Dominion Nuclear Connecticut, Inc.
Millstone Power Station
Rope Ferry Road
Waterford, CT 06385

Dominion

AUG 13 2001

Docket No. 50-336
B18465

RE: 10 CFR 50.73(a)(2)(iii)

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

Millstone Nuclear Power Station, Unit No. 2
Licensee Event Report 2001-006-00
Turbine Driven Auxiliary Feedwater Pump Enclosure Door Inoperable
Without Compensatory Measures

This letter forwards Licensee Event Report (LER) 2001-006-00, related to an event that was documented at Millstone Nuclear Power Station, Unit No. 2, on June 12, 2001. This LER is being submitted pursuant to 10 CFR 50.73(a)(2)(iii).

There are no regulatory commitments contained within this letter.

Should you have any questions regarding this submittal, please contact Mr. David W. Dodson at (860) 447-1791, extension 2346.

Very truly yours,

DOMINION NUCLEAR CONNECTICUT, INC.

C. J. Schwarz
Master Process Owner - Operate the Asset

Attachment (1): LER 2001-006-00

cc: H. J. Miller, Region I Administrator
J. T. Harrison, NRC Project Manager, Millstone Unit No. 2
NRC Senior Resident Inspector, Millstone Unit No. 2

IE22

Docket No. 50-336
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Attachment 1

Millstone Nuclear Power Station, Unit No. 2

LER 2001-006-00

NRC FORM 366 (1-2001) U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT (LER)

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

APPROVED BY OMB NO. 3150-0104 EXPIRES 6-30-2001

Estimated burden per response to comply with this mandatory information collection request: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records Management Branch (T-6 E6), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to bjs1@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202 (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

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TITLE (4)

Turbine Driven Auxiliary Feedwater Pump Enclosure Door Inoperable Without Compensatory Measures

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MO	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO.	MO	DAY	YEAR	FACILITY NAME	DOCKET NUMBER 05000
06	12	2001	2001	– 006 –	00	08	13	2001	FACILITY NAME	DOCKET NUMBER 05000

		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply) (11)							
OPERATING MODE (9)	1		20.2201(b)		20.2203(a)(3)(ii)		50.73(a)(2)(ii)(B)		50.73(a)(2)(ix)(A)
POWER LEVEL (10)	100		20.2201(d)		20.2203(a)(4)	X	50.73(a)(2)(iii)		50.73(a)(2)(x)
			20.2203(a)(1)		50.36(c)(1)(i)(A)		50.73(a)(2)(iv)(A)		73.71(a)(4)
			20.2203(a)(2)(i)		50.36(c)(1)(ii)(A)		50.73(a)(2)(v)(A)		73.71(a)(5)
			20.2203(a)(2)(ii)		50.36(c)(2)		50.73(a)(2)(v)(B)		OTHER
			20.2203(a)(2)(iii)		50.46(a)(3)(ii)		50.73(a)(2)(v)(C)		Specify in Abstract below or in NRC Form 366A
			20.2203(a)(2)(iv)		50.73(a)(2)(i)(A)		50.73(a)(2)(v)(D)		
			20.2203(a)(2)(v)		50.73(a)(2)(i)(B)		50.73(a)(2)(vii)		
			20.2203(a)(2)(vi)		50.73(a)(2)(i)(C)		50.73(a)(2)(viii)(A)		
			20.2203(a)(3)(i)		50.73(a)(2)(ii)(A)		50.73(a)(2)(viii)(B)		

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
David W. Dodson, Team Lead - Compliance	860-447-1791

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX

SUPPLEMENTAL REPORT EXPECTED (14)			EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
☒ YES (If yes, complete EXPECTED SUBMISSION DATE). October 15, 2001	☐ NO			10	31	2001

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

On June 12, 2001, a Condition Report was generated to document a concern expressed by the NRC Resident Inspector relating to a work activity conducted on May 11, 2001 at Millstone Unit No. 2 (MP2). On May 11, 2001, with the unit operating in Mode 1 at 100% reactor power, welding was performed on the MP2 Turbine Driven Auxiliary Feedwater [BA] Pump [P] (TDAFWP) enclosure door [DR]. This door is designated as a High Energy Line Break (HELB) barrier due to the four inch steam supply line feeding the TDAFWP. The nature of the work required the door to be open for approximately 45 minutes. During this time, although operators remained cognizant of the work activity, no compensatory measures were taken to protect equipment credited for safe shutdown in the event of a HELB originating from within the enclosure and no Technical Specification ACTION statements were acknowledged during the work evolution.

