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NMP2L 1920

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

RE: Nine Mile Point Unit 2  
Docket No. 50-410  
NPF-69

**Subject: Request for Enforcement Discretion to Technical Specification 3.6.2.3**

Gentlemen:

On December 17, 1999, following discussions with the NRC Staff, Nine Mile Point Unit 2 (NMP2) was granted enforcement discretion with respect to Technical Specification (TS) 3.6.2.3, Action a. The enforcement discretion became effective at 0400 hours on December 18, 1999, and expires at 0400 hours on December 20, 1999. The purpose of this letter is to document the basis of the verbal request and to request written confirmation of the enforcement discretion that was granted. NMP2 exited the action statement prior to use of the enforcement discretion.

NMP2 TS 3.6.2.3 requires the suppression pool cooling (SPC) mode of the residual heat removal (RHR) system to be operable with two independent loops, each loop consisting of one operable RHR pump, and an operable flow path capable of recirculating water from the suppression chamber through an RHR heat exchanger.

TS 3.6.2.3, Action a. requires:

"With one suppression pool cooling loop inoperable, restore the inoperable loop to OPERABLE status within 72 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours."


On December 15, 1999, at approximately 0400 hours, Operations personnel entered Action a. of TS 3.6.2.3, Suppression Pool Cooling, to perform preventative maintenance (PM) on the Division II RHR System. At approximately 1000 hours on December 16, 1999, Niagara Mohawk Power Corporation (NMPC) determined that valve 2SWP\*MOV90B was inoperable. Proper operation of 2SWP\*MOV90B is required to permit service water flow to the heat exchanger and maintain operability of the RHR SPC mode of operation. Accordingly, TS 3.6.2.3, Action a. is applicable until repairs are made to 2SWP\*MOV90B and the valve is returned to an operable status. To preclude completion of a plant shutdown, NMPC requested enforcement discretion concerning TS 3.6.2.3, Action a. for 48 hours to restore 2SWP\*MOV90B to an operable status.

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NMPC has concluded that there is less risk in continued operation than in forcing an unnecessary plant challenge by taking the plant to a shutdown condition to comply with the requirements of TS 3.6.2.3, Action a. The Attachment to this letter provides NMPC's response to the 10 criteria identified in NRC Inspection Manual Part 9900, Operations – Notices of Enforcement Discretion, issued June 29, 1999.

This request for enforcement discretion has been reviewed and approved by the NMP2 Station Operations Review Committee (SORC).

Very truly yours,

  
John T. Conway  
Vice President Nuclear Generation

JTC/JMT/kap  
Attachment

xc: Mr. H. J. Miller, NRC Regional Administrator, Region I  
Ms. S. R. Peterson, Section Chief PD-I, Section 1, NRR  
Mr. G. K. Hunegs, NRC Senior Resident Inspector  
Mr. D. S. Hood, Senior Project Manager, NRR  
Mr. G. S. Vissing, Project Directorate PD-I, Section 1, NRR  
Records Management

## **ATTACHMENT**

### **REQUEST FOR ENFORCEMENT DISCRETION**

**1. The Technical Specification (TS) or other license condition(s) that will be violated.**

Nine Mile Point Unit 2 (NMP2) TS 3.6.2.3, "Suppression Pool Cooling (SPC)," requires the SPC mode of the Residual Heat Removal (RHR) System to be operable with two independent loops, each loop consisting of one operable RHR pump, and an operable flow path capable of recirculating water from the suppression chamber through an RHR heat exchanger.

TS 3.6.2.3, Action a. requires:

"With one suppression pool cooling loop inoperable, restore the inoperable loop to OPERABLE status within 72 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours."

On December 15, 1999, at approximately 0400 hours, Operations personnel entered TS 3.6.2.3, Action a. to perform preventative maintenance (PM) on the Division II RHR System. At approximately 1000 hours on December 16, 1999, Niagara Mohawk Power Corporation (NMPC) determined that 2SWP\*MOV90B was inoperable. Proper operation of 2SWP\*MOV90B is required to permit service water flow to the heat exchanger, thereby maintaining operability of the RHR SPC mode of operation. Accordingly, TS 3.6.2.3, Action a. is applicable until repairs are made to 2SWP\*MOV90B and the valve is returned to an operable status.

