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**Constellation Energy**<sup>®</sup>

• Nine Mile Point Nuclear Station

June 24, 2008

U. S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

**ATTENTION:** Document Control Desk

**SUBJECT:** Nine Mile Point Nuclear Station  
Unit Nos. 1 and 2, Docket Nos. 50-220 and 50-410

License Amendment Requests Pursuant to 10 CFR 50.90: Revisions to the Technical Specifications Administrative Controls Section for the Inservice Testing Program

Pursuant to 10 CFR 50.90, Nine Mile Point Nuclear Station, LLC, (NMPNS) hereby requests an amendment to the Nine Mile Point Unit 1 (NMP1) Renewed Facility Operating License DPR-63 and to the Nine Mile Point Unit 2 (NMP2) Renewed Facility Operating License NPF-69. The proposed changes to the Technical Specifications (TS) contained herein would replace references to Section XI of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code with references to the ASME Code for Operation and Maintenance of Nuclear Power Plants (OM Code) in the applicable TS section for the Inservice Testing (IST) Program for NMP1 (TS 6.5.4) and NMP2 (TS 5.5.6). The proposed changes to these TS sections would also revise the allowance to extend IST frequencies by 25 percent (i.e., the provisions of NMP1 TS 4.0.2 and NMP2 TS Surveillance Requirement 3.0.2) to clearly state that this allowance is applicable to IST frequencies of 2 years or less. The proposed changes are based on Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler 479-A, Revision 0, "Changes to Reflect Revision of 10 CFR 50.55a," as modified by TSTF-497-A, Revision 0, "Limit Inservice Testing Program SR 3.0.2 Application to Frequencies of 2 Years or Less."

The Enclosure provides a description and technical bases for the proposed changes and existing TS pages marked up to show the proposed changes. NMPNS has concluded that the activities associated with the proposed changes represent no significant hazards consideration under the standards set forth in 10 CFR 50.92. The enclosed submittal contains no regulatory commitments.

Approval of the proposed amendments is requested by December 5, 2008, with 30 days for implementation of the approved amendments to support the next NMP1 and NMP2 10-year IST intervals, which are scheduled to begin on January 1, 2009.



Document Control Desk

June 24, 2008

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cc: S. J. Collins, NRC  
R. V. Guzman, NRC  
Resident Inspector, NRC  
J. P. Spath, NYSERDA

## **ENCLOSURE**

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### **EVALUATION OF THE PROPOSED CHANGE**

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- 1. Nine Mile Point Unit 1 - Proposed Technical Specification Changes (Mark-up)
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**1.0 SUMMARY DESCRIPTION**

This evaluation supports a request to amend Renewed Facility Operating License DPR-63 for Nine Mile Point Unit 1 (NMP1) and to amend Renewed Facility Operating License NPF-69 for Nine Mile Point Unit 2 (NMP2).

The proposed changes to the Technical Specifications (TS) contained herein would replace references to Section XI of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code with references to the ASME Code for Operation and Maintenance of Nuclear Power Plants (OM Code) in the applicable TS section for the Inservice Testing (IST) Program for NMP1 (TS 6.5.4) and NMP2 (TS 5.5.6). These changes are to maintain consistency with the requirements of 10 CFR 50.55a(f)(4) for pumps and valves that are classified as ASME Code Class 1, Class 2, and Class 3. The proposed changes to these TS sections would also revise the allowance to extend IST frequencies by 25 percent (i.e., the provisions of NMP1 TS 4.0.2 and NMP2 TS Surveillance Requirement (SR) 3.0.2) to clearly state that this allowance is applicable to IST frequencies of 2 years or less.

The proposed changes are based on Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler 479-A, Revision 0, "Changes to Reflect Revision of 10 CFR 50.55a" (Reference 1), as modified by TSTF-497-A, Revision 0, "Limit Inservice Testing Program SR 3.0.2 Application to Frequencies of 2 Years or Less" (Reference 2). TSTF-479 and TSTF-497 were approved by the NRC by letters dated December 6, 2005 (Reference 3) and October 4, 2006 (Reference 4), respectively.

