

**UNITED STATES NUCLEAR REGULATORY COMMISSION****NIAGARA MOHAWK POWER CORPORATION****DOCKET NO. 50-410****NINE MILE POINT NUCLEAR STATION, UNIT NO. 2****ENVIRONMENTAL ASSESSMENT AND FINDING OF****NO SIGNIFICANT IMPACT**

The U.S. Nuclear Regulatory Commission (the Commission) is considering the issuance of an amendment to Facility Operating License No. NPF-69 issued to Niagara Mohawk Power Corporation (the licensee), for operation of the Nine Mile Point Nuclear Station, Unit 2 (NMP2), located in Oswego County, New York.

**ENVIRONMENTAL ASSESSMENT****Identification of the Proposed Action:**

The proposed amendment will revise the existing, or current, Technical Specifications (CTS) for NMP2 in their entirety based on the guidance provided in NUREG-1433 and NUREG-1434, "Standard Technical Specifications for General Electric Plants, BWR/4 and BWR/6," Revision 1, dated April 1995, and in the Commission's "Final Policy Statement on Technical Specifications Improvements for Nuclear Power Reactors," published on July 22, 1993 (58 FR 39132). The proposed amendment is in accordance with the licensee's amendment request dated October 16, 1998, as supplemented by letters dated December 30, 1998; and May 10, June 15, July 30, August 11, 16, 19, 27, and September 10, 1999.

**The Need for the Proposed Action:**

It has been recognized that nuclear safety in all nuclear power plants would benefit from an improvement and standardization of plant Technical Specifications (TS). The "NRC Interim

Policy Statement on Technical Specification Improvements for Nuclear Power Plants," (52 FR 3788) contained proposed criteria for defining the scope of TS. Later, the Commission's "Final Policy Statement on Technical Specifications Improvements for Nuclear Power Reactors," published on July 22, 1993 (58 FR 39132), incorporated lessons learned since publication of the interim policy statement and formed the basis for revisions to 10 CFR 50.36, "Technical Specifications." The "Final Rule" (60 FR 36953) codified criteria for determining the content of TS. To facilitate the development of standard TS for nuclear power reactors, each power reactor vendor owners' group (OG) and the NRC staff developed standard TS. For NMP2, the Improved Standard Technical Specifications (ISTS) are in NUREG-1433 and NUREG-1434, Revision 1. These documents formed part of the basis for the NMP2 Improved Technical Specifications (ITS) conversion. The NRC Committee to Review Generic Requirements (CRGR) reviewed the ISTS, made note of its safety merits, and indicated its support of the conversion by operating plants to the ISTS.

#### Description of the Proposed Change

The proposed changes to the CTS are based on NUREG-1433 and NUREG-1434, Revision 1, and on guidance provided by the Commission in its Final Policy Statement. The objective of the changes is to completely rewrite, reformat, and streamline the CTS (i.e., to convert the CTS to the ITS). Emphasis is placed on human factors principles to improve clarity and understanding of the TS. The Bases section of the ITS has been significantly expanded to clarify and better explain the purpose and foundation of each specification. In addition to NUREG-1433 and NUREG-1434, Revision 1, portions of the CTS were also used as the basis for the development of the NMP2 ITS. Plant-specific issues (e.g., unique design features, requirements, and operating practices) were discussed with the licensee, and generic matters were discussed with General Electric and other OGs.

The proposed changes from the CTS can be grouped into the following four categories: relocated requirements, administrative changes, less restrictive changes involving deletion of requirements, and more restrictive changes. These categories are as follows:

1. Relocated requirements (i.e., the licensee's LG or R changes) are items which are in the CTS but do not meet the criteria set forth in 10 CFR 50.36. This regulation establishes a specific set of objective criteria for determining which regulatory requirements and operating restrictions should be included in the TS. Relocation of requirements to documents with an established control program, controlled by the regulations or the TS, allows the TS to be reserved only for those conditions or limitations upon reactor operation which are necessary to obviate the possibility of an abnormal situation or event giving rise to an immediate threat to public health and safety, thereby focusing the scope of the TS. In general, the proposed relocation of items from the CTS to the Updated Safety Analysis Report (USAR), appropriate plant-specific programs, plant procedures, or ITS Bases follows the guidance of NUREG-1433 and NUREG-1434, Revision 1. Once these items have been relocated to other licensee-controlled documents, the licensee may revise them under the provisions of 10 CFR 50.59 or other NRC-approved control mechanisms, which provide appropriate procedural means to control changes by the licensee.

