

ATTACHMENT A

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

PROPOSED CHANGES TO THE TECHNICAL SPECIFICATIONS

Replace pages 3/4 8-7, 3/4 8-8, and 3/4 8-10 with the attached revised pages. These pages have been retyped in their entirety with marginal markings to indicate changes to the text.

9304070244 930330
PDR ADOCK 05000410
P PDR

003249LL

ELECTRICAL POWER SYSTEMS

AC SOURCES

AC SOURCES - OPERATING

SURVEILLANCE REQUIREMENTS

4.8.1.1.2 (Continued)

e. At least once per 18 months,* during shutdown, by:

1. Subjecting the diesel to an inspection in accordance with procedures prepared in conjunction with its manufacturer's recommendations for this class of standby service.
2. Verifying the diesel generator capability to reject a load of greater than or equal to 1125 kW for diesel generator EDG*1, greater than or equal to 750 kW for diesel generator EDG*3, and greater than or equal to 2433 kW for diesel generator EDG*2 while maintaining engine speed increase less than or equal to 75% of the difference between nominal speed and the overspeed trip setpoint or 15% of nominal, whichever is less.
3. Verifying the diesel generator capability to reject a load of 4400 kW for diesel generators EDG*1 and EDG*3 and 2600 kW for diesel generator EDG*2 without tripping. ** The generator voltage shall not exceed 4576 volts for EDG*1 and EDG*3, and 5824 volts for EDG*2 during and following the load rejection.
4. Simulating a loss of offsite power by itself, and:
 - a) For Divisions I and II:
 - 1) Verifying deenergization of the emergency buses and load shedding from the emergency buses.
 - 2) Verifying the diesel generator starts*** on the autostart signal, energizes the emergency buses with permanently connected loads within 13 seconds†, energizes the autoconnected (shutdown) loads through the load timers and operates for greater than or equal to 5 minutes while its generator is loaded with the shutdown loads. After energization, the steady-state voltage and frequency of the emergency buses shall be maintained at 4160 ± 416 volts and 60 ± 1.2 Hz during this test.#

* For any start of a diesel, the diesel must be operated with a load in accordance with the manufacturer's recommendations.

** Momentary transients due to changing bus loads shall not invalidate the test.

*** All diesel generator starts for the purpose of this surveillance test may be preceded by an engine prelube period. Further, all surveillance tests, with the exception of once per 184 days, may also be preceded by warmup procedures and may also include gradual loading as recommended by the manufacturer so that the mechanical stress and wear on the diesel engine is minimized.

† From initiation of loss of offsite power.

This surveillance shall be performed within 5 minutes of shutting down the diesel generator after the diesel generator has operated for greater than 2 hours at a load of greater than or equal to 4400 kW. Momentary transients due to changing bus loads shall not invalidate the test.

ELECTRICAL POWER SYSTEMS

AC SOURCES

AC SOURCES - OPERATING

SURVEILLANCE REQUIREMENTS

4.2.1.1.2.e.4 (Continued)

- b) For Division III:
 - 1) Verifying deenergization of the emergency bus.
 - 2) Verifying the diesel generator starts* on the autostart signal, energizes the emergency bus with the permanently connected loads within 13 seconds** and operates for greater than or equal to 5 minutes while its generator is loaded with the shutdown loads. After energization, the steady-state voltage and frequency of the emergency bus shall be maintained at 4160 ± 416 volts and 60 ± 1.2 Hz during this test.***
- 5. Verifying that on an ECCS actuation test signal, without loss of offsite power:
 - a) That diesel generators EDG*1 and EDG*3 start* on the autostart signal and operate on standby for greater than or equal to 5 minutes. The generator voltage and frequency shall be 4160 ± 416 volts and 60 ± 3.0 Hz within 10 seconds and 4160 ± 416 volts and 60 ± 1.2 Hz within 13 seconds after the autostart signal; the steady state generator voltage and frequency shall be maintained within these limits during this test.
 - b) That diesel generator EDG*2 starts* on the autostart signal and operates on standby for greater than or equal to 5 minutes. The generator voltage and frequency shall be 4160 ± 416 volts and 60 ± 1.2 Hz within 15 seconds after the autostart signal; the steady state generator voltage and frequency shall be maintained within these limits during this test.