**2.0 DETAILED DESCRIPTION**

**2.1 Description of the Proposed Change**

NMP1

NMP1 has custom TS. The IST Program was added to the Administrative Controls section of the NMP1 TS as Section 6.17 by License Amendment No. 173, which was issued by NRC letter dated August 5, 2002 (Reference 5). This TS section was subsequently re-numbered as Section 6.5.4 in License Amendment No. 181, issued by NRC letter dated April 23, 2003 (Reference 6). The provisions of TS 6.5.4 (previously TS 6.17) were considered to be similar to those in Section 5.5.7 of NUREG-1433, Revision 2 (Reference 7), with the exception that NMP1 TS 6.5.4 does not contain a table defining the ASME Code test frequencies (in terms of equivalent number of days) applicable to IST activities.

The proposed changes to NMP1 TS 6.5.4, which are modeled after TSTF-479-A and TSTF-497-A, are as follows:

1. TS 6.5.4.a and TS 6.5.4.c (re-numbered as TS 6.5.4.d) are revised by replacing references to Section XI of the ASME Boiler and Pressure Vessel Code with references to the ASME OM Code.
2. Existing TS 6.5.4.b is separated into two separate specifications. The revised TS 6.5.4.b addresses only the provisions of Specification 4.0.2 (i.e., the allowance to extend IST frequencies by 25 percent). The provisions of Specification 4.0.3 (i.e., for a missed surveillance) are addressed in new TS 6.5.4.c (see below). TS 6.5.4.b is revised to state:

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“The provisions of Specification 4.0.2 are applicable to the normal and accelerated testing frequencies specified as 2 years or less in the Inservice Testing Program for performing inservice testing activities.”

3. Existing TS 6.5.4.c is re-numbered as TS 6.5.4.d.
4. A new TS 6.5.4.c is added to address the provisions of Specification 4.0.3 regarding missed surveillances that were previously located in TS 6.5.4.b. New TS 6.5.4.c states:

“The provisions of Specification 4.0.3 are applicable to inservice testing activities.”

Attachment 1 provides the existing TS pages marked-up to show the proposed changes. There are no corresponding TS Bases changes needed for NMP1.

### NMP2

NMP2 has implemented Improved Technical Specifications based on NUREG-1434, Revision 1 (Reference 11). The proposed changes to NMP2 TS 5.5.6, “Inservice Testing Program,” are in accordance with TSTF-479-A as modified by TSTF-497-A, as follows:

1. TS 5.5.6.a and TS 5.5.6.d are revised by replacing references to Section XI of the ASME Boiler and Pressure Vessel Code with references to the ASME OM Code.
2. TS 5.5.6.b is revised to state (changes in bold typeface):

“The provisions of SR 3.0.2 are applicable to the above required Frequencies **and to other normal and accelerated Frequencies specified as 2 years or less in the Inservice Testing Program** for performing inservice testing activities.”

Attachment 2 provides the existing TS pages marked-up to show the proposed changes. Marked-up pages showing corresponding changes to the TS Bases are provided in Attachment 3 for information only. The TS Bases changes will be processed in accordance with the NMP2 TS Bases Control Program (TS 5.5.10).

## **2.2 Background**

Currently, the applicable TS section for the IST Program for NMP1 (TS 6.5.4) and NMP2 (TS 5.5.6) reference Section XI of the ASME Boiler and Pressure Vessel Code. The next 10-year IST intervals for NMP1 and NMP2 are scheduled to begin on January 1, 2009 (see Reference 8). The NMP1 and NMP2 IST program updates for the next IST intervals, submitted under separate cover, are based on the requirements of the 2004 Edition of the ASME OM Code (upon NRC approval of relief request GA-RR-01 included in the separate IST program update submittal).

In 1990, the ASME published the initial edition of the ASME OM Code that provided rules for IST of pumps and valves. The ASME OM Code replaced Section XI of the Boiler and Pressure Vessel Code for IST of pumps and valves. The 1995 edition of the ASME OM Code was incorporated by reference into 10 CFR 50.55a on September 22, 1999. Since 10 CFR 50.55a(f)(4)(ii) requires that IST during successive 10-year intervals comply with the requirements of the latest edition and addenda of the Code incorporated by reference in 10 CFR 50.55a(b), the NMP1 and NMP2 TS must be revised to reference the ASME OM

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Code that is applicable to the upcoming 10-year IST intervals. The proposed TS changes are based on TSTF-479-A and TSTF-497-A.

### **3.0 TECHNICAL EVALUATION**

The purposes of the IST program are to assess the operational readiness of pumps and valves, to detect degradation that might affect component operability, and to maintain safety margins, with provisions for increased surveillance and corrective action. 10 CFR 50.55a defines the requirements for applying industry codes to licensed nuclear power facilities.