2. Administrative changes (i.e., the licensee's A changes) involve the reformatting and rewording of requirements, consistent with the style of the ISTS in NUREG-1433 and NUREG-1434, Revision 1, to make the TS more readily understandable to plant operators and other users. These changes are purely editorial in nature, or involve the movement or reformatting of requirements without affecting the technical content. Application of a standardized format and style will also help ensure consistency is achieved among specifications in the TS. These changes involves reformatting and rewording; no technical changes (either actual or interpretational) to the TS will be made with respect to these changes.

3. Less restrictive changes and the deletion of requirements involve portions of the CTS (i.e., the licensee's LS and TR changes) which (1) provide information that is descriptive in nature regarding the equipment, systems, actions, or surveillances, (2) provide little or no safety benefit, and (3) place an unnecessary burden on the licensee. This information is proposed to be deleted from the CTS and, in some instances, moved to the proposed Bases, USAR, or procedures. The removal of descriptive information to the Bases of the TS, USAR, or procedures is permissible because these documents will be controlled through a process that utilizes 10 CFR 50.59 and other NRC-approved control mechanisms. The relaxations of requirements were the result of generic NRC actions or other analyses. They will be justified on a case-by-case basis for NMP2 and described in the safety evaluation to be issued with the license amendment.

4. More restrictive requirements (i.e., the licensee's M changes) are proposed to be implemented in some areas to impose more stringent requirements than are in the CTS. In some cases, these more restrictive requirements are being imposed to be consistent with the ISTS. Such changes have been made after ensuring the previously evaluated safety analysis for NMP2 was not affected. Also, other more restrictive technical changes have been made to achieve consistency, correct discrepancies, and remove ambiguities from the TS. Examples of more restrictive requirements include: placing a limiting condition for operation (LCO) on plant equipment which is not required by the CTS to be operable; more restrictive requirements to restore inoperable equipment; and more restrictive surveillance requirements.

There are other proposed changes to the CTS that may be included in the proposed amendment to convert the CTS to the ITS. These are beyond-scope changes (changes that are not consistent with the CTS and/or NUREG-1433 and NUREG-1434, Revision 1) in that they are changes to both the CTS and the ISTS. For the NMP2, these are the following:

1. ITS 3.1.8, changing the Scram Discharge Volume Vent and Drain Valve ACTIONS to

allow continued operation with one valve in a line inoperable by isolating the penetration within 7 days (ACTION A) and to allow continued operation with two valves in a line inoperable by isolating the penetration within 8 hours (ACTION B). The ISTS requires the valves(s) to be restored to Operable status within 7 days.

2. ITS 3.3.1.1, ITS 3.3.6.1, ITS 3.5.1, and ITS 3.5.2, adding a Note to the Reactor Protection System (RPS) (Functions 3 and 4) and Isolation (Main Steam Line Isolation Valve (MSIV) Functions) Instrumentation Specifications exempting the sensors from response time testing and a Note to the Emergency Core Cooling System (ECCS) - Operating and - Shutdown Specifications exempting the instrumentation from response time testing.

3. ITS 3.3.2.2, allowing the feedwater pump to be removed from service in lieu of shutting down the unit to < 25 percent Rated Thermal Power (RTP) when the feedwater and main turbine high water level channels are inoperable and untripped.

4. ITS 3.3.3.1, ITS 3.3.3.2, ITS 3.3.8.2, ITS 3.3.8.3 and ITS 3.4.7, adding a Note to allow 6 hours to do Surveillance testing of the Post Accident Monitoring, Remote Shutdown System, RPS logic bus Electrical Power Monitoring Assemblies (EPAs), RPS scram solenoid bus EPAs and Leak Detection System, instrumentation channels prior to entering ACTIONS.

5. ITS 3.3.4.2, adding an allowance to only remove the associated Anticipated Transient Without Scram (ATWS)-recirculation pump trip (RPT) breaker (fast speed or slow speed, as applicable) from service, in lieu of removing the entire pump from service.

