



Nebraska Public Power District

COOPER NUCLEAR STATION
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NLS950224


November 27, 1995

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555-0001

Dear Sir:

Cooper Nuclear Station Licensee Event Report 95-015 is forwarded as an attachment to this letter.

Sincerely,


J. T. Herron
Plant Manager

Attachment

cc: L. J. Callan
G. R. Horn
J. H. Mueller
R. G. Jones
R. A. Sessoms
M. F. Peckham
R. L. Gardner
N. E. Champlin
T. N. Ferrando
INPO Records Center
NRC Resident Inspector
B. Turnbull
CNS Training
CNS Quality Assurance

9512010060 951127
PDR ADDCK 05000298
S PDR

Handwritten initials

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY INFORMATION COLLECTION REQUEST: 50.0 HRS. REPORTED LESSONS LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AND FED BACK TO INDUSTRY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), 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) COOPER NUCLEAR STATION	DOCKET NUMBER (2) 05000298	PAGE (3) 1 OF 3
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TITLE (4)
Transfer of the "F" Bus to the Emergency Transformer due to a Maintenance Activity

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
10	26	95	95	-- 015	-- 0	11	27	95		05000
										05000

OPERATING MODE (9) N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more) (11)									
POWER LEVEL (10) 000	<input type="checkbox"/>	20.2201(b)	<input type="checkbox"/>	20.2203(a)(2)(v)	<input type="checkbox"/>	50.73(a)(2)(i)	<input type="checkbox"/>	50.73(a)(2)(viii)		
	<input type="checkbox"/>	20.2203(a)(1)	<input type="checkbox"/>	20.2203(a)(3)(i)	<input type="checkbox"/>	50.73(a)(2)(ii)	<input type="checkbox"/>	50.73(a)(2)(x)		
	<input type="checkbox"/>	20.2203(a)(2)(i)	<input type="checkbox"/>	20.2203(a)(3)(ii)	<input type="checkbox"/>	50.73(a)(2)(iii)	<input type="checkbox"/>	73.71		
	<input type="checkbox"/>	20.2203(a)(2)(iii)	<input type="checkbox"/>	20.2203(a)(4)	<input checked="" type="checkbox"/>	50.73(a)(2)(iv)	<input type="checkbox"/>	OTHER		
	<input type="checkbox"/>	20.2203(a)(2)(iv)	<input type="checkbox"/>	50.36(c)(1)	<input type="checkbox"/>	50.73(a)(2)(v)	<input type="checkbox"/>	Specify in Abstract below or in NRC Form 366A		
<input type="checkbox"/>	20.2203(a)(2)(iv)	<input type="checkbox"/>	50.36(c)(2)	<input type="checkbox"/>	50.73(a)(2)(vii)	<input type="checkbox"/>				

LICENSEE CONTACT FOR THIS LER (12)

NAME Gautam Sen, Sr. Staff Nuclear Licensing & Safety Engineer	TELEPHONE NUMBER (Include Area Code) (402) 825 - 5815
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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
N/A	N/A	N/A	N/A	No					

SUPPLEMENTAL REPORT EXPECTED (14)				EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
<input checked="" type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE):	<input type="checkbox"/> NO						

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On October 26, 1995, at 09:20 A.M., an inadvertent Group 6 isolation occurred during the performance of Maintenance Procedure 7.3.16 (Low Voltage Relay Removal and Installations) under Maintenance Work Request (MWR) 95-2599.

The purpose of the MWR was to test the undervoltage auxiliary relay, 27X2/1A; but, according to an incorrect instruction in the MWR, the electricians installed a jumper across the time delay relay 27X2/1A coil instead of the intended relay 27X2/1A contact. When the jumper was installed in the circuit, it connected the negative of the Direct Current (DC) circuit to the positive through two closed contacts in the circuit. As a result, one of the "NM" fuses blew opening the circuit. The loss of the 125VDC caused the 27X4/1A relay to trip the 1AF breaker which separated the 1F bus from its normal 4160 Volt supply and the 1F bus transferred to the 69KV Emergency Transformer as designed. The momentary deenergization of "F" bus during the automatic transfer caused an interruption of power to the Group 6 isolation logic, which resulted in the initiation of a Group 6 isolation.

