January 31, 2007

Mr. David A. Christian
Sr. Vice President and Chief Nuclear Officer
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Innsbrook Technical Center
5000 Dominion Boulevard
Glen Allen, VA 23060-6711

SUBJECT: MILLSTONE POWER STATION, UNIT NO. 2 - ISSUANCE OF AMENDMENT RE: AUXILIARY FEEDWATER SYSTEM ALLOWED OUTAGE TIME (TAC NO. MD0028)

Dear Mr. Christian:

The Commission has issued the enclosed Amendment No. 297 to Facility Operating License No. DPR-65 for the Millstone Power Station, Unit No. 2, in response to your application dated February 7, 2006, as supplemented by letters dated August 14, and November 16, 2006. The amendment makes a change to the Technical Specifications to increase the allowed outage time from 72 hours to 7 days for the inoperability of the steam supply to the turbine-driven auxiliary feedwater (AFW) pump or the inoperability of the turbine-driven AFW under certain operating mode restrictions.

A copy of the related Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

/RA/

Victor Nerses, Senior Project Manager
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-336

Enclosures:
1. Amendment No. 297 to DPR-65
2. Safety Evaluation

cc w/encls: See next page

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DOMINION NUCLEAR CONNECTICUT, INC.

DOCKET NO. 50-336

MILLSTONE POWER STATION, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 297
License No. DPR-65

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Dominion Nuclear Connecticut, Inc. (the licensee) dated February 7, 2006, as supplemented on August 14, and November 16, 2006, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-65 is hereby amended to read as follows:

   (2) Technical Specifications

   The Technical Specifications contained in Appendix A, as revised through Amendment No. 297 , are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of issuance, and shall be implemented within 60 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/
Harold K. Chernoff, Chief
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: January 31, 2007

Millstone Power Station, Unit No. 2

cc:

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ATTACHMENT TO LICENSE AMENDMENT NO. 297

FACILITY OPERATING LICENSE NO. DPR-65

DOCKET NO. 50-336

Replace the following page of Facility Operating License No. DPR-65 with the attached revised page. The revised page is identified by amendment number and contains a marginal line indicating the area of change.

Remove	Insert
3	3

Replace the following pages of the Appendix A, Technical Specifications, with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove	Insert
3/4 7-4	3/4 7-4
---------	3/4 7-5
---------	3/4 7-5a

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 297

TO FACILITY OPERATING LICENSE NO. DPR-65

DOMINION NUCLEAR CONNECTICUT, INC.

MILLSTONE POWER STATION, UNIT NO. 2

DOCKET NO. 50-336

1.0 INTRODUCTION

By letter dated February 7, 2006, as supplemented by letters dated August 14, and November 16, 2006, Dominion Nuclear Connecticut, Inc. (DNC, the licensee) submitted a request for changes to the Millstone Power Station, Unit No. 2 (MPS2) Technical Specifications (TSs) to the Nuclear Regulatory Commission (NRC or the Commission). The license amendment request (LAR) proposes to revise Section 3.7.1.2 of the current custom TSs (CTSs) for MPS2 to increase the allowed outage time from 72 hours to 7 days for the inoperability of the turbine-driven auxillary feedwater (AFW) pump under certain conditions and other minor changes. The LAR also proposed a change to Section 4.7.1.2.b of the TSs, but the proposed revision was subsequently withdrawn by the letter dated August 14, 2006. The proposed changes are based in part on the improved Standard Technical Specifications (STS) in NUREG-1432, "Standard Technical Specifications for Combustion Engineering Plants," Volume 1, "Specifications," Revision 3, dated June 2004. Associated changes to the TS Bases are also included for information.

The supplements dated August 14, and November 16, 2006, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the NRC staff's original proposed no significant hazards consideration determination as published in the *Federal Register* on April 11, 2006 (71 FR 18372).

2.0 REGULATORY EVALUATION

Title 10 of the *Code of Federal Regulations* (10 CFR), Part 50, Appendix A, General Design Criterion (GDC) 34 and GDC 44 reflect the design basis for the AFW system with respect to decay heat removal. GDC 34 specifies, in part, that the system safety function shall be to transfer fission product decay heat and other residual heat from the reactor core at a rate such that specified acceptable fuel design limits and the design conditions of the reactor coolant pressure boundary are not exceeded. GDC 44 for cooling water specifies, in part, that a system to transfer heat from structures, systems, and components important to safety, to an ultimate heat sink shall be provided. Both GDCs specify that suitable redundancy in components and features, interconnections, and isolation capabilities shall be provided.

TS Limiting Conditions for Operation (LCOs) for AFW systems are required in accordance with 10 CFR 50.36(c)(2)(ii)(c). The STS are reflective of policies and practices that the NRC considers to be acceptable with respect to TSs LCOs, completion times, and action requirements. Acceptance of the proposed changes to the MPS2 AFW TSs will be judged based upon consistency with the existing policies and practices that have been established as reflected primarily in the STS, consistency with any precedents that have been approved and are considered to be applicable, consideration of the plant-specific TS requirements that have been established, and the technical merits of the proposed TS changes.

3.0 TECHNICAL EVALUATION

The MPS2 AFW system consists of two motor-driven AFW pumps and one steam turbine driven AFW (TDAFW) pump. The TDAFW pump has a capacity of 600 gpm at 2437 feet total developed head (tdh) and the two motor-driven pumps have a 300 gpm capacity each at 2437 feet tdh. The motor-driven AFW pumps automatically start upon receipt of an automatic AFW actuation signal. The TDAFW pump is started by operator action. The MPS2 TDAFW pump design includes two steam supplies, one from each of the two steam generators (SGs). Each of the TDAFW pump steam supply lines is sized to provide 100 percent of the steam flow that is necessary for operating the TDAFW pump at full capacity. The AFW pumps normally take suction from the condensate storage tank.

