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AMERICAN® ELECTRIC POWER

October 16, 2000

United States Nuclear Regulatory Commission
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Docket No. 50-316

Document Control Manager:

In accordance with the criteria established by 10 CFR 50.73 entitled Licensee Event Report System, the following report is being submitted:

LER 316/2000-014-00, "Reactor Trip Signal Not Verified as Required By Technical Specifications"

The following commitments are identified in this submittal:

- An extensive root cause analysis of the failure of surveillance tests to meet TS requirements is presently being conducted. The results of this investigation will be provided in a supplement to this report.

Should you have any questions regarding this correspondence, please contact Mr. Wayne J. Kropp, Director Regulatory Affairs, at 616/697-5056.

Sincerely,

A. C. Bakken III
Site Vice President

/rmc
Attachment

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IE22

NRC Form 366 (6-1998) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104 EXPIRES 06/30/2001

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

LICENSEE EVENT REPORT (LER)

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

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TITLE (4)

Reactor Trip Signal Not Verified as Required by Technical Specifications

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
9	15	2000	2000	--	014	--	00	10	16	2000	FACILITY NAME	DOCKET NUMBER

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)					
POWER LEVEL (10)	100	20.2201 (b)	20.2203(a)(2)(v)	X	50.73(a)(2)(i)		50.73(a)(2)(viii)
		20.2203(a)(1)	20.2203(a)(3)(i)		50.73(a)(2)(ii)		50.73(a)(2)(x)
		20.2203(a)(2)(i)	20.2203(a)(3)(ii)		50.73(a)(2)(iii)		73.71
		20.2203(a)(2)(ii)	20.2203(a)(4)		50.73(a)(2)(iv)		OTHER
		20.2203(a)(2)(iii)	50.36(c)(1)		50.73(a)(2)(v)		Specify in Abstract below or in NRC Form 366A
		20.2203(a)(2)(iv)	50.36(c)(2)		50.73(a)(2)(vii)		

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
R.M. Cook, Regulatory Affairs	616 / 465-5901, x2287

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX

SUPPLEMENTAL REPORT EXPECTED (14)				EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
X	YES (If Yes, complete EXPECTED SUBMISSION DATE).		NO		1	29	2001

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

On September 15, 2000, during review of corrective actions for Licensee Event Report (LER) 315/98-051-00 (Reactor Trip Signal from Safety Injection Not Verified as Required by Technical Specification Surveillance), it was discovered that the requirements of Technical Specification (TS) 4.3.2.1.1, Table 4.3-2, Item 9.a were not met during startup from the extended outage. The TS requires, in part, that the Reactor Trip breakers be demonstrated operable for Modes 1, 2, 3, and 4 operation on a refueling outage basis by verification of Reactor Trip breaker actuation upon a manual Safety Injection (SI) signal. Contrary to this requirement, Unit 2 entered Mode 4 on June 6, 2000, and Mode 3 on June 12, 2000, without verifying operability of the manual SI Reactor Trip breaker actuation function. This condition is a violation of TS 4.3.2.1.1 and is reportable in accordance with 10 CFR 50.73(a)(2)(i)(B) as a condition prohibited by the plant's TS. The function was tested while in Mode 3 on June 13, 2000.

During the surveillance procedure adequacy review performed in 1998, it was identified that TS 4.3.2.1.1, Table 4.3-2, Item 9.a Reactor Trip breaker actuation on manual SI initiation had not been performed in accordance with TS. This condition was previously documented in Condition Report (CR) 98-06496 and reported in LER 50-315/1998-051-00.

The corrective actions from CR 98-06496 were not implemented in a timely manner to prevent this reported occurrence. However, there is no safety significance in that the Unit 2 control rod drive system was not energized prior to Modes 3 and 4; therefore, Reactor Trip breaker position was not critical to maintaining the reactor shutdown.

The surveillance program has been revised and recurring tasks have been established for performance of the test. Issues related to the failure of surveillance procedures to meet TS requirements will be addressed jn a supplement.

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

Conditions Prior to Event

Unit 2 was in Mode 1, Power Operations, at 100 percent Rated Thermal Power.

Description of Event

Technical Specification (TS) 4.3.2.1.1, Table 4.3-2, Item 9.a requires, in part, that the Reactor Trip breakers be actuated upon manual initiation of a Safety Injection (SI) signal at least once every refueling interval (i.e., once every 18 months) with the Mode applicability of Modes 1, 2, 3, and 4.

