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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 69 TO FACILITY OPERATING LICENSE NO. NPF-69

NIAGARA MOHAWK POWER CORPORATION

NINE MILE POINT NUCLEAR STATION, UNIT 2

DOCKET NO. 50-410

1.0 INTRODUCTION

By letter dated January 6, 1995, the Niagara Mohawk Power Corporation (the licensee) submitted a request for changes to the Nine Mile Point Nuclear Station, Unit 2, (NMP-2) Technical Specifications (TSs). The requested changes would incorporate Limiting Condition for Operation (LCO) 3.3.3.1 from NUREG-1433, "Standard Technical Specifications General Electric Plants BWR/4," dated September 1992, into TS 3/4.3.7.5, Accident Monitoring Instrumentation and make associated changes in TS 3/4.4.2, Safety Relief Valves.

2.0 BACKGROUND

The purpose of the post-accident monitoring (PAM) instrumentation is to display variables that provide information required by the control room operators during accident situations. This information provides the necessary support for the operator to take the manual actions required for safety systems to accomplish their safety functions for design basis accidents (DBAs). The operability of the PAM instrumentation ensures that sufficient information is available on selected parameters for the operator to monitor and to assess unit status and behavior following an accident. The following evaluation addresses the operability requirements and the associated required actions.

3.0 EVALUATION

Incorporation of the Standard Technical Specifications (STSs) LCO 3.3.3.1 would:

a. Delete the column titled "Minimum Channels Operable" from TS Table 3.3.7.5-1 and the column titled "Applicable Operational Conditions" from TS Tables 3.3.7.5-1 and 4.3.7.5-1.

b. Revise the action statements in TS Table 3.3.7.5-1 associated with inoperability of instrumentation for the PAM parameters.

c. Revise LCO 3.3.7.5 to indicate that PAM is required to be operable in Operational Conditions 1 and 2.

d. Revise LCO 3.3.7.5 to include an exception from TS 3.0.4.

e. Revise the "Required Number of Channels" and the name of the primary containment isolation valve (PCIV) position instrumentation in TS Tables 3.3.7.5-1 and 4.3.7.5-1.

f. Delete the operability and surveillance requirements from TS Tables 3.3.7-5.1 and 4.3.7.5-1 for safety relief valve position, residual heat removal (RHR) heat exchanger service water radiation, refuel platform area radiation, and neutron flux monitoring instrumentation.

g. Revise TS 3/4.4.2 to reference the safety relief valve testing performed under TS 4.0.5, revise LCO 3.4.2 to remove the operability requirements and action statements associated with safety relief valve acoustic monitors, and delete the surveillance requirements associated with safety relief valve acoustic monitors.

3.1 Required Channels

The licensee proposed a revision to TS Table 3.3.7.5-1 to the format presented in STS Table 3.3.3.1-1 by deleting the column titled "Minimum Channels Operable." LCO 3.3.3.1 of the STS requires two operable channels for most PAM functions. Two operable channels ensure that no single failure prevents the operator from getting information necessary for determining the safety status of the unit, and bringing the unit to a safe condition following an accident.

Consistent with STS Table 3.3.3.1-1, the licensee has proposed that two channels for each parameter be provided as specified in TS Table 3.3.7.5-1, and is, therefore, acceptable.

3.2 Applicable Operational Conditions

The licensee proposed a revision to TS Tables 3.3.7.5-1 and 4.3.7.5-1 to the format presented in STS Table 3.3.3.1-1 by deleting the column titled "Applicable Operational Conditions." LCO 3.3.3.1 of the STS includes the applicability requirements for PAM instrumentation. Consistent with STS LCO 3.3.3.1 and STS Table 3.3.3.1-1, the licensee has proposed that the applicability requirements be included in LCO 3.3.7.5, and is, therefore, acceptable.

The current TS Tables 3.3.7.5-1 and 4.3.7.5-1 require reactor water level, suppression pool water level, and drywell high range radiation instrumentation to be operable in Operational Conditions 1, 2, and 3. The licensee has proposed the deletion of the requirement to have these instruments operable in Operational Condition 3, Hot Shutdown. PAM variables are related to diagnosis and preplanned actions required to mitigate DBAs. DBAs are assumed to occur during Operational Conditions 1 and 2. Therefore, these instruments are not required to be operational in Operational Condition 3. This is consistent with STS LCO 3.3.3.1 which requires PAM instrumentation to be operational in Operational Conditions 1 and 2. Therefore, the deletion of the requirement

for reactor water level, suppression pool water level, and drywell high range radiation instrumentation to be operable in Operational Condition 3 is acceptable.

