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

September 23, 2009

Mr. Samuel L. Belcher
Vice President Nine Mile Point
Nine Mile Point Nuclear Station, LLC
P.O. Box 63
Lycoming, NY 13093

SUBJECT: NINE MILE POINT NUCLEAR STATION, UNIT NO. 2 – REQUEST FOR ALTERNATIVE NO. MSS-VR-02 MAIN STEAM SAFETY RELIEF VALVE TEST INTERVAL EXTENSION (TAC NO. ME2130)

Dear Mr. Belcher:

By letter dated August 25, 2009, Nine Mile Point Nuclear Station, LLC (NMPNS, the licensee) submitted relief request MSS-VR-02, requesting to use an alternative inservice test provision in the American Society of Mechanical Engineers, *Code for Operation and Maintenance of Nuclear Power Plants,* in accordance with Title 10 of the *Code of Federal Regulations*, Part 50, Section 55a (10 CFR 50.55a) for Nine Mile Point Unit No. 2 (NMP2). Specifically, the NMPNS requested authorization to extend the test interval for NMP2 main steam safety relief valves (SRVs) 2MSS*PSV120, 2MSS*PSV121, 2MSS*PSV122, 2MSS*PSV123, 2MSS*PSV124, 2MSS*PSV125, 2MSS*PSV126, 2MSS*PSV128, 2MSS*PSV129, 2MSS*PSV130, 2MSS*PSV133, 2MSS*PSV134, 2MSS*PSV136, and 2MSS*PSV137 beyond 6 years, on a one-time basis until the April 2010 refueling outage.

The Nuclear Regulatory Commission (NRC) staff has reviewed NMPNS's regulatory and technical analysis in support of MSS-VR-02. Based on the information provided by NMPNS, the NRC staff has concluded that the proposed alternative is authorized pursuant to 10 CFR 50.55a(a)(3)(ii) for NMP2 main steam SRVs 2MSS*PSV120, 2MSS*PSV121, 2MSS*PSV126, 2MSS*PSV128, 2MSS*PSV129, 2MSS*PSV130, 2MSS*PSV133, 2MSS*PSV134, 2MSS*PSV136, and 2MSS*PSV137. The alternative in MS-VR-02 is not authorized for NMP2 main SRVs 2MSS*PSV122, 2MSS*PSV123, 2MSS*PSV124, and 2MSS*PSV125, as the allowed test interval expired for these valves prior to discovery. Technical Specification compliance for these valves was established by the licensee in accordance with Surveillance Requirement 3.0.3.

The NRC staff's safety evaluation is enclosed. If you have any questions, please contact Rich Guzman at (301) 415-1030 or via email at Richard.Guzman@nrc.gov.

Sincerely,

Nancy L. Salgado

Nancy L. Salgado, Chief
Plant Licensing Branch I-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-410

Enclosure:
As stated

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO THE ALTERNATIVE REQUEST MS-VR-02

SAFETY RELIEF VALVE TEST INTERVAL EXTENSION

NINE MILE POINT NUCLEAR STATION, LLC

NINE MILE POINT NUCLEAR STATION, UNIT NO. 2

DOCKET NO. 50-410

1.0 INTRODUCTION

By letter dated August 25, 2009, (Agencywide Documents Access and Management Systems (ADAMS) Accession No. ML092400149), Nine Mile Point Nuclear Station, LLC (NMPNS, the licensee) submitted Relief Request MSS-VR-02, requesting to use an alternative inservice test provision in the American Society of Mechanical Engineers, *Code for Operation and Maintenance of Nuclear Power Plants* (ASME OM Code), in accordance with Title 10 of the *Code of Federal Regulations*, Part 50, Section 55a (10 CFR 50.55a) for Nine Mile Point Unit No. 2 (NMP2). Specifically, the NMPNS requested authorization to extend the test interval for NMP2 main steam safety relief valves (SRVs) 2MSS*PSV120, 2MSS*PSV121, 2MSS*PSV122, 2MSS*PSV123, 2MSS*PSV124, 2MSS*PSV125, 2MSS*PSV126, 2MSS*PSV128, 2MSS*PSV129, 2MSS*PSV130, 2MSS*PSV133, 2MSS*PSV134, 2MSS*PSV136, and 2MSS*PSV137 beyond 6 years, on a one-time basis until the April 2010 refueling outage.

