

December 1, 2003

Mr. David A. Christian  
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5000 Dominion Boulevard  
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SUBJECT: MILLSTONE POWER STATION, UNIT NO. 1- PROPOSED EMERGENCY  
PLAN CHANGES (TAC NO. MB8095)

Dear Mr. Christian:

By letter dated February 28, 2003, as supplemented by letter dated July 9, 2003, Dominion Nuclear Connecticut, Inc., submitted changes to the Millstone Power Station, Unit No. 1, Emergency Plan for review and approval by the U.S. Nuclear Regulatory Commission (NRC) prior to implementation in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.54(q). It should be noted this application also proposed the same changes to Millstone Power Station, Unit Nos. 2 and 3 (MP2 and MP3). The MP2 and MP3 changes are addressed in a separate letter.

The proposed change would amend Table 5-1, "Station Emergency Response Organization" of the Millstone Power Station Emergency Plan by changing the requirement of one on-shift Health Physics Technician to a minimum staffing (30 to 60 minute) responder.

Based on its review, the NRC staff has concluded that the proposed MP1 Emergency Plan changes do not decrease the effectiveness of the Emergency Plan and that the plan, as changed, continues to meet the planning standards of 10 CFR 50.47(b) and the requirements of Appendix E to 10 CFR Part 50. The details of the NRC staff's review are contained in the enclosed safety evaluation. If you have any questions, please contact me at 301-415-1436.

Sincerely,

**/RA/**

Drew Holland, Senior Project Manager, Section 2  
Project Directorate IV  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-245

Enclosure: As stated

cc w/encl: See next page

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SUBJECT: MILLSTONE POWER STATION, UNIT NO. 1- PROPOSED EMERGENCY PLAN  
CHANGES (TAC NO. MB8095)

Dear Mr. Christian:

By letter dated February 28, 2003, as supplemented by letter dated July 9, 2003, Dominion Nuclear Connecticut, Inc., submitted changes to the Millstone Power Station, Unit No. 1, Emergency Plan for review and approval by the U.S. Nuclear Regulatory Commission (NRC) prior to implementation in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.54(q). It should be noted this application also proposed the same changes to Millstone Power Station, Unit Nos. 2 and 3 (MP2 and MP3). The MP2 and MP3 changes are addressed in a separate letter.

The proposed change would amend Table 5-1, "Station Emergency Response Organization" of the Millstone Power Station Emergency Plan by changing the requirement of one on-shift Health Physics Technician to a minimum staffing (30 to 60 minute) responder.

Based on its review, the NRC staff has concluded that the proposed MP1 Emergency Plan changes do not decrease the effectiveness of the Emergency Plan and that the plan, as changed, continues to meet the planning standards of 10 CFR 50.47(b) and the requirements of Appendix E to 10 CFR Part 50. The details of the NRC staff's review are contained in the enclosed safety evaluation. If you have any questions, please contact me at 301-415-1436.

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Drew Holland, Senior Project Manager, Section 2  
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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO EMERGENCY PLAN CHANGES

DOMINION NUCLEAR CONNECTICUT, INC.

MILLSTONE POWER STATION, UNIT NO. 1

DOCKET NO. 50-245

1.0 INTRODUCTION

By letter dated February 28, 2003, as supplemented by letter dated July 9, 2003, Dominion Nuclear Connecticut, Inc. (the licensee) submitted a change to the Millstone Power Station, Unit Nos. 1, 2, and 3 (MP1, MP2, and MP3, respectively), Emergency Plan. The submittal was in accordance with Title 10 of *the Code of Federal Regulations* (10 CFR), Part 50.54(q). The proposed change would amend Table 5-1, "Station Emergency Response Organization" of the Millstone Power Station Emergency Plan by changing the requirements of one on-shift Health Physics (HP) Technician to a minimum staffing (30 to 60 minute) responder. It should be noted that the changes to MP2 and MP3 are addressed in a separate Safety Evaluation.

2.0 REGULATORY EVALUATION

The regulatory requirements and guidance on which the U.S. Nuclear Regulatory Commission (NRC or the Commission) staff based its acceptance are as follows:

2.1 Regulations

Section 50.47(b) of 10 CFR provides specific standards that the Emergency Plans of nuclear power reactors must meet. Those standards pertinent to this evaluation are listed below.

- Section 50.47(b)(2) of 10 CFR states, in part: "...adequate staffing to provide initial facility accident response in key functional areas is maintained at all times, timely augmentation of response capabilities is available..."
- Section 50.47(b)(9) of 10 CFR states: "Adequate methods, systems, and equipment for assessing and monitoring actual or potential offsite consequences of a radiological emergency condition are in use."
- Section 50.47(b)(11) of 10 CFR states, in part: "Means for controlling radiological exposures, in an emergency, are established for emergency workers..."