* All diesel generator starts for the purpose of this surveillance test may be preceded by an engine prelube period. Furthermore all surveillance tests, with the exception of once per 184 days, may also be preceded by warmup procedures and may also include gradual loading as recommended by the manufacturer so that the mechanical stress and wear on the diesel engine is minimized.

** From initiation of loss of offsite power.

*** This surveillance shall be performed within 5 minutes of shutting down the diesel generator after the diesel generator has operated for greater than 2 hours at a load of greater than or equal to 2600 kW. Momentary transients due to changing bus loads shall not invalidate the test.

ELECTRICAL POWER SYSTEMS

AC SOURCES

AC SOURCES - OPERATING

SURVEILLANCE REQUIREMENTS

4.8.1.1.2.e (Continued)

8. Verify the diesel generator operates for at least 24 hours.

- a) For Divisions I and II:

During the first 2 hours of this test, the diesel generator shall be loaded to greater than or equal to 4840 kW*. During the remaining 22 hours of this test, the diesel generator shall be loaded to greater than or equal to 4400 kW*. The generator voltage and frequency shall be 4160 ± 416 volts and 60 ± 3.0 Hz within 10 seconds and 4160 ± 416 volts and 60 ± 1.2 Hz within 13 seconds after the start signal; the steady state generator voltage and frequency shall be maintained within these limits during this test.

- b) For Division III:

During the first 2 hours of this test, the diesel generator shall be loaded to greater than or equal to 2860 kW*. During the remaining 22 hours of this test, the diesel generator shall be loaded to greater than or equal to 2600 kW*. The generator voltage and frequency shall be 4160 ± 416 volts and 60 ± 1.2 Hz within 15 seconds after the start signal; the steady state generator voltage and frequency shall be maintained within these limits during this test.

9. Verifying that the autoconnected loads to each diesel generator do not exceed the 2000-hour rating of 4750 kW for diesel generators EDG*1 and EDG*3 and 2850 kW for diesel generator EDG*2.

10. Verifying the diesel generator's capability to:

- a) Manually synchronize with the offsite power source while the generator is loaded with its emergency loads upon a simulated restoration of offsite power,
- b) Transfer its loads to the offsite power source, and
- c) Be restored to its standby status.

* Momentary transients due to changing bus loads shall not invalidate the test.

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

SUPPORTING INFORMATION AND NO SIGNIFICANT HAZARDS
CONSIDERATION ANALYSIS

(SUPPORTING INFORMATION AND EVALUATION)

Discussion

Currently, Technical Specifications 4.8.1.1.2.e.8.a) and .b) require that the simulated Loss of Off-Site Power (LOOP) Test of Technical Specifications 4.8.1.1.2.e.4.a) and .b) be performed within five minutes of completing the 24-hour full load diesel generator run test. Regulatory Guide 1.108 position C.2.a(5), which is the basis for performing the LOOP test immediately following the 24-hour load test, states the purpose is to "demonstrate functional capability at full load temperature conditions." Current Specifications 4.8.1.1.2.e.8.a) and .b) allow an alternative to requiring that the 24-hour load test precede the LOOP test if an initial LOOP test is not satisfactorily completed. In this event, footnote ** allows the diesel generator to be operated at full load for one hour or until operating temperatures have stabilized as an alternative to the 24-hour load test. The Improved Standard Technical Specifications, NUREG-1434, issued September 28, 1992, has revised the diesel generator warmup requirement to running a diesel generator at full load for greater than two hours prior to running the LOOP test.

During refueling outages, the requirement that the LOOP test be run within five minutes of completing the 24-hour load test reduces flexibility, unnecessarily constrains outage activities, and creates the potential for critical path schedule complications and delays.

Niagara Mohawk proposes separating the requirements for the 24-hour load test from the LOOP test. A requirement for running the diesel generator at full load for 2 hours prior to initiating the LOOP test will be added to surveillance items 4.8.1.1.2.e.4.a) and b) and will replace the current requirement of item 4.8.1.1.2.e.8.a) and .b) to perform the LOOP test following a 24-hour load test of the diesel generators. According to manufacturer recommendations, this 2-hour full load run will assure that the diesel generator is at full load operating temperatures.

