Niagara Mohawk

John H. Mueller
Senior Vice President and
Chief Nuclear Officer

Phone: 315.349.7907
Fax: 315.349.1321
e-mail: muellerj@nimo.com

February 27, 2001
NMP2L 2012

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

RE: Nine Mile Point Unit 2
Docket No. 50-410
NPF-69
TAC No. MB1163

Gentlemen:

Niagara Mohawk Power Corporation (NMPC) hereby transmits an Application for Amendment to Nine Mile Point Unit 2 (NMP2) Operating License NPF-69. Also enclosed are the proposed changes to the Technical Specifications (TSs) set forth in Appendix A to the above mentioned license. These changes are included as Attachment A. Supporting information and analyses demonstrating that the proposed changes involve no significant hazards consideration pursuant to 10CFR50.92 are included as Attachment B. Attachment C provides a "marked-up" copy of the affected TS and Bases pages. The Bases pages are provided for information only and do not require issuance by the NRC. NMPC's determination that the proposed changes meet the criteria for categorical exclusion from performing an environmental assessment is included as Attachment D.

The purpose of this TS Amendment Application is to incorporate conservative TS overvoltage Allowable Values for the Reactor Protection System (RPS) electric power monitoring assemblies. The proposed changes to the TSs contained herein revise Sections 3.3.8.2, "Reactor Protection System (RPS) Electric Power Monitoring - Logic," and 3.3.8.3, "Reactor Protection System (RPS) Electric Power Monitoring - Scram Solenoids." Specifically, changes are proposed to reduce the TS overvoltage Allowable Values and associated Channel Calibration Frequency interval specified in Surveillance Requirements 3.3.8.2.2 and 3.3.8.3.2. The proposed changes reflect the results of revisions to calculations that were necessary to correct plant identified analyses deficiencies. The proposed changes provide additional assurance that the RPS scram pilot valve solenoids and main steam isolation valve (MSIV) trip solenoids will remain capable of performing their respective scram and isolation safety functions.

The overvoltage analytical limits and associated TS Allowable Values for the RPS electric power monitoring assemblies were found to be non-conservative, in that the RPS scram pilot valve solenoids and MSIV trip solenoids may not be protected from voltages that could be sufficiently high to cause degradation. Therefore, administrative controls are currently in place to procedurally maintain the setpoints and calibration frequency for the RPS electric power monitoring assemblies sufficiently conservative to assure the RPS scram pilot valve solenoids and MSIV trip solenoids remain operable and capable of

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performing their intended safety functions. In addition, based on historical setpoint data, the voltages at the RPS scram pilot valve solenoids and MSIV trip solenoids remained sufficiently conservative such that there was no impact on past solenoid operability or safety function. NRC approval and subsequent implementation of the proposed changes contained herein will restore TS control of the performance levels of the RPS electric power monitoring assemblies in accordance with 10 CFR 50.36, "Technical Specifications." In order to support timely resolution of this issue, NMPC requests approval of this license amendment by February 28, 2002.

Pursuant to 10CFR50.91(b)(1), NMPC has provided a copy of this license amendment application and the associated analyses regarding no significant hazards considerations to the appropriate state representative.

Very truly yours,

John H. Mueller
Senior Vice President and
Chief Nuclear Officer

JHM/CDM/mlg
Attachments

xc: Mr. H. J. Miller, NRC Regional Administrator, Region 1
Ms. M. K. Gamberoni, Section Chief PD-I, Section 1, NRR
Mr. G. K. Hunegs, NRC Senior Resident Inspector
Mr. P. S. Tam, Senior Project Manager, NRR
Mr. John P. Spath
NYSERDA
286 Washington Avenue Ext.
Albany, NY 12203-6399
Records Management

UNITED STATES NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
Niagara Mohawk Power Corporation	)	**Docket No. 50-410**
	)	
Nine Mile Point Unit 2	)	

APPLICATION FOR AMENDMENT TO OPERATING LICENSE

Pursuant to Section 50.90 of the Regulations of the Nuclear Regulatory Commission, Niagara Mohawk Power Corporation, holder of Facility Operating License No. NPF-69, hereby requests that Sections 3.3.8.2, "Reactor Protection System (RPS) Electric Power Monitoring – Logic," and 3.3.8.3, "Reactor Protection System (RPS) Electric Power Monitoring – Scram Solenoids" of the Technical Specifications (TSs) set forth in Appendix A to the License be amended. The proposed changes have been reviewed in accordance with Sections B.2 and B.5 of Appendix B to the Updated Safety Analysis Report.

