

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



**Dominion**<sup>SM</sup>

**FEB 12 2007**

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

Serial No.	07-0081
MPS Lic/GJC	R0
Docket No.	50-336
License No.	DPR-65

**DOMINION NUCLEAR CONNECTICUT, INC.**  
**MILLSTONE POWER STATION UNIT 2**  
**INSERVICE INSPECTION PROGRAM - OWNER'S ACTIVITY REPORT**

Dominion Nuclear Connecticut, Inc. (DNC), hereby submits the American Society of Mechanical Engineers (ASME), Section XI, Form OAR-1, Owner's Activity Report for Refueling Outage 17 for Millstone Power Station Unit 2. The enclosure is in accordance with the requirements of Code Case N-532-1.

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

Very truly yours,

A. J. Jordan  
Plant Manager - Nuclear

A047

Attachments:

1. Millstone Power Station Unit 2, Owner's Activity Report for Refueling Outage 17

Commitments made in this letter: None.

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

Mr. V. Nerses  
Senior Project Manager  
U.S. Nuclear Regulatory Commission  
One White Flint North  
11555 Rockville Pike  
Mail Stop 8C2  
Rockville, MD 20852-2738

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

Serial No.: 07-0081

Docket No.: 50-336

## **Attachment 1**

### **INSERVICE INSPECTION PROGRAM - OWNER'S ACTIVITY REPORT**

#### **REFUELING OUTAGE 17**

#### **MILLSTONE UNIT 2**

**DOMINION NUCLEAR CONNECTICUT, INC. (DNC)**

# MILLSTONE POWER STATION

## UNIT NO. 2

## OWNER'S ACTIVITY REPORT

# REFUELING OUTAGE 17

Revision 0

## Contents:

OAR-1 Report Number: MP2-2R17

Table 1: Abstract of Examinations and Tests

Table 2: Items With Flaws or Relevant Conditions That Required Evaluation for Continued Service.

Table 3: Abstract of Repairs, Replacements, or Corrective Measures Required for Continued Service

Prepared By:

  
ISI Program Coordinator

Date: 01/30/07

Reviewed By:

*Elizabeth York* NISCT  
Authorized Nuclear Inservice Inspector

Date: January 30, 2007

## FORM OAR-1 OWNER'S ACTIVITY REPORT

Report Number MP2-2R17

Owner Dominion Nuclear Connecticut, Rope Ferry Road, Waterford, Connecticut 06385  
(Name and Address of Owner)

Plant Millstone Nuclear Power Station, Rope Ferry Road, Waterford, Connecticut 06385  
(Name and Address of Plant)

Unit Number 2 Commercial Service Date 12/26/1975 Refueling Outage Number 17  
(if applicable)

Current Inspection Interval 3rd  
(1st, 2nd, 3rd,)

Current Inspection Period 3rd  
(1st, 2nd, 3rd, 4th, other)

Edition and Addenda of Section XI Applicable to the Inspection Plan 1989 Edition, No Addenda and 1998 Edition, No Addenda for Subsection IWE/IWL

Date and Revision of Inspection Plan 12/21/2005 Revision 2, Change 5

Edition and Addenda of Section XI Applicable to Repairs and replacements, if Different 1998 Edition, No Addenda

### CERTIFICATE OF CONFORMANCE

I certify that the statements made in this Owner's Activity Report are correct, and that the examinations, tests, repairs, replacements, evaluations and corrective measures represented by this report conform to the requirements of Section XI.

Certificate of Authorization No. N/A Expiration Date N/A  
(if applicable)

Signed *Rick H. Ziehl, ISE Coordinator* Date 01/30/07  
Owner or Owner's Designee, Title

### CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Connecticut and employed by HSB CT of Hartford, Connecticut have inspected the items described in this Owner's Activity Report, during the period May 19, 2005 to November 18, 2006, and state to the best of my knowledge and belief, the Owner has performed all activities represented by this report in accordance with the requirements of Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations, tests, repairs, replacements, evaluations and corrective measures described in this report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

*Elizabeth J. ...* Commissions *N/A 9584, CT-151, ANI, ANI, ANI*  
Inspector's Signature National Board, State, Province and Endorsements

