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Dominion®

November 8, 2006

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Serial No.	06-841
MPS/WDB	R0
Docket Nos.	50-336
License Nos.	DPR-65

DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 2
LICENSE AMENDMENT REQUEST (LBDCR 06-MP2-036)
INSTRUMENTATION TECHNICAL SPECIFICATION

Pursuant to 10 CFR 50.90, Dominion Nuclear Connecticut, Inc. (DNC) hereby requests to amend Operating License DPR-65 for Millstone Power Station Unit 2 to modify the Technical Specification Action and Surveillance Requirements for instrumentation identified in Technical Specifications 3.3.1 and 3.3.2. The proposed amendment incorporates additional actions to address the inoperability of one or more automatic bypass removal channels, revises the terminology used in the notation of Technical Specification Table 3.3-1 relative to the implementation and automatic removal of certain reactor protection system (RPS) trip bypasses, revises the frequency for performing surveillance of the automatic bypass removal function logic, and incorporates two administrative changes.

The proposed amendment does not involve a Significant Hazards Consideration pursuant to the provisions of 10 CFR 50.92 (see Significant Hazards Consideration in Attachment 1). The Site Operations Review Committee has reviewed and concurred with this determination.

DNC is requesting NRC staff review and approval of the proposed change by December 2007, to be implemented within 90 days of issuance.

In accordance with 10CFR50.91(b), a copy of this license amendment request is being provided to the State of Connecticut.

If you should have any questions regarding this submittal, please contact Mr. Paul R. Willoughby at (804) 273-3572.

Very truly yours,

Gerald T. Bischof
Vice President – Nuclear Engineering

Attachments:

1. Evaluation of Proposed License Amendment
2. Marked-Up Pages
3. Re-typed Pages
4. Bases Pages

Commitments made in this letter: None

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COMMONWEALTH OF VIRGINIA)
)
COUNTY OF HENRICO)

The foregoing document was acknowledged before me, in and for the County and Commonwealth aforesaid, today by Gerald T. Bischof, who is Vice President – Nuclear Engineering, of Dominion Nuclear Connecticut, Inc. He has affirmed before me that he is duly authorized to execute and file the foregoing document in behalf of that Company, and that the statements in the document are true to the best of his knowledge and belief.

Acknowledged before me this 8th day of November, 2006.

My Commission Expires: August 31, 2008.

Margaret B. Bennett
Notary Public

(SEAL)

ATTACHMENT 1

LICENSE AMENDMENT REQUEST (LBDCR 06-MP2-036)
INSTRUMENTATION TECHNICAL SPECIFICATION

EVALUATION OF PROPOSED LICENSE AMENDMENT

DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 2

Evaluation of Proposed License Amendment

1.0 DESCRIPTION

Pursuant to 10 CFR 50.90, Dominion Nuclear Connecticut, Inc. (DNC) hereby requests to amend Operating License DPR-65 for Millstone Power Station Unit 2 (MPS2) to modify the Technical Specification (TS) Action and Surveillance Requirements (SR) for instrumentation identified in TSs 3.3.1 and 3.3.2. The proposed amendment adds actions to address the inoperability of one or more automatic bypass removal channels, revises the terminology used in the notation of Technical Specification Tables 2.2-1 and 3.3-1 relative to the implementation and automatic removal of certain Reactor Protection System (RPS) trip bypasses, and revises the frequency for performing surveillance of the automatic bypass removal function logic, and incorporates two administrative changes.

This change is being requested to address industry operating experience and plant specific experience. Actions are being proposed to address the inoperability of one or more automatic bypass removal channels consistent with the similar actions specified in NUREG 1432, Rev 3.1, 'Standard Technical Specifications Combustion Engineering Plants.' Also, the proposed amendment revises the operative parameter presently specified for the trip bypasses associated with Reactor Coolant Flow – Low and Thermal Margin/Low Pressure from 'THERMAL POWER' to logarithmic power measured by the appropriate neutron flux monitoring channel. Additionally, the proposed amendment revises the frequency for performing surveillance of the automatic bypass removal function logic from monthly while in Modes 1 and 2 to once within 92 days prior to each reactor startup to be consistent with the associated SR contained in NUREG 1432. This change also proposes incorporation of two administrative changes associated with spelling errors.

2.0 PROPOSED CHANGES

The following paragraphs describe the proposed changes to the MPS2 TS. The proposed changes do not impact the remaining (unchanged) portions of the TS.

Change 1

The proposed amendment will add action statements for TS 3.3.1 as follows:

<u>Current</u>

Table 3.3-1, Reactor Protective Instrumentation, Functional Units 2, 3, 6, 8, and 9 specify ACTION 2 when the number of OPERABLE channels is one less than the Total Number of Channels.

Proposed

New ACTIONS 7 and 8 will be added to Table 3.3-1, Reactor Protective Instrumentation, Functional Units 2, 3, 6, 8, and 9 in addition to ACTION 2.

ACTION 7 – With one automatic bypass removal channel inoperable for one or more functions, either
a. disable the bypass channel within 1 hour; or
b. place the affected trip units in bypass or trip within 1 hour, and either
1. restore the bypass removal channel and affected trip units to OPERABLE status within 48 hours, or
2. place the affected trip units in trip within 48 hours.

ACTION 8 – With two automatic bypass removal channels inoperable for one or more functions, either
a. disable the bypass channels within 1 hour; or
b. place one affected trip unit in bypass and place the other in trip for each affected trip function, within 1 hour and
restore one automatic bypass removal channel and the associated trip unit to OPERABLE status for each affected trip function, within 48 hours.

Change 2

The proposed amendment will revise SR 4.3.1.1.2 as follows:

Current

The logic for the bypasses shall be demonstrated OPERABLE during the at power CHANNEL FUNCTIONAL TEST of channels affected by bypass operation. The total bypass function shall be demonstrated OPERABLE at least once per 18 months during CHANNEL CALIBRATION testing of each channel affected by bypass operation.

Proposed

The bypass function and automatic bypass removal function shall be demonstrated OPERABLE during a CHANNEL FUNCTIONAL TEST once within 92 days prior to each reactor startup. The total bypass function shall be demonstrated OPERABLE at least once per 18 months during CHANNEL CALIBRATION testing of each channel affected by bypass operation.

