)				20.406(c)				<input checked="" type="checkbox"/> 50.73(a)(2)(iv)				73.71(b)								
POWER LEVEL (10)		0 0 0				20.406(a)(1)(i)				50.73(a)(2)(v)				73.71(a)								
		20.406(a)(1)(ii)				50.36(c)(2)				50.73(a)(2)(vii)				OTHER (Specify in Abstract below and in Text, NRC Form 366A)								
		20.406(a)(1)(iii)				50.73(a)(2)(i)				50.73(a)(2)(viii)(A)												
		20.406(a)(1)(iv)				50.73(a)(2)(ii)				50.73(a)(2)(viii)(B)												
		20.406(a)(1)(v)				50.73(a)(2)(iii)				50.73(a)(2)(ix)												
LICENSEE CONTACT FOR THIS LER (12)																						
NAME John R. Myers										TELEPHONE NUMBER												
										AREA CODE 4 0 2												
										8 2 5 - 3 8 1 1												
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																						
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS												
SUPPLEMENTAL REPORT EXPECTED (14)												EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR						
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)												<input checked="" type="checkbox"/> NO										

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

On March 25, 1991, at 10:59 pm, with the plant in Cold Shutdown for a maintenance outage, an unplanned actuation of the Group VI Isolation logic occurred, resulting in isolation of the Secondary Containment and closure of the Drywell Vent and Purge valves. The actuation occurred during surveillance testing, when the I&C Technician stationed in the Control Room failed to reset the Reactor Building Ventilation Radiation Monitor prior to removal of a test jumper. The test in progress was Surveillance Procedure (SP) 6.3.7.5, Reactor Building Ventilation Radiation Monitor Source Check. As the Technician began to remove the jumper, arcing was observed. The jumper was immediately relanded, restoring the radiation monitor logic circuit to its normally energized condition. This interrupted the Group VI actuation signal. The monitor was then reset and the ventilation systems were restored to their normal lineup. While Standby Gas Treatment System operation was not observed by the Control Room Operator, this would have been expected due to the effect of the momentary actuation signal on the control system logic.

The failure to properly reset the radiation monitor was due to ambiguity in the procedure and personnel error. Upon encountering the ambiguous step, the Technician was unsure that reset was required prior to removing the jumper. Nevertheless, he proceeded to remove the jumper without obtaining clarification.

A procedure change is being processed to provide improved direction for the required action. Further, as a means of both upgrading Technician attention to procedural requirements and to improve their understanding of technical details, guidelines for procedure performance and completion have been developed by I&C Shop personnel.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 500 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

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TEXT (If more space is required, use additional NRC Form 365A's) (17)

A. Event Description

On March 25, 1991, at 10:59 pm, an unplanned Group VI Isolation occurred while performing Surveillance Procedure (SP) 6.3.7.5, Reactor Building Ventilation Radiation Monitor Source Check. In this test, a jumper is installed to prevent the Group VI Isolation while the detector is exposed to varying levels of radiation. Following this, the actuation signal is reset and the jumper removed.

Earlier in the evening, during a prior performance of this procedure, the "as found" data for the recorder associated with the monitor was not tabulated. It was determined that the data was necessary, and the crew was directed to re-perform the surveillance. The I&C Technicians switched positions, with the Technician previously in the plant now in the Control Room. The "A" monitor was tested successfully, and the test of the "B" monitor was nearly complete. After recording the necessary data, the Technician went to the panel where the "reset" control and "alarm" indications are located. After reviewing the restoration step, the Technician was unsure if "reset" was required prior to removing the jumper. Thinking that "reset" was not required since it was not specifically stated in the procedure, he proceeded to remove the jumper. As the Technician began to remove the jumper, he observed a small amount of arcing, and immediately relanded it, interrupting the initiation signal. Control Room operators observed the Group VI lights "flicker", and noted the Reactor Building Heating and Ventilation (H&V) System fans trip, the isolation valves close, and the Drywell Vent and Purge valves close. The Standby Gas Treatment (SGT) System fans were not observed to start and run. However, their continued operation would not have been expected due to the effect of the momentary initiation signal on the fan control logic. The Technician then actuated the "reset" control and removed the jumper. Subsequently, the H&V System was realigned and the Purge and Vent valves were reopened.

B. Plant Status

The plant was in Cold Shutdown with the Reactor vented and the Residual Heat Removal (RHR) System in the Shutdown Cooling mode of operation. Reactor water temperature was 148 degrees Fahrenheit.

C. Basis for Report

An unplanned actuation of an ESF (Group VI Isolation), reportable in accordance with 10CFR50.73(a)(2)(iv).

D. Cause

Procedure deficiency and personnel error. The step in which reset of the monitor is intended, directs the test performer to verify that the indicator and trip unit is operating properly. Specific steps to perform (or assure) this condition were not delineated.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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

D. Cause (Continued)

With regard to personnel error, upon encountering the ambiguous procedural step, the Technician was unsure if reset was required prior to removing the jumper. At the time, the "alarm" light was illuminated. (It would remain illuminated until the reset switch was actuated.) Nevertheless, the Technician proceeded to remove the jumper without obtaining clarification.

E. Safety Significance

No significant effect. Other than isolation of the Secondary Containment and Drywell Vent and Purge valves, plant operation was unaffected.

F. Safety Implications

In the event of a Group VI Isolation during hot weather with the plant at full power, immediate operator action to restore normal ventilation is required in order to avoid a plant trip or forced shutdown. Upon Secondary Containment isolation, ventilation to the Reactor Recirculation Pump Motor Generator (RRMG) Sets is lost. If ventilation is not immediately restored, the RRMG Sets will trip due to high winding temperatures, resulting in loss of the Reactor Recirculation (RR) Pumps. Upon loss of the RR Pumps, a plant trip may result. Regardless, plant recovery will require that the plant be shut down.

G. Corrective Action

A procedure change is being processed to provide improved direction for the required action. Further, as a means of both upgrading Technician attention to procedural requirements and to improve their understanding of technical details, guidelines for procedure performance and completion have been developed by I&C Shop personnel.

H. Similar Events

Inadequate surveillance procedure:

LER 90-001 Unplanned Isolation of the High Pressure Coolant Injection System During Surveillance Testing Due to Human Factors and Procedural Deficiencies

Personnel error:

LER 87-008 Unplanned Actuation of Group VI Isolation Due to Personnel Error While Calibrating Area Radiation Monitors

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 RECORDS AND REPORTS MANAGEMENT BRANCH (F-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

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TEXT (If more space is required, use additional NRC Form 365A's) (17)

H. Similar Events (Continued)

LER 87-022 Unplanned Closure of a Reactor Water Cleanup System Isolation Valve Due to Personnel Error During Surveillance Testing

LER 91-001 Unplanned Actuation of Group VI Isolation During Surveillance Testing Due to Personnel Error