September 25, 2003

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

SUBJECT: MILLSTONE POWER STATION, UNIT NO. 2 - ISSUANCE OF AMENDMENT RE: LIMITING SAFETY SYSTEM SETTINGS AND INSTRUMENTATION (TAC NO. MB5008)

Dear Mr. Christian:

The Commission has issued the enclosed Amendment No. 282 to Facility Operating License No. DPR-65 for the Millstone Power Station, Unit No. 2, in response to your application dated May 7, 2002, as supplemented on January 16, May 27, July 1, and August 21, 2003.

The amendment revises Technical Specifications (TSs) 2.2, “Limiting Safety System Settings” and 3/4.3, “Instrumentation” to more accurately reflect the existing plant design for the Reactor Protection System, the Engineered Safety Features Actuation System, and the Radiation Monitoring System instrumentation and to provide consistency within the associated TS Tables.

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/

Richard B. Ennis, Senior Project Manager, Section 2
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-336

Enclosures: 1. Amendment No. 282 to DPR-65
2. Safety Evaluation

cc w/encls: See next page

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Millstone Power Station
Unit 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. 282
License No. DPR-65

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

   A. The application for amendment by the applicant dated May 7, 2002, as supplemented on January 16, May 27, July 1, and August 21, 2003, 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. 282, 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 90 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

James W. Clifford, Chief, Section 2
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: September 25, 2003

ATTACHMENT TO LICENSE AMENDMENT NO. 282

FACILITY OPERATING LICENSE NO. DPR-65

DOCKET NO. 50-336

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
V	V
2-4	2-4
2-5	2-5
3/4 3-3	3/4 3-3
3/4 3-5	3/4 3-5
3/4 3-6	3/4 3-6
3/4 3-7	3/4 3-7
3/4 3-8	3/4 3-8
3/4 3-9	3/4 3-9
3/4 3-10	3/4 3-10
3/4 3-11	3/4 3-11
3/4 3-12	3/4 3-12
3/4 3-13	3/4 3-13
3/4 3-14	3/4 3-14
3/4 3-15	3/4 3-15
3/4 3-16	3/4 3-16
3/4 3-17	3/4 3-17
3/4 3-18	3/4 3-18
3/4 3-19	3/4 3-19
3/4 3-20	3/4 3-20
3/4 3-21	3/4 3-21
3/4 3-22	3/4 3-22
3/4 3-22a	- - -
3/4 3-23	3/4 3-23
3/4 3-24	3/4 3-24
3/4 3-25	3/4 3-25
3/4 3-25a	- - -
3/4 3-26	3/4 3-26
3/4 3-27	3/4 3-27
3/4 3-28	3/4 3-28
3/4 3-29	3/4 3-29
3/4 3-30	3/4 3-30
3/4 3-31	3/4 3-31
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3/4 3-34	3/4 3-34
3/4 3-35	3/4 3-35

Remove	Insert
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3/4 3-45a	- - -
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3/4 3-60	- - -
3/4 3-61	- - -
3/4 3-62	- - -
B 2-7	B2-7
B 2-8	- - -
B 3/4 3-1	B 3/4 3-1
B 3/4 3-1a	B 3/4 3-1a
B 3/4 3-2a	B 3/4 3-2a

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 282

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 application May 7, 2002, as supplemented on January 16, May 27, July 1, and August 21, 2003, Dominion Nuclear Connecticut, Inc. (DNC or the licensee), requested changes to the Millstone Power Station, Unit No. 2 (MP2) Technical Specifications (TSs). The supplements dated January 16, May 27, July 1, and August 21, 2003, 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 June 25, 2002 (67 FR 42819).

The proposed amendment would change TSs 2.2, "Limiting Safety System Settings" and 3/4.3, "Instrumentation" to more accurately reflect the existing plant design for the Reactor Protection System (RPS), the Engineered Safety Features Actuation System (ESFAS), and the Radiation Monitoring System instrumentation, and to provide consistency within the associated TS Tables. Specifically, the proposed amendment would make the following changes:

- TS 2.2.1, Table 2.2-1, "Reactor Protective Instrumentation Trip Setpoint Limits," TS 3.3.1.1, Table 3.3-1, "Reactor Protective Instrumentation," and TS 3.3.1.1, Table 4.3-1, "Reactor Protective Instrumentation Surveillance Requirements" would be revised to delete the Reactor Coolant Pump (RCP) Speed - low functional unit, also known as the Underspeed - RCP functional unit.

