



December 7, 2001

United States Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Operating Licenses DPR-58 and DPR-74
Docket Nos. 50-315 and 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 50-315/2000-008-01, "Failure to Test Essential Service Water Valves In Accordance With Technical Specification Surveillance Requirements"

No new commitments are identified in this submittal.

Should you have any questions regarding this correspondence, please contact Mr. Ronald W. Gaston, Manager, Regulatory Affairs, at 616/697-5020.

Sincerely,

A handwritten signature in black ink that reads "Joseph E. Pollock".

Joseph E. Pollock
Plant Manager

MB/pae

Attachment

c: A. C. Bakken
L. Brandon
J. E. Dyer, Region III
S. A. Greenlee
T. P. Noonan
R. Whale
NRC Resident Inspector
Records Center, INPO

IE22

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) Donald C. Cook Nuclear Plant Unit 1		DOCKET NUMBER (2) 05000-315	PAGE (3) 1 of 3
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TITLE (4)
Failure to Test Essential Service Water Valves In Accordance With Technical Specification Surveillance Requirements

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	
3	16	2000	2000	-- 008 --	01	12	07	2001	Cook Unit 2	05000-316	
OPERATING MODE (9) --- THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)											
POWER LEVEL (10)		0	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 M. B. Barfelz, Regulatory Affairs	TELEPHONE NUMBER (Include Area Code) 616 / 465-5901, x1585
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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)		
YES (If Yes, complete EXPECTED SUBMISSION DATE.)	X	NO		MONTH	DAY	YEAR

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

This LER is being revised to provide additional information concerning the event analysis, cause, and corrective actions and replaces the original submittal in its entirety. On March 16, 2000, during development of the new Essential Service Water (ESW) flow balance procedure, it was discovered that the Component Cooling Water (CCW) Heat Exchanger Essential Service Water (ESW) outlet valves for Unit 1 (1-WMO-733 and 1-WMO-737) and Unit 2 (2-WMO-734 and 2-WMO-738) had not been fully tested in accordance with Technical Specification 3/4.7.4.1.b. Specifically, on a refueling outage basis the valves are required to be demonstrated to actuate to their correct position on a Safety Injection (SI) signal. However, the previous procedure only required the valves to be demonstrated to reposition to their intermediate position from the fully open position. Since these valves may be closed during normal operation when the opposite CCW train is the only train in service, repositioning to the intermediate position from the fully closed position on a SI signal is a design basis scenario and should have also been demonstrated.

This condition was reported in accordance with 10 CFR 50.73(a)(2)(i)(B) as a condition prohibited by the plant's Technical Specifications. The cause of the event was weaknesses within the Surveillance Test Program, involving program management, programmatic infrastructure, and training. As corrective actions, the ESW valves were tested to demonstrate the valves would reposition to the intermediate position from the fully open and fully closed positions on March 31, 2000 for Unit 2 and on November 01, 2000 for Unit 1. The procedures for testing these ESW valves have been revised. The Surveillance Test Program was restructured to ensure that adequate training, procedures, and management oversight are in place. Testing performed subsequent to discovery of this condition with the valves in the fully closed and fully open position has demonstrated little difference in flow values; therefore, it is reasonable to assume that in the past the valves would have performed their safety function per the design basis as required. Thus, this condition is considered to be of minimal safety significance.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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		2000	-- 008 --	01		

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

Conditions Prior to Event

Unit 1, Defueled
Unit 2, Defueled

Description of Event

On March 16, 2000, during development of the new Essential Service Water (ESW) System [EIS: BI] flow balance procedure, it was discovered that the Component Cooling Water (CCW) [EIS: CC] Heat Exchanger [EIS: HX] Essential Service Water (ESW) outlet valves [EIS: V] for Unit 1 (1-WMO-733 and 1-WMO-737) and Unit 2 (2-WMO-734 and 2-WMO-738) had not been fully tested in accordance with Technical Specification (TS) 3/4.7.4.1.b. Specifically, on a once per 18-month basis the valves are required to be demonstrated to actuate to their correct position on a Safety Injection (SI) [EIS: JE] signal. These valves actuate to an intermediate position upon a SI signal to achieve balancing of the ESW system. However, the previous procedure only required the valves to be demonstrated to reposition to their intermediate position from the fully open position. In that these valves may be closed during normal operation when the opposite CCW train is the only train in service, repositioning to the intermediate position from the fully closed position on a SI signal is a part of the design basis and should have also been demonstrated.

This condition was reported in accordance with 10 CFR 50.73(a)(2)(i)(B) as a condition prohibited by the plant's TS's.

Cause of Event

The cause of the event was weaknesses within the Surveillance Test (ST) Program involving Program Management, Programmatic Infrastructure, and Training. These deficiencies throughout the ST Program resulted in lack of coordination between department's, and the failure to meet performance expectations.

Analysis of Event

The ESW System is designed to remove, under all operating modes, the heat transferred to the CCW System from its services, plus the heat loads of the emergency diesel generator coolers, the containment spray heat exchangers, and the Control Room air conditioner condensers, and to provide an emergency source of water for the turbine- and motor-driven auxiliary feedwater pumps.

During normal unit operation, the CCW System requirement is provided by one CCW pump with the remaining pump available to start automatically if additional capacity is required. Both pumps are operated following a loss of coolant accident or for cooldown.

On receipt of a SI signal, the second CCW pump starts and the CCW Heat Exchanger ESW Outlet Valves (1-WMO-733 and 1-WMO-737 for Unit 1, and 2-WMO-734 and 2-WMO-738 for Unit 2) are repositioned to the intermediate position to provide post-accident required ESW flow through the CCW Heat Exchanger and to provide adequate flow to other services on the ESW System. The repositioned valves could be repositioned from the fully closed, fully open, or other position. Therefore, the valves should be demonstrated to be capable of being repositioned by a SI signal in the opening and closing directions.

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TEXT CONTINUATION

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

Past surveillance testing to demonstrate valve repositioning to the intermediate position was performed when the valves were fully open. However, since one of the valves in each unit could be closed, in that only one CCW train is in service during normal operation, testing should have also demonstrated valve repositioning to the intermediate position when the valves are fully closed.

Testing performed subsequent to discovery of this condition with the valves in the fully closed and fully open position has demonstrated little difference in flow values; therefore, it is reasonable to assume that in the past the valves would have performed their safety function per the design basis as required. Thus, this condition is considered to be of minimal safety significance.

Corrective Actions

As corrective actions for the reported condition, the ESW valves were tested to demonstrate the valves would reposition to the intermediate position from the fully open and fully closed positions on March 31, 2000 for Unit 2 and on November 01, 2000 for Unit 1. The procedures for testing these ESW valves have been revised. To determine the extent of the condition, all flow balancing related engineering surveillance test procedures were reviewed to ensure that all valves required to automatically reposition were tested as required TSs.

As a result of the identified programmatic weaknesses, the ST Program was restructured to ensure that adequate training, procedures, and management oversight are in place. A program manager for the ST Program was established. Revised ST Program procedures were implemented, and an assessment was performed to validate ST Program effectiveness. In addition, procedures and interfaces have been established for related engineering processes. Personnel associated with these activities were also trained regarding these interfaces and associated responsibilities.

Previous Similar Events

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 examples represent failures of surveillance testing procedures to meet TS requirements. The generic corrective and preventive actions from these previous events had not been fully implemented at the time this condition was identified. Therefore, the previous actions would not have prevented this reportable condition from occurring.