Change 3

The proposed amendment will revise SR 4.3.2.1.2 as follows:

Current

The logic for the bypasses shall be demonstrated OPERABLE during the at power CHANNEL FUNCTIONAL TEST of channels affected by bypass operation. The total bypass function shall be demonstrated OPERABLE at least once per 18 months during CHANNEL CALIBRATION testing of each channel affected by bypass operation.

Proposed

The bypass function and automatic bypass removal function shall be demonstrated OPERABLE during a CHANNEL FUNCTIONAL TEST once within 92 days prior to each reactor startup. The total bypass function shall be demonstrated OPERABLE at least once per 18 months during CHANNEL CALIBRATION testing of each channel affected by bypass operation.

Change 4

The proposed amendment will revise the TABLE NOTATION for TABLE 2.2-1 as follows:

Current

(1) Trip may be bypassed below 5% of RATED THERMAL POWER; bypass shall be automatically removed when THERMAL POWER is ≥ 5% of RATED THERMAL POWER.

Proposed

(1) Trip may be bypassed when logarithmic power is < 1E-04% and the bypass shall be capable of automatic removal whenever logarithmic power is < 1E-04%. Bypass shall be removed prior to raising logarithmic power to a value ≥ 1E-04%.

Change 5

The proposed amendment will revise the TABLE NOTATION for TABLE 3.3-1 as follows:

Current

(a) Trip may be bypassed below 5% of RATED THERMAL POWER; bypass shall be automatically removed when THERMAL POWER is ≥ 5% of RATED THERMAL POWER.

Proposed

(a) Trip may be bypassed when logarithmic power is < 1E-04% and the bypass shall be capable of automatic removal whenever logarithmic power is < 1E-04%. Bypass shall be removed prior to raising logarithmic power to a value ≥ 1E-04%.

Change 6

The proposed amendment will incorporate the following two administrative changes:

Page 3/4 3-2 The word "Hyraulic" will be changed to "Hydraulic" under FUNCTIONAL UNIT 10 in TABLE 3.3-1.

Page 3/4 3-9 The word "acutation" will be changed to "actuation" in SR 4.3.2.1.1.

Change 7

The Technical Specification Bases will be revised to reflect the proposed specification changes and are provided for information only in Attachment 4. Changes to the Bases are controlled in accordance with the Technical Specification Bases Control Program (TS 6.23).

3.0 BACKGROUND

3.1 Instrumentation Description

The RPS consists of the sensors, amplifiers, logic, and other equipment necessary to monitor selected nuclear steam supply system conditions and to effect reliable and rapid reactor shutdown if any one or a combination of conditions deviates from a preselected operating range. The system functions to protect the core and reactor coolant pressure boundary. Additional information describing the RPS is available in the Updated Final Safety Analysis Report (UFSAR) Section 7.2.

The Engineered Safety Features Actuation System (ESFAS) detects accident conditions and initiates the safety features systems that are designed to localize, control, mitigate, and terminate such incidents. Additional information describing the ESFAS is available in UFSAR Section 7.3.

3.2 Reason for Proposed Amendment

This change is being requested to add actions for an inoperable automatic bypass removal function, clarify surveillance requirements for the automatic bypass removal function, and more accurately reflect the parameter being measured by referring to logarithmic power instead of 'THERMAL POWER' and replacing '%RTP' with '%' where appropriate.

4.0 TECHNICAL ANALYSIS

4.1 Details of the Proposed Amendment

Change 1

The proposed amendment will add new ACTIONS 7 and 8 to Table 3.3-1, Reactor Protective Instrumentation, Functional Units 2, 3, 6, 8, and 9 in addition to ACTION 2. This change is not considered to impact plant safety. Actions are being proposed to address the inoperability of one or more automatic bypass removal channels consistent with the similar actions specified in NUREG 1432. Because MPS2 has customized TS, the format of the proposed changes is different from the format contained in NUREG 1432, however the content remains the same.

Currently, no actions are specified in the MPS2 TS should an automatic bypass removal function become inoperable. Actions are being proposed that are consistent with the similar actions specified in NUREG 1432. For the condition where one automatic bypass removal channel is inoperable for one or more functions, the proposed actions consist of:

a. disabling the bypass channel within 1 hour; <u>or</u>
b. placing the affected trip units in bypass or trip within 1 hour, <u>and</u> either
    1. restoring the bypass removal channel and affected trip units to OPERABLE status within 48 hours, <u>or</u>
    2. placing the affected trip units in trip within 48 hours.

The bases for the similar requirements contained in NUREG 1432 were reviewed, determined to be applicable to MPS2, and are discussed below. If the inoperable bypass removal channel for any operating bypass cannot be restored to OPERABLE status within 1 hour, the associated RPS channel may be considered OPERABLE only if the bypass is not in effect. Otherwise, the affected RPS channel must be declared inoperable and the bypass removed or the bypass removal channel repaired. The bypass removal channel and the affected trip units must be repaired prior to 48 hours or the affected trip units must be placed in trip. The allowed outage times are the same as the allowed outage times that currently exist for MPS2 TS 3.3.1, ACTION 2 for the condition when the number of OPERABLE channels is one less than the Total Number of Channels.

For the condition where two automatic bypass removal channels are inoperable for one or more functions, the proposed actions consist of either:

a. disabling the bypass channels within 1 hour; <u>or</u>
b. placing one affected trip unit in bypass and placing the other in trip for each affected trip function, within 1 hour, <u>and</u>
   restoring one automatic bypass removal channel and the associated trip unit to OPERABLE status for each affected trip function, within 48 hours.

If the bypass removal channels cannot be restored to OPERABLE status, the associated RPS channel may be considered OPERABLE only if the bypass is not in effect. Otherwise, the affected RPS channels must be declared inoperable and the bypass either removed or the bypass removal channel repaired. The allowed outage times are the same as the allowed outage times that currently exist for MPS2 TS 3.3.1, ACTION 2 for the condition when the number of OPERABLE channels is one less than the Total Number of Channels.

One channel should be restored to OPERABLE status within 48 hours for reasons similar to those stated under ACTION 7. After one channel is restored to OPERABLE status, the provisions of ACTION 7 still apply to the remaining inoperable channel. Therefore, the channel that is still inoperable after completion of ACTION 8 must be placed in trip if more than 48 hours have elapsed since the initial channel failure.

