

ATTACHMENT A

NIAGARA MOHAWK POWER CORPORATION  
LICENSE DPR-63  
DOCKET NO. 50-220

Proposed Change to Technical Specifications

Replace existing page 256 with the attached revised page. This page has been retyped in its entirety with marginal markings to indicate changes to the text.

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**LIMITING CONDITION FOR OPERATION**

**SURVEILLANCE REQUIREMENT**

- c. One diesel-generator power system may be inoperable provided two 115 kv external lines are energized. If a diesel-generator power system becomes inoperable, it shall be returned to an operable condition within seven days. In addition, if a diesel-generator power system becomes inoperable coincident with a 115 kv line de-energized, that diesel-generator power system shall be returned to an operable condition within 24 hours.
- d. If a reserve power transformer becomes inoperable, it shall be returned to service within seven days.
- e. For all reactor operating conditions except startup and cold shutdown, the following limiting conditions shall be in effect:
  - (1) One operable diesel-generator power system and one energized 115 kv external line shall be available. If this condition is not met, normal orderly shutdown will be initiated within one hour and the reactor will be in the cold shutdown condition within ten hours.

- c. Weekly - determine the cell voltage and specific gravity of the pilot cells of each battery.
- d. Surveillance for startup with an inoperable diesel-generator - prior to startup the operable diesel-generator shall be tested for automatic startup and pickup of the load required for a loss-of-coolant accident.
- e. Surveillance for operation with an inoperable diesel-generator - If a diesel-generator becomes inoperable from any cause other than an inoperable support system or preplanned maintenance or testing, within 8 hours, either determine that the cause of the diesel-generator being inoperable does not impact the operability of the operable diesel-generator or demonstrate operability by testing the operable diesel-generator. Operability by testing will be demonstrated by achieving steady state voltage and frequency.



## ATTACHMENT B

### NIAGARA MOHAWK POWER CORPORATION LICENSE DPR-63 DOCKET NO. 50-220

#### Supporting Information and No Significant Hazards Consideration Analysis

#### INTRODUCTION

Nine Mile Point Unit 1 is supplied by four independent sources of AC power; two 115 kV offsite transmission lines and two diesel-generators. Any one of the power sources will provide the power required for the worst case loss-of-coolant accident. Technical Specification Surveillance Requirements 4.6.3.a and 4.6.3.b delineate the normal surveillance requirements for the diesel-generators. Technical Specification 4.6.3.e delineates the additional surveillance required when a diesel-generator is declared inoperable during normal operation. Technical Specification 4.6.3.e requires that the operable diesel-generator be manually started immediately and operated at rated load for a minimum time of one hour and once per week thereafter. The intent of the additional testing is, in part, to determine if a common mode failure exists and, in part, to provide added assurance that the operable diesel-generator is capable of supplying emergency power. However, this requirement can result in unnecessary testing of the operable diesel-generator when the other diesel-generator is declared inoperable and the cause does not impact the operability of the other diesel-generator. Also, Technical Specification 4.6.3.e requires that the operable diesel-generator be connected to an offsite power source (operated at rated load). Connecting the operable diesel-generator to an offsite power source subjects the diesel-generator to offsite power disturbances. Furthermore, the requirement to perform the test immediately and once a week thereafter is overly conservative when compared to more recent diesel-generator Technical Specification requirements.

Accordingly, Niagara Mohawk proposes to revise Technical Specification 4.6.3.e as set forth in Attachment A to this Application. The change will require an operator to determine if a diesel-generator became inoperable due to preplanned maintenance or testing or due to a support system being inoperable. If the diesel-generator became inoperable for any cause other than preplanned maintenance or testing or an inoperable support system, the operator will be required to verify that the cause of the diesel-generator being inoperable does not affect the operability of the operable diesel-generator (i.e., no common cause failure exists) or test the diesel-generator. This change will potentially increase diesel-generator reliability by reducing the stresses on the diesel-generator caused by unnecessary testing.

Also, if a diesel-generator test is required, the change to 4.6.3.e would delete the requirement to connect the diesel-generator to offsite power. Operators would have 8 hours to perform the test versus the existing Technical Specification requirement to perform the test immediately. The test would be required to be performed only once versus the existing requirement to perform the test once a week.



This change is consistent with the guidance provided in NUREG-1366, "Improvements to Technical Specifications Surveillance Requirements" and NUREG-1433, "Improved Standard Technical Specifications."