Date *January 30, 2007*

**Table 1**  
**ABSTRACT OF EXAMINATIONS AND TESTS** (See Note 1)  
 (Page 1 of 2)

Examination Category	Total Examinations Required for The Interval	Total Examinations Credited for This Period	Total Examinations Credited (%) For The Period	Total Examinations Credited (%) To Date for The Interval	Remarks
B-A	20	0	0%	0%	See Note 2, Note 7
B-B	9	3	33%	89%	
B-D	34	0	0%	65%	
B-E	N/A	0	0%	0%	Tracked under B-P pressure tests per approved Relief Request RR-89-16.
B-F	8	0	0%	100%	See Note 4
B-G-1	219	73	33%	100%	
B-G-2	79	7	8%	68%	See Note 7
B-H	1	0	0%	0%	Not required for Third Interval, MP-2 has elected to perform examination of one support skirt due to SG replacement in 1992.
B-J	52	0	0%	100%	See Note 4
B-K-1	0	0	0%	0%	There are no items under this Category.
B-L-1	2	0	0%	100%	See Note 2
B-L-2	1	0	0%	100%	See Note 5
B-M-2	3	0	0%	100%	See Note 5
B-N-1	3	0	0%	66%	
B-N-2	15	0	0%	0%	See Note 2
B-N-3	33	0	0%	0%	See Note 2
B-O	15	0	0%	0%	See Note 2
B-P	12	2	16%	83%	Required for examination each refueling outage. The total examinations are based on 6 refueling outages anticipated during the interval.
C-A	7	0	0%	57%	
C-B	6	2	33%	100%	
C-C	45	6	13%	82%	
C-D	0	0	0%	0%	There are no items under this Category.
C-F-1	78	12	15%	78%	

**Table 1**  
**ABSTRACT OF EXAMINATIONS AND TESTS** (See Note 1)  
 (Page 2 of 2)

Examination Category	Total Examinations Required for The Interval	Total Examinations Credited for This Period	Total Examinations Credited (%) For The Period	Total Examinations Credited (%) To Date for The Interval	Remarks
C-F-2	29	7	24%	90%	
C-H	71	0	0%	64%	Note 6
D-A	6	0	0%	66%	Note 6
D-B	21	0	0%	66%	Note 6
D-C	12	0	0%	66%	Note 6
E-A	96 (32/ Period)	32	33%	100%	100% of the items are inspected each period
E-C	43 (22 / 2 <sup>nd</sup> Period) (21 / 3 <sup>rd</sup> Period)	21	48%	100%	No Category E-C exams were required during the 1 <sup>st</sup> inspection period.
L-A	30	30	100%	100%	See Note 3
L-B	9	9	100%	100%	See Note 3
F-A	277	60	21%	86%	
R-A	82	29	35%	62%	See Note 4, Note 8.

## Notes:

1. This report represents a summary of the inservice inspection activities performed at Dominion Nuclear Connecticut's Millstone Unit 2 power station during the Fall of 2006 refueling outage (2R17). This is the 1st outage in the third period of the third inspection interval.
2. For this examination Category, deferral of examinations to later in the interval is permissible in accordance with ASME Section XI, IWB-2500-1 requirements.
3. The required examination frequency for this category is every 5 years. The total examinations credited to date for the interval reflect examinations completed for the 2<sup>nd</sup> 5-Year Interval.
4. The Class 1 Risk Informed program was approved for use at Millstone Unit 2 by NRC correspondence dated 4/1/2005 and implemented during the 2<sup>nd</sup> period. Based on this approval, Examination Category B-F and B-J have been replaced with Examination Category R-A during the 2<sup>nd</sup> period. The total examinations required of the interval listed for category B-F and B-J now reflect the examinations that have been completed in these categories which met the 1<sup>st</sup> period percentage requirements.
5. Examinations in this category are required only if the pump or valve is disassembled for maintenance, repair, or volumetric examination.

Notes: (continued)

6. The system pressure tests in this Category are required for examination each Period. The total examinations are based on the 3 Periods during the interval.
7. The Total Examinations Required for the Interval under Category B-A and B-G-2 reflect a decrease since last reporting due to a replacement of the Reactor Vessel Head and associated components during refueling outage 2R16.
8. The Total Examinations Required for the Interval under Category R-A reflect an increase since last reporting due to the addition of bare metal visual examinations for Alloy 600 welds based on MRP 139 requirements. The number of examinations does not reflect the VT-2 examinations that are performed each outage in conjunction with the Category B-P Class 1 pressure test.



