



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

January 30, 2014

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

SUBJECT: MILLSTONE POWER STATION, UNIT NO. 2 - ISSUANCE OF AMENDMENT  
RE: REVISE FOOTNOTE IN TECHNICAL SPECIFICATION 3.1.3.7, CONTROL  
ROD DRIVE MECHANISMS (TAC NO. MF1172)

Dear Mr. Heacock:

The Commission has issued the enclosed Amendment No. 317 to Renewed Facility Operating License No. DPR-65 for the Millstone Power Station, Unit No. 2 (MPS2), in response to your application dated March 21, 2013.

The amendment revises Technical Specification (TS) 3.1.3.7 - Control Rod Drive Mechanisms to provide consistency with the operability requirements of TS Table 3.3-1, Reactor Protective Instrumentation, when control rod drive mechanisms are energized and capable of withdrawal for MPS2.

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

Sincerely,

A handwritten signature in black ink, reading "James Kim", is positioned above the typed name.

James Kim, Project Manager  
Plant Licensing Branch 1-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-336

Enclosures:

1. Amendment No. 317 to DPR-65
2. Safety Evaluation

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

DOMINION NUCLEAR CONNECTICUT, INC.

DOCKET NO. 50-336

MILLSTONE POWER STATION, UNIT NO. 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 317  
Renewed License No. DPR-65

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by the applicant dated March 21, 2013, 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.

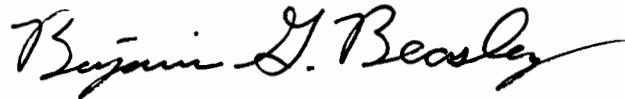
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. DPR-65 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 317, are hereby incorporated in the renewed 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



Benjamin G. Beasley, Chief  
Plant Licensing Branch I-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment: Changes to the License  
and Technical Specifications

Date of Issuance: January 30, 2014

ATTACHMENT TO LICENSE AMENDMENT NO. 317  
RENEWED FACILITY OPERATING LICENSE NO. DPR-65  
DOCKET NO. 50-336

Replace the following page of the Renewed Facility Operating License with the attached revised page. The revised page is identified by amendment number and contains marginal lines indicating the areas of change.

Remove  
3

Insert  
3

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

Remove  
3/4 1-31

Insert  
3/4 1-31

Connecticut, in accordance with the procedures and limitations set forth in this renewed operating license;

- (2) Pursuant to the Act and 10 CFR Part 70, to receive, possess and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;
- (3) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
- (4) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form for sample analysis or instrument and equipment calibration or associated with radioactive apparatus or components;
- (5) Pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

C. This renewed operating license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter 1: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Section 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; and is subject to all applicable provisions of the Act and the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

The licensee is authorized to operate the facility at steady-state reactor core power levels not in excess of 2700 megawatts thermal.

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 317, are hereby incorporated in the renewed license. The licensee shall operate the facility in accordance with the Technical Specifications.

Renewed License No. DPR-65  
Amendment No.317

## REACTIVITY CONTROL SYSTEMS

### CONTROL ROD DRIVE MECHANISMS

#### LIMITING CONDITION FOR OPERATION

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3.1.3.7 The control rod drive mechanisms shall be de-energized.

APPLICABILITY: MODES 3\*, 4, 5 and 6, whenever the RCS boron concentration is less than refueling concentration of Specification 3.9.1.

ACTION:

With any of the control rod drive mechanisms energized, restore the mechanisms to their de-energized state within 2 hours or immediately open the reactor trip circuit breakers.

#### SURVEILLANCE REQUIREMENTS

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4.1.3.7 The control rod drive mechanisms shall be verified to be de-energized at least once per 24 hours.

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\* The control rod drive mechanisms may be energized for MODE 3 as long as 4 reactor coolant pumps are OPERATING, the reactor coolant system temperature is greater than 500° F, the pressurizer pressure is greater than 2000 psia and the requirements of Limiting Condition for Operation for Specification 3.3.1.1, "Reactor Protective Instrumentation," are met.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 317

TO RENEWED 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 March 21, 2013 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13085A081), Dominion Nuclear Connecticut, Inc., (the licensee) requested changes to the Technical Specifications (TSs) for Millstone Power Station Unit 2 (MPS2).

The proposed changes would revise TS 3.1.3.7 - Control Rod Drive Mechanisms (CDRMs) to provide consistency with the operability requirements of TS Table 3.3-1, Reactor Protective Instrumentation, when control rod drive mechanisms are energized and capable of withdrawal.

2.0 REGULATORY EVALUATION

In Title 10 of the Code of Federal Regulations (10 CFR) Section 50.36, the Commission established its regulatory requirements related to the content of TSs. Pursuant to 10 CFR 50.36, TSs are required to include items in the following five specific categories related to station operation: (1) safety limits, limiting safety system settings, and limiting control settings; (2) Limiting Conditions for Operation (LCOs); (3) Surveillance Requirements (SRs); (4) design features; and (5) administrative controls.

On July 22, 1993 (58 FR 39132), the Commission published a "Final Policy Statement on Technical Specifications Improvements for Nuclear Power Reactors" (Final Policy Statement) which discussed the criteria to determine which items are required to be included in the TSs as LCOs. The criteria were subsequently incorporated into the regulations by an amendment to 10 CFR 50.36 (60 FR 36953). Specifically, 10 CFR 50.36(c)(2)(ii) requires that a TS LCO be established for each item meeting one or more of the following criteria:

Criterion 1: Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary.

- Criterion 2: A process variable, design feature, or operating restriction that is an initial condition of a design basis accident or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.
- Criterion 3: A structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a design basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.
- Criterion 4: A structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety.