Pursuant to 10 CFR 50.55a(a)(3)(ii), NMPNS proposed the alternative on the basis that complying with the ASME OM Code SRV test interval would result in hardship or unusual difficulty due to unnecessary personnel radiation exposure without a compensating increase in the level of quality and safety.

2.0 REGULATORY EVALUATION

10 CFR 50.55a(f), "Inservice testing requirements," requires, in part, that ASME Class 1, 2, and 3 components must meet the requirements of the ASME OM Code and applicable addenda, except where alternatives have been authorized pursuant to paragraphs (a)(3)(i) and (a)(3)(ii) of 10 CFR 50.55a.

In proposing alternatives, a licensee must demonstrate that the proposed alternative provides an acceptable level of quality and safety or that compliance would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety. The NRC is authorized under 10 CFR 50.50.55a to approve alternatives to ASME OM Code requirements

upon making necessary findings. NRC guidance contained in NUREG-1482 Revision 1, "Guidelines for Inservice Testing at Nuclear Power Plants," provides alternatives to ASME Code requirements which are acceptable. NMPNS proposed an alternative in Relief Request MSS-VR-02 in accordance with 10 CFR 50.55a(a)(3)(ii), on the basis that complying with the ASME OM Code SRV test interval would result in hardship or unusual difficulty due to unnecessary personnel radiation exposure without a compensating increase in the level of quality and safety.

The NRC findings with respect to authorizing alternatives to the ASME OM Code are given below.

3.0 TECHNICAL EVALUATION

3.1 Alternative Request MSS-VR-02

ASME OM Code Mandatory Appendix I, Paragraph I-1320(a), "Test Frequencies, Class 1 Pressure Relief Valves," 2004 Edition, requires that Class 1 pressure relief valves be tested at least once every 5 years. ASME Code Interpretation 01-18, "ASME OM Code-1995 with OMa ASME Code-1996 Addenda, Appendix I," dated June 26, 2003, clarifies that the 5-year test interval starts when the valve is tested.

In a letter dated December 29, 2008 (ADAMS Accession No. ML083500039), the NRC authorized the alternative in Request MSS-VR-01 for the NMP2 third 10-year inservice testing (IST) program interval. The alternative in Request MSS-VR-01 extended the test interval for NMP2 main steam SRVs 2MSS*PSV120, 2MSS*PSV121, 2MSS*PSV122, 2MSS*PSV123, 2MSS*PSV124, 2MSS*PSV125, 2MSS*PSV126, 2MSS*PSV128, 2MSS*PSV129, 2MSS*PSV130, 2MSS*PSV133, 2MSS*PSV134, 2MSS*PSV136, and 2MSS*PSV137 to 6 years or every 3 refueling outages. Refueling outages are every 24 months at NMP2.

NMPNS is requesting authorization in Alternative Request MSS-VRR-02 to extend the test interval for NMP2 main steam SRVs 2MSS*PSV120, 2MSS*PSV121, 2MSS*PSV122, 2MSS*PSV123, 2MSS*PSV124, 2MSS*PSV125, 2MSS*PSV126, 2MSS*PSV128, 2MSS*PSV129, 2MSS*PSV130, 2MSS*PSV133, 2MSS*PSV134, 2MSS*PSV136, and 2MSS*PSV137 beyond 6 years on a one-time basis until the April 2010 refueling outage.