#### **PROPOSED CHANGE TO TECHNICAL SPECIFICATIONS**

Technical Specification 4.6.3.e would be revised to read as follows:

Surveillance for operation with an inoperable diesel-generator- If a diesel-generator becomes inoperable from any cause other than an inoperable support system or preplanned maintenance or testing, within 8 hours, either determine that the cause of the diesel-generator being inoperable does not impact the operability of the operable diesel-generator or demonstrate operability by testing the operable diesel-generator. Operability by testing will be demonstrated by achieving steady state voltage and frequency.

#### **EVALUATION**

##### **Testing of the Redundant Diesel-Generator When a Diesel-Generator is Declared Inoperable**

With the existing Nine Mile Point Unit 1 Technical Specifications, if a diesel-generator is declared inoperable due to preplanned maintenance or testing, the redundant diesel-generator is required to be started and loaded. As noted above, the intent of the additional testing is, in part, to determine if a common cause failure exists and, in part, to provide added assurance that the operable diesel-generator is capable of supplying emergency power. Declaring a diesel-generator inoperable due to preplanned maintenance or testing does not affect the reliability of the operable diesel-generator nor does it in any way imply that a common cause failure exists. The normally required Technical Specification surveillance testing schedule demonstrates acceptable reliability and assures that the operable diesel-generator is capable of performing its intended safety functions. Therefore, Niagara Mohawk proposes to revise Technical Specification 4.6.3.e such that if a diesel-generator is declared inoperable due to preplanned maintenance or testing, testing of the operable diesel-generator would not be required.

The redundant diesel-generator is also required to be started and loaded if a diesel-generator is declared inoperable due a support system becoming inoperable. A support system is a system outside of the diesel-generator unit as defined in Regulatory Guide (RG) 1.9. RG 1.9 defines the diesel-generator unit as consisting of the engine, generator, combustion air system, cooling water system up to the supply, fuel oil supply system, lubricating oil system, starting energy sources, auto-start controls, manual controls and the diesel-generator breaker. If the guidance provided in RG 1.9 were to be applied, failed starts of diesel-generators caused by failures of equipment that are not part of the defined diesel-generator unit would be categorized as invalid failures.

Likewise, there should be no reason to perform additional testing of the operable diesel-generator to determine if the same invalid failure mode exists. Failures of equipment not part of the diesel-generator unit would not have prevented the operable diesel-generator from performing its intended safety function in an emergency (i.e., would not impact the operability of the operable diesel-generator). Increased diesel-generator testing should not be required when a support component can be tested independently to restore the inoperable diesel-generator to operable status. Therefore, Niagara Mohawk proposes to



revise Technical Specification 4.6.3.e such that if a diesel-generator is declared inoperable due to a support system being inoperable, redundant diesel-generator testing would not be required.

In addition, Niagara Mohawk proposes to add wording to Technical Specification 4.6.3.e to permit an operator to determine whether a common cause failure exists before requiring testing of the operable diesel-generator when a diesel-generator is declared inoperable for a reason other than an inoperable support system or preplanned maintenance or testing. As noted above, the intent of the existing testing requirement is, in part, to determine if a common cause failure exists. Once the potential for a common cause failure has been examined and dismissed, testing beyond the normal surveillance schedule is excessive and does not contribute to improved diesel-generator reliability. The determination that no common cause failure exists will be completed within eight (8) hours or the operable diesel-generator will be tested. Eight (8) hours is consistent with the guidelines provided in NUREG-1366, "Improvements to Technical Specification Surveillance Requirements."

In conclusion, industry and NRC studies (such as presented in NUREG/CR-4810) have shown that excessive testing can cause unnecessary wear and reduced reliability of diesel-generators. Testing of an operable diesel-generator reduces its probability of failure due to an undetected condition. However, testing adds additional wear on the diesel-generators. Testing beyond the normal surveillance testing is not warranted unless a potential for common cause failure exists. The proposed change will preclude unnecessary testing and therefore increase overall plant safety by increasing diesel-generator reliability.

