

January 3, 2006

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: CHANGES TO TECHNICAL SPECIFICATION SURVEILLANCE  
REQUIREMENT FOR TRISODIUM PHOSPHATE (TAC NO. MC6257)

Dear Mr. Christian:

The Commission has issued the enclosed Amendment No. 290 to Facility Operating License No. DPR-65 for the Millstone Power Station, Unit No. 2 (MPS2), in response to your application dated February 25, 2005, as supplemented by letter dated August 4, 2005.

The amendment revises the MPS2 Technical Specification Surveillance Requirement for trisodium phosphate to remove the granularity term and chemical detail. In addition, the proposed change will increase the allowed outage time from 48 to 72 hours.

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. 290 to DPR-65  
2. Safety Evaluation

cc w/encls: See next page

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Millstone Power Station, Unit No. 2

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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. 290  
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 25, 2005, as supplemented by letter dated August 4, 2005, 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. 290, 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/*

Darrell J. Roberts, 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 3, 2006

ATTACHMENT TO LICENSE AMENDMENT NO. 290

FACILITY OPERATING LICENSE NO. DPR-65

DOCKET NO. 50-336

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

Remove  
3/4 5-9

Insert  
3/4 5-9

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 290

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 25, 2005, as supplemented by letter dated August 4, 2005, Dominion Nuclear Connecticut (the licensee) submitted to the Nuclear Regulatory Commission (NRC or the Commission) a request for changes to the Millstone Power Station, Unit No. 2 (MPS2) Technical Specifications (TSs) Surveillance Requirement (SR) for trisodium phosphate (TSP). The amendment introduces the following modifications to the TSs for the TSP:

- The limiting condition for operation will be modified by increasing the allowed outage time (AOT) as specified in TS 3.5.5 from 48 to 72 hours.
- SR 4.5.5.1 will be modified to remove the details related to the consistency and type of the TSP used by removing the terms “granular” and “dodecahydrate.”
- The associated TS Bases will be modified to reflect the proposed changes as specified above. In addition, the term “representative” will be deleted from the bases.

The supplement dated August 4, 2005, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the staff’s original proposed no significant hazards consideration determination as published in the *Federal Register* on July 19, 2005 (70 FR 41444).

2.0 REGULATORY EVALUATION

Reactor containment atmosphere cleanup systems are designed to control fission product releases to the reactor containment following postulated accidents. TSP is part of this containment cleanup system and functions to maintain pH control. In particular, TSP helps in fission product control by maintaining a pH level high enough to assure that significant long-term iodine (a fission product) re-evolution does not occur. Applicable design criterion for fission product control is contained in NUREG 0800, Rev. 3, Section 6.5.2. Specific TS changes and its Bases should be consistent with NUREG-1432, Rev. 3, “Standard Technical Specifications Combustion Engineering Plants.” The proposed change in this application will be

reviewed against the regulatory requirement of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, Appendix A, General Design Criterion (GDC) 41, "Containment Atmosphere Cleanup."

### 3.0 TECHNICAL EVALUATION

The licensee has proposed modifications to their TSs regarding the TSP. The first modification consists of increasing the AOT from 48 to 72 hours. Specifically, this amendment will modify the action statement for TS 3.5.5, which currently states that if the TSP is not within limits, the TSP should be restored to within limits in a completion time of 48 hours. The licensee stated that 72 hours is acceptable based on the low probability of a design basis event occurring during the allowed outage time. The NRC staff agrees with this and notes that allowing the licensee to restore the TSP within limits in 72 hours is a change that is consistent with NUREG-1432.

The second modification consists of removing the terms "granular" and "dodecahydrate" from SR 4.5.5.1. This SR verifies that the correct volume of TSP exists in the TSP baskets inside containment. Because of the high humidity existing in the containment, the TSP tends to agglomerate, therefore, losing its granularity characteristic when first put in the baskets. This agglomeration does not affect the ability of the TSP to raise the pH of the sump to a value of 7 or greater after a loss-of-coolant accident. The licensee stated that past-testing on compacted TSP indicates that even if the TSP crystals become compressed and partially fused together, a rapid dissolution is still assured. In a draft request for additional information dated July 7, 2005, the NRC staff requested the licensee to justify this statement and to provide more information on how the results were obtained. In a response dated August 4, 2005, the licensee stated that this statement is based on initial testing conducted by Combustion Engineering (CE) in the early seventies and surveillance testing conducted at MPS2 since March 1999.

The testing conducted by CE consisted of forming standard-size cylindrical TSP pellets by compression of the granulated TSP at pressures of 5000, 10,000 and 20,000 psia. The pellets were then immersed in stagnant and flowing water at 185 °F and 200 °F. The pellets were completely dissolved within approximately six minutes without solution agitation, and within approximately two minutes with solution agitation.

The licensee performs surveillance testing as required by the TS. Samples are taken from the surface of the TSP baskets and then placed in room temperature water without agitation for dissolution. The licensee's surveillance time limit for dissolution is four hours. The last surveillance test resulted in a dissolution time of 51 minutes immersed in stagnant water without agitation at 76.3 °F.

In addition, the licensee also proposes to delete the TS requirement that the TSP be of the dodecahydrate form and instead specify in the TS Bases sections that a hydrated TSP, with a moisture content of 45-57%, be required. This change is consistent with NUREG 1432.

Changes were made to the TS Bases section to reflect the two modifications discussed above.



#### 4.0 SUMMARY

The NRC staff has reviewed the licensee's proposed modifications to the TSs. The proposed changes do not impact the ability of the TSP to adequately control pH during post-accident conditions as assumed in the accident analysis. The NRC staff evaluation of the proposed modifications described above finds that these modifications (1) are consistent with NUREG 1432, (2) do not impact the applicable design criterion for fission product control as contained in NUREG 0800, and (3) continue to meet GDC 41. The staff, therefore, finds the proposed changes acceptable.

#### 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 SRs. 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 (70 FR 41444). 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 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: Y. Diaz

Date: January 3, 2006