3.3 Exception to the Provisions of TS 3.0.4

The licensee has proposed a revision to LCO 3.3.7.5 to include an exception from the provisions of TS 3.0.4. TS 3.0.4 prohibits entry into operational conditions unless the conditions for LCOs are met without reliance on provisions contained in action statements. The provisions of TS 3.0.4 are not applicable for PAM instrumentation because the PAM instrumentation restoration requirements provide adequate time to restore inoperable channels without placing undue pressure on plant personnel. STS LCO 3.3.3.1 includes a similar exception from the provisions of TS 3.0.4. The proposed exception from the provisions of TS 3.0.4 is consistent with the STS, and is, therefore, acceptable.

3.4 Primary Containment Isolation Valves

The licensee has proposed a revision to the "Required Number of Channels" and the name of the PCIV instrumentation in TS Tables 3.3.7.5-1 and 4.3.7.5-1. BASES 3.3.3.1 of the STS states that for PCIV position, the important information is the isolation status of the containment penetration. For containment penetrations with only one active PCIV having control room indication, only a single channel of valve position information is required to be operable. To assure correct implementation of the required actions the licensee has proposed to revise the name from "Primary Containment Isolation Valve Position Indication" to "Penetration Flow Path Primary Containment Isolation Valve Position Indication" and revise the "Required Number of Channels" from 1 channel per PCIV to 2 channels per penetration. A footnote has also been proposed to clarify that only one instrument channel is required for penetrations with only one active PCIV. The licensee's proposal is consistent with STS Bases 3.3.3.1, and is, therefore, acceptable.

3.5 RHR Heat Exchanger Service Water Radiation

RHR heat exchanger service water radiation is not a Regulatory Guide (RG) 1.97, "Instrumentation for Light Water Cooled Nuclear Power Plants to Assess Plant Conditions During and Following an Accident", variable and is not considered appropriate instrumentation for incorporation in the PAM TSs. Therefore, RHR heat exchanger service water radiation monitoring instrumentation is being deleted from TS Tables 3.3.7.5-1 and 4.3.7.5-1. The deletion of RHR heat exchanger service water radiation monitoring instrumentation from TS Tables 3.3.7.5-1 and 3.3.7.5-1 is acceptable.

3.6 Refuel Platform Area Radiation

Refuel platform area radiation monitoring is not a RG 1.97 variable, and is not considered appropriate instrumentation for incorporation in the PAM TSs. Therefore, refuel platform area radiation monitoring instrumentation is being

deleted from TS Tables 3.3.7.5-1 and 4.3.7.5-1. The deletion of refuel platform area radiation monitoring instrumentation from TS Tables 3.3.7.5-1 and 4.3.7.5-1 is acceptable.

3.7 Neutron Flux

Neutron flux monitoring instrumentation is Type B as defined in RG 1.97 and conforms to the design and function criteria of NEDO-31558A previously approved by the staff. This instrumentation is not considered appropriate for incorporation in the PAM TSs. Therefore, neutron flux monitoring instrumentation is being deleted from TS Tables 3.3.7.5-1 and 4.3.7.5-1. The deletion of neutron flux monitoring instrumentation from TS Tables 3.3.7.5-1 and 4.3.7.5-1 is acceptable.

3.8 Safety Relief Valve Position

Safety relief valve position monitoring is Type D, Category 2 as defined in RG 1.97. Type D, Category 2 instrumentation is not considered appropriate instrumentation for incorporation in the PAM TSs. Therefore, safety relief valve position monitoring instrumentation is being deleted from TS Tables 3.3.7.5-1 and 4.3.7.5-1. The deletion of safety relief valve position monitoring instrumentation from TS Tables 3.3.7.5-1 and 4.3.7.5-1 is acceptable.

TS 3/4.4.2 includes operability and surveillance requirements for safety relief valves. Consistent with the deletion of safety relief valve position instrumentation from TS Tables 3.3.7.5-1 and 4.3.7.5-1, the licensee has proposed the revision of TS 3/4.4.2 to delete operability and surveillance requirements for safety relief valve acoustic monitors. The licensee has proposed that LCO 3.4.2 be revised to delete operability requirements and action statements associated with safety relief valve acoustic monitors. The licensee has also proposed that a new surveillance requirement be added to TS 3/4.4.2 which would clarify that all required surveillance for the safety function of the safety relief valves are accomplished under TS 4.0.5. Since safety relief valve position information is not required, the proposed revisions to TS 3/4.4.2 are acceptable.

Based on our review of the proposed amendment, the NRC staff concludes that the proposed changes to the PAM instrumentation operability requirements for the Nine Mile Point Nuclear Station, Unit No. 2, TS conform to the STS and their bases and the guidelines of RG 1.97. The staff determined that the proposed TS changes provide appropriate LCO and action statements for the PAM instrumentation, and are, therefore, 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 amendment changes 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 changes surveillance requirements. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change 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 (60 FR 8748). 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 amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors: B. Marcus

Date: September 11, 1995