The proposed TS changes are set forth in Attachment A to this application. The purpose of this TS Amendment Application is to incorporate conservative TS overvoltage Allowable Values for the reactor protection system (RPS) electric power monitoring assemblies. Specifically, changes are proposed to reduce the TS overvoltage Allowable Values and associated Channel Calibration Frequency interval specified in Surveillance Requirements 3.3.8.2.2 and 3.3.8.3.2. The proposed changes provide additional assurance that the RPS scram pilot valve solenoids and Main Steam Isolation Valve trip solenoids will remain capable of performing their respective scram and isolation safety functions.

The proposed changes will not authorize any change in the types of effluents or in the authorized power level of the facility. Supporting information and analyses which demonstrate that the proposed changes involve no significant hazards considerations pursuant to 10CFR50.92 are included as Attachment B.

WHEREFORE, Applicant respectfully requests that Appendix A to Facility Operating License No. NPF-69 be amended in the form attached hereto as Attachment A.

NIAGARA MOHAWK POWER CORPORATION

SANDRA A. OSWALD
Notary Public, State of New York
No. 01OS6032276
Qualified in Oswego County
Commission Expires 10/25/01

By

John H. Mueller
Senior Vice President and
Chief Nuclear Officer

Subscribed and Sworn to before me
on this 27 day of Feb., 2001.

NOTARY PUBLIC

ATTACHMENT A

NIAGARA MOHAWK POWER CORPORATION

LICENSE NO. NPF-69

DOCKET NO. 50-410

Proposed Changes to the Current Technical Specifications (TSs)

Replace existing TS pages 3.3.8.2-4 and 3.3.8.3-3 with the attached corresponding revised pages. The revised replacement pages have been retyped in their entirety, incorporating the changes, and include marginal markings (revision bars) to indicate the changes to the text.

SURVEILLANCE REQUIREMENTS

----------NOTE----------
When an RPS electric power monitoring assembly is placed in an inoperable status solely for performance of required Surveillances, entry into the associated Conditions and Required Actions may be delayed for up to 6 hours provided the other RPS electric power monitoring assembly for the associated RPS logic bus maintains trip capability.

SURVEILLANCE		FREQUENCY
SR 3.3.8.2.1	Perform CHANNEL FUNCTIONAL TEST.	184 days
SR 3.3.8.2.2	Perform CHANNEL CALIBRATION. The Allowable Values shall be: a. Overvoltage (with time delay set to ≤ 2.5 seconds) Bus A ≤ 130.2 V Bus B ≤ 129.8 V b. Undervoltage (with time delay set to ≤ 2.5 seconds) Bus A ≥ 115.5 V Bus B ≥ 114.2 V c. Underfrequency (with time delay set to ≤ 2.5 seconds) Bus A ≥ 57.5 Hz Bus B ≥ 57.5 Hz	184 days
SR 3.3.8.2.3	Perform a system functional test.	24 months

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.3.8.3.2	Perform CHANNEL CALIBRATION. The Allowable Values shall be: a. Overvoltage (with time delay set to ≤ 2.5 seconds) Bus A ≤ 127.6 V Bus B ≤ 127.6 V b. Undervoltage (with time delay set to ≤ 2.5 seconds) Bus A ≥ 113.0 V Bus B ≥ 113.6 V c. Underfrequency (with time delay set to ≤ 2.5 seconds) Bus A ≥ 57.5 Hz Bus B ≥ 57.5 Hz	184 days
SR 3.3.8.3.3	Perform a system functional test.	24 months

ATTACHMENT B

NIAGARA MOHAWK POWER CORPORATION

LICENSE NO. NPF-69

DOCKET NO. 50-410

Supporting Information and No Significant Hazards Consideration Analysis

INTRODUCTION

The reactor protection system (RPS) power supply system provides power to the RPS logic buses and RPS scram solenoid buses. The RPS power supply system is described in Section 8.3.1.1 (including Figures 8.3-3 and 8.3-7) of the Updated Safety Analysis Report (USAR).