On September 15, 2000, during review of corrective actions for Licensee Event Report (LER) 315/98-051-00 (Reactor Trip Signal from Manual Safety Injection Not Verified as Required by Technical Specification Surveillance), it was discovered that the TS 4.3.2.1.1, Table 4.3-2, Item 9.a requirement to verify actuation of the Reactor Trip breakers had not been performed prior to entry into Mode 4 on June 6, 2000, or entry into Mode 3 on June 12, 2000. Verification of Reactor Trip breaker operation on manual SI initiation was completed during Mode 3 on June 13, 2000. This condition represents a condition prohibited by the plant's TS in accordance with 10 CFR 50.73(a)(2)(i)(B).

Cause of Event

The cause of this event is the untimely implementation of corrective actions as specified in Condition Report (CR) 98-06496; that is, the failure to properly identify and schedule the TS Surveillance Requirements into the surveillance tracking and scheduling system prior to entry into Mode 4.

The failure to properly verify Reactor Trip Breaker operation upon SI manual initiation was previously identified during the Surveillance Testing Program review in 1998. From this review, CR 98-06496 identified that surveillance procedures did not entirely meet the requirements of TS 4.3.2.1.1, Table 4.3-2, Item 9.a; that is, though other required isolations and components were verified to occur or actuate on manual SI initiation, the operation of the Reactor Trip breakers was not verified. The initial cause of this disparity between TS and surveillance procedures was determined to be previous work practices and personnel error that allowed the disparity to exist. The condition from CR 98-06496 was reported in LER 50-315/1998-051-00.

Corrective actions were developed for CR 98-06496 subsequent to submittal of LER 315/98-051-00. These included revisions to applicable surveillance procedures and revision of the TS Surveillance Requirement Matrix to establish the proper alignment between the revised procedures and the TS surveillance requirements. However, effective communication of the revised procedure requirements was not made to the proper groups and, therefore, was not incorporated into the TS Surveillance Requirement Matrix for scheduling of the testing. Therefore, the corrective actions were untimely and a failure to verify Reactor Trip breaker operation on manual SI initiation again occurred during the Unit 2 startup from the extended outage in June 2000.

Analysis of Event

During the Unit 2 startup from the extended outage in June of 2000, the Control Rod Drive System was not energized until rods were to be withdrawn in Mode 3 prior to entry into Mode 2. The Control Rod Drive System is not capable of withdrawing control rods when the Reactor Coolant System average temperature is less than 541 degrees Fahrenheit because the Motor Generator sets are procedurally de-energized. Therefore, the position of the Reactor Trip breakers will not affect the inserted rod position. In addition, other TS (i.e., TS 3/4.3.1.1) for the Reactor Trip breakers require the breakers to be operable in Modes 1, 2 and * or Modes 1, 2, 3*, 4*, 5*, where "*" denotes that operability in those or other Modes is only required when the Reactor Trip breakers are closed and the control rod drive system is capable of

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

withdrawing control rods. With the Control Rod Drive System incapable of withdrawing control rods, there was no safety significance in not performing the Reactor Trip breaker surveillance until Mode 3.

Corrective Actions

The Technical Specification Surveillance Requirement Matrix has been revised and recurring tasks for Unit 1 and Unit 2 have been established to ensure the applicable procedures are aligned to the TS 4.3.2.1.1, Table 4.3-2, Item 9.a surveillance requirements.

An extensive root cause analysis of the failure of surveillance tests to meet TS requirements is presently being conducted. The initial causes of the work practices and personnel error will be further addressed in the investigation. The results of this investigation will be provided in a supplement to this report.

Previous Similar Events

LER 315/98-051-00, Reactor Trip Signal from Safety Injection Not Verified as Required by Technical Specification Surveillance

LER 315/99-004-01, Failure to Perform Technical Specification Surveillance Analyses of Reactor Coolant Chemistry with Fuel Removed

LER 315/99-024-00, Literal Technical Specifications Requirement Not Met By Accumulator Valve Surveillance

LER 316/00-006-00, Failure to Comply with Requirements of Technical Specifications for Nuclear Instrumentation

The above four examples represent failures of surveillance testing procedures and plant configuration to meet TS requirements. The effects of LER 315/98-051-00 related to the current reported event is discussed in this LER 316/2000-014-00. The corrective actions from the other three individual events would not have prevented the event reported herein.