- TS 2.2.1, Table 2.2-1, would be revised to add the following functional units: Wide Range Logarithmic Neutron Flux Monitor - Shutdown, RPS Logic Matrices, RPS Logic Matrix Relays, and Reactor Trip Breakers.

- TS 3.3.1.1, Table 3.3-1, would be revised to add the following functional units: RPS Logic Matrices, RPS Logic Matrix Relays, and Reactor Trip Breakers. In addition, new action statements would be added to Table 3.3-1 associated with the operability requirements for the added functional units.

- TS 3.3.1.1, Table 4.3-1, would be revised to replace the RPS Logic functional unit with the RPS Logic Matrices and RPS Logic Matrix Relays functional units.

- TS 3.3.1.1, Table 4.3-1, would be revised to change the mode applicability for performing surveillance testing for the Wide Range Logarithmic Neutron Flux Monitor.

- TS 3.3.1.1, Table 4.3-1, would rename the "Wide Range Logarithmic Neutron Flux Monitor" functional unit as the "Wide Range Logarithmic Neutron Flux Monitor - Shutdown" functional unit.

- TS 3.3.2.1, Table 3.3-3, "Engineered Safety Feature Actuation System Instrumentation" and TS 3.3.2.1, Table 3.3-4, "Engineered Safety Feature Actuation System Instrumentation Trip Values" would be revised to add the Automatic Actuation Logic requirements for the Safety Injection, Containment Spray, Containment Isolation, Main Steam Isolation, Enclosure Building Filtration, Containment Sump Recirculation, and Auxiliary Feedwater functional units. In addition, a new action statement would be added to Table 3.3-3 associated with the operability requirements for the Automatic Actuation Logic.

- TS 3.3.2.1, Table 3.3-3, would be revised to change the action statement for the manual actuation function associated with the Auxiliary Feedwater functional unit.

- TS 3.3.3.1, "Monitoring Instrumentation - Radiation Monitoring" would be revised to add a new Surveillance Requirement (SR) 4.3.3.1.3 which would verify the response time for the control room isolation function.

- TS 3.3.3.1, Table 3.3-6, "Radiation Monitoring Instrumentation" and TS 3.3.3.1, Table 4.3-3, "Radiation Monitoring Instrumentation Surveillance Requirements" would be revised to reflect that the Noble Gas Effluent Monitor (high range) (Unit 2 stack) monitor is a Process Monitor rather than an Area Monitor.

- TS 3.3.3.5, "Monitoring Instrumentation - Remote Shutdown Instrumentation" would be revised such that the action statement would not be entered unless the minimum channels of remote shutdown instrumentation that are required to be operable, as defined by this specification, are not maintained.

- Other editorial changes (e.g., TS Index, page renumbering) and changes to the TS Bases would be made to reflect the changes discussed above.

2.0 REGULATORY EVALUATION

In Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.36, the U.S. Nuclear Regulatory Commission (NRC or 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: (1) safety limits, limiting safety system settings, and limiting control settings; (2) limiting conditions for operation (LCOs); (3) SRs; (4) design features; and (5) administrative controls. The regulation does not specify the particular requirements to be included in a plant's TSs.

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 [DBA] 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 [SSC] 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 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 2, "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 (e.g., 10 CFR 50.59). 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.

The construction permit for MP2 was issued by the Atomic Energy Commission (AEC) on December 11, 1970. The plant was designed and constructed based on the proposed General Design Criteria (GDC) published by the AEC in the Federal Register on July 11, 1967 (32 FR 10213). On February 20, 1971, the final rule that added Appendix A to 10 CFR Part 50, "General Design Criteria for Nuclear Power Plants," was published by the AEC in the Federal

Register (36 FR 3255). As discussed in Appendix 1A of the MP2 Final Safety Analysis Report (FSAR), since February 20, 1971, the applicants/licensees for MP2 have attempted to comply with the intent of the newer GDC, to the extent possible, recognizing previous design commitments. The extent to which this has been possible is reflected in the discussions of the 1971 GDC described in Appendix 1A of the FSAR, and in specific sections of the FSAR as applicable.

