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

Serial No. 13-367
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Docket Nos. 50-336
50-423
License Nos. DPR-65
NPF-49

DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNITS 2 AND 3
ALTERNATIVE REQUEST G-001 TO ADOPT ASME CODE CASE OMN-20,
"INSERVICE TEST FREQUENCY"

Pursuant to 10 CFR 50.55a(a)(3)(ii), Dominion Nuclear Connecticut, Inc. (DNC) requests NRC approval of an alternative to the American Society of Mechanical Engineers (ASME) Code for Operation and Maintenance of Nuclear Power Plants (i.e., OM Code), 2001 Edition through 2003 Addenda, for Millstone Power Station Units 2 (MPS2) and 3 (MPS3). Specifically, DNC requests approval of an alternative to adopt Code Case OMN-20, "Inservice Test [IST] Frequency," to allow the use of tolerances for ASME OM Code IST frequencies.

For MPS2 and MPS3, these alternatives are being requested for the remainder of the fourth and third 10-year IST intervals, respectively, which both began on December 2, 2008 and will end on December 1, 2018.

The bases for the proposed alternative requests are provided in Attachment 1 for MPS2 and Attachment 2 for MPS3.

If you have any questions regarding this submittal, please contact Wanda Craft at (804) 273-4687.

Sincerely,

Eugene S. Grecheck
Vice President – Nuclear Engineering and Development

Attachments:

1. Millstone Power Station Unit 2, Alternative Request G-001 to Adopt ASME Code Case OMN-20, "Inservice Test Frequency," for Fourth 10-Year IST Interval
2. Millstone Power Station Unit 3, Alternative Request G-001 to Adopt ASME Code Case OMN-20, "Inservice Test Frequency," for Third 10-Year IST Interval

A047
NRR

Commitments made in this letter: None

cc: U.S. Nuclear Regulatory Commission
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NRC Senior Resident Inspector
Millstone Power Station

ATTACHMENT 1

**ALTERNATIVE REQUEST G-001 TO ADOPT ASME CODE CASE OMN-20,
"INSERVICE TEST FREQUENCY" FOR FOURTH 10-YEAR IST INTERVAL**

**MILLSTONE POWER STATION UNIT 2
DOMINION NUCLEAR CONNECTICUT, INC.**

**Proposed Alternative
In accordance with 10CFR50.55a(a)(3)(ii)**

**--Hardship or Unusual Difficulty without a Compensating
Increase in Level of Quality or Safety--**

ASME Code Component(s) Affected

All pumps and valves contained within the Inservice Testing (IST) Program

Applicable Code Edition and Addenda

American Society of Mechanical Engineers (ASME) Code for Operation and Maintenance of Nuclear Power Plants (i.e., OM Code), 2001 Edition through 2003 Addenda

Applicable Code Requirement(s)

This request applies to the frequency specifications of the ASME OM Code paragraphs as identified below. The frequencies for tests given in the ASME OM Code do not include a tolerance band.

Code Paragraph	Description
ISTA-3120(a)	"The frequency for the inservice testing shall be in accordance with the requirements of Section IST."
ISTB-3400	Frequency of Inservice Tests
ISTC-3510	Exercising Test Frequency
ISTC-3540	Manual Valves
ISTC-3630(a)	Frequency
ISTC-3700	Position Verification Testing
ISTC-5221 (c)(3)	"At least one valve from each group shall be disassembled and examined at each refueling outage; all valves in a group shall be disassembled and examined at least once every 8 years."
Appendix I, I-1320	Test Frequencies, Class 1 Pressure Relief Valves
Appendix I, I-1330	Test Frequencies, Class 1 Nonreclosing Pressure Relief Devices
Appendix I, I-1340	Test Frequencies - Class 1 Pressure Relief Valves that are used for Thermal Relief Application
Appendix I, I-1350	Test Frequencies - Class 2 and 3 Pressure Relief Valves
Appendix I, I-1360	Test Frequencies - Class 2 and 3 Nonreclosing Pressure Relief Devices
Appendix 1, I-1370	Test Frequencies - Class 2 and 3 Primary Containment Vacuum Relief Valves
Appendix I, I-1380	Test Frequencies - Class 2 and 3 Vacuum Relief Valves Except for Primary Containment Vacuum Relief Valves
Appendix I, I-1390	Test Frequencies - Class 2 and 3 Pressure Relief Valves that are used for Thermal Relief Application
Appendix II, II-4000(a)(1)	Performance Improvement Activities Interval
Appendix II, II-4000(b)(1)(e)	Optimization of Condition Monitoring Activities Interval

Reason for Request

Pursuant to 10 CFR 50.55a, "Codes and standards," paragraph (a)(3)(ii), an alternative is being requested from the frequency specifications of the ASME OM Code for Millstone Power Station Unit 2 (MPS2). The basis of the alternative request is that the Code frequency specifications present an undue hardship without a compensating increase in the level of quality or safety.

