

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8704220409 DOC. DATE: 87/04/16 NOTARIZED: NO DOCKET #
 FACIL: 50-315 Donald C. Cook Nuclear Power Plant, Unit 1, Indiana & 05000315
 AUTH. NAME AUTHOR AFFILIATION
 ALLARD, J. D. Indiana & Michigan Electric Co.
 SMITH, W. G. Indiana & Michigan Electric Co.
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 87-003-00: on 870313, discovered that Heat Trace Circuit
 261 Train B was disconnected from power source. Caused by
 inadequate coordination of util & contractor personnel work
 responsibilities. Circuit connected to source. W/870416 ltr.

DISTRIBUTION CODE: IE22D COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 5
 TITLE: 50.73 Licensee Event Report (LER), Incident Rpt, etc.

NOTES:

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	NRR/DREP/RPB	2 2	NRR/PMAS/ILRB	1 1
	NRR/PMAS/PTSB	1 1	REG FILE 02	1 1
	RES SPEIS, T	1 1	RGNS FILE 01	1 1
EXTERNAL:	EG&G GROH, M	5 5	H ST LOBBY WARD	1 1
	LPDR	1 1	NRC PDR	1 1
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TOTAL NUMBER OF COPIES REQUIRED: LTR 43 ENCL 41

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) D. C. Cook Nuclear Plant - Unit 1										DOCKET NUMBER (2) 0 5 0 0 0 3 1 5					PAGE (3) 1 OF 0 4							
TITLE (4) Failure to Restore Heat Trace Circuit Required by Technical Specifications Due to Inadequate Design Change Coordination.																						
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	3	1	3	8	7	8	7	0	0	3	0	0	0	4	1	6	8	7	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)																				
1		20.402(b)				20.405(e)				50.73(a)(2)(iv)				73.71(b)								
POWER LEVEL (10)		0 9 0				20.406(a)(1)(i)				50.36(a)(1)				50.73(a)(2)(v)				73.71(c)				
		20.406(a)(1)(ii)				50.36(c)(2)				50.73(a)(2)(vii)				OTHER (Specify in Abstract below and in Text, NRC Form 365A)								
		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 J. D. Allard Maintenance Superintendent										TELEPHONE NUMBER												
										AREA CODE 6 1 6 4 6 5 - 5 9 0 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)																						
<p>On 3/13/87, during repairs to Heat Trace Circuit #256, Unit One Boron Injection Tank recirculation from the Boric Acid Pumps, it was discovered that Heat Trace Circuit #261 Train B was disconnected from its power source. Heat Trace Circuit #261 Train A was not affected. Heat Trace Circuit #261, Unit One Boron Injection Tank inlet piping, is required to be operable per Technical Specification 3.5.4.2.</p> <p>The root cause of the event has been determined to be inadequate coordination of Utility and Contractor personnel work responsibilities during a previous modification (Design Change) of the Heat Trace Circuit.</p> <p>On March 13, 1987, Heat Trace Circuit #261 Train B was connected to its power source. The responsibility for the proper implementation of Design Changes has been re-emphasized to the Design Change Coordinators (DCC's), also additional flexibility has been given to the DCC's in regards to the assignment of responsibilities for the installation/termination of electrical leads.</p> <p style="text-align: right;">JEL 11</p>																						
8704220409 870416 PDR ADOCK 05000315 S PDR																						

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3160-0104

EXPIRES: 8/31/88

FACILITY NAME (1)

DOCKET NUMBER (2)

LER NUMBER (6)

PAGE (3)

D. C. Cook Nuclear Plant - Unit 1

YEAR

SEQUENTIAL
NUMBERREVISION
NUMBER

0 5 0 0 0 3 1 5 8 7 - 0 0 3 - 0 0 0 2 OF 0 4

TEXT (If more space is required, use additional NRC Form 368A's) (17)

Conditions Prior To Occurrence

Unit One - 90 Percent Reactor Thermal Power

Description Of Event

On March 12, 1987, at approximately 2300 hours, it was observed, during routine surveillance of Plant Heat Tracing Temperatures, that Heat Trace Circuit #256 Train B (EIIS/FE) would not maintain temperature above the low alarm set point. Heat Trace Circuit #256 is for the Unit #1 Boron Injection Tank (EIIS/TK) recirculation from the the Boric Acid Pumps (EIIS/P). This circuit is not required by the Plant's Technical Specifications. When repairs were being performed to Circuit #256, it was discovered that Heat Trace Circuit #261 Train B (EIIS/FE) was disconnected. Heat Trace Circuit #261 is for the Unit #1 Boron Injection Tank inlet piping and is required by Plant Technical Specification 3.5.4.2. Heat Trace Circuit #261 Train A was not affected.