6. ITS 3.3.5.1, ITS 3.3.8.1, ITS 3.3.8.2 and ITS 3.3.8.3, changing the Allowable Values for (a) the Low-Pressure Cooling Injection (LPCI) and High-Pressure Core Spray (HPCS) minimum flow valves instrumentation; (b) the HPCS suppression pool water level swap over instrumentation; (c) the Loss of Voltage and Degraded Voltage Functions, including time delays; (d) the Undervoltage, Overvoltage, and Underfrequency Functions for the RPS Logic Bus EPAs ; and (e) the Undervoltage, Overvoltage, and Underfrequency Functions for the RPS

**Scram Solenoid Bus EPAs.**

7. ITS 3.3.6.1, deleting the MODE 1 and 2 requirements for certain Shutdown Cooling Isolation Functions (residual heat removal (RHR) Equipment Area temperature, Reactor Building Pipe Chase Temperature, Reactor Building Temperature, and Reactor Vessel Water Level - Low, Level 3.)

8. ITS 3.3.8.1 and ITS 3.3.5.1, deleting the Group 4 valves from isolation instrumentation requirements.

9. ITS 3.3.8.1, changing the requirement to only requiring 2 channels of degraded voltage and loss of voltage in lieu of three channels.

10. ITS SR 3.4.1.1 requiring verification every 12 hours that operation is in the "Unrestricted Zone" of ITS Figure 3.4.1-1.

11. ITS 3.4.1, changing from 2 hours to 8 hours, the frequency for determining the Average Power Range Monitors (APRM) and Low Power Range Monitors (LPRM) baseline noise level the first time the unit is in the Restricted Zone.

12. ITS 3.4.5, changing the frequency for monitoring the floor drain leakage rate from 8 hours to 12 hours, and changing the airborne radioactivity monitoring Surveillance to be every 8 hours.

13. ITS 3.5.1, changing the current number of Automatic Depression System (ADS) valves required to operate from seven to six.

14. ITS 3.5.1, modifying the current requirement of manually opening the ADS valves to only require the ADS actuators to be cycled.

15. ITS 3.6.1.3, changing the current requirement that each excess flow check valve (EFCV) must "check flow" to requiring each EFCV to actuate to its isolation position on an actual or simulated instrument line break signal.

16. ITS 3.6.1.3, changing the evolution to suspend the purging and venting LCO

**ACTIONS to within 1 hour, when Standby Gas Treatment (SGT) subsystem(s) are inoperable.**

**17. ITS 3.6.1.6, ITS 3.6.2.3 and ITS 3.5.2.4, deleting the current requirements to verify position of "automatic" valves in the RHR Drywell Spray, RHR Suppression Cooling, and RHR Suppression Pool Spray Systems.**

**18. ITS 3.6.1.6 and ITS 3.6.2.4, deleting the current requirement that drywell spray and suppression pool spray flows be through the heat exchanger.**

**19. ITS 3.7.2 and ITS 3.7.3, allowing a 7-day restoration time when both Control Room Envelope Filtration (CREF) subsystems are inoperable and a 30-day restoration time when both control room envelope alternating current (AC) subsystems are inoperable, provided the remaining components of the CREF System or Control Room Envelope AC System maintains the CREF System or Control Room Envelope AC System safety function, as applicable.**

**20. ITS 3.8.1, ITS 3.8.2, and ITS 3.8.3, changing AC Sources — Operating, AC Sources — Shutdown and Diesel Fuel Oil, Lube Oil, and Starting Air Specifications to include: a) more restrictive upper and lower voltage limits for various diesel generator (DG) Surveillances; b) increasing the kilowatt (kW) value for the single largest load surveillance requirement (SR) for the Division 3 DG; c) relaxing the load range values for the 24-hour DG run to be consistent with Regulatory Guide (RG) 1.9 Revision 3 (ISTS Bases says 100 percent for 22 hours and 110 percent for 2 hours is consistent with RG 1.9 Reference 3, which is not accurate); d) increasing the DG start time in the event of a Loss of Voltage signal from 13 seconds to 13.12 seconds; e) adding a Note which exempts Surveillances pertaining to a DG starting on a loss-of-coolant accident (LOCA) signal and a LOCA/loss of offsite power (LOOP) signal while in Modes 4 and 5 and during handling of irradiated fuel in the Secondary Containment when the ECCS subsystems are not required to be Operable; and f) increasing the fuel oil storage tank limits for the Division 1 and 2 DGs as well as the 6-day limits for all three DGs.**

21. ITS 3.8.4, changing the DC Sources — Operating Specification by: a) revising the battery load profile to be consistent with the load profile specified in the USAR; and b) adding an allowance to perform a modified performance discharge test every cycle in lieu of a service test.