The 6-year test interval for NMP2 main steam SRVs 2MSS*PSV120, 2MSS*PSV121, 2MSS*PSV126, 2MSS*PSV128, 2MSS*PSV129, 2MSS*PSV130, 2MSS*PSV133, 2MSS*PSV134, 2MSS*PSV136, and 2MSS*PSV137 will expire before the refueling outage scheduled for April 2010. NMPNS requested authorization in Alternative Request MSS-VRR-02 to extend the test interval for up to 6 months beyond 6 years on a one-time basis until the April 2010 refueling outage for these SRVs. The 6-year test interval for NMP2 main steam SRVs 2MSS*PSV122, 2MSS*PSV123, 2MSS*PSV124, and 2MSS*PSV125 has already expired. The licensee's practice was to test an SRV, and then place it in storage before installing the SRV in the unit. NMPNS considered the start of the 6-year test interval to begin once the SRV was installed and storage time was not included in the 6-year interval.

NMPNS is proposing to delay the testing of SRVs 2MSS*PSV120, 2MSS*PSV121, 2MSS*PSV122, 2MSS*PSV123, 2MSS*PSV124, 2MSS*PSV125, 2MSS*PSV126, 2MSS*PSV128, 2MSS*PSV129, 2MSS*PSV130, 2MSS*PSV133, 2MSS*PSV134, 2MSS*PSV136, and 2MSS*PSV137 until the April 2010 refueling outage because it would be a

hardship without a compensating increase in the level of quality or safety to shutdown the unit (forced shutdown) to replace the SRVs. Without NRC authorization of the alternative in Relief Request MSS-VRR-02, the forced outage would be contrary to the principles of keeping radiation exposure as low as reasonably achievable. NMPNS estimates that an additional radiation exposure of approximately 12 rems [Roentgen Equivalent Man] would be realized if the proposed alternative is not authorized.

NMPNS indicated that it is permissible to delay testing SRVs 2MSS*PSV122, 2MSS*PSV123, 2MSS*PSV124, and 2MSS*PSV125 until the April 2010 refueling outage because Technical Specification (TS) compliance for these valves was established in accordance with TS Surveillance Requirement (SR) 3.0.3. NMPNS's justification for extending the test interval for 2MSS*PSV120, 2MSS*PSV121, 2MSS*PSV126, 2MSS*PSV128, 2MSS*PSV129, 2MSS*PSV130, 2MSS*PSV133, 2MSS*PSV134, 2MSS*PSV136, and 2MSS*PSV137 for up to 6 months beyond 6 years is that SRV as-found set pressure test data demonstrates the current maintenance practices have been effective, and that storage has had no significant impact on SRV test results.

3.2 NRC Staff's Evaluation of Proposed Alternative

NMP2 TS SR 3.0.2 permits a 25% extension of the ASME OM Code test frequencies specified in TS 5.5.6 to facilitate scheduling and in consideration of plant operating conditions that may not be suitable for conducting the test. The 25% extension is not intended to be used repeatedly or merely as an operational convenience to extend the interval beyond the test frequencies specified in TS 5.5.6. NMP2 TS SR 3.0.2 and TS 5.5.6 provide provisions for extending ASME OM Code test frequencies that are 2 years or less in duration. For example, a 2-year ASME OM Code test frequency could be extended up to 6 months in accordance with the provisions in TS SR 3.0.2 and TS 5.5.6.

The ASME developed Code Case OMN-17, "Alternative Rules for Testing ASME Class 1 Pressure Relief/Safety Valves." The ASME has approved and plans to publish OMN-17 in the upcoming edition/addenda of the ASME OM Code. Code Case OMN-17 allows extension of the test frequency for SRVs from 5 years to 6 years plus a 6-month grace period. The code case imposes a special maintenance requirement to disassemble and inspect each safety relief valve to verify that parts are free from defects resulting from the time-related degradation or maintenance-induced wear prior to the start of the extended test frequency. Similar to the special maintenance requirement in Code Case OMN-17, NMPNS stated that each SRV is disassembled to perform inspection and maintenance activities prior to the start of the 6-year test interval. All adverse conditions are corrected and each SRV is reassembled.