Section XI of the ASME Code has been revised on a continuing basis over the years to provide updated requirements for the inservice inspection and IST of components. Until 1990, the ASME Code requirements addressing the IST of pumps and valves were contained in Section XI, Subsections IWP (for pumps) and IWV (for valves). In 1990, the ASME published the initial edition of the OM Code, which provided the rules for the IST of pumps and valves. Since the establishment of the 1990 Edition of the OM Code, the rules for IST are no longer being updated in Section XI. As identified in NRC SECY-99-017 dated January 13, 1999 (Reference 9), the NRC has generally considered the evolution of the ASME Code to result in a net improvement in the measures for inspecting piping and components and testing pumps and valves.

In a final rule dated September 22, 1999 (64 FR 51370), the NRC amended 10 CFR 50.55a(f)(4) to require that licensees update their IST Program to the latest approved edition of the ASME OM Code incorporated by reference in 10 CFR 50.55a(b). The 2001 Edition and the 2002 and 2003 Addenda of the ASME OM Code were approved for use by the NRC and were incorporated by reference in 10 CFR 50.55a(b) in a final rule dated October 1, 2004 (69 FR 58804).

NMP1 TS 6.5.4 and NMP2 TS 5.5.6 currently reference Section XI of the ASME Code as the source of the IST Program requirements for ASME Class 1, Class 2, and Class 3 components. The current Code of record for the third 10-year IST interval for NMP1 and the second IST interval for NMP2 is the 1989 Edition of the ASME Code, Section XI.

The upcoming fourth 10-year IST interval for NMP1 and the third 10-year IST interval for NMP2 are scheduled to begin on January 1, 2009. Based on the requirements of 10 CFR 50.55a(f)(4)(ii), the applicable ASME code is the 2001 Edition of the ASME OM Code including the 2003 Addenda. The NMP1 and NMP2 IST programs, submitted under separate cover, are based on the requirements of the 2004 Edition of the ASME OM Code (upon NRC approval of relief request GA-RR-01 included in the separate IST program update submittal). Thus, the proposed changes to NMP1 TS 6.5.4 and NMP2 TS 5.5.6 to revise the referenced ASME Code are necessary to achieve consistency with the IST requirements of 10 CFR 50.55a, beginning on January 1, 2009 (the scheduled start of the next IST intervals). These changes to the ASME Code references are based on TSTF-479-A and are administrative in nature.

Additionally, NMP1 TS 6.5.4 and NMP2 TS 5.5.6 are being revised to indicate that the allowance to extend IST frequencies by 25 percent (i.e., the provisions of NMP1 TS 4.0.2 and NMP2 TS SR 3.0.2) is applicable to the normal and accelerated IST frequencies specified as two years or less. This is consistent with the guidance contained in NUREG-1482, Revision 1, "Guidelines for Inservice Testing at Nuclear Power Plants" (Reference 10), which indicates that the 25 percent extension of the interval specified in the frequency would apply to increased frequencies the same way that it applies to regular frequencies.

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The IST Program has frequencies in excess of two years; e.g., five years and ten years. The NRC has previously expressed a concern with applying the 25 percent extension allowance (as permitted by NMP1 TS 4.0.2 and NMP2 TS SR 3.0.2) to IST frequencies that are greater than two years. TSTF-497-A is an administrative change established to address this concern by limiting application of the 25 percent extension allowance to IST frequencies of two years or less. Consistent with TSTF-497-A, the proposed changes to NMP1 TS 6.5.4 and NMP2 TS 5.5.6 restrict the use of the 25 percent extension allowance to only those normal or accelerated frequencies specified in the IST Program and in NMP2 TS 5.5.6 as two years or less.

In summary, the proposed changes to NMP1 TS 6.5.4 and NMP2 TS 5.5.6 are administrative in nature. The changes do not result in any substantive change in operating or testing requirements, and are consistent with the NRC's regulations.