ASME OM Code Section IST establishes the inservice test frequency for all components within the scope of the Code. The frequencies (e.g., quarterly) have historically been interpreted as "nominal" frequencies (generally as defined in the Table 3.2 of NUREG-1482, Guidelines for Inservice Testing at Nuclear Power Plants, Revision 1) and owners routinely applied the surveillance extension time period (i.e., grace period) contained in the plant Technical Specifications (TSs) Surveillance Requirements (SRs). The TSs typically allow for a less than or equal to 25% extension of the surveillance test interval to accommodate plant conditions that may not be suitable for conducting the surveillance (MPS2 TS 4.0.2). However, Regulatory Issue Summary 2012-10, NRC Staff Position on Applying Surveillance Requirements (SRs) 3.0.2 and 3.0.3 to Administrative Controls Program Tests, states that SR 3.0.2 and 3.0.3 cannot be applied to TS 5.5, Programs and Manuals, for tests that are not associated with a TS SR. MPS2 TS 4.0.2 is equivalent to SR 3.0.2 contained in NUREG-1432, Standard Technical Specifications, Combustion Engineering Plants.

The lack of a tolerance band on the ASME OM Code IST frequency restricts operational flexibility. There may be a conflict where a surveillance test could be required (i.e., its frequency could expire), but where it is not possible or not desired that it be performed until sometime after a plant condition or associated Limiting Condition for Operation (LCO) is within its applicability.

The NRC recognized this potential issue in the TSs by allowing a frequency tolerance as described in MPS2 TS 4.0.2. The lack of a similar tolerance applied to OM Code testing places an unusual hardship on the plant to adequately schedule work tasks without operational flexibility. Thus, just as with TS-required surveillance testing, some tolerance is needed to allow adjusting OM Code testing intervals to suit the plant conditions and other maintenance and testing activities. This assures operational flexibility when scheduling surveillance tests and minimizes conflict between the need to complete the surveillance and plant conditions.

Proposed Alternative and Basis for Use

Code Case OMN-20 is included in the ASME OM Code, 2009 Edition, and is proposed for use as an alternative in determining acceptable tolerances for pump and valve test frequencies of the ASME OM Code. This code case was approved by the ASME OM Code Standards Committee in February 2012.

The requirements of Code Case OMN-20 are described below.

ASME OM, Division 1, Section IST and earlier editions and addenda of ASME OM Code specify component test frequencies based either on elapsed time periods (e.g., quarterly, 2

years) or on the occurrence of plant conditions or events (e.g., cold shutdown, refueling outage, upon detection of a sample failure, following maintenance) as discussed below.

- a) Components whose test frequencies are based on elapsed time periods shall be tested at the frequencies specified in Section IST with a specified time period between tests as shown in the table below. The specified time period between tests may be reduced or extended as follows:
- 1) For periods specified as less than 2 years, the period may be extended by up to 25% for any given test.
 - 2) For periods specified as greater than or equal to 2 years, the period may be extended by up to 6 months for any given test.
 - 3) All periods specified may be reduced at the discretion of the owner (i.e., there is no minimum period requirement).

Period extension is to facilitate test scheduling and considers plant operating conditions that may not be suitable for performance of the required testing (e.g., performance of the test would cause an unacceptable increase in the plant risk profile due to transient conditions or other ongoing surveillance, test or maintenance activities). Period extensions are not intended to be used as a routine action for mere operational convenience.

Period extensions may also be applied to accelerated test frequencies (e.g., pumps in Alert Range) and other less than two year test frequencies not specified in the table below.

Period extensions may not be applied to the test frequency requirements specified in Subsection ISTD, *Preservice and Inservice Examination and Testing of Dynamic Restraints (Snubbers) in Light-Water Reactor Nuclear Power Plants*, as Subsection ISTD contains its own rules for period extensions.

Frequency	Specified Time Period Between Tests
Quarterly (or every 3 months)	92 days
Semiannually (or every 6 months)	184 days
Annually (or every year)	366 days
x Years	x calendar years where 'x' is a whole number of years ≥ 2

- b) Components whose test frequencies are based on the occurrence of plant conditions or events may not have their period between tests extended except as allowed by ASME OM, Division: 1, Section IST, 2009 Edition through OMa-2011 Addenda and earlier editions and addenda.

Duration of Proposed Alternative

This proposed alternative will be utilized for the remainder of the MPS2 fourth 10-year IST interval, which began on December 2, 2008 and will end on December 1, 2018.