Changes 2 and 3

The proposed amendment will revise MPS2 SR 4.3.1.1.2 and SR 4.3.2.1.2 to specify that the bypass function and the automatic bypass removal function shall be demonstrated OPERABLE during a CHANNEL FUNCTIONAL TEST once within 92 days prior to each reactor startup. These changes are not considered to impact plant safety. The proposed changes are consistent with SR 3.3.1.7 specified in NUREG 1432. Because MPS2 has customized TS, the format of the proposed changes is

different from the format contained in NUREG 1432, however the content remains the same.

The bases for the similar requirements contained in NUREG 1432 were reviewed, determined to be applicable to MPS2, and are discussed below. The proposed CHANNEL FUNCTIONAL TEST is similar to the CHANNEL FUNCTIONAL TESTS already required by MPS2 SR 4.3.1.1.1 and SR 4.3.2.1.1, except the proposed CHANNEL FUNCTIONAL TEST is applicable only to bypass functions and is performed once within 92 days prior to each startup. The MPS2 RPS is an analog system while the design of the MPS2 ESFAS includes both an analog portion and a digital portion. The analog portion of the MPS2 ESFAS consists of Signal Input Buffering, Auto-test Multiplexers, and analog comparators used to convert the analog value into a one bit digital signal when it passes a predefined setpoint. The digital portion of the MPS2 ESFAS consists of qualified digital isolators, combination logic matrices, and open collector driver circuits used to establish a shutdown bypass permissive condition. The logic for the bypass function and automatic bypass removal function for the RPS is performed using the output of the individual channels. The logic for the bypass function and automatic bypass removal function for ESFAS is performed using digital circuitry that provides a signal to the appropriate relays. With respect to the analog portion of the systems, a successful test of the required contact(s) of a channel relay may be performed by the verification of the change of state of a single contact of the relay. This clarifies what is an acceptable CHANNEL FUNCTIONAL TEST of a relay. This is acceptable because all of the other required contacts of the relay are verified by other TS tests at least once per refueling interval with applicable extensions. Proper operation of bypass permissives is critical during plant startup because the bypasses must be in place to allow startup operation and must be removed at the appropriate points during power ascent to enable certain reactor trips. Consequently, the appropriate time to verify bypass removal function OPERABILITY is just prior to startup. The allowance to conduct this test within 92 days of startup is based on the reliability analysis presented in topical report CEN-327, "RPS/ESFAS Extended Test Interval Evaluation," which is referenced in NUREG 1432 and is applicable to MPS2. Once the operating bypasses are removed, the bypasses must not fail in such a way that the associated trip Function gets inadvertently bypassed. This feature is verified by the trip function CHANNEL FUNCTIONAL TESTS MPS2 SR 4.3.1.1.1 and SR 4.3.2.1.1. Therefore, further testing of the bypass function after startup is unnecessary.

Changes 4 and 5

The proposed amendment will revise the TABLE NOTATION for MPS2 TABLE 2.2-1 and MPS2 TABLE 3.3-1 to more accurately reflect the parameter being measured by referring to logarithmic power instead of 'THERMAL POWER' and replacing '%RTP' with '%' where appropriate. The proposed change is similar to the change made to

NUREG 1432 that implemented Technical Specification Task Force (TSTF) Traveler 324, Rev. 1, and the subsequent revision of TS 3.3.1, RPS Instrumentation – Operating (Digital). Although MPS2 has an analog RPS system, the changes incorporated into NUREG 1432 by TSTF-324 are applicable to MPS2. The justification provided in TSTF-324 was reviewed and determined to be applicable to MPS2. Because MPS2 has customized TS, the format of the proposed changes is different from the format contained in NUREG 1432, however the content remains the same.

MPS2 UFSAR Sections 7.2.3.3.3, 7.2.3.3.7, 7.2.3.3.12, and Table 7.2-1, "Reactor Trip and Pretrip Setpoints," identify that the automatic bypass removal function setpoint is 1E-4% power. UFSAR Section 7.5.2.4.1 discusses the wide range logarithmic nuclear instrumentation channels. This section identifies that a bistable in the wide range logarithmic nuclear instrumentation channels is used by the RPS to remove the zero power mode bypass above 1E-4% power. The trips bypassed are reactor coolant low flow and thermal margin/low pressure. These trips are automatically reset above 1E-4% full power by the wide-range logarithmic channels. The value of 1E-4% power for the setpoint ensures these trips are available at power levels well below that required for UFSAR Chapter 14 event mitigation. Hence, the correct setpoint as identified in the UFSAR is 1E-4% instead of 5% RTP as currently stated in the TS.

The use of the terms "THERMAL POWER" and "% RTP" is inappropriate in conjunction with the logarithmic power 1E-04% bistables. The parameter used when in this range of reactor power is logarithmic power. THERMAL POWER is defined in TS Section 1.0 as the total reactor core heat transfer rate to the reactor coolant. RATED THERMAL POWER (RTP) is defined as a total reactor core heat transfer rate to the reactor coolant of 2700 MWt. THERMAL POWER, as defined, does not drop to 1E-04% RTP during any normal shutdown interval and therefore cannot provide the plant protection function correlation required by the safety analysis. However, the neutron flux, as measured by logarithmic power, does. Since the nuclear instrumentation measures the logarithmic power as a percent, it is more appropriate to replace the term "THERMAL POWER" with the term "logarithmic power," and the term "% RTP" with "%" in this notation footnote.

Footnote (1) associated with Table 2.2-1 contains wording that identifies operating bypass permissive and trip enable requirements that result in confusion with verbatim compliance. For example, footnote (1) requires the bypass to be automatically removed when THERMAL POWER is ≥ 5% RTP [1E-4% in proposed change]. If the bypass is manually removed prior to the automatic removal, a question could be raised regarding whether or not verbatim compliance is being met. More properly, the footnote should allow the bypass to be instituted and capable of automatic removal when below 5% RTP [1E-4% in proposed change]. This will ensure that the bypass automatic removal capability is available while allowing the operator to manually enable the trip function as plant conditions allow. The footnote is further modified to simply

specify that the bypass shall be removed prior to raising logarithmic power to a value ≥ 1E-04% rather than specify the automatic removal of the bypass.