As discussed in FSAR Section 7.6.4 and Appendix 1A of the FSAR, as required by GDC 19, MP2 includes equipment at appropriate locations outside the control room with a design capability for prompt hot shutdown of the reactor, including the necessary instrumentation and controls to maintain the unit in a safe condition during hot shutdown. The GDC 19 requirements are met, in part, by the remote shutdown monitoring instrumentation listed in TS 3.3.3.5, Table 3.3-9.

3.0 TECHNICAL EVALUATION

The staff has reviewed the licensee's justification for the proposed license amendment as described in licensee's application May 7, 2002, as supplemented on January 16, May 27, July 1, and August 21, 2003. The staff's detailed evaluation is provided in Safety Evaluation (SE) Sections 3.1 through 3.5.

3.1 Deletion of RCP Underspeed Trip Function from TS 2.2.1, Table 2.2-1; TS 3.3.1.1, Table 3.3-1; and TS 3.3.1.1, Table 4.3-1

The licensee has proposed to revise TS 2.2.1, Table 2.2-1; TS 3.3.1.1, Table 3.3-1; and TS 3.3.1.1, Table 4.3-1, to delete the RCP Speed - low functional unit, also known as the Underspeed - RCP functional unit. The licensee's application stated that the proposed deletions are to reflect the current assumptions of the MP2 accident analysis in that the underspeed trip function is not credited with performing any safety-related function.

In a Request for Additional Information (RAI) dated November 8, 2002, the NRC staff raised the following issues regarding the proposed changes:

> The proposed changes would delete the current TS requirements associated with the Reactor Coolant Pump (RCP) underspeed trip. Although the underspeed trip is not credited in the accident analyses (reference FSAR Section 14.3.1.6), FSAR Section 7.2.3.3.1 states that the trip initiation ensures rapid protection of the core against Departure from Nucleate Boiling (DNB) when there is a loss of two or more RCPs. As indicated by a letter to the NRC from the then-licensee (Northeast Utilities) dated November 8, 1978, an NRC meeting summary dated January 3, 1979 (for a meeting held on November 21, 1978), MP2 Amendment No. 52 dated May 12, 1979, and Licensee Event Report 99-006-00 dated March 30, 1999, the addition of the RCP underspeed TS trip function was part of the changes deemed necessary to justify an increase in the MP2 licensed maximum power level from 2560 MWt to 2700 MWt.
>
> Since the addition of the TSs associated with the RCP underspeed trip (in Amendment No. 52) was part of the basis for the current licensed maximum power level, provide justification for deleting the current TSs with respect to the requirements of 10 CFR 50.36(b) which states:

> "Each license authorizing operation of a production or utilization facility of a type described in §50.21 or §50.22 will include technical specifications. The technical specifications will be derived from the analyses and evaluation included in the safety analysis report, and amendments thereto, submitted pursuant to §50.34. The Commission may include such additional technical specifications as the Commission finds appropriate." (*emphasis added)*
>
> The justification should include discussion of why safe operation of the facility will not be adversely impacted and address how the TSs that are retained will continue to provide appropriate limits and remedial measures sufficient to ensure adequate protection is maintained.

The licensee's supplement, dated January 16, 2002, provided the following response to the RAI:

