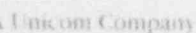


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LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), 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):					DOCKET NUMBER (2)					PAGE (3):				
LaSalle County Station Unit One					05000373					1 of 4				
TITLE (4) Deficiencies Identified in ASME Testing of the Residual Heat Removal Pump Suppression Pool Spray Flow Using Instruments Not Included in a Calibration Program Due to Management Deficiency														
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
									LaSalle County Station Unit Two					05000374
04	16	97	97	017	00	05	09	97	FACILITY NAME					DOCKET NUMBER
OPERATING MODE (9)		4		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)										
POWER LEVEL (10)		000												
			<input type="checkbox"/>	20.2201(b)		<input type="checkbox"/>	20.2203(a)(3)(i)		<input type="checkbox"/>	50.73(a)(2)(iii)		<input type="checkbox"/>	73.71(b)	
			<input type="checkbox"/>	20.2203(a)(1)		<input type="checkbox"/>	20.2003(a)(3)(ii)		<input type="checkbox"/>	50.73(a)(2)(iv)		<input type="checkbox"/>	73.71(c)	
			<input type="checkbox"/>	20.2203(a)(2)(i)		<input type="checkbox"/>	20.2003(a)(4)		<input type="checkbox"/>	50.73(a)(2)(v)		<input type="checkbox"/>	OTHER	
			<input type="checkbox"/>	20.2203(a)(2)(ii)		<input type="checkbox"/>	50.36(c)(1)		<input type="checkbox"/>	50.73(a)(2)(vii)		(Specify in Abstract below and in Text, NRC Form 366A)		
			<input type="checkbox"/>	20.2203(a)(2)(iii)		<input type="checkbox"/>	50.36(c)(2)		<input type="checkbox"/>	50.73(a)(2)(viii)(A)				
			<input type="checkbox"/>	20.2203(a)(2)(iv)		<input checked="" type="checkbox"/>	50.73(a)(2)(i)		<input type="checkbox"/>	50.73(a)(2)(viii)(B)				
			<input type="checkbox"/>	20.2003(a)(2)(v)		<input type="checkbox"/>	50.73(a)(2)(ii)		<input type="checkbox"/>	50.73(a)(2)(x)				
LICENSEE CONTACT FOR THIS LER (12)														
NAME									TELEPHONE NUMBER (Include Area Code)					
Jack Leider, Operations									(815) 357-6761 Extension 3026					
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)										EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR
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)

On April 16, 1997, a deficiency was identified in how the Residual Heat Removal (RHR) suppression pool spray line flow rate was determined. The flow recorders being used were out of tolerance. Technical Specification 4.6.2.2 requires spray flow to be verified pursuant to Specification 4.0.5. Surveillance requirements for inservice testing of ASME components are according to publication ASME/ANSI OM-1987, Operation and Maintenance of Nuclear Power Plants. This establishes acceptable instrument accuracy in percent of total loop accuracy and requires instrument loop calibration according to the quality assurance program. Although the instrument loop was accurate and calibrated properly, the recorders were not.

Use of the recorders started in January, 1994. Actions were not taken then to include the recorders in the instrument loop calibration or a periodic calibration program due to management deficiency. The recorders could introduce errors into the flow determination, preventing identification of an actual low flow, a condition prohibited by Technical Specifications. Since the RHR pumps would remain available for containment heat removal in this condition and because credit is not taken for spray flow heat removal or fission product removal, the event is not safety significant. The recorders have been calibrated and added to the calibration program. Also, the inservice test coordinator now reviews changes to ASME test procedures.

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PLANT AND SYSTEM IDENTIFICATION

General Electric - Boiling Water Reactor

Energy Industry Identification System (EIIS) codes are identified in the text as [XX].

A. CONDITION PRIOR TO EVENT

Unit(s): 1/2	Event Date: 04/16/97	Event Time: 1700 Hours
Reactor Mode(s): 4/N	Mode(s) Name: Cold	Power Level(s): 0%/0%
	Shutdown/Defueled	

B. DESCRIPTION OF EVENT

On April 16, 1997, during a review of surveillance procedure LOS-RH-Q1, a deficiency was identified in the method used to determine the flow rate from the Residual Heat Removal (RHR) [BO] pump to the suppression pool spray line. The main control room recorders which were used to display this flow and which the operator could use to record the flow had not been calibrated for several years nor were they included in a periodic calibration program. Technical Specification 4.6.2.2 requires that suppression pool spray flow of at least 450 gpm be verified by testing pursuant to Specification 4.0.5. Section 4.0.5 establishes the surveillance requirements for inservice testing of ASME Code Class 1, 2 and 3 components. Inservice testing is performed in accordance with publication ASME/ANSI OM-1987, Operation and Maintenance of Nuclear Power Plants, which describes the acceptable instrument accuracy as a percent of the total loop accuracy and requires instrument loop calibration in accordance with the Plant's quality assurance program. Although the instrument loop was accurate and calibrated accordingly, the trend recorders were not included in the loop calibration but were used at times to determine the suppression pool spray flow.

Suppression pool spray flow is verified each quarter in all Operating Conditions using procedure LOS-RH-Q1. This is accomplished by determining the increase in normal RHR flow above a nominal 4000 gpm flow when the spray line isolation valve, 1(2)E12-F027A(B), is opened. The operator determines the flow increase associated with the spray flow using either the RHR flow indication in the control room or by displaying this flow on a control room trend recorder. The option to use the trend recorder was added to procedure LOS-RH-Q1 in January, 1994 to provide the operator with a method for viewing the RHR flow increase on an expanded scale. This method is useful to the operator since each division on the scale of the RHR flow indicator is 200 gpm, making it difficult to determine the amount of flow increase if there is fluctuation in the indicator. However, when use of the trend recorder was established, provisions were not made to include the recorders in the instrument loop calibration or to add them to the periodic calibration schedule. The recorders were calibrated only as requested.

