ATTACHMENT A

NIAGARA MOHAWK POWER CORPORATION
LICENSE NO. NPF-69
DOCKET NO. 50-410

PROPOSED CHANGES TO TECHNICAL SPECIFICATIONS

Replace existing pages xiv, xx, 1-11 and B 3/4 10-1 with the attached revised pages. Also add page 3/4 10-7. These pages have been retyped in their entirety with marginal markings to indicate changes to the text.

TABLE 1.2

OPERATIONAL CONDITIONS

CONDITION	MODE SWITCH POSITION	AVERAGE REACTOR COOLANT TEMPERATURE
1. Power Operation	Run	Any temperature
2. Startup	Startup/Hot Standby	Any temperature
3. Hot Shutdown	Shutdown*,**	> 200°F
4. Cold Shutdown	Shutdown*,** †	≤ 200°F ##
5. Refueling ††	Shutdown or Refuel* #	≤ 140°F

TABLE NOTATIONS

* The reactor mode switch may be placed in the Run or Startup/Hot Standby position to test the switch interlock functions provided that the control rods are verified to remain fully inserted by a second licensed operator or other technically qualified member of the unit technical staff.

** The reactor mode switch may be placed in the Refuel position while a single control rod is being recoupled provided that the one-rod-out interlock is OPERABLE.

† The reactor mode switch may be placed in the Refuel position while a single control rod drive is being removed from the reactor pressure vessel per Specification 3.9.10.1.

†† Fuel in the reactor vessel with the vessel head closure bolts less than fully tensioned or with the head removed.

\# See Special Test Exceptions 3.10.1 and 3.10.3.

\#\# See Special Test Exception 3.10.7.

SPECIAL TEST EXCEPTIONS

3/4.10.7 INSERVICE LEAK AND HYDROSTATIC TESTING

LIMITING CONDITIONS FOR OPERATION

3.10.7 When conducting inservice leak or hydrostatic testing, the average reactor coolant temperature specified in Table 1.2 for OPERATIONAL CONDITION 4 may be considered "NA", and operation considered not to be in OPERATIONAL CONDITION 3; to allow performance of an inservice leak cr hydrostatic test provided the following OPERATIONAL CONDITION 3 LCO's are met:

a. 3.3.2, "Isolation Actuation Instrumentation", Functions 1.a.2, 1.b, and 3.a and b of Table 3.3.2-1;

b. 3.6.5.1, "Secondary Containment Integrity";

c. 3.6.5.2, "Secondary Containment Automatic Isolation Dampers"; and

d. 3.6.5.3, "Standby Gas Treatment System."

APPLICABILITY: OPERATIONAL CONDITION 4, with average reactor coolant temperature >200°F.

ACTION:

With the requirements of the above specification not satisfied, immediately enter the applicable condition of the affected specification or immediately suspend activities that could increase the average reactor coolant temperature or pressure and reduce the average reactor coolant temperature to ≤200°F within 24 hours.

SURVEILLANCE REQUIREMENTS

4.10.7 Verify applicable OPERATIONAL CONDITION 3 surveillances for specifications listed in 3.10.7 are met.

3/4.10 SPECIAL TEST EXCEPTIONS

BASES

3/4.10.1 PRIMARY CONTAINMENT INTEGRITY

The requirement for PRIMARY CONTAINMENT INTEGRITY is not applicable during the period when open vessel tests are being performed during the low-power PHYSICS TESTS.

3/4.10.2 ROD SEQUENCE CONTROL SYSTEM

In order to perform the tests required in the Technical Specifications it is necessary to bypass the sequence restraints on control rod movement. The additional surveillance requirements ensure that the specifications on heat generation rates and shutdown margin requirements are not exceeded during the period when these tests are being performed and that individual rod worths do not exceed the values assumed in the safety analysis.

3/4.10.3 SHUTDOWN MARGIN DEMONSTRATIONS

Performance of shutdown margin demonstrations with the vessel head removed requires additional restrictions in order to ensure that criticality does not occur. These additional restrictions are specified in this Limiting Condition for Operation.

