

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



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

**MAY 31 2006**

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

Serial No. 06-285  
MPS Lic/BAK R0  
Docket No. 50-336  
License No. DPR-65

**DOMINION NUCLEAR CONNECTICUT, INC.**  
**MILLSTONE POWER STATION UNIT 2**  
**LICENSEE EVENT REPORT 2006-003-00**  
**TECHNICAL SPECIFICATION REQUIRED SHUTDOWN**

This letter forwards Licensee event Report (LER) 2006-003-00, documenting an event that occurred at the Millstone Power Station Unit 2 on March 31, 2006. This LER is being submitted pursuant to 10 CFR 50.73(a)(2)(i)(A) as the completion of any nuclear plant shutdown required by a plant's Technical Specifications.

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

JE22

Attachments: 1

Commitments made in this letter: None.

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

Mr. V. Nerses  
NRC Senior Project Manager Millstone Units 2 and 3  
U.S. Nuclear Regulatory Commission, Mail Stop 8 C2  
One White Flint North  
11555 Rockville Pike  
Rockville, MD 20852-2738

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

Serial No. 06-285  
Licensee Event Report 2006-003-00  
Technical Specification Required Shutdown

**Attachment 1**

**MILLSTONE POWER STATION UNIT 2  
LICENSEE EVENT REPORT 2006-003-00**

**Millstone Power Station Unit 2  
Dominion Nuclear Connecticut, Inc. (DNC)**

**LICENSEE EVENT REPORT (LER)**

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

|  |                                      |                           |
|--|--------------------------------------|---------------------------|
| <b>FACILITY NAME (1)</b><br>Millstone Power Station – Unit 2 | <b>DOCKET NUMBER (2)</b><br>05000336 | <b>PAGE (3)</b><br>1 of 2 |
|--|--------------------------------------|---------------------------|

**TITLE (4)**  
Technical Specification Required Shutdown

| 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 |
| 04             | 01  | 2006 | 2006-003-00    |                   |         | 05              | 31  | 06   | FACILITY NAME                 | DOCKET NUMBER |
|                |     |      |                |                   |         |                 |     |      |                               | 05000         |
|                |     |      |                |                   |         |                 |     |      | FACILITY NAME                 | DOCKET NUMBER |
|                |     |      |                |                   |         |                 |     |      |                               | 05000         |

|                           |     |   |                     |                     |   |  |  |  |  |  |
|---------------------------|-----|---|---------------------|---------------------|---|--|--|--|--|--|
| <b>OPERATING MODE (9)</b> | 1   | <b>THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply) (11)</b> |                     |                     |   |  |  |  |  |  |
| <b>POWER LEVEL (10)</b>   | 100 | 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)   | X 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)(VI)     |   |  |  |  |  |  |
|                           |     | 20.2203(a)(2)(VI)   | 50.73(a)(2)(I)(C)   | 50.73(a)(2)(VII)(A) |   |  |  |  |  |  |
|                           |     | 20.2203(a)(3)(I)  | 50.73(a)(2)(II)(A)  | 50.73(a)(2)(VII)(B) |   |  |  |  |  |  |

**LICENSEE CONTACT FOR THIS LER (12)**

|  |   |
|--|---|
| <b>NAME</b><br>David W. Dodson, Supervisor Nuclear Station Licensing | <b>TELEPHONE NUMBER (Include Area Code)</b><br>(860) 447-1791 |
|--|---|

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

| CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO EPIX | CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO EPIX |
|-------|--------|-----------|--------------|--------------------|-------|--------|-----------|--------------|--------------------|
| X     | BA     | Bearing   | Floserve     | Y                  |       |        |           |              |                    |

|   |  |  |  |                                      |  |  |
|---|--|--|--|--------------------------------------|--|--|
| <b>SUPPLEMENTAL REPORT EXPECTED (14)</b>                                  |  |  |  | <b>EXPECTED SUBMISSION DATE (15)</b> |  |  |
| <input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE). | <input checked="" type="checkbox"/> NO |  |  |                                      |  |  |

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

On April 1, 2006, Millstone Power Station Unit 2 completed a shutdown from 100% power required by the Technical Specifications due to the inoperability of the turbine driven auxiliary feedwater (TDAFW) pump.