Precedents

The proposed alternative request for MPS2 is similar to the following approved or pending alternative/relief requests shown below:

- 1) Alternative Request RV-01 was approved by the NRC for Quad Cities Units 1 and 2 on February 14, 2013 (ADAMS Accession No. ML13042A348).
- 2) Exelon Letter TMI-12-168, Submittal of Relief Requests Associated with the Fifth Inservice Testing Interval, November 7, 2012 (ADAMS Accession No. ML12313A344).
- 3) Virginia Electric and Power Company, Surry Units 1 and 2, Inservice Testing Program for Pumps and Valves, Fifth Ten Year Interval Update and Associated Relief Requests, May 1, 2013 (ADAMS Accession No. ML13128A104).
- 4) South Carolina Electric and Gas Company, Virgil C. Summer Unit 1, Request Relief from ASME Code Requirements in VCSNS 4th Ten Year Inservice Inspection Interval, RR-4-01 (G) IST Pump and Valve Surveillance Requirements..., May 16, 2013 (ADAMS Accession No. ML13140A008).

References

- 1) ASME OM Code, 2001 Edition, Addenda through 2003.
- 2) Regulatory Issue Summary 2012-10, NRC Staff Position on Applying Surveillance requirements 3.0.2 and 3.0.3 to Administrative Controls Program Tests.
- 3) NUREG-1482, Revision 1, Guidelines for Inservice Testing at Nuclear Power Plants.
- 4) NUREG-1432, Revision 4.0, Standard Technical Specifications, Combustion Engineering Plants.

ATTACHMENT 2

**ALTERNATIVE REQUEST G-001 TO ADOPT ASME CODE CASE OMN-20,
“INSERVICE TEST FREQUENCY” FOR THIRD 10-YEAR IST INTERVAL**

**MILLSTONE POWER STATION UNIT 3
DOMINION NUCLEAR CONNECTICUT, INC.**

Proposed Alternative
In accordance with 10CFR50.55a(a)(3)(ii)

**--Hardship or Unusual Difficulty without a Compensating
Increase in Level of Quality or Safety--**

ASME Code Component(s) Affected

All pumps and valves contained within the Inservice Testing (IST) Program

Applicable Code Edition and Addenda

American Society of Mechanical Engineers (ASME) Code for Operation and Maintenance of Nuclear Power Plants (i.e., OM Code), 2001 Edition through 2003 Addenda

Applicable Code Requirement(s)

This request applies to the frequency specifications of the ASME OM Code. The frequencies for tests given in the ASME OM Code do not include a tolerance band.

Code Paragraph	Description
ISTA-3120(a)	"The frequency for the inservice testing shall be in accordance with the requirements of Section IST."
ISTB-3400	Frequency of Inservice Tests
ISTC-3510	Exercising Test Frequency
ISTC-3540	Manual Valves
ISTC-3630(a)	Frequency
ISTC-3700	Position Verification Testing
ISTC-5221 (c)(3)	"At least one valve from each group shall be disassembled and examined at each refueling outage; all valves in a group shall be disassembled and examined at least once every 8 years."
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Appendix I, I-1340	Test Frequencies - Class 1 Pressure Relief Valves that are used for Thermal Relief Application
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Appendix I, I-1370	Test Frequencies - Class 2 and 3 Primary Containment Vacuum Relief Valves
Appendix I, I-1380	Test Frequencies - Class 2 and 3 Vacuum Relief Valves Except for Primary Containment Vacuum Relief Valves
Appendix I, I-1390	Test Frequencies - Class 2 and 3 Pressure Relief Valves that are used for Thermal Relief Application
Appendix II, II-4000(a)(1)	Performance Improvement Activities Interval
Appendix II, II-4000(b)(1)(e)	Optimization of Condition Monitoring Activities Interval

Reason for Request

Pursuant to 10 CFR 50.55a, "Codes and standards," paragraph (a)(3)(ii), an alternative is being requested from the frequency specifications of the ASME OM Code for Millstone Power Station Unit 3 (MPS3). The basis of the alternative request is that the Code frequency specifications present an undue hardship without a compensating increase in the level of quality or safety.

