NRC FORM 366 (4-95)

U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT (LER)

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

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Millstone Nuclear Power Station Unit 2	05000336	1 of 3

TITLE (4)
Potentially Non-conservative Assumptions Identified in Analysis for Single Main Steam Isolation Valve Closure Event

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
10	03	96	96	-- 031 --	00	11	04	96	FACILITY NAME	DOCKET NUMBER

OPERATING MODE (9): 5

POWER LEVEL (10): 000

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)

20.2201(b)	20.2203(a)(2)(v)	50.73(a)(2)(i)	50.73(a)(2)(viii)
20.2203(a)(1)	20.2203(a)(3)(i)	X 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)
M. D. Ehredt, MP2 Nuclear Licensing Manager	(860)440-2142

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	MONTH	DAY	YEAR
X YES (If yes, complete EXPECTED SUBMISSION DATE).	NO		03	01	97

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

On October 3, 1996, it was discovered that potentially non-conservative assumptions used in an analysis could result in exceeding the ASME Code maximum relief valve accumulation for the steam generators (SG) and main steam line piping during an analyzed design basis event. During a review of the analysis for the Single Main Steam Isolation Valve (MSIV) Closure Event, it was discovered that potentially non-conservative assumptions were made in the modeling of the main steam line, main steam safety valves, and SGs.

The cause of this event is a potentially inadequate analysis of secondary side peak pressures for the Single MSIV Closure Event. The final effect of these potentially non-conservative assumptions on peak pressure in the secondary side has not yet been determined.

The review and analysis of this event is continuing. Efforts are ongoing to reanalyze the peak secondary side pressure for a Single MSIV Closure Event. The reanalysis of the design basis event will resolve the conditions described in this LER. The consequences of these potentially non-conservative assumptions on other design basis events will also be reviewed. As a result of the reanalyses, appropriate corrective actions will be implemented prior to restart to ensure that the plant response to these events is adequate.

A supplemental LER will be issued to provide the results of the reanalyses and the resultant corrective actions.

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

I. Description of Event

On October 3, 1996, it was discovered that potentially non-conservative assumptions used in an analysis could result in exceeding the ASME Code maximum relief valve accumulation for the steam generators (SG) and main steam line piping during an analyzed design basis event. At the time of discovery of this event, the unit was in Mode 5 at 0 percent power.

During a review of the analysis for the Single Main Steam Isolation Valve (MSIV) Closure Event, it was discovered that potentially non-conservative assumptions were made in the modeling of the main steam line, main steam safety valves (MSSV), and SGs. The analysis assumed that losses in the piping from the MSSVs to the main steam line and SGs were included in the relief valve accumulations. Also, the peak SG pressure was not calculated at the most conservative location in the SG. Therefore, the potential exists for exceeding the ASME Code maximum relief valve accumulation for the SGs and the main steam line piping during a Single MSIV Closure event.

Initial reviews show that the the effect of these assumptions is less than originally expected. However, final analysis of this event has not been completed.

II. Cause of Event

The cause of this event is a potentially inadequate analysis of secondary side peak pressures for the Single MSIV Closure Event. The final effect of these potentially non-conservative assumptions on peak pressure in the secondary side has not yet been determined.

The original design basis for Unit 2 did not require analysis for this event. Analysis of the Single MSIV Closure Event was included at a later time and was originally performed by Westinghouse Electric Corporation. The identified potential non-conservative assumptions are believed to have existed in the original analysis also. The current analysis was performed by Siemens Power Corporation.

III. Analysis of Event

The Single MSIV Closure Event is the limiting event for secondary side pressure. The closure of a single MSIV during operation will decrease the heat removal by the secondary system. Upon cessation of steam flow to the turbine, the pressure in the affected steam generator will increase to the opening setpoint of the MSSVs. The peak analyzed SG dome pressure for this event is 1096 psia.

Due to the potentially non-conservative assumptions identified in the analysis, the peak secondary side pressure could be greater than previously calculated. If this difference is substantial, the design pressure ratings of the SGs and main steam line piping could be exceeded. Therefore, this event is considered to be potentially safety significant.

This event is reportable in accordance with 10 CFR 50.73(a)(2)(ii)(B), any event or condition that resulted in the condition of the nuclear power plant, including the principal safety barriers, being seriously degraded, or that resulted in the nuclear power plant being in a condition that was outside the design basis of the plant. This event was reported in accordance with 10 CFR 50.72(b)(1)(ii) on October 3, 1996.

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

IV. Corrective Action

The review and analysis of this event is continuing. Efforts are ongoing to reanalyze the peak secondary side pressure for a Single MSIV Closure Event. The reanalysis of the design basis event will resolve the conditions described in this LER. The consequences of these potentially non-conservative assumptions on other design basis events will also be reviewed. As a result of the reanalyses, appropriate corrective actions will be implemented prior to restart to ensure that the plant response to these events is adequate.

A supplemental LER will be issued to provide the results of the reanalyses and the resultant corrective actions before March 1, 1997.

V. Additional Information

None

Similar Events

LER 91-010: On October 18, 1991, a reportability determination was made concerning a reanalysis of the main steam line break event inside the containment. The reanalysis confirmed that the assumptions made for the existing (1979) main steam line break (MSLB) analysis were non-conservative with respect to power level, break size, and single active failure. Using more restrictive assumptions, design limits for containment pressure and temperature could be exceeded. A multi-disciplinary task force was established to investigate containment response to postulated MSLBs. Plant modifications required to ensure an acceptable containment pressure response for a main steam line break inside the containment were installed and tested.

Manufacturer Data

None