4.8.1.1.2.a.4 (Continued)

b) That diesel engine EDG*2 accelerates to at least 870 rpm and at least 3750 volts in less than or equal to 10 seconds.* The generator voltage and frequency shall be 4160 ± 416 volts and 60 ± 1.2 Hz within 15 seconds after the start signal.

c) Each diesel generator shall be started for this test by using one of the following signals:

1) Manual.

2) Simulated loss of offsite power by itself.

3) Simulated loss of offsite power in conjunction with an ESF actuation test signal.

4) An ESF actuation test signal by itself.

5. Verifying that after the diesel generator is synchronized, it is loaded to greater than or equal to 4400 KW for diesel generators EDG*1 and EDG*3 and greater than or equal to 2600 KW for diesel generator EDG*2 in less than or equal to 90 seconds* and operates with these loads for at least 60 minutes.

6. Verifying the diesel generator is aligned to provide standby power to the associated emergency buses.

7. Verifying the pressure in diesel generator air start receivers for EDG*1 and EDG*3 to be greater than or equal to 225 psig.

8. Verifying the pressure in diesel generator air start receivers for EDG*2 to be greater than or equal to 190 psig.

---

* 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.

ATTACHMENT B

NIAGARA MOHAWK POWER CORPORATION

LICENSE NO. NPF-69

DOCKET NO. 50-410

## INTRODUCTION

Section 4.8.1.1.2.a.7 of the Technical Specifications provides the surveillance requirement for verifying the pressure in standby diesel generator air start receivers for EDG*1 (Division I), EDG*2 (Division III) and EDG*3 (Division II). Each standby diesel generator has its own starting system separate and independent of the starting system of any other diesel generator. Though the basic starting system is the same for the three standby diesel generators, the components for EDG*2 differ from those of EDG*1 and EDG*3. Due to these differences, the surveillance requirement for verifying the pressure in the EDG*2 air start receivers requires revision.

## DISCUSSION

The existing surveillance requirement 4.8.1.1.2.a.7 requires that the pressure in diesel generator EDG*2 air start receivers be ≥225 psig. This pressure coincides with the air compressor start setpoint of 225 psig. With the surveillance requirement and the compressor start setpoint both at 225 psig, there is the possibility that with inherent instrument drift the pressure could fall below 225 psig, thus violating Technical Specification requirements and rendering EDG*2 inoperable. The basis for the ≥225 psig given in Surveillance 4.8.1.1.2.a.7 is that the air start receiver pressure must support five consecutive ten-second starts with both compressors secured and the receivers of both air start systems valved into the same configuration that will be maintained during normal plant operation. Testing at Nine Mile Point Unit 2 has shown that when operated in its normal configuration (ref. FSAR 9.5-42a), there is sufficient air storage capacity in the air start system to start EDG*2 five consecutive times when charged at 150 psig without recharging.

Raising the compressor start setpoint to a level above the surveillance requirement was found to be unacceptable. The current controlled process variable in this application is 15 psig (225-240 psig). Raising the compressor start setpoint above the 225 psig value would reduce the process variable to 10-12 psig which could lead to "short cycling" of the compressor. Short cycling of rotating mechanical equipment (e.g., air compressors) can lead to early failure.

This proposed Technical Specification amendment changes the surveillance requirement for verifying the EDG*2 air start receiver pressure to ≥190 psig. This pressure is sufficiently above the 150 psig pressure required to provide five consecutive ten-second starts and sufficiently below the compressor start setpoint of 225 psig to prevent short cycling of the compressor.

## CONCLUSION

Nine Mile Point Unit 2 can be safely operated with the proposed Technical Specification value of greater than or equal to 190 psig for the Division III standby diesel generator (EDG*2) air start receiver pressure. This value provides sufficient margin to account for drift of the monitoring instrumentation and is supported by test data (ref. FSAR 9.5-42a).

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 amendment involves lowering the Division III standby diesel generator air start receiver pressure limit to ≥190 psig. All components of the Division III diesel air start system have been evaluated and been found to be able to perform their intended function under normal operation, shutdown, abnormal and accident conditions with a pressure of ≥190 psig. The new surveillance limit remains conservative in relation to the 150 psig value, established by test, required for five consecutive starts. Further, the proposed change does not adversely affect the environmental qualification of any plant equipment. 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.

The Division III emergency standby diesel generator's (EDG*2) response to previously evaluated accidents remains within previously assessed limits.

Further, all safety-related systems and components remain within their applicable design limits. In addition, the environmental qualification of plant equipment is not adversely affected by this proposed amendment. Thus, system and component performance is not adversely affected by this change, thereby assuring that the design capabilities of those systems and components are not challenged in a manner not previously assessed so as to 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.

The proposed change lowers the existing Technical Specification limit, but will not cause system performance criteria to be exceeded. The proposed change is supported by Nine Mile Point Unit 2 test data and contains sufficient conservatism so as not to degrade existing analyses and system performance. Therefore, the proposed change does not result in a significant reduction in a margin of safety.