#### Requirement to Load Redundant Diesel-Generator After Starting

Existing Technical Specification 4.6.3.e requires that the operable diesel-generator be started immediately and operated at rated load for a minimum time of one hour and once per week thereafter to demonstrate its operability in the event a diesel-generator becomes inoperable. As indicated in Information Notice 84-69, when a diesel-generator is operated connected to offsite or non-vital loads, the emergency power system is not independent of disturbances on the non-vital and offsite power systems. Therefore, diesel-generator availability is potentially lessened by a demonstration of operability requiring connection of the diesel-generator to offsite power sources. At a time when one diesel-generator is already inoperable, this Surveillance Requirement could potentially reduce the reliability of the remaining operable diesel-generator. The capability of a diesel-generator to carry its load is demonstrated by normal surveillance testing. Therefore, Niagara Mohawk proposes to delete the requirement to operate the operable diesel-generator at rated load (i.e., connected to offsite power) when a diesel-generator is declared inoperable.

#### Requirement to Start the Diesel-Generator Immediately

Existing Technical Specification 4.6.3.e requires that the operable diesel-generator be started immediately in the event a diesel-generator becomes inoperable. The requirement to immediately test a diesel-generator is overly conservative when compared to more recent diesel-generator Technical Specification requirements. As previously discussed, Niagara Mohawk proposes to add wording to Technical Specification 4.6.3.e to give an operator eight (8) hours to determine whether a common cause failure exists or to test the operable diesel-generator when a diesel-generator is declared inoperable for a reason other



than an inoperable support system or preplanned maintenance or testing. Eight (8) hours is consistent with the guidelines provided in NUREG-1366, "Improvements to Technical Specifications Surveillance Requirements" and is considered adequate time to perform a common cause failure assessment. The Improved Technical Specifications indicates that Generic Letter 84-15, "Proposed Staff Actions to Improve and Maintain Diesel Generator Reliability," supports up to 24 hours to perform the common cause failure assessment.

#### Requirement to Test a Diesel-Generator Weekly Following Initial Verification of Operability

Technical Specification 4.6.3.e currently requires that the operable diesel-generator be tested immediately and once per week thereafter in the event a diesel-generator becomes inoperable. However, Technical Specification 3.6.3.c requires that an inoperable diesel-generator be returned to an operable condition within seven (7) days to meet the Limiting Condition for Operation. Therefore, the requirement to test the operable diesel-generator "once a week thereafter" is inconsistent. In addition, testing the operable diesel-generator one time is adequate to confirm operability of that diesel-generator. Repetitive testing following initial confirmation of operability is unwarranted. Therefore, Niagara Mohawk proposes to delete the requirement to test the operable diesel-generator weekly following the initial test.

#### CONCLUSION

Based on the above evaluation, Niagara Mohawk proposes to revise the Nine Mile Point Unit 1 Technical Specifications as indicated in Attachment A to this application. The proposed change is consistent with the guidelines provided in NUREG-1366, "Improvements to Technical Specifications Surveillance Requirements" and NUREG-1433, "Improved Standard Technical Specifications." The change will eliminate excessive testing of the diesel-generators, remove the requirement to connect the operable diesel-generator to offsite power, remove the requirement to test the operable diesel-generator immediately, and remove the requirement to test a diesel-generator weekly. None of the changes affect diesel-generator design or performance but are being proposed to enhance diesel-generator reliability. Therefore, these changes will not be inimical to the common defense and security or the health and safety of the public.

#### NO SIGNIFICANT HAZARDS CONSIDERATION ANALYSIS

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 Section 50.92 about the issue of no significant hazards consideration. Therefore, in accordance with 10 CFR 50.91 and 10 CFR 50.92, the following analysis has been performed:

The operation of Nine Mile Point Unit 1, in accordance with the proposed amendment, will not involve a significant increase in the probability or consequences of an accident previously evaluated.

Technical Specification 4.6.3.e requires that the operable diesel-generator be manually started and operated at rated load for a minimum time of one hour immediately and once per week thereafter in the event any diesel-generator becomes inoperable.

Niagara Mohawk proposes to revise Technical Specification 4.6.3.e such that if a diesel-generator is declared inoperable due to preplanned maintenance or testing or due to a



support system being inoperable, redundant diesel-generator testing would not be required. Declaring a diesel-generator inoperable due to preplanned maintenance or testing or due to a support system being inoperable does not affect the reliability of the operable diesel-generator nor does it in any way imply that a common cause failure exists.

The normally required Technical Specification surveillance testing schedule demonstrates acceptable reliability and assures that the operable diesel-generator is capable of performing its intended safety function.