Change 6

The proposed amendment incorporates two administrative changes. The proposed changes will eliminate inconsistencies and administrative errors that were inadvertently introduced during the implementation of previous license amendments that modified the MPS2 TS. The changes are administrative in nature (i.e., correction of two spelling errors) and do not alter any of the requirements of the affected TS.

Change 7

The Technical Specification Bases will be revised to reflect the proposed specification changes and are provided for information only in Attachment 4. Changes to the Bases are controlled in accordance with the Technical Specification Bases Control Program (TS 6.23).

4.2 Summary

In summary, the proposed additional actions for an inoperable automatic bypass removal function will provide additional restrictions on plant operation to address this condition. The clarification of the surveillance requirements for the automatic bypass removal function will verify the bypass removal function OPERABILITY just prior to startup to allow startup operations and ensure bypass removal at the appropriate points during power ascent to enable certain reactor trips. The proposed changes will more accurately reflect the parameter being measured by referring to logarithmic power instead of 'THERMAL POWER' and replacing '%RTP' with '%' where appropriate, and will eliminate a potential for confusion with verbatim compliance. The proposed amendment will also incorporate two spelling correction changes.

5.0 REGULATORY ANALYSIS

5.1 No Significant Hazards Consideration

The proposed amendment modifies the Millstone Power Station Unit 2 Technical Specifications 2.2.1, 3.3.1 and 3.3.2. Specifically, the proposed amendment will add actions for an inoperable automatic bypass removal function, clarify surveillance requirements for the automatic bypass removal function, more accurately reflect the

parameter being measured by referring to logarithmic power instead of 'THERMAL POWER' and replacing '%RTP' with '%' where appropriate, and incorporate two administrative changes.

Dominion Nuclear Connecticut, Inc. (DNC) has evaluated whether or not a Significant Hazards Consideration (SHC) is involved with the proposed changes by addressing the three standards set forth in 10 CFR 50.92(c) as discussed below.

Criterion 1:

Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

The proposed changes to Technical Specifications 2.2.1, 3.3.1 and 3.3.2 do not adversely impact structure, system, or component design or operation in a manner that would result in a change in the frequency of occurrence of accident initiation. The proposed technical specification changes do not involve accident initiators, do not change the configuration or method of operation of any plant equipment that is used to mitigate the consequences of an accident, and do not alter any conditions assumed in the plant accident analyses. The proposed amendment does not change the function or the manner of operation of the RPS or ESFAS trip bypass features. Adding actions to be taken for an inoperable automatic bypass removal function places additional restriction on plant operation in this condition and does not alter the setpoint or the logic of the operating bypasses and automatic bypass removals. Clarifying the frequency of the SR associated with testing the automatic bypass removal function does not alter the setpoint or the manner of operation of the operating bypasses and automatic bypass removals. More accurately reflecting the input process variable of the operating bypasses and automatic bypass removals of the affected reactor trips does not alter the setpoint nor the manner of operation of the operating bypasses and automatic bypass removals. With respect to the incorporation of the administrative changes, the proposed changes are spelling corrections and do not alter any of the requirements of the affected TS. Therefore this change does not impact the consequences of any accident. Based on this discussion, the proposed amendment does not increase the probability or consequence of an accident previously evaluated.

Criterion 2:

Does the proposed amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No.

No new or different accidents result from clarifying actions for an inoperable automatic bypass removal function, clarifying surveillance requirements for the automatic bypass removal function, and more accurately reflecting the parameter being measured for automatic bypass removal by referring to logarithmic power, the input process variable. The results of previously performed accident analyses remain valid. The proposed amendment does not introduce accident initiators or malfunctions that would cause a new or different kind of accident. The proposed amendments are administrative in nature and will not change the physical plant or the modes of plant operation defined in the facility operating license. The changes do not involve the addition or modification of equipment nor do they alter the design or operation of plant systems. Therefore, the proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated.

Criterion 3:

Does the proposed amendment involve a significant reduction in a margin of safety?

Response: No.

The proposed change does not alter the function or manner of operation of the operating bypasses and automatic bypass removals of the affected reactor trips. The proposed changes do not affect any of the assumptions used in the accident analysis, nor do they affect any operability requirements for equipment important to plant safety. Therefore, the proposed amendment does not involve a significant reduction in a margin of safety.

In summary, DNC concludes that the proposed amendment does not represent a significant hazards consideration under the standards set forth in 10 CFR 50.92(c).

5.2 Applicable Regulatory Requirements/Criteria

The RPS meets the general requirements of the applicable sections of the below listed guides.

a. IEEE Standard 279-1971, "Criteria for Protection Systems for Nuclear Power Generating Stations," dated June 3, 1971.
b. IEEE Standard 336-1971, "Installation, Inspection and Testing Requirements for Instrumentation and Electric Equipment during the construction of Nuclear Power Generating Stations," dated September 1971.
c. IEEE Standard 338-1971, "Trial Use Criteria for the Periodic Testing of Nuclear Power Generating Station Protection Systems," dated September 16, 1971.

d. Regulatory Guide 1.22, "Periodic Testing of Protection System Actuation Functions," (Safety Guide 22) dated February 17, 1972.
e. Combustion Engineering Topical Report CENPD-11 "Reactor Protection System Diversity," W. C. Coppersmith, C. I. Kling, A. T. Shesler, and B. M. Tashjian CENPD, February 1971) demonstrates that functional diversity has been incorporated in the protective system design.

The ESFAS and component parts conform to the requirements of the following IEEE standards and Nuclear Regulatory Commission (NRC) Regulatory Guide.

a. IEEE 279 1971 Criteria for Protection Systems for Nuclear Power Generating Stations
b. IEEE 308 1970 IEEE Standard Criteria for Class IE Electrical Systems for Nuclear Power Generating Stations
c. IEEE 323 1971 General Guide for Qualifying Class I Electrical Equipment for Nuclear Power Generating Stations
d. IEEE 344 1971 Seismic Qualification of Class I Electric Equipment for Nuclear Power Generating Stations
e. IEEE 336 1971 Installation, Inspection, and Testing Requirements for Instrumentation and Electric Equipment During the Construction of Nuclear Power Generating Stations
f. IEEE 338 1971 Periodic Testing of Nuclear Power Generating Station Protection Systems
g. Regulatory Guide 1.22 Periodic Testing of Protection System Actuation Functions
h. IE Bulletin No. 80-06 Engineered Safety Features Reset Controls

As a result of the proposed amendment, MPS 2 will continue to meet the above general requirements, IEEE standards, and NRC Regulatory Guides. In conclusion, (1) there is reasonable assurance 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.