The cause of this event is under investigation and will be reported in a supplement to this report. Corrective actions to date include the revision of existing plant procedures governing work on hazard boundary doors to require entry into applicable Technical Specification ACTION Statements. The safety significance of this event is judged to be low on the basis of the short exposure time and low probability of the initiating event.

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

1. Event Description

On June 12, 2001, a Condition Report was generated to document a concern expressed by the NRC Resident Inspector relating to a work activity conducted on May 11, 2001 at Millstone Unit No. 2 (MP2). On May 11, 2001, with the unit operating in Mode 1 at 100% reactor power, welding was performed on the MP2 Turbine Driven Auxiliary Feedwater [BA] Pump [P] (TDAFWP) enclosure door [DR]. The work involved a weld buildup on the door closure mechanism to improve the overall sealing capability of the door. The previous degraded condition of the closure mechanism had been evaluated and was determined to meet the minimum acceptance standard for HELB mitigation. The work was intended to restore the door to a fully qualified condition.

This door is designated as a High Energy Line Break (HELB) barrier due to the four inch steam supply line feeding the TDAFWP. The nature of the work required the door to be open for approximately 45 minutes. During this time, although operators remained cognizant of the work activity, no compensatory measures were taken to protect the adjacent Motor Driven Auxiliary Feedwater Pumps (MDAFWP) from the consequences of a HELB originating from within the enclosure and no Technical Specification ACTION statements were acknowledged during the work evolution. Additionally, the Final Safety Analysis Report (FSAR) credited safe shutdown strategy for this event calls for a normal plant shutdown using the main feedwater [SJ] and condensate [SG] systems. This equipment would also be impacted by the adverse environmental conditions created by the break. Because the main feedwater and condensate systems are non-safety related, their continued availability under extreme environmental conditions is unanalyzed.

This event was determined to be reportable under the provisions of 10 CFR 50.73(a)(2)(ii)(B) as an unanalyzed condition that significantly degraded plant safety. This condition has not been classified as a safety system functional failure.

2. Cause

The cause of this event is under investigation and will be reported in a supplement to this report. Corrective actions to date include the revision of existing plant procedures governing work on hazard boundary doors to require entry into applicable Technical Specification ACTION Statements.

3. Assessment of Safety Consequences

There were no actual consequences experienced as a result of this condition and the safety significance of this condition is judged to be low. The probability of the initiating event is on the order of 9.8 E-10/hr and the actual exposure time was less than one hour. The corresponding Incremental Core Damage Probability for this condition is estimated at 1.2E-10. The potential outcome and significance of a TDAFWP steam supply line rupture concurrent with the TDAFWP enclosure door being open are described below.

The increased steam flow from the four inch TDAFWP steam supply line break is not sufficient to cause a plant trip. Consequently, the MP2 licensing basis recovery strategy credits normal plant shutdown using the main feedwater and condensate systems. The rupture itself would be isolated from a remote location in accordance with existing plant procedures. The event duration is expected to be less than one hour.

With the enclosure door impaired, environmental conditions (i.e., temperature, humidity) outside of the enclosure following a TDAFWP steam supply line break would rapidly escalate. Similar environmental effects would be experienced by the main feedwater and condensate system components. These components are non-safety

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

related and not subject to qualification testing. As such, their continued availability under these conditions is unanalyzed. Additionally, the predicted environmental conditions following the TDAFWP steam supply line rupture exceed those used for qualifying the MDAFWP's. If the main feed and condensate systems and the MDAFWP's become unavailable as a result of the event, existing plant emergency procedures would require a reactor trip followed by a rapid cooldown and depressurization of the RCS to support reaching conditions necessary for initiation of decay heat removal using the residual heat removal system.

4. Corrective Action

An investigation is in progress and corrective actions will be addressed in accordance with the Millstone Corrective Action Program. Corrective actions to date include the revision of existing plant procedures governing work on hazard boundary doors to require entry into applicable Technical Specification ACTION Statements.

5. Previous Occurrences

No similar events/conditions were identified during the 24 months preceding this condition.

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