The applicable regulation for making changes to a licensee's Emergency Plan is 10 CFR 50.54(q). This regulation states that licensees may change their radiological Emergency Plan without NRC approval only if the changes do not decrease the effectiveness of the plan, and the plan, as changed, continues to meet the planning standards of 10 CFR 50.47

and Appendix E to 10 CFR Part 50. The licensee states in their submittal dated February 28, 2003, that the change does not involve a decrease in effectiveness of the Emergency Plan. However, the change would involve a deviation from the guidance of Table B-1, "Minimum Staffing Requirements for NRC Licensees for Nuclear Power Plant Emergencies," of NUREG-0654, and from Table 2 of Supplement 1 to NUREG-0737, and requests the review and concurrence by the NRC of the proposed change.

## 2.2 Guidance

- Regulatory Guide 1.101, "Emergency Planning and Preparedness for Nuclear Power Reactors," Revision 3, states, in part: "The criteria and recommendations contained in Revision 1 of NUREG-0654/FEMA-REP-1 are considered by the NRC staff to be acceptable methods for complying with the standards in 10 CFR 50.47 that must be met in onsite and offsite emergency response plans."
- NUREG-0654/FEMA-REP-1, Revision 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," states, in part:
  - Section B, Onsite Emergency Organization, Item 5, "Each licensee shall specify... functional areas of emergency activity... These assignments shall cover the emergency functions in table B-1 entitled, "Minimum Staffing Requirements for Nuclear Power Plant Emergencies." The minimum on-shift staffing shall be as indicated in Table B-1. The licensee must be able to augment on-shift capabilities within a short period after declaration of an emergency. This capability shall be as indicated in Table B-1..."
  - Section I, Accident Assessment, Item 8, "Each organization...shall provide methods, equipment and expertise to make rapid assessments of the actual or potential magnitude and locations of any radiological hazards... This shall include activation, notification means, field team composition, transportation, communication, monitoring equipment and estimates deployment times."

## 3.0 TECHNICAL EVALUATION

The licensee proposed to amend Table 5-1, "Station Emergency Response Organization" of the Millstone Power Station Emergency Plan by changing the requirement of one on-shift HP technician to a minimum staffing (30 to 60 minute) responder. The licensee has given the following justification in support of this change.

The justification for this change is based primarily upon technological advances made in the field of personnel and station monitoring, combined with the experience the industry has gained in the area of emergency response and planning since NUREG-0654 and NUREG-0737 were first issued. The licensee also states that there is a low probability that radiological concerns would be present at the onset of an emergency event.

The licensee outlined several advances in technology including: electronic dosimetry; electronic access control stations with uninterruptible power supply (UPS); personal contamination monitors with UPSs; process and area radiation monitors (PRM and ARM,

respectively); the use of on-shift chemistry technicians; pre-approved Radiation Work Permits; and station emergency response personnel who have their own thermoluminescent dosimetry and are equipped with alpha-numeric pagers. Additionally, the licensee stated that these technological advances, including the use of a KAMAN system, which has ARM and PRM readouts in the control room and the HP control point, will relieve many of the administrative burdens of the on-shift HP technicians. The licensee further stated that, with the decommissioning of MP1, the MP1 control room is no longer manned, and the MP2 Shift Manager is responsible for monitoring and classifying MP1 events.

Table B-1 of NUREG-0654 (under the "in-plant protective actions" major functional area in NUREG-0654) specifies that there be two on-shift personnel that perform the functions of access control, HP coverage for repair, corrective actions, search and rescue first-aid and firefighting, personnel monitoring and dosimetry. These on-shift personnel are able to be augmented with two 30 minute responders and two 60-minute responders. In addition, under the "Radiological Accident Assessment and Support of Operational Accident Assessment" major functional area in NUREG-0654, Table B-1 also specifies one on-shift HP technician to perform in-plant surveys.

Currently, Millstone's Emergency Plan, Table 5-1, calls for three on-shift Radiological Monitoring Team #1 (RMT#1) responders. These responders are able to perform in-plant surveys, as listed under the "Radiological Accident Assessment and Support of Operational Accident Assessment" major functional area. The three on-shift RMT#1 responders correspond to one on-site responder per unit. The licensee has proposed to move one on-shift responder to a 30-60-minute responder. The total number of responders required to report in an emergency event will remain unchanged at 11. Because Unit No. 1 is decommissioned and Table B-1 only applies to licensed plants, the staff does not view this change as a deviation from Table B-1. The staff also finds that the abilities of on-site personnel, in performing in-plant surveys until the arrival of the 30-60-minute responder, will be augmented by the use of the aforementioned technology. Given this consideration, the staff finds that the licensee's Emergency Plan (as modified) will continue to meet the standards of 10 CFR 50.47(b)(2), (9), and (11) and is, therefore, acceptable.

#### 4.0 CONCLUSION

The NRC staff has determined that the licensee's Emergency Plan, as modified by its application dated February 20, 2003, as supplemented by letter dated July 9, 2003, continues to meet the criteria specified in 10 CFR 50.47(b). Therefore, the Commission concludes, based on the above, 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 activities will be conducted in compliance with the Commission's regulations, and (3) the approval of the proposed Emergency Plan changes will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors: K. Brock

Date: December 1, 2003