6.0 ENVIRONMENTAL CONSIDERATION

DNC has determined that the proposed amendment would change requirements with respect to use of a facility component located within the restricted area, as defined by 10 CFR 20, or an inspection or surveillance requirement. DNC has evaluated the proposed change and has determined that the change does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released off site, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

Serial No. 06-841
Docket No. 50-336

ATTACHMENT 2

LICENSE AMENDMENT REQUEST (LBDCR 06-MP2-036)
INSTRUMENTATION TECHNICAL SPECIFICATION

MARKED-UP PAGES

DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 2

TABLE 2.2-1
REACTOR PROTECTIVE INSTRUMENTATION TRIP SETPOINT LIMITS

FUNCTIONAL UNIT	TRIP SETPOINT	ALLOWABLE VALUES
10. Thermal Margin/Low Pressure (1)		
Four Reactor Coolant Pumps Operating	Trip setpoint adjusted to not exceed the limit lines of Figures 2.2-3 and 2.2-4 (4).	Trip setpoint adjusted to not exceed the limit lines of Figures 2.2-3 and 2.2-4 (4).
11. Loss of Turbine--Hydraulic Fluid (3) Pressure - Low	≥ 500 psig	≥ 500 psig
12. Wide Range Logarithmic Neutron Flux Monitor - Shutdown	Not Applicable	Not Applicable
13. Reactor Protection System Logic Matrices	Not Applicable	Not Applicable
14. Reactor Protection System Logic Matrix Relays	Not Applicable	Not Applicable
15. Reactor Trip Breakers	Not Applicable	Not Applicable

INSERT A

TABLE NOTATION

(1) Trip may be bypassed below 5% of RATED THERMAL POWER; bypass shall be automatically removed when THERMAL POWER is ≥ 5% of RATED THERMAL POWER.

(2) Trip may be manually bypassed when steam generator pressure is < 800 psia and all CEAs are fully inserted; bypass shall be automatically removed when steam generator pressure is ≥ 800 psia.

(3) Trip may be bypassed below 15% of RATED THERMAL POWER; bypass shall be automatically removed when THERMAL POWER is ≥ 15% of RATED THERMAL POWER.

(4) Calculations of the trip setpoint includes measurements, calculational and processor uncertainties, and dynamic allowances.

(5) Each of four channels actuate on the auctioneered output of two transmitters, one from each steam generator.

September 25, 2003

Insert A

Trip may be bypassed when logarithmic power is < 1E-04% and the bypass shall be capable of automatic removal whenever logarithmic power is < 1E-04%. Bypass shall be removed prior to raising logarithmic power to a value ≥ 1E-04%.

3/4.3 INSTRUMENTATION

3/4.3.1 REACTOR PROTECTIVE INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.1.1 As a minimum, the reactor protective instrumentation channels and bypasses of Table 3.3-1 shall be OPERABLE.

APPLICABILITY: As shown in Table 3.3-1.

ACTION:

As shown in Table 3.3-1.

SURVEILLANCE REQUIREMENTS

4.3.1.1.1 Each reactor protective instrumentation channel shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST operations during the MODES and at the frequencies shown in Table 4.3-1.

4.3.1.1.2 The logic for the bypasses shall be demonstrated OPERABLE during the at power CHANNEL FUNCTIONAL TEST of channels affected by bypass operation. The total bypass function shall be demonstrated OPERABLE at least once per 18 months during CHANNEL CALIBRATION testing of each channel affected by bypass operation.

INSERT B

4.3.1.1.3 The REACTOR TRIP SYSTEM RESPONSE TIME of each reactor trip function shall be demonstrated to be within its limit at least once per 18 months. Neutron detectors are exempt from response time testing. Each test shall include at least one channel per function such that all channels are tested at least once every N times 18 months where N is the total number of redundant channels in a specific reactor trip function as shown in the "Total No. of Channels" column of Table 3.3-1.

Insert B

The bypass function and automatic bypass removal function shall be demonstrated OPERABLE during a CHANNEL FUNCTIONAL TEST once within 92 days prior to each reactor startup.

TABLE 3.3-1

REACTOR PROTECTIVE INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
1. Manual Reactor Trip	2	1	2	1, 2 and *	1
2. Power Level - High	4	2(f)	3	1, 2, 3(d)	2, 7, 8
3. Reactor Coolant Flow - Low	4	2(a)	3	1, 2	2, 7, 8
4. Pressurizer Pressure - High	4	2	3	1, 2	2
5. Containment Pressure - High	4	2	3	1, 2	2
6. Steam Generator Pressure - Low	4	2(b)	3	1, 2	2, 7, 8
7. Steam Generator Water Level - Low	4	2	3	1, 2	2
8. Local Power Density - High	4	2(c)	3	1	2, 7, 8
9. Thermal Margin/Low Pressure	4	2(a)	3	1,2	2, 7, 8
10. Loss of Turbine Hydraulic ~~Hyraulic~~ Fluid Pressure - Low	4	2(c)	3	1	2

September 25, 2003

TABLE 3.3-1 (Continued)

TABLE NOTATION

* With the protective system trip breakers in the closed position and the CEA drive system capable of CEA withdrawal.

INSERT C

(a) Trip may be bypassed below 5% of RATED THERMAL POWER; bypass shall be automatically removed when THERMAL POWER is ≥ 5% of RATED THERMAL POWER.

(b) Trip may be manually bypassed when steam generator pressure is < 800 psia and all CEAs are fully inserted; bypass shall be automatically removed when steam generator pressure is ≥ 800 psia.

(c) Trip may be bypassed below 15% of RATED THERMAL POWER; bypass shall be automatically removed when THERMAL POWER is ≥ 15% of RATED THERMAL POWER.

(d) Trip does not need to be OPERABLE if all the control rod drive mechanisms are de-energized or if the RCS boron concentration is greater than or equal to the refueling concentration of Specification 3.9.1.

