

Northeast
Nuclear Energy

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The Northeast Utilities System

Donald B. Miller Jr.,
Senior Vice President - Millstone

Re: 10CFR50.73(a)

November 28, 1995
MP-95-342

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

Reference: Facility Operating License No. DPR-65
Docket No. 50-336
Licensee Event Report 95-041-00

This letter forwards Licensee Event Report 95-041-00 required to be submitted within thirty (30) days pursuant to 10CFR50.73(a).

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

Donald B. Miller, Jr.
Senior Vice President - Millstone Station

DBM/SS:bjc

Attachment: LER 95-041-00

cc: T. T. Martin, Region I Administrator
P. D. Swetland, Senior Resident Inspector, Millstone Unit Nos. 1, 2, and 3
G. S. Vissing, NRC Project Manager, Millstone Unit No. 2

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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

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Millstone Nuclear Power Station Unit 2	05000336	1 OF 4

TITLE (4)
Potential for EDG Overload With 2 HPSI Pumps Aligned to 1 Facility

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
10	30	95	95	041	00	11	28	95		

OPERATING MODE (9)	1	THIS REPORT IS BEING SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)			
POWER LEVEL (10)	100	20.2201(b)	20.2203(a)(2)(v)	50.73(a)(2)(i)	50.73(a)(2)(vii)
		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)
Philip J. Lutzi, Nuclear Licensing	(203) 440-2072

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)	NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR

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

On October 30, 1995 at 0830 with the plant in mode 1 at 100% power, RCS pressure of 2260 psig and temperature of 572°F a review of Surveillance Procedure SP 21136 "Safety Injection and Containment Spray System Valves Operational Readiness Test" identified a potential for placing an Emergency Diesel Generator (EDG) in an overloaded condition if a LOCA and an LNP occurred concurrently while performing certain sections of the surveillance procedure.

The apparent cause of this event was a deficient procedure, in that Surveillance Procedure (SP) 21136 did not recognize a condition in which an EDG was potentially inoperable for a short period during performance of SP 21136. As a result, the appropriate limiting condition for operation for an inoperable diesel was not entered while SP 21136 was being performed.

A procedure change to SP 21136 will be implemented by December 16, 1995, that will address EDG loading concerns.

**LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION**

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Millstone Nuclear Power Station Unit 2	05000336	95	041	00	02 OF 04

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

I. Description of Event

On October 30, 1995 at 0830 with the plant in mode 1 at 100% power, Reactor Coolant System (RCS) pressure was 2260 and RCS temperature was 572°F. A review of Surveillance Procedure 21136 "Safety Injection and Containment Spray System Valves Operational Readiness Test" indicated a potential to overload an Emergency Diesel Generator if a Loss of Coolant Accident (LOCA) and a Loss of Normal Power (LNP) event were to occur while the surveillance procedure was in progress.

Millstone Unit 2 is designed with 3 High Pressure Safety Injection Pumps (HPSI), see Figure 1. For power operations two HPSI Pumps are required. The third pump or "B Pump" is an installed spare that can be aligned (both electrically and mechanically) to either facility 1 or facility 2. This configuration is desirable because it allows the normally aligned pump to be removed from service for maintenance or testing.

Section XI paragraph IWW-3520 of the ASME code requires periodic testing (Quarterly) of check valves to ensure they can perform their intended safety function. SP 21136 was developed and implemented on July 15, 1979 to perform this testing. The testing is performed in a manner to verify that the disk in each of the HPSI Pump check valves travels to the seat in a prompt manner on cessation or reversal of flow. This is accomplished by aligning the system such that the spare pump provides flow in the reverse direction when the normally operating pump is turned off. To accomplish this test, two HPSI pumps are aligned to one facility. This places the plant in a vulnerable condition if a LOCA and an LNP were to occur. The length of time during which the plant is in this configuration is approximately 2 hours per facility each quarter.

II. Cause of Event

The apparent cause of this event was a deficient procedure, in that SP 21136 did not recognize a condition in which an EDG was potentially inoperable during performance of SP 21136. An engineering review concluded that the condition for potentially overloading an EDG had not been identified during or since the original issuance of SP 21136 on July 15, 1979, therefore, the deficient procedure was the result of an oversight during its original development.

III. Analysis of Event

In the postulated event of a LOCA concurrent with an LNP, all the loads on the emergency bus are shed, then the EDG starts. The loads are then sequenced onto the EDG in 5 load blocks. (sequences 0 thru 4) If two HPSI pumps are aligned electrically to one facility (a condition which is realized when performing SP 21136 procedure) both pumps will restart at sequence 1 of the event. The additional load on the EDG from the second HPSI pump will cause the generator output voltage to dip to approximately 72% of its rated voltage. This is outside the design value of 75% established in Safety Guide 9 and the Final Safety Analysis Report (FSAR). Additionally because the additional pump is now on the safety related bus the peak load added at sequence 3 and 4 of the loading sequence will be above the 300 hour rated load of the engine. Sequence 3 peak load increases to 3384 KW, sequence 4 peak load increases to 3604 KW versus 3250 KW 300 hour rated loading of the EDG.