#### **4.0 REGULATORY EVALUATION**

##### **4.1 Applicable Regulatory Requirements/Criteria**

10 CFR 50.55a defines the requirements for applying industry codes to each licensed nuclear power facility. 10 CFR 50.55a(f)(4) requires that throughout the service life of a nuclear power facility, pumps and valves that are classified as ASME Code Class 1, Class 2, and Class 3 must meet the inservice test requirements that are incorporated by reference in 10 CFR 50.55a(b) to the extent practical within the limitations of design, geometry and materials of construction of the components. 10 CFR 50.55a(f)(4)(ii) further states that inservice tests to verify operational readiness of pumps and valves, whose function is required for safety, conducted during successive 120-month (10-year) intervals must comply with the requirements of the latest edition and addenda of the ASME Code incorporated by reference in 10 CFR 50.55a(b) 12 months before the start of the 120-month interval, subject to the limitations and modifications identified in 10 CFR 50.55a(b).

10 CFR 50.55a(f)(5)(ii) requires that if a revised IST program for a facility conflicts with the TS for the facility, the licensee shall apply to the NRC for an amendment of the TS to conform the TS to the revised program, and that this application shall be submitted at least 6 months before the start of the period during which the provisions become applicable.

The next 10-year IST intervals for NMP1 and NMP2 are scheduled to begin on January 1, 2009. Based on the requirements of 10 CFR 50.55a(f)(4)(ii), the applicable ASME code is the 2001 Edition of the ASME OM Code including the 2003 Addenda. The NMP1 and NMP2 IST programs, submitted under separate cover, are based on the requirements of the 2004 Edition of the ASME OM Code (upon NRC approval of relief request GA-RR-01 included in the separate IST program update submittal). The proposed changes to the NMP1 and NMP2 TS to conform the TS to the revised IST programs are submitted for NRC approval in accordance with the requirements of 10 CFR 50.55a(f)(5)(ii).

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#### **4.2 Precedent**

The NRC has approved similar license amendments incorporating changes to the TS Administrative Controls for IST programs that are based on TSTF-479-A and TSTF-497-A. Examples include:

- Palisades Nuclear Plant (License Amendment No. 232 issued by NRC letter dated April 15, 2008 - TAC No. MD5713).
- Brunswick Steam Electric Plant, Unit Nos. 1 and 2 (License Amendment Nos. 247 and 275 issued by NRC letter dated April 23, 2008 - TAC Nos. MD6916 and MD6917).

#### **4.3 Significant Hazards Consideration**

Nine Mile Point Nuclear Station, LLC (NMPNS) is requesting revisions to the Nine Mile Point Unit 1 (NMP1) and Nine Mile Point Unit 2 (NMP2) Technical Specification (TS) sections that describe the Inservice Testing (IST) Program for each unit. The proposed changes would replace references to Section XI of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code with references to the ASME Code for Operation and Maintenance of Nuclear Power Plants (OM Code) to maintain consistency with the requirements of 10 CFR 50.55a(f)(4) for pumps and valves which are classified as ASME Code Class 1, Class 2, and Class 3. The proposed changes would also revise the allowance to extend IST frequencies by 25 percent to clearly state that this allowance is applicable to IST frequencies of 2 years or less.

The proposed changes are based on Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler 479-A, Revision 0, "Changes to Reflect Revision of 10 CFR 50.55a," as modified by TSTF-497-A, Revision 0, "Limit Inservice Testing Program SR 3.0.2 Application to Frequencies of 2 Years or Less." TSTF-479 and TSTF-497 were approved by the NRC by letters dated December 6, 2005 and October 4, 2006, respectively.

NMPNS has evaluated whether or not a significant hazards consideration is involved with the proposed amendments by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of Amendment," as discussed below:

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

Response: No.

The proposed changes revise the IST Program sections of the NMP1 and NMP2 TS to maintain consistency with the requirements of 10 CFR 50.55a(f)(4) regarding the IST of pumps and valves that are classified as ASME Code Class 1, Class 2, and Class 3. The proposed changes incorporate revisions to the ASME Code that result in a net improvement in the measures for testing pumps and valves. The proposed changes also revise the allowance to extend IST frequencies by 25 percent to clearly state that this allowance is applicable to IST frequencies of 2 years or less.

The proposed TS changes are administrative in nature. They do not impact any accident initiators, the ability to mitigate previously evaluated accidents, or the assumptions used in evaluating the

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radiological consequences of previously evaluated accidents. The proposed changes do not involve the addition or removal of any equipment, or any design changes to the facilities.

Therefore, the proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

Response: No.