(e) DELETED

(f) ΔT Power input to trip may be bypassed below 5% of RATED THERMAL POWER; bypass shall be automatically removed when THERMAL POWER is ≥ 5% of RATED THERMAL POWER.

ACTION STATEMENTS

ACTION 1 - 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 HOT STANDBY within the next 4 hours and/or open the protective system trip breakers.

ACTION 2 - With the number of OPERABLE channels one less than the Total Number of Channels, operation may continue provided the following conditions are satisfied:

a. The inoperable channel is placed in either the bypassed or tripped condition within 1 hour. The inoperable channel shall either be restored to OPERABLE status, or placed in the tripped condition, within 48 hours.

b. Within 1 hour, all functional units receiving an input from the inoperable channel are also declared inoperable, and the appropriate actions are taken for the affected functional units.

c. The Minimum Channels OPERABLE requirement is met; however, one additional channel may be removed from service for up to 48 hours, provided one of the inoperable channels is placed in the tripped condition.

Insert C

Trip may be bypassed when logarithmic power is < 1E-04% and the bypass shall be capable of automatic removal whenever logarithmic power is < 1E-04%. Bypass shall be removed prior to raising logarithmic power to a value ≥ 1E-04%.

TABLE 3.3-1 (Continued)

ACTION STATEMENTS

ACTION 3 - NOT USED

ACTION 4 - With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement, immediately verify compliance with the SHUTDOWN MARGIN requirements of Specification 3.1.1.1, and at least once per 4 hours thereafter. (1)

ACTION 5 - 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.

ACTION 6 - 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.

INSERT D

Insert D

ACTION 7 – With one automatic bypass removal channel inoperable for one or more functions, either

a. disable the bypass channel within 1 hour, or
b. place the affected trip units in bypass or trip within 1 hour, and either
   1. restore the bypass removal channel and affected trip units to OPERABLE status within 48 hours, or
   2. place the affected trip units in trip within 48 hours.

ACTION 8 – With two automatic bypass removal channels inoperable for one or more functions, either

a. disable the bypass channel within 1 hour, or
b. place one affected trip unit in bypass and place the other in trip for each affected trip function, within 1 hour, and
   restore one automatic bypass removal channel and the associated trip unit to OPERABLE status for each affected trip function, within 48 hours.

3/4.3.2 ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.2.1 The engineered safety feature actuation system instrumentation channels and bypasses shown in Table 3.3-3 shall be OPERABLE with their trip setpoints set consistent with the values shown in the Trip Setpoint column of Table 3.3-4.

APPLICABILITY: As shown in Table 3.3-3.

ACTION:

a. With an engineered safety feature actuation system instrumentation channel trip setpoint less conservative than the value shown in the Allowable Values column of Table 3.3-4, either adjust the trip setpoint to be consistent with the value specified in the Trip Setpoint column of Table 3.3-4 within 2 hours or declare the channel inoperable and take the ACTION shown in Table 3.3-3.

b. With an engineered safety feature actuation system instrumentation channel inoperable, take the ACTION shown in Table 3.3-3.

SURVEILLANCE REQUIREMENTS

4.3.2.1.1 Each engineered safety feature ~~actuation~~ actuation system instrumentation channel shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST operations during the MODES and at the frequencies shown in Table 4.3-2.

4.3.2.1.2 The logic for the bypasses shall be demonstrated OPERABLE during the at power CHANNEL FUNCTIONAL TEST of channels affected by bypass operation. The total bypass function shall be demonstrated OPERABLE at least once per 18 months during CHANNEL CALIBRATION testing of each channel affected by bypass operation.

INSERT E

Insert E

The bypass function and automatic bypass removal function shall be demonstrated OPERABLE during a CHANNEL FUNCTIONAL TEST once within 92 days prior to each reactor startup.

ATTACHMENT 3

LICENSE AMENDMENT REQUEST (LBDCR 06-MP2-036)
INSTRUMENTATION TECHNICAL SPECIFICATION

RE-TYPED PAGES

DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 2

TABLE 2.2-1

REACTOR PROTECTIVE INSTRUMENTATION TRIP SETPOINT LIMITS

	FUNCTIONAL UNIT	TRIP SETPOINT	ALLOWABLE VALUES
10.	Thermal Margin/Low Pressure (1)		
	Four Reactor Coolant Pumps Operating	Trip setpoint adjusted to not exceed the limit lines of Figures 2.2-3 and 2.2-4 (4).	Trip setpoint adjusted to not exceed the limit lines of Figures 2.2-3 and 2.2-4 (4).
11.	Loss of Turbine--Hydraulic Fluid (3) Pressure - Low	≥ 500 psig	≥ 500 psig
12.	Wide Range Logarithmic Neutron Flux Monitor - Shutdown	Not Applicable	Not Applicable
13.	Reactor Protection System Logic Matrices	Not Applicable	Not Applicable
14.	Reactor Protection System Logic Matrix Relays	Not Applicable	Not Applicable
15.	Reactor Trip Breakers	Not Applicable	Not Applicable

TABLE NOTATION

(1) Trip may be bypassed when logarithmic power is < 1E-04% and the bypass shall be capable of automatic removal whenever logarithmic power is < 1E-04%. Bypass shall be removed prior to raising logarithmic power to a value ≥ 1E-04%.

(2) Trip may be manually bypassed when steam generator pressure is < 800 psia and all CEAs are fully inserted; bypass shall be automatically removed when steam generator pressure is ≥ 800 psia.

(3) Trip may be bypassed below 15% of RATED THERMAL POWER; bypass shall be automatically removed when THERMAL POWER is ≥ 15% of RATED THERMAL POWER.

(4) Calculations of the trip setpoint includes measurements, calculational and processor uncertainties, and dynamic allowances.

(5) Each of four channels actuate on the auctioneered output of two transmitters, one from each steam generator.

3/4.3 INSTRUMENTATION

3/4.3.1 REACTOR PROTECTIVE INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.1.1 As a minimum, the reactor protective instrumentation channels and bypasses of Table 3.3-1 shall be OPERABLE.

APPLICABILITY: As shown in Table 3.3-1.

ACTION:

As shown in Table 3.3-1.

SURVEILLANCE REQUIREMENTS

4.3.1.1.1 Each reactor protective instrumentation channel shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST operations during the MODES and at the frequencies shown in Table 4.3-1.