**2. The circumstances surrounding the situation, including apparent root causes, the need for prompt action and identification of any relevant historical events.**

On December 15, 1999, at approximately 0400 hours, Operations personnel entered TS 3.6.2.3, Action a. to perform PM on the Division II RHR System. At approximately 1000 hours on December 16, 1999, while conducting these PM activities, NMPC personnel discovered severed bolts on RHR heat exchanger service water inlet valve 2SWP\*MOV90B. Specifically, the bolts which hold the packing gland to the valve body were severed between the follower and valve body connector. Proper operation of 2SWP\*MOV90B is required to permit service water flow to the heat exchanger, thereby maintaining operability of the RHR SPC mode of operation. Accordingly, TS 3.6.2.3, Action a. is applicable until repairs are made to 2SWP\*MOV90B, and the valve is returned to an operable status.

Preliminary assessment of the cause of the failure of the 2SWP\*MOV90B packing follower studs has been determined to be a potential inappropriate selection of material for the packing (gland) follower by the equipment manufacturer. The packing follower is a carbon steel component which is susceptible to rusting and corrosion in high humidity environments, and in applications where exposure to water (such as from packing leakage) exists. The condition is exacerbated by the excessively tight clearance between the

packing follower and the valve stem (shaft). Over time, corrosion fills the clearance gap and eventually causes the packing follower to seize (bind) to the valve stem. It has been determined that the valve actuators are capable of applying sufficient force to shear the packing follower studs if the follower is seized on the shaft. Conversations held between the vendor and Engineering indicate that similar valves supplied today have larger clearances between the valve stem and packing follower.

Similar conditions (i.e., excessive corrosion of packing follower studs, nuts, and follower itself), were identified in early 1996, on ten (10) other Service Water System valves. The corroded components were replaced with stainless steel parts to provide corrosion resistance.

A similar condition was identified in 1998 on 2SWP\*MOV90A. This valve was repaired by removing the corroded follower and broken follower studs, and replacing them with new component parts.

**3. The safety basis for the request, including an evaluation of the safety significance and potential consequences of the proposed course of action. This evaluation should include at least a qualitative risk assessment derived from the PRA.**

The NMP2 SPC mode of the RHR System consists of two independent subsystems, each containing a motor-driven pump, heat exchanger, piping, valves, instrumentation and controls. This mode of the RHR System removes heat from the suppression pool during accident conditions where there is a sudden input of heat from the primary system.

NMPC has determined that the SPC mode of the RHR System is capable of performing its intended function and that this enforcement discretion is consistent with protecting public health and safety. The basis for this determination is the following:

- a. The duration of the enforcement discretion is 48 hours. Division II of the SPC mode of the RHR System will be inoperable for the duration of this enforcement discretion. The redundant Division of the SPC mode of the RHR System is operable and capable of performing its safety function.
- b. The Core Damage Frequency (CDF) associated with an inoperable subsystem of the RHR System is  $2.9\text{E-}04/\text{yr}$ . The CDF and an assumed additional time of 96 hours for inoperability of the RHR B subsystem are considered in determining the incremental increase in the Core Damage Probability (CDP). If a subsystem of the RHR system were inoperable for an additional 96 hours, the increase in CDP would be approximately  $2.6\text{E-}06$ . The assumed period of 96 hours bounds the duration of the enforcement discretion, which is 48 hours. The basis of this CDP value assumes the proper function of the other Divisional subsystems of the RHR System. This assumption is consistent with the current configuration of the unit as described in item 3.a.
- c. Without the enforcement discretion, the unit would be required to shut down in a configuration where one loop of the SPC mode of the RHR System would be inoperable. Furthermore, during the shutdown evolution, entry would be required into Action a. of TS 3.4.9.1, titled, "Hot Shutdown," and Action a. of TS 3.4.9.2,

titled "Cold Shutdown," as the inoperable RHR heat exchanger also renders a shutdown cooling mode loop of the RHR System inoperable. Therefore, without enforcement discretion, compliance with the TS would challenge operation of the remaining operable subsystems of the SPC mode and shutdown cooling mode of the RHR System. Accordingly, repair of the valve within the 48 hour period of the enforcement discretion versus shutdown of the unit in its present configuration is consistent with the management of shutdown risk and the protection of public health and safety.

- d. Since an RHR subsystem is inoperable, a loop of suppression pool and drywell spray mode of the RHR System is inoperable. Therefore, entry is required into Action a. of TS 3.6.2.2, titled, "Suppression Pool and Drywell Spray." During the period of enforcement discretion, the other loop of this mode will be operable. This is acceptable since TS allows one suppression pool and drywell spray loop to be inoperable for up to 7 days.
- e. The duration of the enforcement discretion is bounded by the safety basis which supports the allowed out-of-service time provided by the Improved Technical Specifications, NUREG-1434, Revision 1.