**Table 2**  
**ITEMS WITH FLAWS OR RELEVANT CONDITIONS THAT**  
**REQUIRED EVALUATION FOR CONTINUED SERVICE**

(Page 1 of 3)

Examination Category	Item Number	Component ID	Item Description	Flaw Characterization (IWA-3300)	Flaw or relevant Condition Found During Scheduled Section XI Examination or Test (Yes or No)
F-A	F1.30	60223A	Pipe support	Incomplete thread engagement of bolted connection evaluated as acceptable for continued service	YES
F-A	F1.40	X-23A-1-S-B	Component support	Missing cotter pin evaluated as acceptable for continued service. Replaced pin to restore support to original design condition.	YES
F-A	F1.20	410077	Pipe support	Incomplete thread engagement of bolted connection evaluated as acceptable for continued service	YES
F-A	F1.30	413122	Pipe support	Incomplete thread engagement of bolted connection evaluated as acceptable for continued service	YES
F-A	F1.20	404010	Pipe support	Incomplete thread engagement of bolted connection evaluated as acceptable for continued service	YES
F-A	F1.10	310049	Pipe support	Support member in contact with conduit with minor corrosion evaluated by engineering as acceptable for continued service.	YES
F-A	F1.10	410032	Pipe support	Incomplete thread engagement of bolted connection evaluated as acceptable for continued service	YES
F-A	F1.30	405898	Pipe support	Corrosion identified on piping and support. Cleaned and evaluated as acceptable for continued service.	YES
F-A	F1.30	405806	Pipe support	Corrosion identified on piping and support. Cleaned and evaluated as acceptable for continued service	YES
F-A	F1.10	510016-A	Pipe support	Incomplete thread engagement of bolted connection evaluated as acceptable for continued service	YES

**Table 2**  
**ITEMS WITH FLAWS OR RELEVANT CONDITIONS THAT**  
**REQUIRED EVALUATION FOR CONTINUED SERVICE**

(Page 2 of 3)

Examination Category	Item Number	Component ID	Item Description	Flaw Characterization (IWA-3300)	Flaw or relevant Condition Found During Scheduled Section XI Examination or Test (Yes or No)
F-A	F1.20	412014	Pipe support	Engineering evaluation of load setting found acceptable	YES
F-A	F1.10	410063-R	Pipe support	Engineering evaluation of load setting found acceptable	YES
F-A	F1.10	491385-E	Pipe support	Support missing a shim evaluated as acceptable for continued service. Replaced missing shim to restore support to its original design condition.	YES
B-P	B15.70	2-SI-651	Valve body to bonnet bolting	Evidence of leakage at bolted connection. Evaluated using the criteria of Code Case N-566-1.	YES
B-P	B15.70	2-SI-237	Valve body to bonnet bolting	Evidence of leakage at bolted connection. Evaluated using the criteria of Code Case N-566-1.	YES
B-P	B15.70	2-SI-217	Valve body to bonnet bolting	Evidence of leakage at bolted connection. Evaluated using the criteria of Code Case N-566-1.	YES
B-P	B15.70	2-SI-227	Valve body to bonnet bolting	Evidence of leakage at bolted connection. Evaluated using the criteria of Code Case N-566-1.	YES
B-P	B15.70	2-SI-706A	Valve body to bonnet bolting	Evidence of leakage at bolted connection. Evaluated using the criteria of Code Case N-566-1.	YES
C-H	C7.70	2-SI-114	Valve body to bonnet bolting	Evidence of leakage at bolted connection. Evaluated using the criteria of Code Case N-566-1.	YES
C-H	C7.70	2-SI-615	Valve body to bonnet bolting	Evidence of leakage at bolted connection. Evaluated using the criteria of Code Case N-566-1.	YES
C-H	C7.70	2-SI-625	Valve body to bonnet bolting	Evidence of leakage at bolted connection. Evaluated using the criteria of Code Case N-566-1.	YES
C-H	C7.70	2-SI-635	Valve body to bonnet bolting	Evidence of leakage at bolted connection. Evaluated using the criteria of Code Case N-566-1.	YES
C-H	C7.70	2-SI-645	Valve body to bonnet bolting	Evidence of leakage at bolted connection. Evaluated using the criteria of Code Case N-566-1.	YES

**Table 2**  
**ITEMS WITH FLAWS OR RELEVANT CONDITIONS THAT**  
**REQUIRED EVALUATION FOR CONTINUED SERVICE**

(Page 3 of 3)