The AFW system supplies feedwater to the SGs to remove decay heat from the reactor coolant system upon a loss of normal feedwater, assuming the worst case single failure. In addition, the AFW system is an important mitigation system for other accidents, such as a small-break loss-of-coolant accident. The AFW system also supplies feedwater to the SGs during normal unit startup, shutdown, and hot standby conditions. In order for the AFW system to satisfy flow requirements for the most limiting accident analyses assuming a single failure, more flow than can be provided by a single motor-driven AFW pump must be provided (i.e., two motor-driven AFW pumps, or a motor-driven AFW pump and a TDAFW pump).

A description of each proposed change, and the NRC staff's evaluation, follows.

MPS2 TS 3.7.1.2, Proposed Condition A

The licensee proposed a new Condition A that addresses the inoperability of the TDAFW pump due to inoperability of one of two steam supplies to the TDAFW pump. The allowed outage time for this condition is set to 7 days, consistent with the STS. If operability is not restored in the allowed time, the licensee must transition to Mode 3 within the next 6 hours and continue to Mode 4 within the following 12 hours, which also is consistent with the STS. The format is modified to be internally consistent with the MPS2 CTS.

Only one supply is required to operate the pump over its entire range. However, certain events that require operation of the AFW system for mitigation may also result in loss of one steam supply, such as a high-energy line-break that results in depressurization of the associated SG. The 7-day allowed outage time is acceptable based on the full capability of the single steam supply and the low probability of an event requiring AFW system operation that causes the coincident loss of the remaining steam supply. The required time to transition to Modes 3 and 4 is consistent with an orderly shutdown.

MPS2 TS 3.7.1.2, Proposed Condition B

A new Condition B is proposed that is only applicable immediately after a refueling outage when Mode 2 has not been entered. The allowed outage time for this condition is set to 7 days, consistent with the STS. If operability is not restored in the allowed time, the licensee must transition to Mode 3 within the next 6 hours and continue to Mode 4 within the following 12 hours, which also is consistent with the STS. The format is modified to be internally consistent with the MPS2 CTS.

In this specific condition, the decay heat produced by the fuel in the reactor vessel is very low because approximately one-third of the fuel is new and the remaining fuel has decayed for many days. A single motor-driven AFW pump provides adequate feed to the S/Gs to remove the limited decay heat present in this well-defined situation.

The proposed 7-day allowed outage time is acceptable because the motor-driven AFW system would be able to perform its function for most postulated events, and would only be challenged by very low probability events, such as an extended station blackout condition. The required time to transition to Modes 3 and 4 is consistent with an orderly shutdown.

MPS2 TS 3.7.1.2. Proposed Condition C

A new Condition C is proposed for when one of the AFW pumps is inoperable due to reasons other than those described in A or B and the plant is in MODE 1, 2 or 3. Proposed Action C requires restoration of the affected pump to operable status within 72 hours. If unable to restore to the pump to operable status, the plant must transition to Mode 3 within the following 6 hours. These requirements are consistent with the existing Condition A of TS 3.7.1.2 in the MPS2 CTS, exclusive of the proposed Conditions A and B. If the inoperability continues, the plant must continue to Mode 4 within the following 12 hours. The new condition action statement extends the time to cool down to Mode 4, after reaching Mode 3, from 6 hours to 12 hours.

The proposed Condition C is acceptable in that it is consistent with the existing CTS requirements with the exception of the proposed Conditions A and B evaluated above. The required time to transition to Modes 3 and 4 are consistent with an orderly shutdown.

MPS2 TS 3.7.1.2. Proposed Condition D

A new Condition D is proposed for when two AFW pumps are inoperable in Mode 1, 2 or 3. Proposed Condition D requires the plant to transition to Mode 3 within 6 hours. These requirements are consistent with the existing Condition B of TS 3.7.1.2 in the MPS2 CTS. If the inoperability continues, the plant must continue to Mode 4 within the following 12 hours. The new condition action statement extends the time to cool down to Mode 4, after reaching Mode 3, from 6 hours to 12 hours.

The proposed Condition D is acceptable in that it is consistent with the existing CTS requirements. The required time to transition to Modes 3 and 4 is consistent with an orderly shutdown with a degraded AFW system.

MPS2 TS 3.7.1.2. Proposed Condition E

Proposed Condition E directs that no Mode changes be initiated with 3 AFW pumps inoperable. It is applicable in Modes 1, 2 or 3. It requires immediate action be undertaken to restore at least one pump to operable status. It is identical to existing Condition C of TS 3.7.1.2 in the MPS2 CTS.

4.0 SUMMARY

Based on the information provided and considerations discussed above, the NRC staff has determined that the proposed changes to MPS2 TS 3.7.1.2 are acceptable. The proposed changes are consistent with NRC practices and policies as generally reflected in the STS and as reflected by applicable precedents that have been approved. Therefore, the staff has determined that the proposed changes to MPS2 TS 3.7.1.2 should be approved.

5.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Connecticut State official was notified of the proposed issuance of the amendment. The Connecticut State official agreed with the NRC staff's conclusion as stated in Section 7.0 of this Safety Evaluation.

6.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to surveillance requirements. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant change in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (71 FR 18372). Accordingly, the amendment meets the eligibility criteria for categorical exclusion as set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

7.0 CONCLUSION

The NRC staff concludes that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activity will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not inimical to the common defense and security or health and safety of the public.

Principal Contributor: T. Herrity

Dated: January 31, 2007