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

Dominion

SEP 1 2005

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

Serial No. 05-350
MPS Lic/BAK R0
Docket No. 50-423
License No. NPF-49

DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 3
LICENSEE EVENT REPORT 2005-001-00, HYDROGEN RECOMBINERS OUT OF SERVICE

This letter forwards Licensee Event Report (LER) 2005-001-00, documenting an event that occurred at Millstone Power Station Unit 3, on February 24, 2005. This LER is being submitted pursuant to 10 CFR 50.73(a)(2)(i)(B), as any event or condition prohibited by the plant's Technical Specifications and 10 CFR 50.73(a)(2)(v)(D), related to a condition that could have prevented the fulfillment of the safety function of a system.

If you have any questions or require additional information, please contact Mr. David W. Dodson at (860) 447-1791, extension 2346.

Very truly yours,

J. Alan Price
Site Vice President - Millstone

IE22

Attachments: 1

Commitments made in this letter: None.

cc: U.S. Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406-1415

Mr. G. F. Wunder
Project Manager
U.S. Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Mail Stop 08-B-1A
Rockville, MD 20852-2738

Mr. S. M. Schneider
NRC Senior Resident Inspector
Millstone Power Station

Attachment 1

LER 2005-001-00
HYDROGEN RECOMBINERS OUT OF SERVICE

Millstone Power Station Unit 3
Dominion Nuclear Connecticut, Inc. (DNC)

NRC FORM 366 (7-2001) 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 Power Station - Unit 3	05000423	1 OF 3

TITLE (4)
Hydrogen Recombiners Out Of Service

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
02	24	2005	2005	– 001	– 00	08	25	2005	FACILITY NAME	DOCKET NUMBER

OPERATING MODE (9)	1
POWER LEVEL (10)	100

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply) (11)

	20.2201(b)		20.2203(a)(3)(ii)		50.73(a)(2)(ii)(B)		50.73(a)(2)(ix)(A)
	20.2201(d)		20.2203(a)(4)		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)	X	50.73(a)(2)(v)(D)		
	20.2203(a)(2)(v)	X	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	860-447-1791 Ext 2346

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).	☒ NO				

ABSTRACT

On 2/24/05, with Unit 3 at 100% power, during the performance of a surveillance test (SP3613A.2-1) on the "A" Hydrogen Recombiner [BB], the system failed leak tightness causing the "A" Hydrogen Recombiner to be declared inoperable. Investigation revealed that a routine maintenance activity conducted on September 7, 2004, required a compression fitting in the system to be disassembled. This fitting was reassembled improperly. Following the work, a post maintenance test was successfully completed. A surveillance test conducted on February 24, 2005, revealed the compression tubing fitting failure. It is hypothesized that the fitting began to leak when it was stressed (either mechanically or thermally) between the tests. The period when the "A" Hydrogen Recombiner was inoperable exceeded the Technical Specification (TS) Allowed Outage Time (AOT) of 30 days. Additionally, the "B" Hydrogen Recombiner was taken out of service for routine maintenance on October 20, 2004, and January 11, 2005, causing a loss of safety function. This event/condition is being reported pursuant to 50.73(a)(2)(i)(B), related to operation in a condition prohibited by the Technical Specifications and 50.73(a)(2)(v)(D), related to a condition that could have prevented the fulfillment of the safety function of a system.

The apparent cause was poor workmanship resulting in a poorly assembled compression fitting. The threaded tubing compression connection was galled and not fully tightened onto the ferrule.

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

1. Event Description

On 2/24/05, with Unit 3 at 100% power, during the performance of a surveillance test (SP3613A.2-1) on the "A" Hydrogen Recombiner [BB], the system failed leak tightness causing the "A" Hydrogen Recombiner to be declared inoperable. Investigation revealed that a routine maintenance activity conducted on September 7, 2004 required a compression fitting in the system to be disassembled. This fitting was reassembled improperly. Following the work, a post maintenance test was successfully completed. A surveillance test conducted on February 24, 2005, revealed the compression tubing fitting failure. It is hypothesized that the fitting began to leak when it was stressed (either mechanically or thermally) between the tests. The period when the "A" Hydrogen Recombiner was inoperable exceeded the Technical Specification (TS) Allowed Outage Time (AOT) of 30 days. Additionally, the "B" Hydrogen Recombiner was taken out of service for routine maintenance on October 20, 2004 and January 11, 2005 causing a loss of safety function. This event/condition is being reported pursuant to 50.73(a)(2)(i)(B), related to operation in a condition prohibited by the Technical Specifications and 50.73(a)(2)(v)(D), related to a condition that could have prevented the fulfillment of the safety function of a system.

2. Cause

The apparent cause was poor workmanship on September 7, 2004, resulting in a poorly assembled tubing compression fitting. The threaded connection was galled and not fully tightened onto the ferrule. When the fitting was being reassembled, the galling gave the impression that the fitting was tight when it was not. As a result, further tightening did not compress the fitting as desired.

3. Assessment of Safety Consequences

This event is of very low safety significance. An NRC safety evaluation (SE) published September 25, 2003 (68 FR 55416), which identifies the minimal risk significance of Hydrogen Recombiners in large, dry containments, is applicable to Millstone Power Station Unit 3. Additionally, a probabilistic risk assessment (PRA) of the subject condition was performed to determine the impact on core damage and large early release risk. The Hydrogen Recombiners are designed to prevent accumulation of combustible hydrogen in the Containment generated from radiolysis and chemical reactions following a loss-of-coolant accident (LOCA). The Hydrogen Recombiners at Millstone Power Station Unit 3 are not modeled in the PRA and are not considered a risk-significant accident mitigating system. The Hydrogen Recombiners are not modeled in the Millstone Unit 3 PRA since: (1) the Hydrogen Recombiners do not prevent core damage, and (2) hydrogen generation in design basis accidents does not realistically challenge Containment integrity. Therefore, the risk to the public from an inoperable Hydrogen Recombiner is insignificant.

Additionally, a Technical Specification (TS) change request was submitted to the NRC on September 8, 2004, to delete the TS requirements associated with the Hydrogen Recombiners and Analyzers. The NRC subsequently issued this license amendment on June 29, 2005.

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

4. Corrective Action

The compression joint was repaired (on February 28, 2005) via AWO M3-05-04144 and a post maintenance acceptance test was satisfactorily performed.

The maintenance department communicated compression fitting fit-up requirements and work practices to minimize the potential for a repeat event of this type. Additional corrective actions were included in the station's corrective action program.

5. Previous Occurrences

Internal operating experience was reviewed and did not provide any additional information.

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