Examination Category	Item Number	Component ID	Item Description	Flaw Characterization (IWA-3300)	Flaw or relevant Condition Found During Scheduled Section XI Examination or Test (Yes or No)
C-H	C7.70	2-SI-452	Valve body to bonnet bolting	Evidence of leakage at bolted connection. Evaluated using the criteria of Code Case N-566-1.	YES
C-H	C7.70	2-SI-456	Valve body to bonnet bolting	Evidence of leakage at bolted connection. Evaluated using the criteria of Code Case N-566-1.	YES
C-H	C7.70	2-SI-414	Valve body to bonnet bolting	Evidence of leakage at bolted connection. Evaluated using the criteria of Code Case N-566-1.	YES
C-H	C7.70	2-CS-26	Valve body to bonnet bolting	Evidence of leakage at bolted connection. Evaluated using the criteria of Code Case N-566-1.	YES
C-H	C7.10	X23A	Heat exchanger cover bolting	Evidence of leakage at bolted connection. Evaluated using the criteria of Code Case N-566-1.	YES
C-H	C7.10	X23B	Heat exchanger cover bolting	Evidence of leakage at bolted connection. Evaluated using the criteria of Code Case N-566-1.	YES
C-H	C7.70	2-CH-316	Valve body to bonnet bolting	Evidence of leakage at bolted connection. Evaluated using the criteria of Code Case N-566-1.	YES
C-H	C7.50	P41A	Pump flange bolting	Evidence of leakage at bolted connection. Evaluated using the criteria of Code Case N-566-1.	YES
C-H	C7.50	P41B	Pump flange bolting	Evidence of leakage at bolted connection. Evaluated using the criteria of Code Case N-566-1.	YES

**Table 3**  
**ABSTRACT OF REPAIRS, REPLACEMENTS, OR CORRECTIVE MEASURES**  
**REQUIRED FOR CONTINUED SERVICE**

(Page 1 of 2)

Code Class	Repair, Replacement, or Corrective Measure	Item Description	Description of Work	Flaw or relevant Condition Found During Scheduled Section XI Examination or Test (Yes/No)	Date Completed	Repair/ Replacement Plan Number
1	Repair	Valve 2-RC-416	Repair Base Metal Indication	No	06/09/2005	M20402573
1	Repair	Pressurizer	Repair nozzle to safe-end weld preservice UT indications at AREVA facility	Yes (PSI)	08/15/2006	M20606471
2	Repair	Valve 2-SSP-16.1	Overhaul valve	No	12/12/2006	M20503192
3	Repair	Valve 2-MS-4B	Repair sealing surface	No	06/09/2005	M20406812-3
3	Repair	RBCCW Heat Exchanger	Repair area of corrosion	No	12/15/2005	M20407255
3	Repair	Valve 2-SW-1A	Repair area of corrosion	No	11/07/2006	M20406847
1	Replacement	Support HGR-491291	Install new fasteners	No	11/02/2006	M2-06-10372
1	Repair	Valve 2-RC-233	Perform valve overhaul	No	10/25/2006	M2-06-02526
2	Replacement	Valve 2-FW-5A	Replace valve bolting	No	10/18/2006	M2-04-06844
3	Replacement	RBCCW Heat exchanger X18C	Replace degraded bolting	No	02/02/2006	M2-05-06985
1	Replacement	Pressurizer	Install Replacement Pressurizer	No	11/14/2006	M2-05-08280
3	Replacement	Valve 2-SW-90C	Replace degraded bolting	No	06/20/2006	M2-05-12049

Table 3  
**ABSTRACT OF REPAIRS, REPLACEMENTS, OR CORRECTIVE MEASURES  
 REQUIRED FOR CONTINUED SERVICE**

(Page 2 of 2)

Code Class	Repair, Replacement, or Corrective Measure	Item Description	Description of Work	Flaw or relevant Condition Found During Scheduled Section XI Examination or Test (Yes/No)	Date Completed	Repair/ Replacement Plan Number
3	Replacement	Valve 2-FW-10A	Replace degraded bolting	No	11/17/2006	M2-05-05677
3	Repair	Valve 2-SW-1A	Replace degraded valve	No	10/25/2006	M2-04-06847
3	Replacement	Valve 2-SW-8A	Replace degraded bolting	No	10/31/2006	M2-05-12309
3	Replacement	Valve 2-SW-1A and 2A	Replace degraded bolting	No	11/07/2006	M2-04-06539
3	Replacement	Valve 2-SW-1B and 2B	Replace degraded bolting	No	11/08/2006	M2-04-06174
3	Replacement	Valve 2-SW-3A	Replace degraded bolting	No	10/31/2006	M2-04-06540