The NRC staff finds that extending the 6-year test interval for main steam SRVs 2MSS*PSV120, 2MSS*PSV121, 2MSS*PSV126, 2MSS*PSV128, 2MSS*PSV129, 2MSS*PSV130, 2MSS*PSV133, 2MSS*PSV134, 2MSS*PSV136, and 2MSS*PSV137 for up to 6 months is acceptable on a one time-basis until the April 2010 refueling outage. This extension is consistent with the NMP2 TS allowed extensions for other ASME test frequencies that are 2 years or less in duration. This extension is also consistent with the provisions of ASME Code Case OMN-17 which allows a test interval of 6 years plus a 6-month extension period. Extending the test interval for up to approximately 6 months until the April 2010 refueling outage months should not adversely affect the operational readiness of the SRVs.

The alternative in MS-VR-02 is not authorized for NMP2 main steam SRVs 2MSS*PSV122, 2MSS*PSV123, 2MSS*PSV124, and 2MSS*PSV125 because the allowed test interval expired prior to discovery. TS compliance for these valves was established by NMPNS in accordance with TS SR 3.0.3. The provisions in 10 CFR 50.55a(a)(3)(ii) were originally intended to be used for the construction phase of a plant. Alternatives were originally not meant to be used for operating plants, as the alternatives identified during construction were approved by the NRC for the licensed life of the plant. Subsequently, a determination was made to allow the authorization of alternatives to the ASME Code for the testing of components. However, the intent was that alternatives under 10 CFR 50.55a(a)(3)(ii) still be approved by the NRC prior to their implementation by the licensee, consistent with how they were approved during facility construction. Only when an ASME Code requirement is determined to be impractical by the licensee pursuant to 10 CFR 50.55a(f)(5)(iii) may a request for relief from the ASME Code requirement be submitted to the NRC within 1 year after the end of the IST 10-year interval.

4.0 CONCLUSION

As set forth above, the NRC staff determines that the alternative in Relief Request MS-VR-02 is acceptable for NMP2 main steam SRVs 2MSS*PSV120, 2MSS*PSV121, 2MSS*PSV126, 2MSS*PSV128, 2MSS*PSV129, 2MSS*PSV130, 2MSS*PSV133, 2MSS*PSV134, 2MSS*PSV136, and 2MSS*PSV137. Accordingly, the NRC staff concludes that NMPNS has adequately addressed all the regulatory requirements set forth in 10 CFR 50.55a(a)(3)(ii), and is in compliance with the ASME Code requirements. Therefore, the NRC staff authorizes the alternative in Relief Request MS-VR-02 for NMP2 main steam SRVs 2MSS*PSV120, 2MSS*PSV121, 2MSS*PSV126, 2MSS*PSV128, 2MSS*PSV129, 2MSS*PSV130, 2MSS*PSV133, 2MSS*PSV134, 2MSS*PSV136, and 2MSS*PSV137 at NMP2, on a one-time basis until the April 2010 refueling outage. The alternative in MS-VR-02 is not authorized for NMP2 main SRVs 2MSS*PSV122, 2MSS*PSV123, 2MSS*PSV124, and 2MSS*PSV125, as the allowed test interval expired for these valves prior to discovery. Technical Specification compliance for these valves was established by the licensee in accordance with Surveillance Requirement 3.0.3.

Principal Contributor: Stephen G. Tingen

Date: September 23, 2009

The NRC staff's safety evaluation is enclosed. If you have any questions, please contact Rich Guzman at (301) 415-1030 or via email at Richard.Guzman@nrc.gov.

Sincerely,
/RA/
Nancy L. Salgado, Chief
Plant Licensing Branch I-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-410

Enclosure:
As stated

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