The power supplies for the RPS logic buses (A and B) consist of two nonsafety-related 10 KVA, 120 VAC, 1-phase uninterruptible power supply (UPS) systems and the associated protective devices, distribution panels, and wiring. Essential loads powered from the RPS logic buses include the RPS logic circuits, the main steam isolation valve (MSIV) logic circuits and trip solenoids, and various valve isolation logic circuits. One UPS supplies power to RPS logic bus A, with the other UPS supplying RPS logic bus B. The RPS logic bus designations (A and B) correspond to the RPS trip systems (see USAR Section 7.2 for a description of the RPS logic). Each UPS receives normal power from a nonsafety-related 600 VAC supply. If the normal supply is lost, backup power is automatically provided from a nonsafety-related 125 VDC (battery and charger) supply. In the event the UPS inverter fails, the UPS load (essential equipment connected to the RPS logic bus) will automatically transfer to an alternate 600 VAC nonsafety-related power supply (via a 600 VAC to 120 VAC regulated step-down transformer). The alternate power supply can also be manually aligned to bypass the UPS during periods when the UPS is shutdown for maintenance.

The power supplies for the RPS scram solenoid buses (A and B) consist of two nonsafety-related high inertia motor-generator (MG) sets and the associated protective devices, distribution panels, and wiring. The essential loads powered from the RPS scram solenoid buses are the RPS scram pilot valve solenoids. One dual-coil, solenoid operated, scram pilot valve is located in the hydraulic control unit for each control rod drive (CRD). One of the solenoids in each CRD is controlled by trip system A, and the other is controlled by trip system B. One MG set is associated with each trip system (A or B) and supplies power to all of the scram pilot valve solenoids controlled by that trip system. Alternate 600 VAC nonsafety-related power sources (via 600 VAC to 120 VAC stepdown transformers) can also be aligned to supply power to the scram pilot valve solenoids controlled by each trip system when the associated MG set is out of service for maintenance.

Each UPS or associated alternate power supply is connected to its respective RPS logic bus through two redundant RPS electric power monitoring assemblies connected in series. Similarly, each MG set or associated alternate power supply is connected to its respective RPS scram solenoid bus through two redundant RPS electric power monitoring assemblies

connected in series. Thus, the RPS power supply system design incorporates four separate sets of RPS electric power monitoring assemblies, with each set consisting of a pair of RPS electric power monitoring assemblies connected in series. A circuit breaker and its associated independent set of overvoltage, undervoltage, and underfrequency sensing logic constitute an RPS electric power monitoring assembly. As previously described, the UPS systems, MG sets, and associated alternate power supplies are classified as nonsafety-related. The RPS electric power monitoring assemblies are provided to isolate these nonsafety-related power supplies from their essential (safety-related) loads if the outputs from the power supplies exceed the predetermined limits of overvoltage, undervoltage, or underfrequency. The RPS electric power monitoring assemblies and downstream distribution systems are classified as safety-related and are qualified as Seismic Category I to assure reliability of the tripping function. The RPS electric power monitoring assemblies are necessary to meet the assumptions of the safety analyses by assuring that equipment powered from the nonsafety-related RPS power supply sources can perform its intended safety function.

Allowable Values for the RPS electric power monitoring assembly overvoltage, undervoltage, and underfrequency trip functions are specified in Technical Specification (TS) Sections 3.3.8.2, "Reactor Protection System (RPS) Electric Power Monitoring - Logic," and 3.3.8.3, "Reactor Protection System (RPS) Electric Power Monitoring - Scram Solenoids." The Allowable Values (and associated setpoints) have been established consistent with the methods described in Regulatory Guide 1.105, Revision 2, "Instrument Setpoints for Safety-Related Systems," dated February 1986, and Instrument Society of America (ISA) Standard ISA-S67.04-1982, "Setpoints for Nuclear Safety-Related Instrumentation Used in Nuclear Power Plants."

The purpose of this TS Amendment Application is to incorporate conservative TS overvoltage Allowable Values for the RPS electric power monitoring assemblies. Specifically, changes are proposed to reduce the TS overvoltage Allowable Values and associated Channel Calibration Frequency interval specified in Surveillance Requirements (SRs) 3.3.8.2.2 and 3.3.8.3.2. These changes reflect the results of revisions to calculations that were necessary to correct plant identified analyses deficiencies.

EVALUATION

During recent design change reviews, analyses deficiencies were identified involving the setpoint calculation for the RPS electric power monitoring assemblies and the voltage drop calculations for the RPS scram pilot valve solenoids and MSIV trip solenoids. Niagara Mohawk Power Corporation (NMPC) personnel identified that the overvoltage analytical limits for the RPS electric power monitoring assemblies, although potentially limiting, had not been evaluated for their impact on the RPS scram pilot valve solenoids or the MSIV trip solenoids. Instead, the overvoltage analyses for the RPS scram pilot valve solenoids and MSIV trip solenoids used less conservative overvoltage conditions based on the maximum source voltage available during normal plant operation, which inappropriately credited the voltage regulation characteristics of the nonsafety-related RPS power supply sources. Further evaluations determined that the RPS scram pilot valve solenoids and MSIV trip solenoids may not be protected from damage in the event the normal and alternate power sources failed and postulated overvoltage conditions developed which approached the TS overvoltage Allowable Values for the RPS electric power monitoring assemblies.