4.3.1.1.2 The bypass function and automatic bypass removal function shall be demonstrated OPERABLE during a CHANNEL FUNCTIONAL TEST once within 92 days prior to each reactor startup. The total bypass function shall be demonstrated OPERABLE at least once per 18 months during CHANNEL CALIBRATION testing of each channel affected by bypass operation.

4.3.1.1.3 The REACTOR TRIP SYSTEM RESPONSE TIME of each reactor trip function shall be demonstrated to be within its limit at least once per 18 months. Neutron detectors are exempt from response time testing. Each test shall include at least one channel per function such that all channels are tested at least once every N times 18 months where N is the total number of redundant channels in a specific reactor trip function as shown in the "Total No. of Channels" column of Table 3.3-1.

TABLE 3.3-1

REACTOR PROTECTIVE INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
1. Manual Reactor Trip	2	1	2	1, 2 and *	1
2. Power Level - High	4	2(f)	3	1, 2, 3(d)	2, 7, 8
3. Reactor Coolant Flow - Low	4	2(a)	3	1, 2	2, 7, 8
4. Pressurizer Pressure - High	4	2	3	1, 2	2
5. Containment Pressure - High	4	2	3	1, 2	2
6. Steam Generator Pressure - Low	4	2(b)	3	1, 2	2, 7, 8
7. Steam Generator Water Level - Low	4	2	3	1, 2	2
8. Local Power Density - High	4	2(c)	3	1	2, 7, 8
9. Thermal Margin/Low Pressure	4	2(a)	3	1, 2	2, 7, 8
10. Loss of Turbine - Hydraulic Fluid Pressure - Low	4	2(c)	3	1	2

TABLE 3.3-1 (Continued)

TABLE NOTATION

* With the protective system trip breakers in the closed position and the CEA drive system capable of CEA withdrawal.

(a) Trip may be bypassed when logarithmic power is < 1E-04% and the bypass shall be capable of automatic removal whenever logarithmic power is < 1E-04%. Bypass shall be removed prior to raising logarithmic power to a value ≥ 1E-04%.

(b) Trip may be manually bypassed when steam generator pressure is < 800 psia and all CEAs are fully inserted; bypass shall be automatically removed when steam generator pressure is ≥ 800 psia.

(c) Trip may be bypassed below 15% of RATED THERMAL POWER; bypass shall be automatically removed when THERMAL POWER is ≥ 15% of RATED THERMAL POWER.

(d) Trip does not need to be OPERABLE if all the control rod drive mechanisms are de-energized or if the RCS boron concentration is greater than or equal to the refueling concentration of Specification 3.9.1.

(e) DELETED

(f) ΔT Power input to trip may be bypassed below 5% of RATED THERMAL POWER; bypass shall be automatically removed when THERMAL POWER is ≥ 5% of RATED THERMAL POWER.

ACTION STATEMENTS

ACTION 1 - 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 HOT STANDBY within the next 4 hours and/or open the protective system trip breakers.

ACTION 2 - With the number of OPERABLE channels one less than the Total Number of Channels, operation may continue provided the following conditions are satisfied:

a. The inoperable channel is placed in either the bypassed or tripped condition within 1 hour. The inoperable channel shall either be restored to OPERABLE status, or placed in the tripped condition, within 48 hours.

b. Within 1 hour, all functional units receiving an input from the inoperable channel are also declared inoperable, and the appropriate actions are taken for the affected functional units.

TABLE 3.3-1 (Continued)

ACTION STATEMENTS

c. The Minimum Channels OPERABLE requirement is met; however, one additional channel may be removed from service for up to 48 hours, provided one of the inoperable channels is placed in the tripped condition.

ACTION 3 - NOT USED

ACTION 4 - With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement, immediately verify compliance with the SHUTDOWN MARGIN requirements of Specification 3.1.1.1, and at least once per 4 hours thereafter.

ACTION 5 - 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.

ACTION 6 - 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.

ACTION 7 – With one automatic bypass removal channel inoperable for one or more functions, either

a. disable the bypass channel within 1 hour, or

b. place the affected trip units in bypass or trip within 1 hour, and either

1. restore the bypass removal channel and affected trip units to OPERABLE status within 48 hours, or

2. place the affected trip units in trip within 48 hours.

ACTION 8 – With two automatic bypass removal channels inoperable for one or more functions, either

a. disable the bypass channel within 1 hour, or

b. place one affected trip unit in bypass and place the other in trip for each affected trip function, within 1 hour, and

restore one automatic bypass removal channel and the associated trip unit to OPERABLE status for each affected trip function, within 48 hours.

3/4.3.2 ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.2.1 The engineered safety feature actuation system instrumentation channels and bypasses shown in Table 3.3-3 shall be OPERABLE with their trip setpoints set consistent with the values shown in the Trip Setpoint column of Table 3.3-4.

APPLICABILITY: As shown in Table 3.3-3.

ACTION:

a. With an engineered safety feature actuation system instrumentation channel trip setpoint less conservative than the value shown in the Allowable Values column of Table 3.3-4, either adjust the trip setpoint to be consistent with the value specified in the Trip Setpoint column of Table 3.3-4 within 2 hours or declare the channel inoperable and take the ACTION shown in Table 3.3-3.

b. With an engineered safety feature actuation system instrumentation channel inoperable, take the ACTION shown in Table 3.3-3.

SURVEILLANCE REQUIREMENTS

4.3.2.1.1 Each engineered safety feature actuation system instrumentation channel shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST operations during the MODES and at the frequencies shown in Table 4.3-2.

4.3.2.1.2 The bypass function and automatic bypass removal function shall be demonstrated OPERABLE during a CHANNEL FUNCTIONAL TEST once within 92 days prior to each reactor startup. The total bypass function shall be demonstrated OPERABLE at least once per 18 months during CHANNEL CALIBRATION testing of each channel affected by bypass operation.