> The RCP underspeed trip was added to Millstone Unit No. 2 to support Cycle 3 operation with an increased licensed maximum power level from 2560 to 2700 MWt. As was described in the safety evaluation for License Amendment Number 52, the RCP underspeed trip was necessary to provide protection for the Four RCP Loss of Forced Reactor Coolant Flow Event. For Cycle 3 through Cycle 9 operation, the RCP underspeed trip was credited to provide core protection for the Four RCP Loss of Forced Reactor Coolant Flow Event. For Cycle 10 operation, Millstone Unit No. 2 first proposed the use of fuel designed and fabricated by Advanced Nuclear Fuels (ANF) (currently Framatome ANP). As part of the change in fuel vendors, changes were required to the facility accident analyses. On October 28, 1988, Northeast Utilities submitted the revised Cycle 10 Analysis of Chapter 15 Events (Chapter 14 of the Millstone Unit No. 2 FSAR). On March 20, 1989, the NRC issued Amendment No.139 to the Millstone Unit No. 2 operating license which authorized the use of fuel designed and fabricated by Advanced Nuclear Fuels Corporation. As stated in Section 2.5.5 of the NRC's Safety Evaluation for this amendment, the NRC staff accepted the ANF analysis for the Forced Reactor Coolant Flow Event, which no longer credited the RCP underspeed trip. The revised Four RCP Loss of Forced Reactor Coolant Flow Event analyses credited the Reactor Coolant Flow Low Trip for accident mitigation. For Cycle 10 operation through the current operating cycle, the RCP underspeed trip is not credited to mitigate any FSAR Chapter 14 analyzed event.
>
> Licensee Event Report 99-006-00 identified that the RCP underspeed trip provides core protection to prevent DNB should a four RCP loss of flow occur. Licensee Event Report 99-006-00 also states that no credit is taken for the RCP underspeed trip for the FSAR Section 14.3 Loss of Forced Reactor Coolant Flow Event, or any other analyzed accident.
>
> Consistent with the requirements of 10 CFR 50.36, DNC has proposed to eliminate the RCP Underspeed Trip from the Millstone Unit No. 2 Technical Specifications since this functional unit is not credited in the facility accident analysis. As noted in Item 5 of Attachment 1 to our May 7, 2002, submittal, DNC has stated its intent to retain the design features associated with the RCP pump underspeed trip functional unit, including administrative control and verification of its functionality. DNC considers that retention

of this functional unit within the facility technical specifications as not having an impact on safe operation of the facility. As noted in FSAR Section 14.3.1.7, the reactor scram on RCS low flow provides sufficient protection such that the DNB Ratio limits are not exceeded.

FSAR Section 7.2.3.3.1 states that Reactor Coolant Pump Underspeed trip initiation ensures rapid protection of the core against DNB when there is a loss of two or more RCPs. DNC has developed a change to the Millstone Unit No. 2 FSAR which removes the discussion in FSAR Section 7.2.3.3.1 relating to rapid protection of the core against DNB. This change to the facility FSAR will be implemented concurrent with the proposed license amendment discussed herein. Discussion of the Reactor Coolant Pump Underspeed Trip will also be removed from the Millstone Unit No. 2 FSAR Chapter 1, Appendix 1A General Design Criteria 13 and 20 discussions, as well as from the Chapter 14 discussion of the Decrease in Reactor Coolant System Flow transient (Section 14.3.1.3).

In addition, the licensee's supplement dated May 27, 2003, provided the following justification with respect to the four criteria in 10 CFR 50.36(c)(2)(ii):

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.

The RCP underspeed trip function is not installed instrumentation that is used to detect, and indicate in the control room, a significant degradation of the reactor coolant pressure boundary. Therefore, the RCP underspeed trip function does not satisfy Criterion 1.

Criterion 2

A process variable, design feature, or operating restriction that is an initial condition of a DBA or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

The RCP underspeed trip function is not 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. Therefore, the RCP underspeed trip function does not satisfy Criterion 2.

Criterion 3

A System, Structure, or Component (SSC) that is part of the primary success path and which functions or actuates to mitigate a DBA or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

The facility accident analyses do not take credit for the operability of the RCP underspeed trip. Therefore, this feature does not constitute a structure, system, or component that is part of the primary success path 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. The RCP underspeed trip function does not satisfy Criterion 3.

Criterion 4

A[n] SSC which operating experience or probabilistic risk assessment has shown to be significant to public health and safety.

The RCP underspeed trip function has not been shown to be risk significant to public health and safety by either operating experience or probabilistic safety assessment. The RCP underspeed trip is not required to function to ensure radiological dose criteria for the EAB [exclusion area boundary], LPZ [low population zone], or control room is met. The RCP underspeed trip function no longer constitutes a structure, system, or component, which requires risk review/unavailability monitoring. The RCP underspeed trip function does not satisfy Criterion 4.