22. ITS 3.8.7, requiring that the inverters be capable of being powered from an uninterruptible power supply (direct current (DC) source). Currently, this is not required; this is a more restrictive change.

23. ITS 3.3.8.3, specifying an allowable value in the ITS for the time delay setting of the RPS EPA - solenoid instrumentation.

24. ITS 3.3.8.1, deleting a requirement in the ISTS for performing a channel check on undervoltage relays; the status of relays are continuously monitored.

25. ITS 3.3.8.2, specifying allowances in allowable values for the time delay settings of the RPS EPA logic instrumentation.

26. ITS 3.3.4.2, adding additional verification of ATWS trip function bypass and time delays.

27. ITS 3.3.8.1, The STS allows a 2-hour delay from entering into the associated Conditions and Required Actions for a channel placed in an inoperable status solely for the performance of required surveillances, provided the associated function maintains DG initiation capability. This is changed in the ITS "provided the Associated Function maintains "LOP" [loss of power] initiation capability."

28. ITS 5.5.9.1.a, adding "specific gravity" to the acceptability of new fuel oil before adding to the DG fuel tanks.

29. ITS SR 3.6.3.1.2, adding a description of an additional requirement in the Bases SR 3.6.3.1.2 regarding when to perform the surveillance ("within 30 minutes following heatup of the

system to normal operating temperature.”)

30. ITS SR 3.3.1.1.16, modifying the Response Time Testing requirement for Function 9, Turbine Control Valve Fast Closure, Trip Oil Pressure - Low by stating that the response time is measured from the start of the control valve fast closure, not when the sensor (oil pressure sensor) exceeds its setpoint.

31. ITS 3.3.5.1, specifying an ADS pressure setpoint of 150 psig, implementing Topical Report NEDC-32291, and making other changes associated with moving Group 4 isolation valves into the ECCS TS in the ITS.

32. ITS 3.3.5.1, Table 3.3.5.1-1, specifying an ADS pressure setpoint for low-pressure core spray (LPCS) pump discharge pressure - high to be 150 psig based on implementation of Topical Report NEDC-32291.

33. ITS 3.3.2.1, deleting operational details in CTS Table 3.3.6-2 (Control Rod Block Instrumentation Set Points) not required to be TS, and providing allowable values based on NEDO-2411 which is not referenced in the ISTS.

34. ITS 3.3.6.1, deleting the reactor core isolation cooling (RCIC) drywell pressure high isolation functions, providing new RCIC/RHR Steam Flow Timer and SGT Exhaust Radiation High isolation functional allowable values, and deleting the main steam line (MSL) radiation high isolation function.

35. ITS 3.6.1.2, changing the requirement to verify that the air lock door seal leakage rate is within limit from “once per 7 days” to “once in 30 days.”

36. ITS 3.6.1.7, adding a note to allow a separate condition entry for each suppression chamber-to-drywell vacuum breaker.

37. ITS 3.6.1.7, changing the ACTION statement into two ACTION statements: ITS 3.6.1.7 ACTION B addresses the closing of the open vacuum breaker within 72 hours, while ITS 3.6.1.7 ACTION C addresses the verification/closing of the other vacuum breaker in the line

within 2 hours. However, both ITS 3.6.1.7 Conditions B and C have been modified such that the words "One or more lines with" have been added.

38. ITS 3.4.4, increasing the lift setpoint tolerance for the safety/relief valves to 3 percent.

39. ITS 3.3.1.1, deleting the MSL radiation monitor reactor trip requirement and surveillance requirement based on the application of NEDO-31400A.

40. ITS 3.7.2, SR 3.7.2.1, deleting the staggered testing requirement for the CREF subsystem.

41. ITS 3.3.1.2, adding a note to ITS SR 3.3.1.2.5 that defers determination of the signal-to-noise ratio in Mode 5 if less than or equal to four fuel assemblies are adjacent to the source range monitors (SRM) and no fuel is in the quadrant.

42. ITS 3.3.1.2, changing the STS Action to "initiate action to insert all insertable control rods...." to "Initiate action to 'fully' insert all insertable control rods....."

43. ITS 3.3.5.1, ITS Table 3.3.5.1-1, changing footnote (a) from the STS to include a citation of LCO 3.5.2 which amplifies the ECCS equipment instrumentation requirements.