3/4.10.4 RECIRCULATION LOOPS

This special test exception permits reactor criticality under no-flow conditions and is required to perform certain startup and PHYSICS TESTS while at low THERMAL POWER levels.

3/4.10.5 OXYGEN CONCENTRATION

Relief from the oxygen concentration specifications is necessary in order to provide access to the primary containment during the initial startup and testing phase of operation. Without this access, the startup and test program could be restricted and delayed.

3/4.10.6 TRAINING STARTUPS

This special test exception permits training startups to be performed with the reactor vessel depressurized at low THERMAL POWER and temperature while controlling RCS temperature with one RHR subsystem aligned in the shutdown cooling mode in order to minimize the discharge of contaminated water to the radioactive waste disposal system.

3/4.10.7 INSERVICE LEAK AND HYDROSTATIC TESTING

This special test exception allows reactor vessel inservice leak and hydrostatic testing to be performed in OPERATIONAL CONDITION 4 when reactor coolant temperatures are $>200°F$. The additional requirement for secondary containment operability according to the imposed OPERATIONAL CONDITION 3 requirements provides conservatism in the response of the unit to an operational event. This allows flexibility since temperatures approach 190°F during the testing and can drift higher since decay and mechanical heat do not allow for exact control. Additionally, because of reactor vessel fluence increase over time this testing will require coolant temperatures $>200°F$.

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SUPPORTING INFORMATION AND NO SIGNIFICANT HAZARDS CONSIDERATION ANALYSIS

INTRODUCTION

The purpose of Special Test Exception 3/4.10.7, "Inservice Leak and Hydrostatic Testing," is to allow reactor coolant pressure tests to be performed in OPERATIONAL CONDITION 4 when the metallurgical characteristics of the reactor pressure vessel (RPV) require the pressure testing at temperatures > 200°F (normally corresponding to OPERATIONAL CONDITION 3).

Inservice hydrostatic testing and system leakage pressure tests required by Section XI of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code are normally performed every 10 years and prior to the reactor going critical after each refueling outage, respectively. Recirculation pump operation and a water solid RPV (except for nitrogen blanket for pressure control during system leakage pressure tests) are used to achieve the necessary temperatures and pressures required for these tests. The minimum temperatures (at the required pressures) allowed for these tests are determined from the RPV pressure and temperature (P/T) limits required by LCO 3.4.6, "Reactor Coolant System (RCS) Pressure and Temperature (P/T) Limits." These limits are conservatively calculated based on the fracture toughness of the reactor vessel, taking into account anticipated vessel neutron fluence.

The current curves require that the test be conducted at temperatures approaching 190°F. Because decay heat and mechanical heat used to heat the reactor coolant do not allow for exact control, the existing margin between the test temperature specified in LCO 3.4.6 and the maximum temperature of 200°F of OPERATIONAL CONDITION 4 is inadequate. The proposed amendment will provide additional margin by allowing RCS temperature to exceed 200°F while remaining in OPERATIONAL CONDITION 4.

In addition, as reactor vessel fluence increases over time, the minimum allowable vessel temperature for a given pressure increases. Periodic updates to the RPV P/T limit curves are performed as necessary, based upon the results of analyses of irradiated surveillance specimens removed from the vessel. Hydrostatic and leak testing will eventually be required with minimum reactor coolant temperatures > 200°F. The upper bound is approximately 215°F at 32 Effective Full Power Years (EFPY).

DESCRIPTION

This amendment adds Special Test Exemption 3/4.10.7, "Inservice Leak and Hydrostatic Testing," which allows for the performance of the hydrostatic test above 200°F while remaining in OPERATIONAL CONDITION 4. This test also requires that certain OPERATIONAL CONDITION 3 LCO's for Secondary Containment Isolation, Secondary Containment Integrity and Standby Gas Treatment System operability be met.

