

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)
Main Steam Safety Valves Not Reset 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	02	1998	1998	-- 054 --	01	11	16	2000			
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)		<input checked="" type="checkbox"/>		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 Earl M. Ridgell, Compliance Program Manager	TELEPHONE NUMBER (Include Area Code) 616 / 465-5901, x1784
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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)		MONTH	DAY	YEAR
YES (If Yes, complete EXPECTED SUBMISSION DATE.)	<input checked="" type="checkbox"/>	NO						

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

This revision replaces interim LER 50-315/1998-054-00 in its entirety and is issued to address the causes, extent of condition, corrective actions and significance of the event.

Technical Specification (TS) Surveillance Requirement 4.0.5 addresses the requirements for inservice inspection and testing of American Society of Mechanical Engineers (ASME) Code Class 1, 2, and 3 components. Per TS Surveillance Requirement 4.0.5, inservice testing (IST) of ASME Code Class 1, 2 and 3 pumps and valves shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10CFR50, Section 50.55a. On December 2, 1998, with Unit 1 in Mode 5, Cold Shutdown, engineering personnel determined that the procedures used for controlling the main steam safety valve (MSSV) set points had allowed two MSSVs to be left in operation without adjusting their set point to within 1 percent of the set point value as required by TS Surveillance Requirement 4.7.1.1. In accordance with 10CFR50.73(a)(2)(i)(B), this condition is being reported as a condition prohibited by TSs. Specifically, the ASME Section XI Code requires two concurrent tests to document that components are within the correct tolerances. For MSSV 1-SV-1A-3, the last test documented a set point of 1076 psig, which is greater than the 1 percent value of 1075.65 psig. For MSSV 1-SV-2B-3, the first of the two concurrent set point tests was outside of the 1 percent tolerance band even though the second test was within the 1 percent tolerance. This is not considered safety significant since the set point values in question were within the 3 percent as-found limit. The causes of these events could not be determined due to the age of the issues. However, the corrective actions provided revisions to the procedural controls to preclude the their recurrence.

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		1998	-- 054 --	01	

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

Conditions Prior to Event

Unit 1 - was in Mode 5, Cold Shutdown
0 percent Power Level

Description of Event

This revision replaces interim LER 50-315/1998-054-00 in its entirety and is issued to address the causes, extent of condition, corrective actions and significance of the event.

Technical Specification (TS) Surveillance Requirement 4.0.5 addresses the requirements for inservice inspection and testing of American Society of Mechanical Engineers (ASME) Code Class 1, 2, and 3 components. Per TS Surveillance Requirement 4.0.5, inservice testing (IST) of ASME Code Class 1, 2 and 3 pumps and valves shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10CFR50, Section 50.55a. Section 50.55a(f) requires the implementation of IST programs in accordance with the applicable edition of the ASME Code for those pumps and valves whose function is required for safety. On December 2, 1998, with Unit 1 in Mode 5, Cold Shutdown, engineering personnel determined that the procedures used for controlling the main steam [EIS Code: SB] safety valve (MSSV) [EIS Code: RV] set points had allowed two MSSVs to be left in operation without adjusting their set point to within 1 percent of the set point value as required by TS Surveillance Requirement 4.7.1.1. In accordance with 10CFR50.73(a)(2)(i)(B), this condition is being reported as a condition prohibited by TSs.

The surveillance requirements associated with TS 4.7.1.1 requires each MSSV to be reset to within a tolerance of plus or minus 1 percent of the valves' set point value. This is the as-left requirement for the MSSVs. The surveillance requirement also specifies that the valve be shown to be within a tolerance of plus or minus 3 percent of the set point value as an as-found test requirement. Both of these requirements must be satisfied to demonstrate operability of the MSSVs. However, if the as-found testing demonstrates the MSSVs are within the 3 percent tolerance band then the component would have performed its intended safety function.

A review of MSSV testing records identified that two MSSVs had been left in a condition where the as-left value did not meet the TS requirements. The ASME Section XI Code requires two concurrent set point tests to document that components are within the correct tolerances. For MSSV 1-SV-1A-3, the last of the two concurrent set point tests documented a set point of 1076 psig, which is greater than the 1 percent value of 1075.65 psig. For MSSV 1-SV-2B-3, although the final test was within the 1 percent tolerance, the test immediately prior was outside of the 1 percent set point tolerance.

Cause of Event

The root causes of these events could not be determined due to the age of the issue

A review of D. C. Cook LERs has identified other occasions where ranges of set points similar to those described for MSSV 1-SV-1A-3 were documented. Some of these LERs date back to 1987 and document further examples of this concern. This indicates the issue had gone unrecognized in the plant procedures since at least 1987. The specific error appears to have resulted from rounding the 1 percent value of 1065 psig from 10.65 psig to 11 psig. This allows an MSSV to be left outside of the 1 percent band without resetting the set point.

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

Analysis of Event

The as-found tests for both of the valves discussed in this LER documented a value within the plus or minus 3 percent criteria defined in TS surveillance requirement 4.7.1.1. This documents that each of the valves would have lifted within the prescribed range required by TS and would have been capable of performing their intended safety function. Therefore, this event is not considered safety significant since the valves in question would have performed their intended safety function.

Corrective Actions

The extent of condition review determined that the rounding error identified for MSSV 1-SV-1A-3 would only be applicable to the TS Surveillance requirements for the MSSVs and the Pressurizer Safety Valves (PSV) since these are the only specifications associated with IST program components that provide a percentage based tolerance band. The extent of condition for the issue associated with MSSV 1-SV-2B-3 could apply to any previously conducted IST program valve test that required two concurrent tests to be within specification.

A review of test data since 1986 did not identify any other tests in which the plant personnel failed to document two concurrent as-left values within the required TS tolerances or in which a rounding error resulted in the acceptance of a test value that was not in accordance with plant TS.

Testing to ensure compliance with the TS Surveillance Requirements has been completed for both units' MSSVs and PSVs.

Revisions to the procedural controls have been provided to preclude the recurrence of these events.

Previous Similar Events

No previous LERs have been issued based on the specific issues associated with the MSSVs described in this LER.

However, several LERs were issued that documented, within the text of the LER, the inappropriate value of 1076 psig as the TS 1 percent limit instead of 1075.65 psig. These include:

LER 50-316/1988-004-00, Main Steam Safety Valves Out of Specification Due to Apparent Setpoint Drift

LER 50-315/1989-002-01, Failure of the Main Steam Safety Valves to Meet Technical Specification Lift Setpoint Requirements

LER 50-315/1994-001-01, Failure of the Unit One Main Steam Safety Valves to Meet Technical Specification Lift Setpoint Requirements