**4. The basis for the conclusion that the noncompliance will not be of potential detriment to the public health and safety and that no significant hazards consideration is involved.**

NMPC has evaluated the inoperable subsystem of the RHR System and has concluded that there is no significant hazards consideration involved with the requested Notice of Enforcement Discretion. The significance of an inoperable subsystem of the RHR System has been found not to be of potential detriment to the public health and safety based upon the evaluation provided in Criterion 3, which concludes that Division I of the SPC mode of the RHR System is capable of performing its safety function.

**Operation of the NMP2 in accordance with the enforcement discretion will not involve a significant increase in the probability or consequences of an accident previously evaluated.**

The SPC mode of the RHR System is not an initiating event in any previously evaluated accident or transient. Therefore, the operation of NMP2 in accordance with the enforcement discretion will not involve a significant increase in the probability of an accident previously evaluated. Division I of the SPC mode of the RHR System is operable and capable of performing its safety function. Therefore, the enforcement discretion will not involve a significant increase in the consequences of an accident previously evaluated.

**Operation of NMP2 in accordance with the enforcement discretion will not create the possibility of a new or different kind of accident from any accident previously evaluated.**

Based on the performance of surveillance requirements to date, Division I of the SPC mode of the RHR System will continue to perform its safety function of providing cooling to the suppression pool during a design basis accident. There are no configuration changes to plant equipment and the plant is not being operated in a different manner than previously evaluated. Accordingly, the enforcement discretion will not create the possibility of a new or different kind of accident from any accident previously evaluated.

**Operation of NMP2 in accordance with the proposed enforcement discretion will not involve a significant reduction in the margin of safety.**

Division I of the SPC mode of the RHR System is operable and all appropriate surveillances are satisfied, indicating the subsystem's capability of performing its safety function. Accordingly, the proposed enforcement discretion will not involve a significant reduction in a margin of safety.

**5. The basis for the conclusion that the noncompliance will not involve adverse consequences to the environment.**

The requested discretion does not involve an increase in the amounts or types of any effluents that may be released offsite, nor an increase in individual or cumulative occupational radiation exposure. Also, the requested enforcement discretion does not physically modify the plant, increase the plant's licensed power level or involve irreversible environmental consequences.

**6. Any proposed compensatory measure(s).**

During the period for which the enforcement discretion is requested, no activities (e.g., preventative maintenance, surveillance testing, etc.) will be conducted on the redundant SPC mode of the RHR System that would potentially render this cooling function inoperable. NMPC will review the schedule for these activities to ensure that unnecessary challenges to the RHR System are not initiated.

An inspection of the Division I RHR heat exchanger service water inlet valve, 2SWP\*MOV90A, has been conducted and has verified an acceptable material condition exists. NMPC will also verify an acceptable material condition exists for service water valves susceptible to similar conditions prior to the start of the scheduled enforcement discretion.

**7. The justification for the duration of the noncompliance.**

NMPC requests enforcement discretion from TS 3.6.2.3, Action a., for no greater than 48 hours. The requested duration of time is needed to restore the equipment to an operable status.

8. **A statement that the request has been approved by SORC.**

This required enforcement discretion was reviewed and approved by the NMP2 Site Operations Review Committee (SORC).

9. **The request must specifically address which of the NOED criteria for appropriate plant conditions specified in Section B of NRC Inspection Manual Part 9900 is satisfied and how it is satisfied.**

NMP2 is currently operating in Operational Condition 1. Section B.2 of Part 9900, Criterion 1, states that for an operating plant, the enforcement discretion is intended to (a) avoid undesirable transients as a result of forcing compliance with the license condition and, thus, minimize potential safety consequences and operational risks or (b) eliminate testing, inspection, or system realignment that is inappropriate for the particular plant conditions. This enforcement discretion meets Criterion 1 (a) in that entry into TS 3.6.2.3, Action a. would require a plant shutdown after 72 hours. NMPC has concluded that there is less risk in continued operation than in forcing an unnecessary plant challenge by taking the plant to a shutdown condition.

10. **If a follow-up license amendment is required, the NOED request must include marked-up TS pages showing the proposed TS changes and a commitment to submit the actual license amendment request within 48 hours.**

No follow-up license amendment is required as part of this enforcement discretion.