This event is being reported pursuant to the requirements of 10CFR50.73(a)(2)(ii)(B) a condition that is outside the design bases of the plant. A review of this event concluded that for approximately 2 hours during performance of SP 21136, the plant configuration is vulnerable. Since this vulnerability had not been recognized, and the subsequent EDG limiting condition for operation not entered, it was concluded that, had a LOCA and LNP event occurred concurrent with a single active failure on the alternate facility, the potential existed that both EDGs may have been rendered unable to perform their safety function.

**LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION**

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Millstone Nuclear Power Station Unit 2	05000336	95	— 041 —	00	03 OF 04

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

Upon discovery of this event, performance of SP 21136 was suspended until corrective actions have been implemented.

A procedure change to SP 21136 will be implemented by December 16, 1995, that will address EDG loading concerns.

V. Additional Information

Similar LERs: None

ELIS Codes: None

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)

Millstone Nuclear Power Station
Unit 2

DOCKET NUMBER (2)

05000336

LER NUMBER (6)

YEAR	SEQUENTIAL NUMBER	REVISION NUMBER
95	- 041 -	00

PAGE (3)

04 OF 04

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

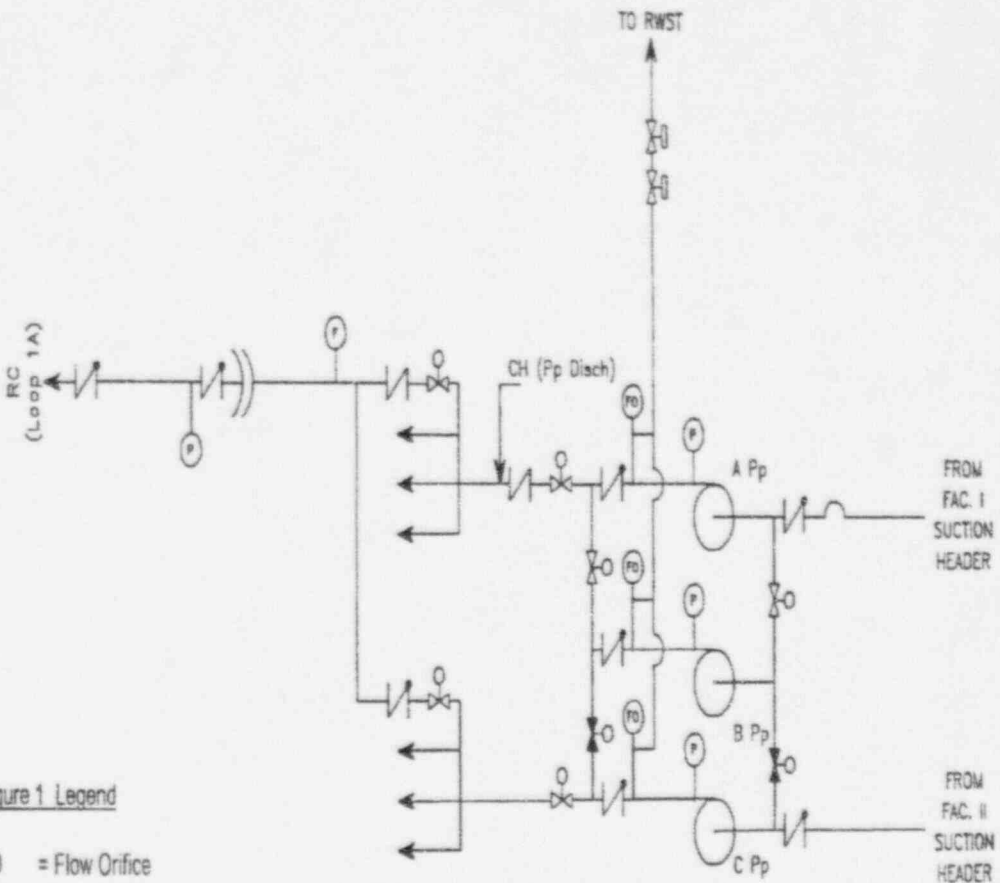


Figure 1
HPSI SYSTEM

Figure 1 Legend

- FO = Flow Orifice
- RC = Reactor Coolant
- P = Pressure Instrument
- F = Flow Instrument
- CH = Charging Pump
- RWST = Refueling Water Storage Tank
- A Pp = A High Pressure Safety Injection Pump
- B Pp = B High Pressure Safety Injection Pump
- C Pp = C High Pressure Safety Injection Pump