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UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

August 19, 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 - ISSUANCE OF

AMENDMENT REGARDING IMPLEMENTATION OF TECHNICAL

SPECIFICATION TASK FORCE (TSTF)-460, REVISION 0, "CONTROL ROD SCRAM TIME TESTING FREQUENCY," USING THE CONSOLIDATED LINE

ITEM IMPROVEMENT PROCESS (TAC NO. ME0898)

Dear Mr. Belcher:

The Nuclear Regulatory Commission (NRC) has issued the enclosed Amendment No. 132 to Renewed Facility Operating License No. NPF-69 for the Nine Mile Point Nuclear Station (NMPNS), Unit No. 2 (NMP2), in response to your application dated March 9, 2009, (Agencywide Documents Access Management System Accession Number ML090780250).

The amendment revises the Technical Specification (TS) testing frequency for the Surveillance Requirement (SR) in TS 3.1.4, "Control Rod Scram Times," by extending the frequency of SR 3.1.4.2, from "120 days cumulative operation in Mode 1" to "200 days cumulative operation in Mode 1." This change is based on NRC-approved TSTF Change Traveler, TSTF-460-A, Revision 0, "Control Rod Scram Time Testing Frequency."

A copy of the related Safety Evaluation is enclosed. A Notice of Issuance will be included in the Commission's next regular biweekly *Federal Register* notice.

Sincerely,

Richard V. Guzman, Senior Project Manager

Plant Licensing Branch I-1

Division of Operator Reactor Licensing Office of Nuclear Reactor Regulation

Docket No. 50-410

Enclosures:

1. Amendment No. 132 to NPF-69

2. Safety Evaluation

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UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

NINE MILE POINT NUCLEAR STATION, LLC (NMPNS) DOCKET NO. 50-410

NINE MILE POINT NUCLEAR STATION, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 132 Renewed License No. NPF-69

- 1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Nine Mile Point Nuclear Station, LLC (the licensee) dated March 9, 2009, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
- 2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. NPF-69 is hereby amended to read as follows:
 - (2) <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, as revised through Amendment No. 132 are hereby incorporated into this license. Nine Mile Point Nuclear Station, LLC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 60 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Nancy L. Salgado, Chief Plant Licensing Branch I-1

Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

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Attachment: Changes to the License and Technical Specifications

Date of Issuance: August 19, 2009

ATTACHMENT TO LICENSE AMENDMENT NO. 132 TO RENEWED FACILITY OPERATING LICENSE NO. NPF-69

DOCKET NO. 50-410

Replace the following page of the Renewed Facility Operating License with the attached revised page. The revised page is identified by amendment number and contains marginal lines indicating the areas of change.

Remove Page Insert Page
4 4

Replace the following page of Appendix A, Technical Specifications, with the attached revised page. The revised page is identified by amendment number and contains marginal lines indicating the areas of change.

Remove Page Insert Page 3.1.4-2 3.1.4-2

(1) Maximum Power Level

Nine Mile Point Nuclear Station, LLC is authorized to operate the facility at reactor core power levels not in excess of 3467 megawatts thermal (100 percent rated power) in accordance with the conditions specified herein.

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, as revised through Amendment No. 132 are hereby incorporated into this license. Nine Mile Point Nuclear Station, LLC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

(3) Fuel Storage and Handling (Section 9.1, SSER 4)*

- a. Fuel assemblies, when stored in their shipping containers, shall be stacked no more than three containers high.
- When not in the reactor vessel, no more than three fuel assemblies shall be allowed outside of their shipping containers or storage racks in the New Fuel Vault or Spent Fuel Storage Facility.
- c. The above three fuel assemblies shall maintain a minimum edgeto-edge spacing of twelve (12) inches from the shipping container array and approved storage rack locations.
- d. The New Fuel Storage Vault shall have no more than ten fresh fuel assemblies uncovered at any one time.

(4) Turbine System Maintenance Program (Section 3.5.1.3.10, SER)

The operating licensee shall submit for NRC approval by October 31, 1989, a turbine system maintenance program based on the manufacturer's calculations of missile generation probabilities. (Submitted by NMPC letter dated October 30, 1989 from C.D. Terry and approved by NRC letter dated March 15, 1990 from Robert Martin to Mr. Lawrence Burkhardt, III).

^{*} The parenthetical notation following the title of many license conditions denotes the section of the Safety Evaluation Report (SER) and/or its supplements wherein the license condition is discussed.

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE REQUIREMENTS (continued)					
	SURVEILLANCE	FREQUENCY			
SR 3.1.4.2	Verify, for a representative sample, each tested control rod scram time is within the limits of Table 3.1.4-1 with reactor steam dome pressure ≥ 800 psig.	200 days cumulative operation in MODE 1			
SR 3.1.4.3	Verify each affected control rod scram time is within the limits of Table 3.1.4-1 with any reactor steam dome pressure.	Prior to declaring control rod OPERABLE after work on control rod or CRD System that could affect scram time			
SR 3.1.4.4	Verify each affected control rod scram time is within the limits of Table 3.1.4-1 with reactor steam dome pressure ≥ 800 psig.	Prior to exceeding 40% RTP after fuel movement within the affected core cell AND Prior to exceeding 40% RTP after work on control rod or CRD System that could affect scram time			



UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 132

TO RENEWED FACILITY OPERATING LICENSE NO. NPF-69

NINE MILE POINT NUCLEAR STATION, LLC

NINE MILE POINT NUCLEAR STATION, UNIT NO. 2

DOCKET NO. 50-410

1.0 INTRODUCTION

By letter dated March 9, 2009 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML090780250), Nine Mile Point Nuclear Station, LLC (NMPNS or the licensee) submitted a license amendment request (LAR) for changes to the Nine Mile Point Nuclear Station, Unit No. 2 (NMP2) Technical Specifications (TSs).