ASME OM Code Section IST establishes the inservice test frequency for all components within the scope of the Code. The frequencies (e.g., quarterly) have historically been interpreted as "nominal" frequencies (generally as defined in the Table 3.2 of NUREG-1482, Guidelines for Inservice Testing at Nuclear Power Plants, Revision 1) and owners routinely applied the surveillance extension time period (i.e., grace period) contained in the plant Technical Specifications (TSs) Surveillance Requirements (SRs). The TSs typically allow for a less than or equal to 25% extension of the surveillance test interval to accommodate plant conditions that may not be suitable for conducting the surveillance (MPS3 TS 4.0.2). However, Regulatory Issue Summary 2012-10, NRC Staff Position on Applying Surveillance Requirements 3.0.2 and 3.0.3 to Administrative Controls Program Tests, states that SR 3.0.2 and 3.0.3 cannot be applied to TS 5.5, Programs and Manuals, for tests that are not associated with a TS SR. MPS3 TS 4.0.2 is equivalent to SR 3.0.2 contained in NUREG-1431, Standard Technical Specifications, Westinghouse Plants.

The lack of a tolerance band on the ASME OM Code IST frequency restricts operational flexibility. There may be a conflict where a surveillance test could be required (i.e., its frequency could expire), but where it is not possible or not desired that it be performed until sometime after a plant condition or associated Limiting Condition for Operation (LCO) is within its applicability.

The NRC recognized this potential issue in the TSs by allowing a frequency tolerance as described in MPS3 TS 4.0.2. The lack of a similar tolerance applied to OM Code testing places an unusual hardship on the plant to adequately schedule work tasks without operational flexibility. Thus, just as with TS-required surveillance testing, some tolerance is needed to allow adjusting OM Code testing intervals to suit the plant conditions and other maintenance and testing activities. This assures operational flexibility when scheduling surveillance tests and minimizes conflict between the need to complete the surveillance and plant conditions.

Proposed Alternative and Basis for Use

Code Case OMN-20 is included in the ASME OM Code, 2009 Edition, and is proposed for use as an alternative in determining acceptable tolerances for pump and valve test frequencies of the ASME OM Code. This code case was approved by the ASME OM Code Standards Committee in February 2012.

The requirements of Code Case OMN-20 are described below.

ASME OM, Division 1, Section IST and earlier editions and addenda of ASME OM Code specify component test frequencies based either on elapsed time periods (e.g., quarterly, 2

years) or on the occurrence of plant conditions or events (e.g., cold shutdown, refueling outage, upon detection of a sample failure, following maintenance) as discussed below.

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Period extension is to facilitate test scheduling and considers plant operating conditions that may not be suitable for performance of the required testing (e.g., performance of the test would cause an unacceptable increase in the plant risk profile due to transient conditions or other ongoing surveillance, test or maintenance activities). Period extensions are not intended to be used as a routine action for mere operational convenience.

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Period extensions may not be applied to the test frequency requirements specified in Subsection ISTD, *Preservice and Inservice Examination and Testing of Dynamic Restraints (Snubbers) in Light-water Reactor Nuclear Power Plants*, as Subsection ISTD contains its own rules for period extensions.

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- b) Components whose test frequencies are based on the occurrence of plant conditions or events may not have their period between tests extended except as allowed by ASME OM Division: 1 Section IST 2009 Edition through OMa-2011 Addenda and earlier editions and addenda of ASME OM Code.

Duration of Proposed Alternative

This proposed alternative will be utilized for the remainder of the MPS3 third 10-year IST interval, which began on December 2, 2008 and will end on December 1, 2018.

Precedents

The proposed alternative request for MPS3 is similar to the following approved or pending alternative/relief requests shown below:

- 1) Alternative Request RV-01 was approved by the NRC for Quad Cities Units 1 and 2 on February 14, 2013 (ADAMS Accession No. ML13042A348).
- 2) Exelon Letter TMI-12-168, Submittal of Relief Requests Associated with the Fifth Inservice Testing Interval, November 7, 2012 (ADAMS Accession No. ML12313A344).
- 3) Virginia Electric and Power Company, Surry Units 1 and 2, Inservice Testing Program for Pumps and Valves, Fifth Ten Year Interval Update and Associated Relief Requests, May 1, 2013 (ADAMS Accession No. ML13128A104).
- 4) South Carolina Electric and Gas Company, Virgil C. Summer Unit 1, Request Relief from ASME Code Requirements in VCSNS 4th Ten Year Inservice Inspection Interval, RR-4-01 (G) IST Pump and Valve Surveillance Requirements..., May 16, 2013 (ADAMS Accession No. ML13140A008).

References

- 1) ASME OM Code, 2001 Edition, Addenda through 2003.
- 2) Regulatory Issue Summary 2012-10, NRC Staff Position on Applying Surveillance Requirements 3.0.2 and 3.0.3 to Administrative Controls Program Tests.
- 3) NUREG-1482, Revision 1, Guidelines for Inservice Testing at Nuclear Power Plants.
- 4) NUREG-1431, Revision 4.0, Standard Technical Specifications, Westinghouse Plants.