44. ITS 5.5.2.b, adding a note that the provisions of SR 3.0.2 apply to integrated leak tests at 24 months.

45. ITS 3.8.8, incorporating changes to Condition A, B and C of the STS applicable to "one or more" Divisions and to "one or both."

46. ITS 3.6.4.1, incorporating wording changes that alter the meaning of containment operability with respect to meeting surveillance requirements which relates to whether the inoperability of the standby gas treatment system constitutes a failure of the surveillance of the secondary containment integrity test.

Environmental Impacts of the Proposed Action:

The Commission has completed its evaluation of the proposed conversion of the CTS to

the ITS for NMP2, including the beyond-scope issues discussed above. Changes which are administrative in nature have been found to have no effect on the technical content of the TS. The increased clarity and understanding these changes bring to the TS are expected to improve the operators' control of NMP2 in normal and accident conditions.

Relocation of requirements from the CTS to other licensee-controlled documents does not change the requirements themselves. Future changes to these requirements may then be made by the licensee under 10 CFR 50.59 and other NRC-approved control mechanisms which will ensure continued maintenance of adequate requirements. All such relocations have been found to be consistent with the guidelines of NUREG-1433 and NUREG-1434 and 10 CFR 50.36 does not require that the requirements be included in the TS.

Changes involving more restrictive requirements have been found to enhance plant safety.

Changes involving less restrictive requirements have also been reviewed. When requirements have been shown to provide little or no safety benefit, or to place an unnecessary burden on the licensee, their removal from the TS was justified. In most cases, relaxations previously granted to individual plants on a plant-specific basis were the result of a generic action, or of agreements reached during discussions with the OG, and found to be acceptable for the plant. Generic relaxations contained in NUREG-1433 and NUREG-1434, Revision 1, have been reviewed by the NRC staff and found to be acceptable.

In summary, the proposed revisions to the TS were found to provide control of plant operations such that reasonable assurance will be provided that the health and safety of the public will be adequately protected.

The proposed amendment will not increase the probability or consequences of accidents, will not change the quantity or types of any effluent that may be released offsite, and will not significantly increase the occupational or public radiological exposure. Also, these

changes do not increase the licensed power and allowable effluents for the plant. The changes will not create any new or unreviewed environmental impacts that were not considered in the Final Environmental Statement (FES) related to the operation of NMP2, (NUREG-1085, dated May 1985). Therefore, there are no significant radiological impacts associated with the proposed amendment.

With regard to potential non-radiological impacts, the proposed amendment involves features located entirely within the restricted area for the plant defined in 10 CFR Part 20 and does not involve any historical sites. They do not affect non-radiological plant effluents and have no other environmental impact. They do not increase any discharge limit for the plant. Therefore, there are no significant non-radiological environmental impacts associated with the proposed amendment.

Accordingly, the Commission concludes that there are no significant environmental impacts associated with the proposed amendment.

Alternatives to the Proposed Action:

As an alternative to the proposed action, the staff considered denial of the proposed action (i.e., the "no-action" alternative). Denial of the application would result in no change in current environmental impacts. The environmental impacts of the proposed action and the alternative action are similar.

Alternative Use of Resources:

This action does not involve the use of any resources not previously considered in the Final Environmental Statement for NMP2, dated May 1985.

Agencies and Persons Consulted:

In accordance with its stated policy, the staff consulted with the New York State official, Jack Spath, of the New York Energy and Research Authority on November 4, 1999, regarding the environmental impact of the proposed amendment. The State official had no comments.

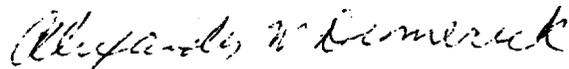
FINDING OF NO SIGNIFICANT IMPACT

On the basis of the environmental assessment, the Commission concludes that the proposed amendment will not have a significant adverse effect on the quality of the human environment. Accordingly, the Commission has determined not to prepare an environmental impact statement for the proposed action.

For further details with respect to the proposed action, see the licensee's application dated October 16, 1998, as supplemented by letters dated December 30, 1998; and May 10, June 15, July 30, August 11, 16, 19, 27, and September 10, 1999, which are available for public inspection at the Commission's Public Document Room, The Gelman Building, 2120 L Street, NW., Washington, DC. Publically available records will be accessible electronically from the ADAMS Public Library component on the NRC Web site, <http://www.nrc.gov> (the Electronic Reading Room).

Dated at Rockville, Maryland, this 9th day of December 1999.

FOR THE NUCLEAR REGULATORY COMMISSION



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