In order to correct the analyses deficiencies, the setpoint calculation for the RPS electric power monitoring assemblies was revised to incorporate new conservative overvoltage analytical limits and develop new TS Allowable Values and setpoints for the overvoltage trip functions. The revisions to the setpoint calculation also included a reduction in the Channel Calibration Frequency interval (from 24 months to 184 days) to support the new TS overvoltage Allowable Values and associated setpoints. Establishment of the new overvoltage analytical limits required revision of the voltage drop calculations for both the RPS scram pilot valve solenoids and MSIV trip solenoids. The proposed changes to TS SRs 3.3.8.2.2 and 3.3.8.3.2 reflect the results of the revised setpoint and voltage drop calculations.

The RPS electric power monitoring assembly overvoltage trip functions are based on protecting the RPS scram pilot valve solenoids and MSIV trip solenoids from damage due to overheating by disconnecting their associated electrical buses from the power supplies when potentially damaging overvoltage conditions exist. The RPS scram pilot valve solenoids and MSIV trip solenoids are normally energized and must be de-energized to perform their safety functions. The RPS scram pilot valve solenoids are de-energized on a scram signal to actuate the scram inlet and outlet valves and cause a scram. The MSIV trip solenoids are de-energized on an isolation signal to actuate pneumatic pilot and control valves to fast-close the MSIVs. As previously described, the RPS scram pilot valve solenoids are the only essential loads powered from the RPS scram solenoid buses. Based on the results of the voltage drop calculations, the MSIV trip solenoids are the most limiting loads for postulated overvoltage conditions of the essential loads powered from the RPS logic buses. The proposed TS overvoltage Allowable Values for the RPS electric power monitoring assemblies are conservative, in that the RPS scram pilot valve solenoids and MSIV trip solenoids would now be protected from voltages that could be sufficiently high to cause insulation degradation due to overheating. Although the current TS overvoltage Allowable Values are non-conservative, administrative controls are in place to procedurally maintain the setpoints and calibration frequency for the RPS electric power monitoring assemblies sufficiently conservative to assure the RPS scram pilot valve solenoids and MSIV trip solenoids remain operable and capable of performing their respective scram and isolation safety functions.

The overvoltage analytical limits for the RPS electric power monitoring assemblies are the highest possible voltages at the RPS electric power monitoring assemblies that would not exceed the maximum continuous operating ratings of the RPS scram pilot valve solenoids and MSIV trip solenoids. Thus, the overvoltage analytic limits were calculated by adding the most conservative (smallest) voltage drops to the maximum continuous operating ratings of the RPS scram pilot valve solenoids and MSIV trip solenoids. For the RPS scram pilot valve solenoids, both General Electric (GE) and Eugen Seitz (E-S) supplied solenoids are currently in use. The maximum and minimum voltage ratings for the GE solenoids are 125 VAC and 105 VAC, respectively, whereas the maximum and minimum ratings for the E-S solenoids are 127 VAC and 98 VAC, respectively. These differences, as well as the differences in electrical characteristics, were appropriately addressed in the revised voltage drop calculation. For the MSIV trip solenoids, which are supplied by GE, the associated revised voltage drop calculation credits an increase in the maximum voltage rating from 125 VAC to 128 VAC. This increase in voltage rating was evaluated considering its effect on qualified life. In addition, based on the revised voltage drop calculation, the maximum and minimum voltage ratings for the control relays in the MSIV solenoid actuator circuit are taken to be 137 VAC and 102 VAC, respectively, which is consistent with vendor data.