On March 29, 2006, Technical Specification (TS) 3.7.1.2 was entered when the TDAFW pump was taken out of service for maintenance and subsequent post-maintenance operability testing. During the operability test, white smoke was observed coming from the TDAFW pump outboard bearing housing vent. The test was terminated and subsequent inspection determined that the pump outboard thrust bearing had failed. The TDAFW pump could not be restored to an operable status within the specified TS allowed outage time so a shutdown was commenced on March 31, 2006, at 2220 hours. The unit reached hot shutdown at 1406 hours on April 1, 2006.

The root cause of the bearing failure was overloading as a consequence of balance drum/sleeve wear caused by balance drum/sleeve misalignment. The damage progressed to the point that overloading of the thrust bearing occurred with resultant bearing failure. The time of failure was the time of discovery.

Corrective actions included replacement of damaged components and review of all procedures that affect shaft alignment on HTMA model pumps (such as the TDAFW pump) to ensure correct pump assembly.

This is being reported under 10 CFR 50.73(a)(2)(i)(A) as the completion of any nuclear plant shutdown required by the plant's Technical Specifications.

**LICENSEE EVENT REPORT (LER)**

| FACILITY NAME (1)                | DOCKET (2) | LER NUMBER (6)       |                    | PAGE (3) |
|----------------------------------|------------|----------------------|--------------------|----------|
| Millstone Power Station – Unit 2 | 05000336   | SEQUENTIAL<br>NUMBER | REVISION<br>NUMBER | 2 OF 2   |
|                                  |            | 2006                 | -- 003 -- 00       |          |

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

1. Event Description

On March 31, 2006 at 2200 hours with the unit at 100% power, Millstone Power Station Unit 2 commenced a shutdown of the reactor in accordance with Technical Specification (TS) 3.7.1.2.a due to the inability to restore the Turbine Driven Auxiliary Feedwater [BA] (TDAFW) pump to an operable status following a planned maintenance activity. The shutdown was completed at 1406 on April 1, 2006.

On March 29, 2006, Technical Specification (TS) 3.7.1.2 was entered when the TDAFW pump was taken out of service for maintenance and subsequent post-maintenance operability testing. During the operability test, white smoke was observed coming from the TDAFW pump outboard bearing housing vent. The test was terminated and subsequent inspection determined that the pump outboard thrust bearing had failed. The time of failure was the time of discovery. The TDAFW pump could not be restored to an operable status within the specified TS allowed outage time so a shutdown was commenced on March 31, 2006, at 2220 hours. The unit reached hot shutdown at 1406 hours on April 1, 2006.

The damaged components were replaced; the pump was successfully tested and restored to an operable status.

This condition is being reported under the provision of 10 CFR 50.73(a)(2)(i)(A) as the completion of any nuclear plant shutdown required by the plant's Technical Specifications.

2. Cause

A Root Cause Evaluation of the event has been completed. The root cause of the bearing failure was overloading as a consequence of balance drum/sleeve wear caused by balance drum/sleeve misalignment.

3. Assessment of Safety Consequences

During the shutdown, both motor-driven AFW pumps were available and all safety systems performed as designed.

4. Corrective Action

After thorough inspection of the pump internals, the only damaged components were the bearing, balance drum and sleeve. These components were replaced and the pump was reassembled, tested and returned to service.

Actions to prevent reoccurrence include reviewing procedures that affect shaft alignment on HTMA model pumps (such as the TDAFW pump) to ensure correct pump assembly.

Additional corrective actions are being taken in accordance with the station's corrective action program.

5. Previous Occurrences

No similar bearing failures of the TDAFW pump have occurred at the Unit within the previous three years.

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