The NRC staff has reviewed the licensee's submittals and the MP2 FSAR, and finds that the proposed changes are acceptable based on the following considerations:

1) the RCP underspeed trip is not currently credited to mitigate any FSAR Chapter 14 analyzed event;

2) the RCS low flow trip, which will remain as a RPS trip function in the TSs, would provide sufficient protection such that the DNB ratio limits would not be exceeded for the Loss of Forced Reactor Coolant System Flow event;

3) the RCP underspeed trip function is not required to be in the TSs based on the four criteria in 10 CFR 50.36(c)(2)(ii);

4) the FSAR will be revised to reflect the current design basis as it relates to the RCP underspeed trip function; and

5) the provisions of 10 CFR 50.59 provide suitable alternative regulatory controls to govern any potential future changes to the MP2 design basis as it relates to the RCP underspeed trip function.

3.2 Less Restrictive TS Changes

3.2.1 Change to Item 9.a in TS 3.3.2.1, Table 3.3-3, Auxiliary Feedwater Functional Unit Action Statement

TS 3.3.2.1, Table 3.3-3, would be revised to change the action statement for the manual actuation function associated with the Auxiliary Feedwater functional unit (Table 3.3-3, Item 9.a). The current action statement (Action 1) for Item 9.a requires that the plant be brought to Cold Shutdown (Mode 5) within 36 hours if the manual actuation function (Item 9.a) is inoperable and cannot be restored to service within the allowed outage time of 48 hours. For Item 9.a, DNC has proposed to replace Action 1 with a new action, Action 6, which is identical to the existing action except that the plant would only be required to be brought to Hot Shutdown (Mode 4) within 12 hours.

As shown in Table 3.3-3, the Auxiliary Feedwater manual actuation function is only required to be operable in Modes 1, 2, and 3. Since the proposed Action 6 would place the plant in a mode where the LCO no longer applies, the proposed change from Mode 5 to Mode 4 is acceptable. In addition, the proposed completion time of 12 hours is acceptable since it provides a reasonable amount of time to reach the required plant conditions in an orderly manner without challenging plant systems. Based on these two considerations, the staff concludes that the proposed change would not have any adverse effects on safe operation of the plant and, therefore, the proposed change is acceptable.

3.2.2 Change to TS 3.3.3.5, Remote Shutdown Instrumentation Action Statement

TS 3.3.3.5 would be revised such that the action statement would not be entered unless the minimum channels of remote shutdown instrumentation that are required to be operable, as defined in Table 3.3-9 of this specification, are not maintained. The current action statement reads as follows:

> With a remote shutdown monitoring channel inoperable, either:
>
> a. Immediately demonstrate the OPERABILITY of a redundant channel, or
>
> b. Restore the inoperable channel to OPERABLE status within 7 days, or
>
> c. Be in HOT SHUTDOWN within the next 24 hours.

The licensee has proposed to revise the action statement to read as follows:

> With the number of OPERABLE remote shutdown monitoring instrumentation channels less than required by Table 3.3-9, either:
>
> a. Restore the inoperable channel to OPERABLE status within 7 days, or
>
> b. Be in HOT SHUTDOWN within the next 24 hours.

As described in the Bases for TS 3.3.3.5, the operability of the remote shutdown instrumentation ensures that sufficient capability is available to permit shutdown and maintenance of HOT SHUTDOWN (Mode 4) of the facility from locations outside of the control room. This capability is required in the event control room habitability is lost, and is consistent with GDC 19.

Currently, TS 3.3.3.5 would require entry into the LCO action statement whenever a single channel of any of the remote shutdown instrumentation functions was inoperable. For example, as shown on FSAR Figure 7.6-10, the Hot Shutdown Panel contains two channels of indication for the remote shutdown pressurizer level instrumentation function. If one of the two channels was declared inoperable, the LCO would require immediate demonstration that the redundant channel was operable (i.e., Action a) and the inoperable channel would need to be restored to operable status within seven days (i.e., Action b). For the proposed TS 3.3.5, since Table 3.3-9 requires the pressurizer level instrumentation function to have a minimum of one channel operable, and the proposed action statement requires entry into the LCO whenever the number of operable remote shutdown monitoring instrumentation channels is less than required by

Table 3.3-9, both channels of pressurizer level indication would need to be inoperable before the LCO would be entered. The proposed TS would no longer require immediate demonstration that the redundant channel was operable based on the proposed deletion of the current Action a. The proposed TS would require one of the two channels be restored to operable status within seven days (i.e., proposed Action a) consistent with the current requirements.