The new TS overvoltage Allowable Values for the RPS electric power monitoring assemblies were derived from the analytical limits with allowances for instrument and test equipment inaccuracies. The associated trip setpoints were derived from the Allowable Values by accounting for instrument drift during the interval between Channel Calibrations. Due to the limited margin available for instrument drift (i.e., the margin between the upper setpoint limit and the Allowable Value), it was necessary to reduce the Channel Calibration Frequency interval from 24 months to 184 days. A maximum of 230 days is allowed for performance of the Channel Calibration accounting for the grace period of SR 3.0.2. The 184 day Channel Calibration Frequency is applicable to each overvoltage, undervoltage, and underfrequency channel of the RPS electric power monitoring assemblies. At the proposed 184 day Frequency, the Channel Calibration will be required to be performed during plant operation. On-line testing capability is provided by utilizing test devices to isolate the individual (overvoltage, undervoltage, or underfrequency) sensing relays and associated breaker trip contacts (see the Safety Evaluation for License Amendment No. 86 for more information). As a result, the Channel Calibration (and the Channel Functional Test) can be performed during plant operation without causing a trip of the RPS electric power monitoring assembly breakers or resulting in a loss of power to the RPS logic buses or RPS scram solenoid buses.

CONCLUSIONS

The proposed changes to TS SRs 3.3.8.2.2 and 3.3.8.3.2 reduce the overvoltage Allowable Values and associated Channel Calibration Frequency interval. The RPS electric power monitoring assembly overvoltage trip functions are based on protecting the RPS scram pilot valve solenoids and MSIV trip solenoids from damage due to overheating by disconnecting their associated electrical buses from the power supplies when potentially damaging overvoltage conditions exist. The proposed changes provide assurance that the RPS scram pilot valve solenoids and MSIV trip solenoids will not exceed their maximum continuous operating ratings for postulated overvoltage conditions. As such, the proposed changes provide assurance that the RPS electric power monitoring assemblies will be capable of performing their protective safety functions. This, in turn, will assure that the RPS scram pilot valve solenoids and MSIV trip solenoids will remain capable of performing their respective scram and isolation safety functions. Therefore, NMPC believes there is reasonable assurance that this proposed TS amendment will not adversely affect the health and safety of the public and will not be inimical to the common defense and security.

NO SIGNIFICANT HAZARDS CONSIDERATION ANALYSIS

According to 10CFR50.91, at the time a licensee requests an amendment to its operating license, the licensee must provide to the NRC its analysis, using the standards in 10CFR50.92, concerning the issue of no significant hazards consideration. According to 10CFR50.92(c), a proposed amendment to an operating license involves no significant hazards considerations if operation of the facility in accordance with the proposed amendment would not:

Involve a significant increase in the probability or consequences of an accident previously evaluated; or

Create the possibility of a new or different kind of accident from any accident previously evaluated; or

Involve a significant reduction in a margin of safety.

Niagara Mohawk Power Corporation (NMPC) has evaluated this proposed amendment pursuant to 10CFR50.91 and has determined that it involves no significant hazards considerations.

The following analysis has been performed:

The operation of Nine Mile Point Unit 2, in accordance with the proposed amendment, will not involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed changes to the Technical Specifications (TSs) reduce the overvoltage Allowable Values and associated Channel Calibration Frequency interval for the reactor protection system (RPS) electric power monitoring assemblies. These changes reflect the results of revisions to calculations that were necessary to correct plant identified analyses deficiencies. The RPS electric power monitoring assembly overvoltage trip functions are based on protecting the RPS scram pilot valve solenoids and main steam isolation valve (MSIV) trip solenoids from damage due to overheating by disconnecting their associated electrical buses from the power supplies when potentially damaging overvoltage conditions exist. The proposed changes provide assurance that the RPS electric power monitoring assemblies meet the assumptions of the safety analyses by assuring that the RPS scram pilot valve solenoids and MSIV trip solenoids can perform their respective scram and isolation safety functions. The proposed TS overvoltage Allowable Values for the RPS electric power monitoring assemblies are conservative, in that the RPS scram pilot valve solenoids and MSIV trip solenoids would now be protected from voltages that could be sufficiently high to cause degradation. The proposed reduction in the Channel Calibration Frequency interval will provide assurance that the Allowable Values are not exceeded during the interval between Channel Calibrations by appropriately limiting instrument drift. Thus, there will be no adverse effect on the functional performance of any plant structure, system, or component (SSC) that could initiate an accident. Furthermore, the proposed changes do not eliminate any actions or adversely affect the availability of any SSC required to prevent or mitigate accident conditions, nor will the changes result in the degradation of any fission product barriers that could increase the radiological consequences of an accident. Therefore, operation in accordance with the proposed amendment will not involve a significant increase in the probability or consequences of an accident previously evaluated.

The operation of Nine Mile Point Unit 2, in accordance with the proposed amendment, will not create the possibility of a new or different kind of accident from any accident previously evaluated.

