

LICENSEE EVENT REPORT

CONTROL BLOCK: 1 (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

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7	8	9	LICENSEE CODE						14	15	LICENSE NUMBER						25	26	LICENSE TYPE						30	57	CAT 58	

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7	8	REPORT SOURCE		60	61	DOCKET NUMBER						68	69	EVENT DATE				74	75	REPORT DATE				80		

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 A non conservative safety analysis assumption was discovered by NNECo in the

0 3 Millstone 2 Steam Generator Tube Rupture analysis. The non conservative assumptions

0 4 involved use of a low steam generator pressure and the atmospheric steam dumps in

0 5 manual mode. Utilizing more conservative assumptions increase the radiological dose

0 6 during a postulated tube rupture event. The revised radiological doses are still a

0 7 small fraction of 10CFR100 limits. Similiar LER's: none

0	9	H	B	11	X	12	Z	13	Z	Z	Z	Z	Z	Z	14	Z	15	Z	16				
7	8	SYSTEM CODE		9	10	CAUSE CODE		11	CAUSE SUBCODE		12	COMPONENT CODE				18	COMP SUBCODE		19	VALVE SUBCODE		20	
17		LER/RO REPORT NUMBER		EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE		REPORT TYPE		REVISION NO.											
8		3		0		7		0		1		0											
21		22		23		24		25		26		27		28		29		30		31		32	
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33		34		35		36		37		38		39		40		41		42		43		44	
ACTION TAKEN		FUTURE ACTION		EFFECT ON PLANT		SHUTDOWN METHOD		HOURS		ATTACHMENT SUBMITTED		NPRD-4 FORM SUB.		PRIME COMP. SUPPLIER		COMPONENT MANUFACTURER							
18		19		20		21		22		23		24		25		26							

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 The current Steam Generator Tube Rupture Analysis did not consider the impact of a

1 1 high initial steam generator pressure and atmospheric steam dump valves being in

1 2 automatic. NNECo has reanalyzed the event and found that operation of the atmospheric

1 3 steam dump system would give a minimal increase to the site boundary doses following

1 4 a postulated transient.

1	5	C	28	0	0	2	29	NA	30	D	31	Notified by Internal Engineering Group	32
7	8	FACILITY STATUS		9	10	% POWER		11	12	METHOD OF DISCOVERY		DISCOVERY DESCRIPTION	
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ATTACHMENT TO LER 83-07/01T-0
NORTHEAST NUCLEAR ENERGY COMPANY
MILLSTONE NUCLEAR POWER STATION - UNIT 2
PROVISIONAL LICENSE NUMBER DPR-65
DOCKET NUMBER 50-336

Summary

While performing an inhouse Steam Generator Tube Rupture (SGTR) reanalysis to support Cycle 6 operation, Northeast Nuclear Energy Company (NNECo) determined that one aspect of the current Millstone 2 SGTR analysis was non conservative.

Reanalysis by NNECo indicated that when conservative assumptions are used to model steam generator pressure and the atmospheric dump valves for the SGTR, the dose to the thyroid at the site boundary could increase from .006 REM to approximately .25 REM. This small increase however, remains well below the 10CFR100 limits of 300 REM to the thyroid at the site boundary.

Details

While reviewing the current Steam Generator Tube Rupture (SGTR) analysis, there was some uncertainty as to what constituted a conservative secondary side model. The current analysis assumed that the atmospheric steam dump valves were in manual mode, and a low steam generator pressure of 860 psia was therefore chosen as the precondition for the SGTR. This initial pressure was chosen to maximize primary to secondary flow rate through the break. While this assumption results in a larger break flow rate, it does not reflect normal plant operation and is not conservative relative to the radiological dose of the event. A reanalysis assuming the atmospheric dump valves to be in automatic mode and utilizing 933 psia steam generator pressure (maximum value) as the initial condition for the SGTR resulted in the operation of both the atmospheric steam dump and the steam generator safety/relief valves. In contrast, the current analysis resulted only in a release to the condenser.

The current analysis resulted in a calculated dose of .006 REM to the thyroid at the site boundary. The reanalysis utilizing the maximum steam generator pressure resulted in a approximately .25 REM dose to the thyroid at the site boundary. The results remain well below the 300 REM allowable thyroid dose at the site boundary specified in 10CFR100.

It was concluded that although the non conservative secondary side modeling assumptions were reportable under our Technical Specifications, section 6.9.1.8.h, the dose consequences predicted to result from the revised input assumptions remain acceptable. Furthermore, it is recognized that although the current analysis did not identify the limiting case, it achieved the objective of demonstrating that a SGTR at Millstone 2 results in consequences which are well below acceptable limits.

The SGTR analysis supporting Cycle 6 operation will be docketed in the near future. The results of this analysis will be applicable to the remainder of Cycle 5 operation and bound the results of the previous SGTR analysis discussed herein.