In general, there are two classes of changes to TSs: (1) changes needed to reflect modifications to the design basis (TSs are derived from the design basis), and (2) changes to take advantage of the evolution in policy and guidance as to the required content and preferred format of TSs over time. In determining the acceptability of such changes, the NRC staff interprets the requirements of 10 CFR 50.36, using as a model the accumulation of generically approved guidance in the improved Standard Technical Specifications (STSs). For this review, the staff used NUREG-1432, Revision 4, "Standard Technical Specifications, Combustion Engineering Plants." The STSs reflect the general guidance and LCO scoping criteria provided by the Commission's Final Policy Statement.

Within this general framework, licensees may remove material from their TSs if the material is not required to be in the TSs based on the staff's interpretation of 10 CFR 50.36, including judgments about the level of detail required in the TSs. As discussed in the Final Policy Statement, the NRC staff reviews, on a case-by-case basis, whether enforceable regulatory controls are needed for the relocated material. Licensees may revise the remaining TSs to adopt current improved STS format and content provided that plant-specific review supports a finding of continued adequate safety because: (1) the change is editorial, administrative, or provides clarification (i.e., no requirements are materially altered); (2) the change is more restrictive than the licensee's current requirement; or (3) the change is less restrictive than the licensee's current requirement, but nonetheless still affords adequate assurance of safety when judged against current regulatory standards.

### 3.0 TECHNICAL EVALUATION

The Control Rod Drive Mechanism (CRDM) requirement of TS 3.1.3.7, Control Rod Drive Mechanisms, is provided to assure that the consequences of an uncontrolled control element assembly (CEA) withdrawal from a subcritical transient will stay within acceptable levels. This TS assures that reactor coolant system (RCS) conditions exist which are consistent with the plant safety analysis prior to energizing the CRDMs. The accident is precluded when CRDMs are de-energized and cannot withdraw a CEA. The CRDMs may be energized with the boron concentration greater than or equal to the refueling concentration since, under these conditions, adequate shutdown margin is maintained even if the CEAs are fully withdrawn from the core.

The TS 3.1.3.7, Control Rod Drive Mechanisms, requires that CRDMs are de-energized in Modes 3\*, 4, 5 and 6, whenever the RCS boron concentration is less than the refueling



concentration specified in TS 3.9.1, Boron Concentrations. As described in the footnote (denoted by an asterisk in Mode 3) in TS 3.1.3.7, CRDMs may be energized in Mode 3 as long as the following conditions exist: (1) four reactor coolant pumps operating, (2) RCS temperature >500 F, (3) pressurizer pressure > 2000 psia, and (4) high power trip is operable.

The TS Table 3.3-1, Reactor Protective Instrumentation, identifies, as a minimum, the reactor protective instrumentation channels and bypasses that must be operable under specific modes and conditions. For the condition where the protective system trip breakers are in the closed position and the CEA drive system is capable of CEA withdrawal (i.e., CRDMs energized), TS Table 3.3-1 requires the high power trip (Functional Unit 2), Reactor Protection System (RPS) logic matrices (Functional Unit 13), RPS logic matrix relays (Functional Unit 14) and reactor trip breakers (Functional Unit 15) to be operable.

Currently, the footnote in TS 3.1.3.7, Control Rod Drive Mechanisms, only requires the High Power Level Trip to be operable when CRDMs are energized and capable of CEA withdrawal. It does not include the additional operability requirements (i.e., RPS logic matrices, RPS logic matrix relays, and reactor trip breakers) that were added to TS Table 3.3-1, Reactor Protective Instrumentation under License Amendment 282 on September 25, 2003 (ADAMS Accession No. ML032270057). The proposed change would eliminate the inconsistency between TS 3.1.3.7 and TS Table 3.3-1 by revising the footnote in TS 3.1.3.7. Specifically, the footnote would be revised to delete "the high power trip is OPERABLE" and replace it with "the requirements of Limiting Condition for Operation for Specification 3.3.1.1, Reactor Protective Instrumentation, are met."

The staff has determined that the current MPS2 TSs do not provide operability requirements for RPS logic matrices, RPS logic matrix relays, and reactor trip breakers in TS 3.1.3.7. The proposed change would provide these operability requirements. The staff finds that the proposed change is more restrictive than the current TS requirements and that the additional restrictions on plant operation would enhance safety. Therefore, the proposed change is acceptable.

#### 4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Connecticut State official was notified of the proposed issuance of the amendment. The State official had no comments.

#### 5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment involves no significant increase in amounts, and no significant change in the types of any effluents that may be released offsite, and that there is no significant increase 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 as published in the *Federal Register* on June 11, 2013(78 FR 35061). Accordingly, the amendment meets the eligibility criteria for categorical exclusion 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.

## 6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed 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) there is reasonable assurance that such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: A. Guzzetta

Date: January 30, 2014

January 30, 2014

Mr. David A. Heacock  
President and Chief Nuclear Officer  
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Sincerely,

/ra/

James Kim, Project Manager  
Plant Licensing Branch 1-1  
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Docket No. 50-336

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\*See memo dated January 9, 2014

OFFICE	LPL1-1/PM	LPL1-1/LA	SRXB/BC	STSB/BC	OGC/NLO w/comments	LPL1-1/BC	LPL1-1/PM
NAME	JKim	KGoldstein	CJackson*	RElliott	JWachutka	BBeasley	JKim
DATE	1/16/14	1/16/14	1/9/14	1/23/14	1/27/14	1/29/14	1/30/14

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