The accuracy of the trend recorders was checked after this issue was identified. The two recorders used for the Unit 1 RHR Pump tests were found out of tolerance. The recorders used for the Unit 2 tests were within the expected tolerance of +/- 1 percent. Use of the out of tolerance trend recorder on Unit 1 could have introduced additional, nonconservative error into the accuracy of the spray flow rate, resulting in an indicated flow that was higher than actual. The surveillance records for LOS-RH-Q1 were reviewed back through 1994. They do not indicate whether spray flow was obtained from the flow indicator or the trend

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recorder. Because of this, operators were asked if they could recall how they performed these tests. The recorded flow in one test on Unit 2 was at the minimum technical specification limit of 450 gpm. The operator recalled that this flow was obtained by using the trend recorder. Since the Unit 2 recorder was found to be accurate, the spray flow of 450 gpm from this surveillance is also considered accurate, meeting the technical specification requirement. The spray flows recorded on Unit 1 had significant margin from the 450 gpm minimum limit except in one case where flow was 460 gpm. This flow was obtained from the flow indicator. However, since the effect of using the out of tolerance trend recorders on the suppression spray flow readings is not fully known and the extent to which they were used not fully determinable being subject to memory, this event is being reported per 10 CFR 50.73(a)(2)(i)(B) as a condition prohibited by the Technical Specifications.

C. CAUSE OF EVENT

The event occurred as a result of a change to surveillance procedure LOS-RH-Q1 to include the use of main control board trend recorders for determining Technical Specification required data. These recorders were not included in a periodic calibration program and only calibrated upon request. As a result, overall instrument loop accuracy for suppression pool spray flow measurement was not maintained within the requirements of the ASME program. This was caused by a management deficiency in that the calibration program was not adequate to ensure that all instruments used in determining technical specification surveillance requirements were periodically calibrated.

The failure to identify that the trend recorders should be included in the overall instrument loop calibration during the procedure revision in January, 1994 was a contributing cause.

D. ASSESSMENT OF SAFETY CONSEQUENCES

Use of the trend recorders could result in measuring a higher than actual suppression pool spray flow. This would prevent the operator from identifying a condition where the surveillance requirement was not met and unable to fulfill the requirement to declare the associated RHR pump inoperable, as necessary. However, the review of test results since January, 1994, indicates that suppression pool spray flow rates were comparable to the results from the three previous years when the trend recorders were not used. For Unit 1, where the trend recorders were found out of calibration, significant margin from the 450 gpm minimum flow was measured in all but one case. The flow margins are such that no violation of the minimum flow limit would be expected. In the one case where flow was measured near the minimum, 460 gpm, the recorder was not used. Several Unit 2 tests recorded flows at or near the minimum flow, including one test where the trend recorder was known to be used. However, the Unit 2 trend recorders were found within expected tolerance and the measured flows are considered accurate. A suppression pool spray flow of less than 450 gpm would have resulted in declaring the affected RHR pump inoperable. However, the pump would remain available to fulfill its safety function in providing for containment heat removal. Since no credit is taken for the spray flow to the suppression pool for either heat removal or fission product removal following a LOCA, this event is of minimal safety significance.

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E. CORRECTIVE ACTIONS

1. A temporary procedure change for LOS-RH-Q1 was issued to delete the option of using the trend recorders for determining suppression pool spray flow until the recorders were calibrated.
2. The Unit 1 and Unit 2 trend recorders were calibrated on April 16, 1997 and have been added into the Station's program for periodic calibration.
3. A review was performed of the Operating surveillance procedures to identify if the trend recorders were used for verifying Technical Specification surveillance requirements in other test procedures. No additional use of the recorders was identified.
4. The preparation and review of Operating procedure revisions has been improved by placing the responsibility for these activities with the Operating Procedures group and requiring that surveillance procedures for components tested to fulfill ASME code requirements also be reviewed by the IST program coordinator.

F. PREVIOUS OCCURRENCES

LER NUMBER	TITLE
374-96-006	Unit 2A and 2B RHR Service Water Pumps Not Tested Per ASME Section XI

This event involved a failure to test the RHR Service Water Pumps in accordance with the requirements of the ASME/ANSI OM when a special test was performed using a system configuration which did not provide the required information to properly trend pump performance. As a corrective action, an assessment of test methods and test results of a selected portion of the IST program was performed. Although LOS-RH-Q1 was not one of the tests included in the assessment, additional system functional reviews were also initiated to evaluate conformance to the design and licensing bases for selected systems. The above deficiency in the suppression pool spray flow test was identified during a system functional review.

373-96-019	RHR System Containment Spray Isolation Valves Not Tested According to ASME Section XI Requirements Due to Personnel Error
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The testing method used to stroke test Unit 1 containment isolation valves was incorrect due to an inadequate revision to the surveillance procedure. The corrective actions for this event included a change to the Station's procedure revision process to require that surveillance procedures for components tested to fulfill ASME code requirements be reviewed by the IST program coordinator. Since the procedure change from the above event was a prior action, this corrective action would not have prevented the event but is considered an effective action to prevent recurrence.

G. COMPONENT FAILURE DATA

Since no component failure occurred, this section is not applicable.