EVALUATION

Allowing the reactor to be considered in OPERATIONAL CONDITION 4 during hydrostatic or leak testing, when the reactor coolant temperature is > 200°F, essentially provides an exception to OPERATIONAL CONDITION 3 requirements, including OPERABILITY of primary containment and the full complement of redundant Emergency Core Cooling Systems. Since the hydrostatic test is performed water solid, or near water solid in case of the inservice leakage test, all rods in, at low decay heat values and near OPERATIONAL CONDITION 4 conditions, the stored energy in the reactor core will be very low. Under these conditions, the potential for failed fuel and a subsequent increase in coolant activity above LCO 3.4.5, "RCS Specific Activity," limits is minimal. In addition, the secondary containment, which includes automatic isolation dampers and the Standby Gas Treatment System, will be OPERABLE and will be capable of handling any airborne radioactivity from leaks that could occur during the performance of hydrostatic or inservice leakage testing. Requiring the secondary containment to be OPERABLE will conservatively assure that any potential airborne radiation from leaks will be filtered through the Standby Gas Treatment System, thereby limiting radiation releases to the environment. Therefore, the consequences of a leak under pressure testing conditions with the secondary containment OPERABLE, will be conservatively bounded by the consequences of the postulated main steam line break outside of primary containment accident. This analysis assumes a ground level release from a core with significantly higher activity and stored energy due to operation.

In the event of a large primary system leak, the reactor vessel would rapidly depressurize, allowing the low pressure core cooling systems to operate. The capability of the Low Pressure Coolant Injection and Core Spray subsystems, as required in OPERATIONAL CONDITION 4 by LCO 3.5.2, "ECCS-Shutdown," would be more than adequate to keep the core flooded under this low decay heat load condition. Small system leaks would be detected by leakage inspections before significant inventory loss occurred.

For the purposes of this test, the protection provided by normally required OPERATIONAL CONDITION 4 applicable LCOs, in addition to the secondary containment requirements required to be met by this Special Test Exception LCO, will ensure acceptable consequences during normal hydrostatic and inservice leakage test conditions and during postulated accident conditions.

CONCLUSION

Proposed Technical Specification Section 3/4.10.7 would allow the reactor to be considered in the cold shutdown condition during inservice leak and hydrostatic testing when the reactor coolant temperature is > 200°F. This essentially provides an exception to hot shutdown condition requirements, including OPERABILITY of Primary Containment and the full complement of redundant Emergency Core Cooling Systems.

The changes will allow the primary containment to be open for frequent unobstructed access to perform inspections. It will also allow outage activities on various systems to continue while remaining consistent with cold shutdown applicable requirements that are in effect immediately prior to and immediately following inservice leak and hydrostatic testing.

These changes are consistent with the "Improved Technical Specifications," NUREG-1433, dated September 28, 1992 except that we need not state in the LCO that the provisions of Specification 3.4.9, "Residual Heat Removal" may be suspended. This is based on the fact that Nine Mile Point Unit 2 was licensed to a version of Standard Technical Specifications which already has a provision to suspend RHR during hydrostatic testing.

The change to allow inservice leak and hydrostatic testing in cold shutdown with the reactor coolant temperature > 200°F would not increase the probability or the consequences of an accident. The probability of a leak in the reactor coolant pressure boundary during the hydrostatic test is not increased by considering the reactor in the cold shutdown mode. Since the hydrostatic test is performed water solid or near water solid in case of the inservice leak tests, all rods in, near cold shutdown conditions, the stored energy in the reactor core will be very low. Under these conditions, the potential for failed fuel and a subsequent increase in coolant activity above Technical Specification limits are minimal. In addition, secondary containment will be operable including the automatic isolation dampers and the Standby Gas Treatment System. The RPV would rapidly depressurize in the event of a large primary system leak and the low pressure injection systems normally operable in OPERATIONAL CONDITION 4 would be more than adequate to keep the core flooded. Furthermore, any potential airborne radiation from leaks that are found during the testing can be treated by the Standby Gas Treatment System, which will be required to be OPERABLE during this testing.

For these reasons, there is reasonable assurance that the changes that would be authorized by the proposed amendment can be implemented without endangering the health and safety of the public and is consistent with common defense and security.