The cause of this event is an error committed by the engineer in providing test instructions in MWR 95-2599 (Personnel Error per NUREC-1022, Cause Code A).

As an immediate corrective action, the engineer who prepared MWR 95-2599 has been counseled by engineering management on his work performance, in particular, management expectation with respect to self-checking of work.

To prevent recurrence of such an event, the MWRs prepared to date by the engineer in question, that involve testing of timing relays, will be reviewed prior to field implementation.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
COOPER NUCLEAR STATION	05000298	YEAR	SEQUENTIAL	REVISION	2 OF 3
		95	-- 015	-- 00	

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

Plant Status

On October 26, 1995, when this condition was discovered, the plant was in cold shutdown with no fuel handling in progress.

Event Description

On October 26, 1995, electricians were performing Maintenance Procedure 7.3.16, Attachment 1 (Low Voltage Relay Removal and Installations) under MWR 95-2599 to test the undervoltage auxiliary relay, 27X2/1A. According to the first step in Attachment 1 to the procedure, they installed a jumper from CP1A terminal board XS-2 to CP1A terminal board YS-2. The jumper being placed in the circuit shorted the negative to the positive due to two closed contacts. The "NM" fuse blew and opened the circuit. The loss of the 125 VDC caused the 27X4/1A contacts to trip the 1AF breaker, which separated the 1F bus from its normal 4160 Volt supply. As a result, the 1F bus transferred to the 69 KV Emergency Transformer. The momentary deenergization of the "F" bus during the automatic transfer caused an interruption of power to the Group 6 isolation logic, which resulted in the initiation of a Group 6 isolation.

A subsequent investigation revealed the following facts surrounding this event:

- 1) The purpose of installing the jumper was to jumper out relay contacts while performing the test on the undervoltage auxiliary relay, 27X2/1A. It should have been accomplished by installing the jumper across the test jacks already in place at points XS-4 and XS-1; however, the step for jumper connections in Attachment 1 to the Procedure 7.3.16 was incorrectly identified.
- 2) The Group 6 isolation did not originate from a valid Engineered Safeguards Feature (ESF) signal; a temporary loss of voltage to the control relays of the Group 6 isolation logic simulated a valid ESF signal by isolating primary containment ventilation and secondary containment, and starting the Standby Gas Treatment (SBGT) system.

The investigation determined that the engineer incorrectly identified the step for jumper installation in Attachment 1 to Procedure 7.3.16 and that a Group 6 isolation resulted from momentary deenergization of the "F" bus, not from a valid ESF signal.

Safety Significance

At the time of this event, Cooper Nuclear Station was in a refueling outage with the Division I non-protected. During the event, incorrect jumper connection tripped the 1AF breaker causing momentary interruption to the 1F bus. Consequently, the "F" bus transferred to the 69 KV Emergency Transformer as designed and it restored the power to the loads on the non-protected 1F bus. The Group 6 isolation resulting from the momentary interruption of power to the "F" bus simulated a valid ESF signal and the expected actuations, such as, isolation of primary containment ventilation and secondary containment, and initiation of SBGT, occurred as designed. Therefore, the safety significance of the Group 6 isolation encountered in this event was minimal.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL	REVISION	
COOPER NUCLEAR STATION	05000298	95	-- 015	-- 00	3 OF 3

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

Cause

The cause of this event was an error committed by the engineer in providing test instructions in MWR 95-2599 (Personnel Error per NUREG-1022, Cause Code A).

Corrective Action

As an immediate corrective action, the engineer who prepared MWR 95-2599 has been counseled by engineering management on his work performance, in particular, management expectation with respect to self-checking of work.

To prevent recurrence of such an event, the MWRs prepared to date by the engineer in question, that involve testing of timing relays, will be reviewed prior to field implementation.

Similar Events

None.

Correspondence No: NLS950224

The following table identifies those actions committed to by the District in this document. Any other actions discussed in the submittal represent intended or planned actions by the District. They are described to the NRC for the NRC's information and are not regulatory commitments. Please notify the Licensing Manager at Cooper Nuclear Station of any questions regarding this document or any associated regulatory commitments.

COMMITMENT	COMMITTED DATE OR OUTAGE
To prevent recurrence of such an event, the MWRs prepared to date by the engineer in question, that involve testing of timing relays, will be reviewed prior to field implementation.	None