The proposed change is less restrictive than the current TS requirements and would allow the plant to be without any channels of an individual remote shutdown instrumentation function (e.g., pressurizer level) for up to seven days. The staff finds that the proposed change is acceptable given the low probability of an event that would require evacuation of the control room during the seven day allowed outage time. The staff notes that the proposed change is more conservative than NUREG-1432, TS 3.3.12 (analog), in that the STS allows one or more required remote shutdown instrumentation functions to be inoperable for up to 30 days.

3.3 More Restrictive TS Changes

3.3.1 Addition of Items 13, 14, and 15 to TS 3.3.1.1, Table 3.3-1, RPS Functional Units

TS 3.3.1.1, Table 3.3-1, would be revised to add the following functional units: RPS Logic Matrices, RPS Logic Matrix Relays, and Reactor Trip Breakers. The functional units would be added as Table 3.3-1, Items 13, 14, and 15, respectively. In addition, new action statements would be added to Table 3.3-1 associated with the operability requirements for the added functional units. TS 3.3.1.1, Table 3.3-1 would be revised to add the three functional units as follows:

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
13. Reactor Protection System Logic Matrices	6	1	6	1, 2, and *	5
14. Reactor Protection System Logic Matrix Relays	4/Matrix	3/Matrix	4/Matrix	1, 2, and *	6
15. Reactor Trip Breakers	4	3	4	1, 2, and *	6

Proposed new Action 5 would state: “With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours.”

Proposed new Action 6 would state, “With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement, be in at least HOT STANDBY within 6 hours.”

The current MP2 TSs do not provide operability requirements for the functional units that are proposed to be added to Table 3.3-1. The proposed changes would provide these operability requirements and more accurately reflect the existing plant design for the RPS, thereby focusing the facility TSs on those key functional units which determine RPS operability. The staff finds that the proposed changes are more restrictive than the current TS requirements and

that these additional restrictions on plant operation would enhance safety. Therefore, the proposed changes are acceptable.

3.3.2 Change to Item 13 in TS 3.3.1.1, Table 4.3-1, RPS Functional Units

TS 3.3.1.1, Table 4.3-1, Item 13, the RPS Logic functional unit, would be revised to provide additional detail to more accurately reflect the key functional units which ensure operability of the RPS Logic. Item 13 would be replaced with two new functional units; Item 13, the RPS Logic Matrices functional unit, and Item 14, the RPS Logic Matrix Relays functional unit. For both functional units, the channel check would be marked as "N.A.," the channel calibration as "N.A.," the channel functional test as "M and S/U(1)" and the applicable Modes as "1, 2 and *." These table entries are consistent with the existing SRs for the RPS Logic except that the mode applicability has been expanded to require the applicable surveillance tests be performed whenever the reactor trip breakers are closed (i.e., Mode “*”). This change would make the Mode applicability of the breaker actuation logic consistent with the Mode applicability of the reactor trip breakers actuated by the logic.

The current MP2 TSs do not provide SRs for the functional units that are proposed to be added to Table 4.3-1. The proposed changes would provide these SRs and more accurately reflect the existing plant design for the RPS, thereby focusing the facility TSs on those key functional units which determine RPS operability. The staff finds that the proposed changes are more restrictive than the current TS requirements and that these additional restrictions on plant operation would enhance safety. Therefore, the proposed changes are acceptable.

3.3.3 Addition of Items 1.d, 2.c, 3.e, 4.d, 5.e, 6.c, and 9.c to TS 3.3.2.1, Table 3.3-3, ESFAS Automatic Actuation Logic

TS 3.3.2.1, Table 3.3-3, would be revised to add the Automatic Actuation Logic requirements for the Safety Injection, Containment Spray, Containment Isolation, Main Steam Isolation, Enclosure Building Filtration, Containment Sump Recirculation, and Auxiliary Feedwater functional units (Table 3.3-3, Items 1.d, 2.c, 3.e, 4.d, 5.e, 6.c, and 9.c, respectively). In addition, a new action statement would be added to Table 3.3-3 associated with the operability requirements for the Automatic Actuation Logic.