The proposed changes revise the IST Program sections of the NMP1 and NMP2 TS to maintain consistency with the requirements of 10 CFR 50.55a(f)(4) regarding the IST of pumps and valves that are classified as ASME Code Class 1, Class 2, and Class 3. The proposed changes incorporate revisions to the ASME Code that result in a net improvement in the measures for testing pumps and valves. The proposed changes also revise the allowance to extend IST frequencies by 25 percent to clearly state that this allowance is applicable to IST frequencies of 2 years or less.

The proposed TS changes are administrative in nature. They do not involve a modification to the physical configuration of the plants (i.e., no new equipment will be installed) or involve a change in the methods governing normal plant operation. The proposed changes will not impose any new or different requirements or introduce a new accident initiator, accident precursor, or failure mechanism.

Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

Response: No.

The proposed TS changes are administrative in nature. They do not involve a modification to the physical configuration of the plants (i.e., no new equipment will be installed) or change the methods governing normal plant operation. The proposed changes do not modify the safety limits or setpoints at which protective actions are initiated, and do not change the requirements governing operation or availability of safety equipment assumed to operate to preserve margins of safety. The incorporation of revisions to the ASME Code results in a net improvement in the measures for testing pumps and valves. The safety function of the affected pumps and valves will be maintained.

Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

Based on the above, NMPNS concludes that the proposed amendments do not involve a significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

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#### **4.4 Conclusions**

In conclusion, based on the considerations discussed above, (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.

#### **5.0 ENVIRONMENTAL CONSIDERATION**

A review has determined that the proposed amendments would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, the proposed amendments do 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 offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendments meet 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 amendments.

#### **6.0 REFERENCES**

1. Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler, TSTF-479-A, "Changes to Reflect Revision of 10 CFR 50.55a," Revision 0
2. Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler, TSTF-497-A, "Limit Inservice Testing Program SR 3.0.2 Application to Frequencies of Two Years or Less," Revision 0
3. Letter from T. H. Boyce (NRC) to members of the Technical Specification Task Force, dated December 6, 2005
4. Letter from T. J. Kobetz (NRC) to members of the Technical Specification Task Force, dated October 4, 2006
5. Letter from P. S. Tam (NRC) to J. T. Conway (NMPNS), dated August 5, 2002, Nine Mile Point Nuclear Station, Unit No. 1 - Issuance of Amendment Re: Inservice Testing Requirements in the Technical Specifications (TAC No. MA3208)
6. Letter from P. S. Tam (NRC) to J. T. Conway (NMPNS), dated April 23, 2003, Nine Mile Point Nuclear Station, Unit No. 1 - Issuance of Amendment Re: Administrative Controls (TAC No. MB2441)
7. NUREG-1433, "Standard Technical Specifications, General Electric Plants, BWR/4," Revision 2, June 2001

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8. Letter from G. J. Laughlin (NMPNS) to Document Control Desk (NRC), dated June 29, 2007, Notification of Establishment of Concurrent Ten-Year Intervals for the Unit 1 and Unit 2 Inservice Testing Programs
9. SECY-99-017, "Proposed Amendment to 10 CFR 50.55a," January 13, 1999
10. NUREG-1482, "Guidelines for Inservice Testing at Nuclear Power Plants," Revision 1, January 2005
11. NUREG-1434, "Standard Technical Specifications, General Electric Plants, BWR/6," Revision 1, April 1995

**ATTACHMENT 1**

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**NINE MILE POINT UNIT 1**

**PROPOSED TECHNICAL SPECIFICATION CHANGES (MARK-UP)**

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The current version of Technical Specification Page 353 has been marked-up by hand to reflect the proposed changes.

- i. Limitations on the annual and quarterly doses to a member of the public from iodine-131, iodine-133, tritium, and all radionuclides in particulate form with half lives >8 days in gaseous effluents released from each unit to areas beyond the site boundary, conforming to 10 CFR 50, Appendix I;
- j. Limitations on the annual dose or dose commitment to any member of the public, beyond the site boundary, due to releases of radioactivity and to radiation from uranium fuel cycle sources, conforming to 40 CFR 190; and
- k. Limitations on venting and purging of the primary containment through the Emergency Ventilation System to maintain releases as low as reasonably achievable.

The provisions of Surveillance Requirements 4.0.2 and 4.0.3 are applicable to the Radioactive Effluent Controls Program surveillance frequencies.

6.5.4 Inservice Testing Program

*of the ASME Code for Operation and Maintenance of Nuclear Power Plants (ASME OM Code)*

*specified as 2 years or less in the Inservice Testing Program*

This program provides controls for inservice testing of Quality Group A, B, and C pumps and valves.