The proposed changes do not alter the functional performance of any SSC, nor do the changes eliminate any requirements or impose any new requirements that could introduce a new accident precursor or create a new equipment failure mode. Furthermore, the proposed changes will not introduce any new modes of plant operation or eliminate any actions required to prevent accidents. The proposed TS overvoltage Allowable Values provide assurance that the RPS electric power monitoring assemblies will be capable of

protecting the RPS scram pilot valve solenoids and MSIV trip solenoids from voltages that could be sufficiently high to cause degradation. This, in turn, will provide assurance that the RPS scram pilot valve solenoids and MSIV trip solenoids will remain capable of performing their respective scram and isolation safety functions consistent with current accident analyses assumptions. In addition, the proposed TS overvoltage Allowable Values will continue to provide adequate margins to the normal operating voltage ranges for the RPS scram pilot valve solenoids and MSIV trip solenoids, thereby minimizing the potential for inadvertent trips. The proposed reduction in the Channel Calibration Frequency interval supports the new TS overvoltage Allowable Values. At the proposed 184 day Frequency (i.e., a maximum of 230 days accounting for the allowable grace period of SR 3.0.2), the Channel Calibration will be required to be performed during plant operation. On-line testing capability is provided by utilizing test devices to isolate the individual (overvoltage, undervoltage, or underfrequency) sensing relays and associated breaker trip contacts. As a result, the Channel Calibration (and Channel Functional Test) can be performed during plant operation without causing a trip of the RPS electric power monitoring assembly breakers or resulting in a loss of power to the RPS logic buses or RPS scram solenoid buses. Therefore, operation in accordance with the proposed amendment will not create the possibility of a new or different kind of accident from any accident previously evaluated.

The operation of Nine Mile Point Unit 2, in accordance with the proposed amendment, will not involve a significant reduction in a margin of safety.

The proposed TS overvoltage Allowable Values for the RPS electric power monitoring assemblies are conservative, in that the RPS scram pilot valve solenoids and MSIV trip solenoids would now be protected from voltages that could be sufficiently high to cause degradation. The new TS overvoltage Allowable Values (and associated setpoints) have been established consistent with the methods described in Regulatory Guide 1.105, Revision 2, "Instrument Setpoints for Safety-Related Systems," dated February 1986, and Instrument Society of America (ISA) Standard ISA-S67.04-1982, "Setpoints for Nuclear Safety-Related Instrumentation Used in Nuclear Power Plants." The proposed reduction in the Channel Calibration Frequency interval will provide assurance that the Allowable Values are not exceeded during the interval between Channel Calibrations by appropriately limiting instrument drift. Thus, the proposed changes provide assurance that the RPS electric power monitoring assemblies will be capable of performing their protective safety functions. Furthermore, the proposed changes do not eliminate any requirements or impose any new requirements that could adversely affect the capability of the RPS scram pilot valve solenoids or MSIV trip solenoids to perform their respective scram and isolation safety functions. Therefore, the proposed changes are consistent with current accident analyses assumptions and the associated safety margins for fuel cladding and reactor coolant system integrity and radiological release are preserved. Accordingly, operation in accordance with the proposed amendment will not involve a significant reduction in a margin of safety.

ATTACHMENT C

NIAGARA MOHAWK POWER CORPORATION

LICENSE NO. NPF-69

DOCKET NO. 50-410

"Marked-Up" Copy of the Current Technical Specifications (TSs) and Bases

The current version of TS pages 3.3.8.2-4 and 3.3.8.3-3 and Bases pages B 3.3.8.2-3, B 3.3.8.2-7, B 3.3.8.3-3, and B 3.3.8.3-6 have been marked-up by hand to reflect the proposed changes.

SURVEILLANCE REQUIREMENTS

---NOTE---

When an RPS electric power monitoring assembly is placed in an inoperable status solely for performance of required Surveillances, entry into the associated Conditions and Required Actions may be delayed for up to 6 hours provided the other RPS electric power monitoring assembly for the associated RPS logic bus maintains trip capability.