The TS 3.3.2.1, Table 3.3-3 entries for Items 1.d, 2.c, 3.e, 5.e, and 6.c would contain the following information:

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
Automatic Actuation Logic	2	1	2	1, 2, 3	5

The TS 3.3.2.1, Table 3.3-3 entries for Items 4.d and 9.c would contain the following information:

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
Automatic Actuation Logic	2/Steam Generator	1/Steam Generator	2/Steam Generator	1, 2, 3	5

Proposed new Action 5 would state: “With the number of OPERABLE channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours and in at least HOT SHUTDOWN within the following 6 hours.”

The current MP2 TSs do not provide operability requirements for the functional units that are proposed to be added to Table 3.3-3. The proposed changes would provide these operability requirements and more accurately reflect the existing plant design for the ESFAS, thereby focusing the facility TSs on those key functional units which determine ESFAS operability. The staff finds that the proposed changes are more restrictive than the current TS requirements and that these additional restrictions on plant operation would enhance safety. Therefore, the proposed changes are acceptable.

3.3.4 Addition of SR 4.3.3.1.3, Control Room Isolation Function

TS 3.3.3.1 would be revised to add new SR 4.3.3.1.3 which would verify the response time for the control room isolation function (Table 3.3-6, Item 1.b). The new SR would state "Verify the response time of the control room isolation channel at least once per 18 months.”

As discussed in the licensee's application dated May 7, 2002, and in the supplement dated May 27, 2003, the accident analyses for a MP2 Steam Generator Tube Rupture Event and for a Millstone Unit No. 3 loss-of-coolant accident credit the control room inlet duct radiation monitors with closure of the MP2 control room isolation dampers upon receipt of a high radiation signal in order to maintain control room radiological dose within regulatory limits. The response time of the control room isolation function is currently verified through administrative controls consistent with the requirements in the proposed new SR.

The current MP2 TSs do not provide SRs for verification of the control room isolation function. The proposed change would provide SRs for this function consistent with the assumptions in the MP2 accident analysis. The staff finds that the proposed change is more restrictive than the current TS requirements and that this additional restriction on plant operation would enhance safety. Therefore, the proposed change is acceptable. In addition, the proposed change is consistent with NUREG-1432, TS 3.3.8 (analog), SR 3.3.8.6.

During review of this proposed change, the NRC staff raised a question as to the level of redundancy for the control room isolation function. As currently shown for Item 1.b in TS 3.3.3.1, Table 3.3-6, only one channel of control room isolation is required to be operable in all modes. As discussed in the licensee's submittal dated July 1, 2003, a second channel for this function was added to the MP2 design in response to Three Mile Island Action Plan Item II.D.3.4. However, reference to the second channel was not incorporated into the MP2

TSs. The licensee has generated a Condition Report and has established administrative controls to ensure that both channels are appropriately maintained until a new license amendment request is submitted. As shown in the July 1, 2003, submittal, DNC has committed to submit a license amendment request to reflect two channels of control room isolation actuation instrumentation by July 31, 2004 (Commitment No. B18931-01).

3.4 Editorial TS Changes

3.4.1 Addition of Items 12, 13, 14, and 15 to TS 2.2.1, Table 2.2-1, RPS Functional Units

TS 2.2.1, Table 2.2-1, would be revised to add the following functional units: Wide Range Logarithmic Neutron Flux Monitor - Shutdown, RPS Logic Matrices, RPS Logic Matrix Relays, and Reactor Trip Breakers. The functional units would be added as Table 2.2-1, Items 12, 13, 14, and 15, respectively. The Table 2.2-1 "Trip Setpoint" and "Allowable Value" columns for each of these functional units would be marked as "Not Applicable" since these items do not have a specific trip setpoint or allowable value, similar to the manual reactor trip functional unit, Table 2.2-1, Item 1.

The proposed changes would more accurately reflect the existing plant design for the RPS and would provide consistency with the proposed changes to TS 3.3.1.1, Tables 3.3-1 and 4.3-1. Since these functional units do not have trip setpoints or allowable values, the staff finds that these changes would have no impact on safe operation of the plant, and that the proposed changes are editorial in nature. Therefore, the proposed changes are acceptable.