- a. Inservice testing of Quality Group A, B, and C pumps and valves shall be performed in accordance with requirements for American Society of Mechanical Engineers (ASME) Code Class 1, 2, and 3 components specified in ~~Section XI of~~ the applicable ~~ASME Boiler and Pressure Vessel Code~~ Edition and Addenda, subject to the applicable provisions of 10CFR50.55a;
- b. The provisions of Specifications ~~4.0.2 and 4.0.3~~ are applicable to the normal and accelerated testing frequencies for performing inservice testing activities;

Nothing in the ASME ~~Boiler and Pressure Vessel~~ Code shall be construed to supersede the requirements of any Technical Specification.

*d*

*OM*

6.5.5 Explosive Gas and Storage Tank Radioactivity Monitoring Program

This program provides controls for potentially explosive gas mixtures contained in the Main Condenser Offgas Treatment System and the quantity of radioactivity contained in unprotected outdoor liquid storage tanks.

*c. The provisions of Specification 4.0.3 are applicable to inservice testing activities; and*

## **ATTACHMENT 2**

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### **NINE MILE POINT UNIT 2**

### **PROPOSED TECHNICAL SPECIFICATION CHANGES (MARK-UP)**

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The current version of Technical Specification Page 5.5-5 has been marked-up by hand to reflect the proposed changes.

5.5 Programs and Manuals

applicable to the ASME Code for Operation and Maintenance of Nuclear Power Plants (ASME OM Code)

5.5.6 Inservice Testing Program (continued)

- a. Testing Frequencies ~~specified in Section XI of the ASME Boiler and Pressure Vessel Code~~ and applicable Addenda are as follows:

ASME ~~Boiler and Pressure Vessel~~ Code and applicable Addenda terminology for inservice testing activities

OM

Required Frequencies for performing inservice testing activities

and to other normal and accelerated Frequencies specified as 2 years or less in the Inservice Testing Program

Weekly	At least once per 7 days
Monthly	At least once per 31 days
Quarterly or every 3 months	At least once per 92 days
Semiannually or every 6 months	At least once per 184 days
Every 9 months	At least once per 276 days
Yearly or annually	At least once per 366 days
Biennially or every 2 years	At least once per 731 days

- b. The provisions of SR 3.0.2 are applicable to the above required Frequencies for performing inservice testing activities;
- c. The provisions of SR 3.0.3 are applicable to inservice testing activities; and
- d. Nothing in the ASME ~~Boiler and Pressure Vessel~~ Code shall be construed to supersede the requirements of any TS.

OM

5.5.7 Ventilation Filter Testing Program (VFTP)

The VFTP shall establish the required testing of Engineered Safety Feature (ESF) filter ventilation systems.

Tests described in Specification 5.5.7.a and 5.5.7.b shall be performed once per 24 months; after each complete or partial replacement of the HEPA filter bank or charcoal adsorber bank; after any structural maintenance on the HEPA filter bank or charcoal adsorber bank housing; and, following significant painting, fire, or chemical release in any ventilation zone communicating with the subsystem while it is in operation.

(continued)

## **ATTACHMENT 3**

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### **NINE MILE POINT UNIT 2**

### **CHANGES TO TECHNICAL SPECIFICATION BASES (MARK-UP)**

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The current versions of the following Technical Specifications Bases pages have been marked-up by hand to reflect the proposed changes. These Bases pages are provided for information only and do not require NRC approval.

B 3.4.6-5  
B 3.5.1-11  
B 3.6.2.3-4  
B 3.6.2.4-4  
B 3.8.1-19  
B 3.8.1-31

## BASES

SURVEILLANCE  
REQUIREMENTSSR 3.4.6.1 (continued)

pressure condition. As stated in the LCO Section of the Bases, the test pressure may be at a lower pressure than the maximum pressure differential (at the RCS maximum pressure of 1040 psig) provided the observed leakage rate is adjusted in accordance with Reference 4. For the two PIVs in series, the leakage requirement applies to each valve individually and not to the combined leakage across both valves. If the PIVs are not individually leakage tested, one valve may have failed completely and not be detected if the other valve in series meets the leakage requirement. In this situation, the protection provided by redundant valves would be lost.

DM

The Frequency required by the Inservice Testing Program is within the ASME Code ~~Section XI~~. Frequency requirement and is based on the need to perform this Surveillance under the conditions that apply during an outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power.