NO SIGNIFICANT HAZARDS CONSIDERATION

10 CFR 50.91 requires that at the time a licensee requests an amendment, it must provide to the Commission its analysis using the standards in 10 CFR 50.92 concerning the issue of no significant hazards consideration. Therefore, in accordance with 10 CFR 50.91, 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 are requested to allow inservice leak and hydrostatic testing with the reactor in the cold shutdown mode and the average reactor coolant temperature greater than 200°F. The change to allow inservice and hydrostatic testing in the cold shutdown mode will not increase the probability or the consequences of an accident. The probability of a leak in the reactor coolant pressure boundary during inservice leak and hydrostatic testing is not increased by considering the reactor in the cold shutdown mode. Since the hydrostatic test is performed water solid or near water solid in case of the inservice leakage test, all rods in, at low decay heat values, and near cold shutdown conditions, the stored energy in the reactor core will be very low. Under these conditions, the potential for failed fuel and a subsequent increase in coolant activity above Technical Specification limits are minimal. In addition, the secondary containment will be OPERABLE and will be capable of handling any airborne radioactivity from steam leaks that could occur during the performance of hydrostatic or leak testing. Requiring the secondary

containment to be OPERABLE will conservatively ensure that any potential airborne radiation from leaks can be filtered through the Standby Gas Treatment System, thereby limiting radiation releases to the environment.

Thus, consequences of a leak under pressure testing conditions, with the secondary containment OPERABLE, will be conservatively bounded by the consequences of the postulated main steam line break outside of secondary containment accident analysis described in the USAR. That analysis assumes a ground level release and the activity is based on a core with significantly higher stored energy and coolant activity.

Therefore, the changes will not increase the consequences of an accident. In the event of a large primary system leak, the reactor vessel would rapidly depressurize, allowing the low pressure ECCS subsystems to operate. The capability of the subsystems that are required for cold shutdown conditions would be more than adequate to keep the core flooded under this low decay heat load condition. Small system leaks would be detected by leakage inspections before significant inventory loss occurred. Therefore, this change 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.

Allowing the reactor to be considered in the cold shutdown condition during inservice leak or hydrostatic testing, when the reactor coolant temperature is > 200°F, essentially provides an exception to hot shutdown requirements, including OPERABILITY of primary containment and the full complement of redundant Emergency Core Cooling Systems. Since the hydrostatic test is performed water solid, or near water solid in the case of the inservice leakage test, all rods in, at low decay heat values, and near cold shutdown conditions, the stored energy in the reactor core will be very low. Under these conditions, the potential for failed fuel and a subsequent increase in coolant activity above Technical Specification limits are minimal. In addition, the secondary containment will be OPERABLE and will be capable of handling any airborne radioactivity or leaks that could occur.

The inservice leak or hydrostatic test remains unchanged except for a slight increase in coolant temperature. The potential for a system leak remains unchanged since the reactor coolant system is designed for temperatures exceeding 500°F with similar pressures. There are no alterations of any plant systems that cope with the spectrum of accidents. The only difference is that a different subset of systems would be utilized from those of OPERATIONAL CONDITION 3. Therefore, this 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 changes allow inservice leak and hydrostatic testing to be performed with coolant temperature >200°F and the reactor in OPERATIONAL CONDITION 4. Since the reactor vessel head will be in place, secondary containment integrity maintained and all systems required to be operable in accordance with the Technical Specifications, the proposed changes will not have any impact on any design bases accident or safety limit. This is because hydrostatic testing is performed water solid, or near water solid in the case

of the inservice leakage test, all rods in, at low decay heat values, and near cold shutdown conditions where stored energy in the core is very low. Under these conditions the potential for failed fuel and subsequent increase in coolant activity would be minimal. The RPV would rapidly depressurize in the event of a large primary system leak and the low pressure injection systems normally operable in OPERATIONAL CONDITION 4 would be more than adequate to keep the core flooded. This would ensure that the fuel would not exceed the 2200°F peak clad temperature limit. Moreover, requiring secondary containment, including isolation on LOCA parameters, to be operable will assure that any potential airborne radiation can be filtered through the Standby Gas Treatment System. This will assure that doses remain within the limits of 10CFR100 guidelines. Small system leaks would be detected by inspection before significant inventory loss has occurred. Therefore, this special test exception will not involve a significant reduction in a margin of safety.