3.4.2 Changes to Item 11 in TS 3.3.1.1, Table 4.3-1, Wide Range Logarithmic Neutron Flux Monitor

For Item 11, TS 3.3.1.1, Table 4.3-1 currently requires surveillance testing in Modes "3, 4, 5, and *." The licensee has proposed to change the table to reflect that this testing would only be required in Modes "3, 4, and 5." As shown in the notes for Table 4.3-1, Mode "*" is defined as "With reactor trip breaker closed."

As discussed in the licensee's application, an error was introduced in retyped page 3/4 3-8 when the "Wide Range Logarithmic Neutron Flux Monitor, Startup and Operating - Rate of Change of Power - High" functional unit was deleted in Amendment No. 38 on April 19, 1978. The error was the addition of the "and *" mode applicability to the Wide Range Logarithmic Neutron Flux Monitor Shutdown functional unit in Table 4.3-1. The mode applicability should have been shown as "3, 4, and 5" consistent with the LCO mode applicability for the same functional unit as shown in Table 3.3-1 (Item 11). This problem was discussed in MP2 Licensee Event Report 2000-004-00 dated March 15, 2000. This staff finds that the proposed change is editorial in nature and, therefore, is acceptable.

In addition, the licensee has proposed to revise Table 4.3-1 to rename the "Wide Range Logarithmic Neutron Flux Monitor" functional unit as the "Wide Range Logarithmic Neutron Flux Monitor - Shutdown" functional unit. The staff finds that the proposed change would provide consistency with Table 3.3-1 and is editorial in nature. Therefore, the proposed change is acceptable.

3.4.3 Addition of Items 1.d, 2.c, 3.e, 4.d, 5.e, 6.c, and 9.c to TS 3.3.2.1, Table 3.3-4, ESFAS Automatic Actuation Logic

TS 3.3.2.1, Table 3.3-4, would be revised to add the Automatic Actuation Logic for the Safety Injection, Containment Spray, Containment Isolation, Main Steam Isolation, Enclosure Building Filtration, Containment Sump Recirculation, and Auxiliary Feedwater functional units (Table 3.3-4, Items 1.d, 2.c, 3.e, 4.d, 5.e, 6.c, and 9.c, respectively). The “Trip Setpoint” and “Allowable Value” columns for each item would be marked as “Not Applicable” since the Automatic Action Logic functional units do not have a specific trip setpoint or allowable value.

The proposed changes would more accurately reflect the existing plant design for the ESFAS and would provide consistency with the proposed changes to TS 3.3.2.1, Table 3.3-3. Since these functional units do not have trip setpoints or allowable values, the staff finds that these changes would have no impact on safe operation of the plant, and that the proposed changes are editorial in nature. Therefore, the proposed changes are acceptable.

3.4.4 Changes to Item 1.d in TS 3.3.3.1, Tables 3.3-6 and 4.3.3, Noble Gas Effluent Monitor

TS 3.3.3.1, Table 3.3-6, Item 1.d and TS 3.3.3.1, Table 4.3.3, Item 1.d both currenttly list the “Noble Gas Effluent Monitor (high range) (Unit 2 stack)” monitor as an area radiation monitor. The licensee has proposed to relocate this monitor from Item 1.d to new Item 2.c in each table to reflect that this monitor is actually a process radiation monitor.

The staff finds that the proposed changes are editorial in nature and, therefore, are acceptable.

3.4.5 Other Miscellaneous Changes

The licensee has also proposed changes to the TS Index pages, page renumbering, and other miscellaneous changes to reflect the changes previously discussed in this SE. The staff finds that the proposed changes are editorial in nature and, therefore, are acceptable.

3.5 Technical Evaluation Summary/Conclusion

Based on the considerations discussed in Sections 3.1 through 3.4, the NRC staff concludes that the proposed changes are acceptable.

The licensee has also proposed to revise the TS Bases to address the proposed changes. The NRC staff has no objections to these Bases changes.

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 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 the 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 (67 FR 42819). 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) 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.

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Date: September 25, 2003