ATTACHMENT 4

LICENSE AMENDMENT REQUEST (LBDCR 06-MP2-036)
INSTRUMENTATION TECHNICAL SPECIFICATION

BASES PAGES

DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 2

3/4.3.1 AND 3/4.3.2 PROTECTIVE AND ENGINEERED SAFETY FEATURES (ESF) INSTRUMENTATION (continued)

declared inoperable, and ACTION Statement 2 of Technical Specification 3.3.1.1 entered. When testing the RPS logic (matrix testing), the individual RPS channels will not be affected. Each of the parameters within each RPS channel supplies three contacts to make up the 6 different logic ladders/ matrices (AB, AC, AD, BC, BD, and CD). During matrix testing, only one logic matrix is tested at a time. Since each RPS channel supplies 3 different logic ladders, testing one ladder matrix at a time will not remove an RPS channel from the overall logic matrix. Therefore, matrix testing will not remove an RPS channel from service or make the RPS channel inoperable. It is not necessary to enter an ACTION statement for any of the parameters associated with each RPS channel while performing matrix testing. This also applies when testing the reactor trip circuit breakers since this test will not remove an RPS channel from service or make the RPS channel inoperable.

ACTION statements for the RPS logic matrices and RPS logic matrix relays are required to be entered during matrix testing as these functional units become inoperable when the "HOLD" button is depressed during testing.

INSERT F

The ESFAS includes four sensor subsystems and two actuation subsystems for each of the functional units identified in Table 3.3-3. Each sensor subsystem includes measurement channels and bistable trip units. Each of the four sensor subsystem channels monitors redundant and independent process measurement channels. Each sensor is monitored by at least one bistable. The bistable associated with each ESFAS Function will trip when the monitored variable exceeds the trip setpoint. When tripped, the sensor subsystems provide outputs to the two actuation subsystems.

The two independent actuation subsystems each compare the four associated sensor subsystem outputs. If a trip occurs in two or more sensor subsystem channels, the two-out-of-four automatic actuation logic will initiate one train of ESFAS. An Automatic Test Inserter (ATI), for which the automatic actuation logic OPERABILITY requirements of this specification do not apply, provides automatic test capability for both the sensor subsystems and the actuation subsystems.

The provisions of Specification 4.0.4 are not applicable for the CHANNEL FUNCTIONAL TEST of the Engineered Safety Feature Actuation System automatic actuation logic associated with Pressurizer Pressure Safety Injection, Pressurizer Pressure Containment Isolation, Steam Generator Pressure Main Steam Line Isolation, and Pressurizer Pressure Enclosure Building Filtration for entry into MODE 3 or other specified conditions. After entering MODE 3, pressurizer pressure and steam generator pressure will be increased and the blocks of the ESF actuations on low pressurizer pressure and low steam generator pressure will be

Insert F

The RPS bypasses and their allowable values are addressed in footnotes to Table 3.3-1. They are not otherwise addressed as specific table entries.

The RPS automatic bypass removal features must function as a backup to manual actions for all safety related trips to ensure the trip functions are not operationally bypassed when the safety analysis assumes the functions are available.

The RPS automatic bypass removal feature of all four operating bypass channels must be OPERABLE for each RPS function with an operating bypass in the MODES addressed in the specific LCO for each function. All four bypass removal channels must be OPERABLE to ensure that none of the four RPS channels are inadvertently bypassed.

ACTION Statements 7 and 8 apply to the RPS bypass removal feature only. If the bypass enable function is failed so as to prevent entering a bypass condition, operation may continue.

ACTION Statement 7 applies to one automatic bypass removal channel inoperable. If the bypass removal channel for any operating bypass cannot be restored to OPERABLE status, the associated RPS channel may be considered OPERABLE only if the bypass is not in effect. Otherwise, the affected RPS channel must be declared inoperable, as in ACTION Statement 2, and the bypass either removed or the bypass removal channel repaired. The allowed outage times are the same as for ACTION Statement 2.

ACTION Statement 8 applies to two inoperable automatic bypass removal channels. If the bypass removal channels cannot be restored to OPERABLE status, the associated RPS channel may be considered OPERABLE only if the bypass is not in effect. Otherwise, the affected RPS channels must be declared inoperable, and the bypass either removed or the bypass removal channel repaired. Also, ACTION Statement 8 provides for the restoration of the one affected automatic trip channel to OPERABLE status within the allowed outage time specified under ACTION Statement 2.

ACTION Statements 7 and 8 contain the term "disable the bypass channel." Compliance with ACTION Statements 7 or 8 is met by placing or verifying the Zero Mode Bypass Switch(es) in "Off." No further action (i.e., key removal, periodic verification, etc.) is required. These switches are administratively controlled via station procedures; therefore the requirements of ACTION Statements 7 and 8 are continuously met.

SR 4.3.1.1.2 and SR 4.3.2.1.2 specify a CHANNEL FUNCTIONAL TEST of the bypass function and automatic bypass removal once within 92 days prior to each reactor startup. The total bypass function shall be demonstrated OPERABLE at least once per 18 months during CHANNEL CALIBRATION testing of each channel affected by bypass operation. The CHANNEL FUNCTIONAL TEST is similar to the CHANNEL FUNCTIONAL TESTS already required by SR 4.3.1.1.1 and SR 4.3.2.1.1, except the CHANNEL FUNCTIONAL TEST is applicable only to bypass functions and is performed once within 92 days prior to each startup. The MPS2 RPS is an analog system while the design of the MPS2 ESFAS includes both an analog portion and a digital portion. With respect to the analog portion of the systems, a successful test of the required contact(s) of a channel relay may be performed by the verification of the change of state of a single contact of the relay. This clarifies what is an acceptable CHANNEL FUNCTIONAL TEST of a relay. This is acceptable because all of the other required contacts of the relay are verified by other TS tests at least once per refueling interval with applicable extensions. Proper operation of bypass permissives is critical during plant startup because the bypasses must be in place to allow startup operation and must be removed at the appropriate points during power ascent to enable certain reactor trips. Consequently, the appropriate time to verify bypass removal function OPERABILITY is just prior to startup. The allowance to conduct this test within 92 days of startup is based on the reliability analysis presented in topical report CEN-327, "RPS/ESFAS Extended Test Interval Evaluation," which is referenced in NUREG-1432 and is applicable to MPS2. Once the operating bypasses are removed, the bypasses must not fail in such a way that the associated trip function gets inadvertently bypassed. This feature is verified by the trip function CHANNEL FUNCTIONAL TESTS SR 4.3.1.1.1 and SR 4.3.2.1.1. Therefore, further testing of the bypass function after startup is unnecessary.