Therefore, this SR is modified by a Note that states the leakage Surveillance is only required to be performed in MODES 1 and 2. Entry into MODE 3 is permitted for leakage testing at high differential pressures with stable conditions not possible in the lower MODES.

## REFERENCES

1. 10 CFR 50.2.
2. 10 CFR 50.55a(c).
3. 10 CFR 50, Appendix A, GDC 55.
4. ~~ASME, Boiler and Pressure Vessel Code, Section XI~~
5. NUREG-0677, "The Probability of Intersystem LOCA: Impact due to Leak Testing and Operational Changes," May 1980.
6. Technical Requirements Manual.
7. 10 CFR 50.36(c)(2)(ii).
8. NEDC-31339, "BWR Owners Group Assessment of Emergency Core Cooling System Pressurization in Boiling Water Reactors," November 1986.

ASME Code for Operation and Maintenance of Nuclear Power Plants.

## BASES

SURVEILLANCE  
REQUIREMENTS  
(continued)SR 3.5.1.4

OM

The performance requirements of the ECCS pumps are determined through application of the 10 CFR 50, Appendix K, criteria (Ref. 8). This periodic Surveillance is performed (in accordance with the ASME Code ~~Section XI~~ requirements for the ECCS pumps) to verify that the ECCS pumps will develop the flow rates required by the respective analyses. The ECCS pump flow rates ensure that adequate core cooling is provided to satisfy the acceptance criteria of 10 CFR 50.46 (Ref. 10).

The pump flow rates are verified against a system head that is equivalent to the RPV pressure expected during a LOCA. The total developed head is adequate to overcome the elevation head pressure between the pump suction and the vessel discharge, the piping friction losses, and RPV pressure present during LOCAs. These values may be established during pre-operational testing. A 92 day Frequency for this Surveillance is in accordance with the Inservice Testing Program requirements.

SR 3.5.1.5

The ECCS subsystems are required to actuate automatically to perform their design functions. This Surveillance verifies that, with a required system initiation signal (actual or simulated), the automatic initiation logic of HPCS, LPCS, and LPCI will cause the systems or subsystems to operate as designed, i.e., actuation of the system throughout its emergency operating sequence, which includes automatic pump startup and actuation of all automatic valves (including the LPCI flow diversion valves closed on a Reactor Vessel Water Level—Low, Level 3 or a Drywell Pressure—High (Boundary Isolation) signal) to their required positions. This Surveillance also ensures that the HPCS System will automatically restart (i.e., injection valve re-open) on an RPV low water level (Level 2) signal received subsequent to an RPV high water level (Level 8) signal and that the suction is automatically transferred from the CST to the suppression pool. The LOGIC SYSTEM FUNCTIONAL TEST performed in LCO 3.3.5.1 overlaps this Surveillance to provide complete testing of the assumed safety function.

(continued)

BASES

SURVEILLANCE  
REQUIREMENTS

SR 3.6.2.3.1 (continued)

The Frequency of 31 days is justified because the valves are operated under procedural control, improper valve position would affect only a single subsystem, the probability of an event requiring initiation of the system is low, and the system is a manually initiated system. This Frequency has been shown to be acceptable, based on operating experience.

SR 3.6.2.3.2

Verifying each required RHR pump develops a flow rate  $\geq 7450$  gpm, while operating in the suppression pool cooling mode with flow through the associated heat exchanger, ensures that the primary containment peak pressure and temperature can be maintained below the design limits during a DBA (Ref. 1). The flow is also a normal test of centrifugal pump performance required by ASME ~~Section XI~~ (Ref. 3). This test confirms one point on the pump design curve, and the results are indicative of overall performance. Such inservice tests confirm component OPERABILITY and detect incipient failures by indicating abnormal performance. The Frequency of this SR is in accordance with the Inservice Testing Program.

the  
OM Code

REFERENCES

1. USAR, Section 6.2.
2. 10 CFR 50.36(c)(2)(ii).
3. ASME, Boiler and Pressure Vessel Code, Section XI

ASME Code for Operation and Maintenance of Nuclear Power Plants.

BASES

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SURVEILLANCE  
REQUIREMENTS

SR 3.6.2.4.1 (continued)

acceptable since the RHR suppression pool cooling mode is manually initiated. This SR does not require any testing or valve manipulation; rather, it involves verification that those valves capable of being mispositioned are in the correct position. This SR does not apply to valves that cannot be inadvertently misaligned, such as check valves.