Niagara Mohawk proposes to add wording to Technical Specification 4.6.3.e to permit an operator to evaluate a diesel-generator failure to determine if a common cause failure exists before requiring testing of the redundant diesel-generator. As noted above, the intent of the additional diesel-generator testing is, in part, to determine if a common cause failure exists. Once the potential for a common cause failure has been examined and dismissed, testing beyond the normal surveillance schedule is excessive and does not contribute to improved diesel-generator reliability. Within eight (8) hours, the determination that no common cause failure exists is required to be completed or the operable diesel-generator will be tested. Eight (8) hours is consistent with the guidance provided in NUREG-1366, "Improvements to Technical Specifications Surveillance Requirements."

Technical Specification 4.6.3.e requires that the operable diesel-generator be operated at rated load (i.e., connected to offsite power) to demonstrate its operability in the event any diesel-generator becomes inoperable. As indicated in Information Notice 84-69, when a diesel-generator is operated connected to offsite or non-vital loads, the emergency power system is not independent of disturbances on the non-vital and offsite power systems. Therefore, diesel-generator availability is potentially lessened by a demonstration of operability requiring connection of the diesel-generator to offsite power sources. At a time when at least one diesel-generator is already inoperable, this Surveillance Requirement could add further risk to losing the remaining operable diesel-generator. Therefore, Niagara Mohawk proposes that Surveillance Requirement 4.6.3.e be changed such that a diesel-generator does not have to be operated at rated load. These changes will preclude offsite power source disturbances from affecting diesel-generator reliability.

Existing Technical Specification 4.6.3.e requires that the operable diesel-generator be started immediately in the event a diesel-generator becomes inoperable. The requirement to immediately test a diesel-generator is overly burdensome when compared to more recent diesel-generator Technical Specification requirements. As previously discussed, Niagara Mohawk proposes to add wording to Technical Specification 4.6.3.e to give an operator eight (8) hours to determine whether a common cause failure exists or to test the operable diesel-generator when a diesel-generator is declared inoperable for a reason other than an inoperable support system or preplanned maintenance or testing. Eight (8) hours is consistent with the guidance provided in NUREG-1366, "Improvements to Technical Specifications Surveillance Requirements."

Existing Technical Specification 4.6.3.e requires that the operable diesel-generator be tested immediately and once per week thereafter. Technical Specification 3.6.3.c requires that an inoperable diesel-generator be returned to an operable condition within seven (7) days to meet the Limiting Condition for Operation. Therefore, the requirement to test the operable diesel-generator "once a week thereafter" is not applicable. In addition, testing



the operable diesel-generator one time is adequate to confirm operability of a diesel-generator. Repetitive testing following initial confirmation of operability is unwarranted. Therefore, Niagara Mohawk proposes to delete the requirement to test the operable diesel-generator weekly following the initial test.

Because the proposed change does not affect the design or performance of the diesel-generators nor adversely affect the reliability of the diesel-generators, the change will not result in an increase in the consequences of an accident previously evaluated (i.e., Station Blackout analyses). Because this change does not affect the probability of accident precursors, the proposed change does not affect the probability of an accident previously evaluated.

The operation of Nine Mile Point Unit 1, 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 change to Technical Specification 4.6.3.e does not introduce any new operating configurations or new accident precursors and does not involve any physical alterations to plant configurations which could initiate a new or different kind of accident. The proposed change does not affect the design or performance characteristics of the diesel-generators nor does the change create the possibility of the loss of both diesel-generators because common cause failure assessments will be performed. The change will delete excessive diesel-generator testing and therefore increase overall plant safety by increasing diesel-generator reliability. Therefore, the proposed amendment will not create the possibility of a new or different kind of accident from any previously evaluated.

The operation of Nine Mile Point Unit 1, in accordance with the proposed amendment, will not involve a significant reduction in a margin of safety

The proposed change to Technical Specification 4.6.3.e will not reduce the number of emergency power sources required by Technical Specification Limiting Condition for Operation 3.6.3 or affect the normal surveillance requirements as described in Technical Specification 4.6.3. The normal surveillance tests demonstrate acceptable reliability and assure that the operable diesel-generator is capable of performing its intended function. The proposed change to delete the excessive testing requirements does not affect the design or performance of any diesel-generator and does not adversely affect diesel-generator reliability. Eliminating unnecessary testing will potentially increase diesel-generator reliability by reducing the stresses caused by such testing. Therefore, the proposed change does not involve a significant reduction in a margin of safety.



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