Upon investigation of this event, it was noted that the temperature in the Boron Injection Piping affected by Heat Trace Circuits #256 and #261 did not drop below the Technical Specification required Temperature of 145 Degrees F. The circuits were not declared inoperable because the minimum temperature of 145 Degrees F was maintained and it was not readily apparent that the circuits were disconnected from their power supply. It was determined that these circuits had been disconnected to allow for installation of a unit crosstie pipe (Design Change 2665), which occurred in September of 1985. No other documentation could be found that indicated any work on these circuits after September of 1985.

Due to the fact that the piping temperature was maintained above the low temperature alarm set point of 155 Degrees F, no low temperature alarms were received and thus the disconnected circuits went undetected until March 12, 1987 when a low temperature alarm was received on circuit #256. The temperature of the piping was maintained by heaters inside the Boron Injection Tank, additional heat trace circuits on the piping, and by recirculation flow from the Boric Acid Storage Tanks (EIIS/TK).

There were no other inoperable structures, components or systems that contributed to this event.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/88

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
D. C. Cook Nuclear Plant - Unit 1	0 5 0 0 0 3 1 5	8 7	— 0 0 3	— 0 0	0 3	OF	0 4

TEXT (If more space is required, use additional NRC Form 368A's) (17)

Cause of Event

The root cause of the event has been determined to be inadequate coordination during the completion of Design Change 2665. During the procedure steps dealing with restoration, Contractor Maintenance Personnel install the heat trace circuit, Utility Maintenance Personnel connect the power to the circuit and then Contractor Maintenance Personnel install the insulation. This method has proven to be inadequate in as much as it resulted in the subsequent oversight.

Analysis of Event

We have concluded that the disconnected Heat Trace Circuit #261 Train B was in violation of Technical Specification 3.5.4.2 and consequently is reportable per 10CFR50.73 (a) (2) (i) (B).

During the period of September 1985 to March 1987 the temperature of the piping affected, by Heat Trace Circuit #261, was monitored and recorded per Technical Specification Surveillance Requirements.

The heat-traced piping contains alarms which would have activated before the piping temperature decreased to the Technical Specification minimum of 145 Degrees F. Heat Trace Circuit #261 Train A was not affected. There were no instances of the piping temperature dropping below 145 Degrees F while Heat Trace Circuit #261 Train B was disconnected. Thus, it is judged that the temperature of the piping was adequate to prevent boric acid precipitation, and there was no significant effect on plant safety.

Corrective Actions

On March 13, 1987, Heat Trace Circuit #261 Train B was connected to its power source. After 24 hours of operation Heat Trace Circuit #261 was checked to ensure proper operation, the results were acceptable and documented.

The responsibility for the proper implementation of Design Changes has been re-emphasized to the Design Change Coordinators (DCC's), also additional flexibility has been given to the DCC's in regards to the assignment of responsibilities for the installation/termination of electrical leads.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/86

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (5)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
D. C. Cook Nuclear Plant - Unit 1	0 5 0 0 0 3 1 5	8 7	- 0 0 3	- 0 0	0 4	OF	0 4

TEXT (If more space is required, use additional NRC Form 368A's) (17)

Failed Component Identification

None

Previous Similar Events

None identified at this time.



INDIANA & MICHIGAN ELECTRIC COMPANY

DONALD C. COOK NUCLEAR PLANT
P.O. Box 458, Bridgman, Michigan 49106
(616) 465-5901

April 16, 1987

United States Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

Operating License DPR-58
Docket No. 50-315

Document Control Manager:

In accordance with the criteria established by 10CFR50.73 entitled Licensee Event Reporting System, the following report is being submitted:

87-003-00

Sincerely,


W. G. Smith, Jr.
Plant Manager

/jc

Attachment

cc: John E. Dolan
A. B. Davis, Region III
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11