The Frequency of 31 days is justified because the valves are operated under procedural control, improper valve position would affect only a single subsystem, the probability of an event requiring initiation of the system is low, and the subsystem is a manually initiated system. This Frequency has been shown to be acceptable based on operating experience.

SR 3.6.2.4.2

Verifying each required RHR pump develops a flow rate  $\geq 450$  gpm while operating in the suppression pool spray mode helps ensure that the primary containment pressure can be maintained below the design limits during a DBA (Ref. 1). The normal test of centrifugal pump performance required by ~~section XI of~~ the ASME Code (Ref. 3) is covered by the requirements of LCO 3.6.2.3, "RHR Suppression Pool Cooling." The Frequency of this SR is in accordance with the Inservice Testing Program.

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REFERENCES

1. USAR, Section 6.2.2.2.
2. 10 CFR 50.36(c)(2)(ii).
3. ~~ASME, Boiler and Pressure Vessel Code, Section XI~~

ASME Code for Operation and Maintenance of Nuclear Power Plants.

BASES

SURVEILLANCE  
REQUIREMENTS

SR 3.8.1.4 (continued)

provided and facility operators would be aware of any large uses of fuel oil during this period.

SR 3.8.1.5

Microbiological fouling is a major cause of fuel oil degradation. There are numerous bacteria that can grow in fuel oil and cause fouling, but all must have a water environment in order to survive. Removal of water from the fuel oil day tanks once every 31 days eliminates the necessary environment for bacterial survival. This is most effective means in controlling microbiological fouling. In addition, it eliminates the potential for water entrainment in the fuel oil during DG operation. Water may come from any of several sources, including condensation, ground water, rain water, contaminated fuel oil, and breakdown of the fuel oil by bacteria. Frequent checking for and removal of accumulated water minimizes fouling and provides data regarding the watertight integrity of the fuel oil system. The Surveillance Frequency is established by Regulatory Guide 1.137 (Ref. 13). This SR is for preventive maintenance. The presence of water does not necessarily represent a failure of this SR provided that accumulated water is removed during performance of this Surveillance.

SR 3.8.1.6

This Surveillance demonstrates that each fuel oil transfer pump (two per DG) operates and automatically transfers fuel oil from its associated storage tank to its associated day tank. It is required to support the continuous operation of standby power sources. This Surveillance provides assurance that each fuel oil transfer pump is OPERABLE, the fuel oil piping system is intact, the fuel delivery piping is not obstructed, and the controls and control systems for automatic fuel transfer systems are OPERABLE. Two fuel oil transfer pumps per DG are required since each pump only has a simplex strainer.

The Frequency for this SR is conservative with respect to the testing requirements for pumps as contained in the ASME ~~Boiler and Pressure Vessel~~ Code ~~Section XI~~ (Ref. 16).



(continued)

BASES

SURVEILLANCE  
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SR 3.8.1.18 (continued)

The 10 year Frequency is consistent with the recommendations of Regulatory Guide 1.9 (Ref. 11), paragraph C.2.2.14.

This SR is modified by a Note. The reason for the Note is to minimize wear on the DG during testing. For the purpose of this testing, the DGs must be started from standby conditions, that is, with the engine coolant and oil continuously circulated and temperature maintained consistent with manufacturer recommendations.

REFERENCES

1. 10 CFR 50, Appendix A, GDC 17.
2. USAR, Chapter 8.
3. USAR, Tables 8.3-1, 8.3-2, and 8.3-3.
4. Regulatory Guide 1.9, Revision 2, December 1979.
5. USAR, Chapter 6.
6. USAR, Chapter 15.
7. 10 CFR 50.36(c)(2)(ii).
8. Regulatory Guide 1.93, Revision 0, December 1974.
9. Generic Letter 84-15, July 2, 1984.
10. 10 CFR 50, Appendix A, GDC 18.
11. Regulatory Guide 1.9, Revision 3, July 1993.
12. Regulatory Guide 1.108, Revision 1, August 1977.
13. Regulatory Guide 1.137, Revision 1, October 1979.
14. ANSI C84.1, 1982.
15. USAR, Section 15.6.5.
16. ~~ASME, Boiler and Pressure Vessel Code, Section XI~~
17. IEEE Standard 308-1980.

ASME Code for Operation and Maintenance of  
Nuclear Power Plants.