The proposed amendment would revise the Technical Specification (TS) testing frequency for the Surveillance Requirement (SR) in TS 3.1.4, "Control Rod Scram Times," by extending the frequency of SR 3.1.4.2 from "120 days cumulative operation in Mode 1" to "200 days cumulative operation in Mode 1." This change is based on TS Task Force (TSTF) Change Traveler, TSTF-460-A, Revision 0, "Control Rod Scram Time Testing Frequency," which has been approved by the Nuclear Regulatory Commission (NRC) generically for the Boiling-Water Reactor (BWR) Standard TS, NUREG-1433 (BWR/4) and NUREG-1434 (BWR/6). The changes were described in a Notice of Availability for Consolidated Line Item Improvement Process (CLIIP) TSTF-460, published in the *Federal Register* on August 23, 2004 (69 FR 51864).

NMP2 is a BWR/5 plant. The NMP2 SR 3.1.4.2 is identical to Standard TS, NUREG-1433 (BWR/4) SR 3.1.4.2. The licensee stated in its application that the justifications presented in the TSTF proposal and the safety evaluation prepared by the NRC staff are applicable to NMP2.

2.0 REGULATORY EVALUATION

Title 10 of the Code of Federal Regulations (10 CFR) Section 50.36(c)(3), states that TSs shall contain SRs "relating to test, calibration, or inspection to assure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions for operation will be met."

The TS requirement governing the control rod scram time surveillance is intended to assure proper function of control rod insertion. Following each refueling outage, all control rod scram times are verified. In addition, periodically during power operation, a representative sample of

control rods is selected to be inserted to verify the insertion speed. A representative sample is defined as a sample containing at least 10 percent of the total number of control rods. The current TS stipulates that no more than 20 percent of the control rods in this representative sample can be "slow" during the post outage testing. With more than 20 percent of the sample declared to be "slow" per the criteria in Table 3.1.4-1, additional control rods are tested until this 20 percent criterion (e.g., 20 percent of the entire sample size) is satisfied, or until the total number of "slow" control rods (throughout the core, from all surveillances) exceeds the Limiting Condition for Operation limit. For planned testing, the control rods selected for the sample should be different for each test. The acceptance criterion for at-power surveillance testing will be redefined from 20 percent to 7.5 percent. This tightened acceptance criterion for at-power surveillance aligns with the TS 3.1.4 requirement for the total control rods allowed to have scram times exceeding the specified limit.

The proposed change does not affect any current operability requirements and the test frequency being revised is not specified in the regulations. As a result, no regulatory requirements or criteria are affected.

3.0 TECHNICAL EVALUATION

3.1 Statement of Proposed Changes

NMP2 SR 3.1.4.2 states, "Verify, for a representative sample, each tested control rod scram time is within the limits of Table 3.1.4-1 with reactor steam dome pressure ≥ 800 psig." SR 3.1.4.2 has a frequency of "120 days cumulative operation in MODE 1." The proposed change revises the frequency to "200 days cumulative operation in MODE 1." The TS Bases are revised to reference the new frequency and to reduce the percentage of the tested rods which can be "slow" from 20 percent to 7.5 percent.

3.2 Evaluation of Proposed Change

The control rod insertion (scram) time test results at NMP2 have shown the control rod scram rates to be highly reliable. During the most recent 7 years of operation, out of more than 1340 control rod insertion tests, no control rods have been slower than the insertion time limit. As stated in NMPNS's application:

Improved Technical Specifications (ITS) were implemented at NMP2 in December, 2000 and Scram Time Testing (STT) for all Control Rod Drives (CRDs) from then up to present met the ITS acceptance criteria with no 'Slow Rods' identified. Prior to ITS, custom Technical Specifications (CTS) had different criteria using maximum and average scram times for detecting slow CRDs. Scram Time Testing conducted between 1998 and 2000 using CTS criteria were reviewed. No instance of slow scram times were identified during the period.

The extensive historical database substantiates the claim of high reliability of the NMP2 control drive system. The current TS requires that 10 percent of the 185 control rods, or 18 rods, be tested via sampling every 120 cumulative days of operation in Mode 1.

The NMP2 current TS states that the acceptance criteria have been met if 20 percent or fewer of the sample control rods that are tested are found to be slow. The acceptance criterion is being redefined for at-power surveillance testing from 20 percent to 7.5 percent when the surveillance period is extended to 200 cumulative days of operation in Mode 1. This tightened acceptance criterion for at-power surveillance aligns with the TS 3.1.4 requirement for the total control rods allowed to have scram times exceeding the specified limit.

NMPNS has committed to incorporate the revised acceptance criterion value of 7.5 percent into TS Bases in accordance with their Bases Control Program and as a condition of this license amendment.

The NRC staff considers the extended surveillance interval to be justified by the demonstrated reliability of the control rod insertion system, based on historical control rod scram time test data, and by the more restrictive acceptance criterion for the number of slow rods allowed during atpower surveillance testing. The NRC staff finds the proposed TS change acceptable.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the New York State official was notified of the proposed issuance of the amendment. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and change the surveillance requirements. The NRC staff has determined that the amendment involves no significant increase in the amounts and no significant changes in the types of any effluents that may be released offsite and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (74 FR 23447). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors: K. Bucholtz

R. Grover

Date: August 19, 2009

August 19, 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 - ISSUANCE OF

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Sincerely,

/RA/

Richard V. Guzman, Senior Project Manager Plant Licensing Branch I-1 Division of Operator Reactor Licensing Office of Nuclear Reactor Regulation

Docket No. 50-410

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RGrover, NRR

ADAMS Accession No.: ML092260127 *SE provided by memo. No substantial changes made. NRR-106

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