SURVEILLANCE		FREQUENCY
SR 3.3.8.2.1	Perform CHANNEL FUNCTIONAL TEST.	184 days
SR 3.3.8.2.2	Perform CHANNEL CALIBRATION. The Allowable Values shall be: a. Overvoltage (with time delay set to ≤ 2.5 seconds) Bus A ≤ 133.8 V (130.2) Bus B ≤ 133.8 V (129.8) b. Undervoltage (with time delay set to ≤ 2.5 seconds) Bus A ≥ 115.5 V Bus B ≥ 114.2 V c. Underfrequency (with time delay set to ≤ 2.5 seconds) Bus A ≥ 57.5 Hz Bus B ≥ 57.5 Hz	24 months (184 days)
SR 3.3.8.2.3	Perform a system functional test.	24 months

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.3.8.3.2	Perform CHANNEL CALIBRATION. The Allowable Values shall be: a. Overvoltage (with time delay set to ≤ 2.5 seconds) Bus A ≤ 130.5 V (127.6) Bus B ≤ 131.1 V b. Undervoltage (with time delay set to ≤ 2.5 seconds) Bus A ≥ 113.0 V Bus B ≥ 113.6 V c. Underfrequency (with time delay set to ≤ 2.5 seconds) Bus A ≥ 57.5 Hz Bus B ≥ 57.5 Hz	24 months (184 days)
SR 3.3.8.3.3	Perform a system functional test.	24 months

BASES

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setpoint less conservative than the nominal trip setpoint, but within its Allowable Value, is acceptable. A channel is inoperable if its actual trip setpoint is not within its required Allowable Value. Trip setpoints are those predetermined values of output at which an action should take place. The setpoints are compared to the actual process parameter (e.g., overvoltage), and when the measured output value of the process parameter exceeds the setpoint, the associated device (e.g., trip relay) changes state. The analytic limits are derived from the limiting values of the process parameters obtained from the safety analysis. The Allowable Values are derived from the analytic limits by accounting for calibration uncertainty, process measurement uncertainty, primary element uncertainty, instrument uncertainty, and applicable environmental effects. The trip setpoints are derived from the analytical limits by accounting for calibration uncertainty, process measurement uncertainty, primary element uncertainty, instrument uncertainty, applicable environmental effects, and drift. The trip setpoints are also derived from the Allowable Values in the conservative direction by considering calibration uncertainty, instrument uncertainty, environmental effects, and drift. The most conservatively derived trip setpoints are used. In addition, both the Allowable Values and trip setpoints may have additional conservatisms.

The Allowable Values for the instrument settings are based on the RPS logic bus providing ≥ 57 Hz, 120 V ± 10% (to all equipment), and 115 V (+ 10 V, - 15 V) (to MSIV trip solenoids). The most limiting voltage requirement and associated line losses determine the settings of the electric power monitoring instrument channels. The settings are calculated based on the loads on the RPS logic buses being 120 VAC and 60 Hz.

APPLICABILITY

The operation of the RPS electric power monitoring assemblies (RPS logic bus) is essential to disconnect the RPS logic bus powered components from the UPS set or alternate power supply during abnormal voltage or frequency conditions. Since the degradation of a nonclass 1E source supplying power to the RPS logic bus can occur as a result of any random single failure, the OPERABILITY of the RPS electric power monitoring assemblies (RPS logic bus) is required when the RPS logic bus powered components are required to be OPERABLE. This results in the RPS Electric

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BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.3.8.2.1

A CHANNEL FUNCTIONAL TEST is performed on each overvoltage, undervoltage, and underfrequency channel to ensure that the channel will perform the intended function. Any setpoint adjustment shall be consistent with the assumptions of the current plant specific setpoint methodology.

The 184 day Frequency is based on guidance provided in Generic Letter 91-09 (Ref. 3).

SR 3.3.8.2.2

CHANNEL CALIBRATION is a complete check of the instrument loop and the sensor. This test verifies that the channel responds to the measured parameter within the necessary range and accuracy. CHANNEL CALIBRATION leaves the channel adjusted to account for instrument drifts between successive calibrations consistent with the plant specific setpoint methodology.

The Frequency is based upon the assumption of a 184 day calibration interval in the determination of the magnitude of equipment drift in the setpoint analysis.

SR 3.3.8.2.3

Performance of a system functional test demonstrates that, with a required system actuation (simulated or actual) signal, the logic of the system will automatically trip open the associated power monitoring assembly circuit breaker. Only one signal per power monitoring assembly is required to be tested. This Surveillance overlaps with the CHANNEL CALIBRATION to provide complete testing of the safety function. The system functional test of the Class 1E circuit breakers is included as part of this test to provide complete testing of the safety function. If the breakers are incapable of operating, the associated electric power monitoring assembly would be inoperable.

The 24 month Frequency is based on the need to perform this Surveillance under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power.