The 24-hour run demonstrates that the diesel generators are capable of carrying an overload for two hours and a full load for the remaining 22 hours, that voltage and frequency requirements are maintained, and that the cooling system functions within design limits. Regulatory Guide 1.108 position C.2.a(5), states the purpose of the test is to "demonstrate functional capability at full load temperature conditions." Separating the two tests will not invalidate or reduce the effectiveness of either test provided full load temperature conditions are reached prior to performing the LOOP test.

These changes are consistent with the requirements in the Improved Standard Technical Specifications, NUREG-1434, issued September 28, 1992. Additionally, the NRC has previously reviewed and approved similar requests for the separation of the 24-hour run and the LOOP tests at other plants (i.e., McGuire Nuclear Station Units 1 and 2 Amendments Nos. 71 and 52, License Nos. NPF-9 and NPF-17 dated May 6, 1987 and Grand Gulf Nuclear Station Unit 1 Amendment 52, NPF-29 dated December 6, 1988).

These previous reviews are applicable to this proposed change. In summary, the staff has found that at other nuclear power plants conducting the start and sequencing test, called the LOOP test at Nine Mile Point Unit 2, after the diesel generator operating temperatures have stabilized at full load conditions fulfills the intent of conducting the test following the 24-hour load test.

Conclusion

Niagara Mohawk proposes separating the requirements for the 24-hour load test of the diesel generator at full load from the LOOP test. The basis for this change is that requiring a two-hour run prior to running the LOOP test will ensure that the diesel generator is operating at full load operating temperatures. This is the prime requirement of Regulatory Guide 1.108, which places the emphasis on achieving full-load temperature conditions prior to the LOOP test rather than having the 24-hour load test as a prerequisite. The current Technical Specification allows for the 24-hour load test to be decoupled from the LOOP test, when an initial LOOP test is not completed satisfactorily provided that stabilized operating temperatures are achieved prior to running the LOOP test. According to manufacturers' recommendations, a two-hour full-load test on a diesel generator will achieve stabilized full-load operating temperatures. These changes will not invalidate or reduce the effectiveness of either test since full load temperature conditions will be reached prior to performing the LOOP test. Nine Mile Point Unit 2 can be safely operated with the proposed changes since the new requirements will fulfill all of the testing requirements currently in the Technical Specification.

Therefore, there is reasonable assurance that operation of Nine Mile Point Unit 2 in the proposed manner will not endanger the public health and safety, and that issuance of the proposed amendment will not be inimical to our common defense and security.

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.

As stated in Regulatory Guide 1.108, the performance of the LOOP test of Technical Specification 4.8.1.1.2.e.4.a) and .b) immediately following the 24-hour load test demonstrates that the diesel generator can start and accept the required loads in the prescribed time when the diesel generator is at its full load operating temperature. This provides assurance that the diesel generator is capable of responding to a Loss-of-Off-Site Power as assumed in the accident analysis. Because the purpose of performing the LOOP test immediately following the 24-hour run is to demonstrate the functional capability of the diesel generator at full load temperature conditions, establishing full load temperature conditions with other than a 24-hour run provides the necessary initial conditions for the LOOP testing. Diesel generator design and function remain as previously analyzed. Diesel generator response during accident conditions are not affected by these changes. Therefore, no significant increase in the probability or consequences of an accident previously evaluated results from these changes.

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.

This request does not involve a physical change in any system's configuration and no new modes of operation are introduced. These changes will not reduce any required testing and will not affect diesel generator reliability. Additionally, the surveillances proposed will establish the same initial conditions as those required by the current Technical Specification. Testing of the diesel generators in accordance with these changes will assure that diesel generator responses remain as previously analyzed for all required conditions. Therefore, these changes do not create the possibility of a new or different kind of accident from any 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.

Allowing the diesel generators to reach full temperature conditions by other than the 24-hour load test required by Technical Specification 4.8.1.1.2.e.8.a and .b will satisfy the intent of conducting the test following the 24-hour load test. These changes will not result in any reduction in testing and will not affect diesel generator reliability. As proposed, the changes will adequately demonstrate the diesel generator's functional capability at full load temperature conditions, thus ensuring the design margin of safety in the diesel generator's ability to start and accept the required loads in the prescribed time. Therefore, these changes will not involve a significant reduction in a margin of safety.