

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) SALEM GENERATING STATION, UNIT 2		DOCKET NUMBER (2) 05000311	PAGE (3) 1 OF 3
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TITLE (4)
Missed Surveillance For Sampling Boron Concentration of Refueling Canal 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
12	06	95	96	011	00	10	18	96		05000
										05000

OPERATING MODE (9)	5	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)								
POWER LEVEL (10)	000	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	Specify in Abstract below or in NRC Form 368A			
		20.2203(a)(2)(iii)	50.36(c)(1)		50.73(a)(2)(v)					
		20.2203(a)(2)(iv)	50.36(c)(2)		50.73(a)(2)(vii)					

LICENSEE CONTACT FOR THIS LER (12)

NAME Dennis V. Hassler, LER Coordinator	TELEPHONE NUMBER (Include Area Code) 609-339-1989
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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

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE).	X	NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
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ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On December 6, 1995, Unit 2 entered Mode 6 while the Fuel Transfer Canal region of the Refueling Canal contained approximately eight inches of demineralized water. The boron concentration of the water in the Refueling Canal was not determined prior to entering Mode 6. This was a violation of Technical Specification Surveillance Requirements 4.9.1.2 and 4.0.4. Technical Specification 3.9.1 requires that the boron concentration of the filled portions of the Reactor Coolant System and the Refueling Canal be at least 2000 PPM and sufficient to ensure a K_{eff} of 0.95 or less. This Technical Specification is applicable in Mode 6. Surveillance Requirement 4.9.1.2 ensures that the requirements of Technical Specification 3.9.1 are met. This Technical Specification was not considered applicable at the time because the water in the Fuel Transfer Canal had no reasonable potential to affect reactor criticality. However, after further evaluation, on September 18, 1996, Plant Management and Licensing determined that this interpretation was not correct. The cause of this occurrence was determined to be inadequate implementation of Technical Specification requirements. Corrective actions include procedure revisions, and communication of this event to Operations and Licensing personnel. This event is reportable in accordance with 10 CFR 50.73(a)(2)(i)(B), any condition prohibited by the plant's Technical Specifications.

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

PLANT AND SYSTEM IDENTIFICATION

Westinghouse - Pressurized Water Reactor

Refueling Canal {NH/-}*

* Energy Industry Identification System (EIIS) codes and component function identifier codes appear as {SS/CC}

CONDITIONS PRIOR TO OCCURRENCE

At the time of occurrence, Salem Unit 2 was in Mode 5, COLD SHUTDOWN.

DESCRIPTION OF OCCURRENCE

On December 6, 1995, Unit 2 entered Mode 6, "Refueling," from Mode 5, "Cold Shutdown." At that time, the Fuel Transfer Canal region of the Refueling Canal contained approximately eight inches of demineralized water to support a local leak rate test on the Refueling Canal Mechanical Penetration. Technical Specification 3.9.1 requires the Boron Concentration of all filled portions of the Reactor Coolant System and the Refueling Canal to be at least 2000 PPM, and sufficient to ensure a K_{eff} of 0.95 or less. Technical Specification Surveillance 4.9.1.2, along with 4.0.4, requires the water in the Reactor Coolant System and the Refueling Canal be sampled prior to detensioning the reactor vessel head. This surveillance was not performed and was a violation of the Technical Specifications. On December 8, 1995, prior to removal of the Reactor Head, the Refueling Canal was filled from the Refueling Water Storage Tank and was sampled in accordance with Specification 4.9.1.2 and verified to meet the provisions of Specification 3.9.1.

The failure to sample the water in the Refueling Canal was identified within the corrective action program in December 1995. At that time, a determination was made that this was not a Technical Specification violation because the water in the Fuel Transfer Canal had no reasonable potential to affect reactor criticality. This is due to the difference in elevation between the Reactor Vessel Flange and the Fuel Transfer Canal, which is approximately 14 feet. On September 18, 1996, following identification of a proposed NRC violation, (Inspection Report 311/96-12), management review of this issue determined this was a missed surveillance.

CAUSE OF OCCURRENCE

The cause of this occurrence was determined to be an inadequate implementation of Technical Specification requirements. This resulted in inadequate procedural guidance for the transition from Mode 5 (Cold Shutdown) to Mode 6 (Refueling). Procedure 2-IOP-7, Rev. 10, Integrated Operating Procedure "Cold Shutdown to Refueling," did not contain direction to perform Surveillance Requirement 4.9.1.2. for the Refueling Canal, prior to entering Mode 6.

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

PRIOR SIMILAR OCCURRENCES

A review of LERs for Salem Units 1 and 2 over the last two years identified nine LERs (272/94-008, 272/95-004, 272/95-019, 272/95-028, 272/96-016, 272/96-023, 272/96-024, 311/95-006, and 311/95-008) that were a result of a missed surveillance due to inadequate implementation of Technical Specification requirements. The corrective actions were specific to the missed surveillance issues addressed in each LER.

The identification of programmatic issues related to the Technical Specification requirement implementation resulted in the initiation of the Technical Specifications Surveillance Improvement Program (TSSIP) described in LER 311/95-008. The TSSIP will provide reasonable assurance that Technical Specification surveillance requirements are adequately proceduralized and will also identify potentially deficient Technical Specification Limiting Conditions for Operation.

SAFETY CONSEQUENCES AND IMPLICATIONS

There were no immediate safety consequences in failing to sample the demineralized water in the Fuel Transfer Canal. The Bases for Technical specification 3.9.1 state that the Technical Specification is to maintain reactivity control in the water volume having direct access to the reactor vessel. The 8 inches of water located 14 feet below the Reactor Vessel Flange had no reasonable potential to dilute the boron concentration of the Reactor Coolant System nor otherwise increase K_{eff} . The public health and safety was not affected by this event.

CORRECTIVE ACTIONS

1. The Integrated Operating Procedures "Cold Shutdown to Refueling," and "Defueled to Mode 6" (which contain similar acceptance criteria regarding boron concentration) will be revised to include proper criteria and appropriate controls prior to entering Mode 6 for Salem Units 1 and 2.
2. A Technical Specification Surveillance Improvement Program (TSSIP) has been initiated for Salem Units 1 and 2. The scope and content of the TSSIP program was described previously in LER 311/96-008-00. The TSSIP review is expected to be completed December 31, 1997.
3. This LER will be issued to the Operations and Licensing Departments as required reading by November 1, 1996, to further emphasize the appropriate understanding and implementation of Technical Specifications.
4. Technical Specification 3.9.1 Bases will be revised to reflect that sampling is required without regard to the amount of water in the refueling canal. This will be completed by March 31, 1997.