(continued)

BASES

LCO (continued)

nominal trip setpoint, but within its Allowable Value, is acceptable. A channel is inoperable if its actual trip setpoint is not within its required Allowable Value. Trip setpoints are those predetermined values of output at which an action should take place. The setpoints are compared to the actual process parameter (e.g., overvoltage), and when the measured output value of the process parameter exceeds the setpoint, the associated device (e.g., trip relay) changes state. The analytic limits are derived from the limiting values of the process parameters obtained from the safety analysis. The Allowable Values are derived from the analytic limits by accounting for calibration uncertainty, process measurement uncertainty, primary element uncertainty, instrument uncertainty, and applicable environmental effects. The trip setpoints are derived from the analytical limits by accounting for calibration uncertainty, process measurement uncertainty, primary element uncertainty, instrument uncertainty, applicable environmental effects, and drift. The trip setpoints are also derived from the Allowable Values in the conservative direction by considering calibration uncertainty, instrument uncertainty, environmental effects, and drift. The most conservatively derived trip setpoints are used. In addition, both the Allowable Values and trip setpoints may have additional conservatisms.

(to GE scram solenoids), and 115 V (+12V, -17V) (to Eugan Saitz scram solenoids)

The Allowable Values for the instrument settings are based on the RPS scram solenoid buses providing ≥ 57 Hz, and 115 V ± 10 V to the scram solenoids. The most limiting voltage requirement and associated line losses determine the settings of the electric power monitoring instrument channels. The settings are calculated based on the loads on the RPS scram solenoid buses being 120 VAC and 60 Hz.

APPLICABILITY

The operation of the RPS electric power monitoring assemblies (RPS scram solenoid bus) is essential to disconnect the RPS scram solenoids from the MG set or alternate power supply during abnormal voltage or frequency conditions. Since the degradation of a nonclass 1E source supplying power to the RPS scram solenoid bus can occur as a result of any random single failure, the OPERABILITY of the RPS electric power monitoring assemblies (RPS scram solenoids) is required when the RPS scram solenoid bus powered components are required to be OPERABLE. This results in the RPS Electric Power Monitoring—Scram

(continued)

BASES (continued)

SURVEILLANCE REQUIREMENTS

The Surveillances are modified by a Note to indicate that when an RPS electric power monitoring assembly is placed in an inoperable status solely for performance of required Surveillances, entry into associated Conditions and Required Actions may be delayed for up to 6 hours provided the other RPS electric power monitoring assembly for the associated RPS scram solenoid bus maintains trip capability. Upon completion of the Surveillance, or expiration of the 6 hour allowance, the assembly must be returned to OPERABLE status or the applicable Condition entered and Required Actions taken. This 6 hour allowance is acceptable since it does not significantly reduce the probability that the RPS electric power monitoring assembly function will initiate when necessary.

SR 3.3.8.3.1

A CHANNEL FUNCTIONAL TEST is performed on each overvoltage, undervoltage, and underfrequency channel to ensure that the channel will perform the intended function. Any setpoint adjustment shall be consistent with the assumptions of the current plant specific setpoint methodology.

The 184 day Frequency is based on guidance provided in Generic Letter 91-09 (Ref. 3).

SR 3.3.8.3.2

CHANNEL CALIBRATION is a complete check of the instrument loop and the sensor. This test verifies that the channel responds to the measured parameter within the necessary range and accuracy. CHANNEL CALIBRATION leaves the channel adjusted to account for instrument drifts between successive calibrations consistent with the plant specific setpoint methodology.

The Frequency is based upon the assumption of a 24 month calibration interval in the determination of the magnitude of equipment drift in the setpoint analysis.

SR 3.3.8.3.3

Performance of a system functional test demonstrates that, with a required system actuation (simulated or actual)

(continued)

ATTACHMENT D

NIAGARA MOHAWK POWER CORPORATION

LICENSE NO. NPF-69

DOCKET NO. 50-410

Eligibility for Categorical Exclusion from Performing an Environmental Assessment

The provisions of 10CFR51.22 provide criteria for, and identification of, licensing and regulatory actions eligible for exclusion from performing an environmental assessment. Niagara Mohawk Power Corporation has reviewed the proposed amendment and determined that it does not involve significant hazards considerations, and there will be no significant change in the types or a significant increase in the amounts of any effluents that may be released offsite; nor will there be any significant increase in individual or cumulative occupational radiation exposure. Therefore, the proposed amendment meets the eligibility criteria for categorical exclusion set forth in 10CFR51.22(c)(9) and, pursuant to 10CFR51.22(b), no environmental impact statement or environmental assessment is required to be prepared in connection with the issuance of this license amendment.