

ATTACHMENT A

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

Proposed Changes to Technical Specifications

This proposed amendment requests that the existing pages of our Technical Specifications be replaced with the attached revised pages as shown below. These pages have been retyped and marginal markings made to indicate changes.

<u>Existing Pages</u>	<u>Revised Pages</u>
3/4 8-1	3/4 8-1
3/4 8-2	3/4 8-2
3/4 8-3	3/4 8-3
B3/4 8-1	B3/4 8-1
B3/4 8-2	B3/4 8-2
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3/4.8 ELECTRICAL POWER SYSTEMS

3/4.8.1 AC SOURCES

AC SOURCES-OPERATING

LIMITING CONDITIONS FOR OPERATION

3.8.1.1 As a minimum, the following AC electrical power sources shall be OPERABLE:

- a. Two physically independent circuits between the offsite transmission network and the onsite Class 1E distribution system, and
- b. Three separate and independent diesel generators, each with:
 1. Separate day fuel tanks containing a minimum of 409 gallons of fuel for EDG*1 (Division I) and EDG*3 (Division II), and 282 gallons for EDG*2 (HPCS-Division III)
 2. A separate fuel storage system containing a minimum of 52,664 gallons of fuel for EDG*1 (Division I) and EDG*3 (Division II), and 36,173 gallons for EDG*2 (HPCS-Division III), and
 3. Two fuel oil transfer pumps.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

ACTION:

- a. With one offsite circuit of the above required AC electrical power sources inoperable, demonstrate the OPERABILITY of the remaining AC sources by performing Surveillance Requirements 4.8.1.1.1 within 1 hour and at least once every 8 hours thereafter. Restore the offsite circuit to OPERABLE status within 72 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- b. With either diesel generator EDG*1 or EDG*3 inoperable, demonstrate the OPERABILITY of the above required AC offsite sources by performing Surveillance Requirement 4.8.1.1.1 within 1 hour and at least once every 8 hours thereafter. If the diesel generator became inoperable from any cause other than preplanned maintenance or testing, within 24 hours, for each OPERABLE diesel generator separately, either verify that the cause of the diesel generator being inoperable does not impact the OPERABILITY of the OPERABLE diesel generator or perform Surveillance Requirement 4.8.1.1.2.a.4*. Restore the inoperable diesel generator to OPERABLE status within 72 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

* This is required to be completed regardless of when the inoperable diesel generator is restored to OPERABLE status. The provisions of Specification 3.0.2 are not applicable.

ELECTRICAL POWER SYSTEMS

AC SOURCES

AC SOURCES - OPERATING

LIMITING CONDITIONS FOR OPERATION

3.8.1.1 (Continued)

ACTION:

- e. With diesel generator EDG*1 or EDG*3 of the above required AC electrical power sources inoperable, in addition to taking ACTION b or c, as applicable, verify within 2 hours that all required redundant systems, subsystems, trains, components, and devices that depend on the remaining OPERABLE diesel generator as a source of emergency power are also OPERABLE; otherwise, either declare inoperable the redundant systems, subsystems, trains, components and devices served by the inoperable diesel generator and take the ACTION required by the associated specification(s) for both divisional systems, subsystems, trains, components or devices inoperable or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- f. With both of the above required offsite circuits inoperable, restore at least one of the above required offsite circuits to OPERABLE status within 24 hours or be in at least HOT SHUTDOWN within the next 12 hours. With only one offsite circuit restored to OPERABLE status, restore at least two offsite circuits to OPERABLE status within 72 hours from time of initial loss or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- g. With diesel generators EDG*1 and EDG*3 of the above required AC electrical power sources inoperable, demonstrate the OPERABILITY of the remaining AC sources by performing Surveillance Requirement 4.8.1.1.1 within 1 hour and at least once every 8 hours thereafter and, within 8 hours, either verify that the cause(s) of diesel generators EDG*1 and EDG*3 being inoperable do not impact the OPERABILITY of diesel generator EDG*2 or perform Surveillance Requirement 4.8.1.1.2.a.4* for diesel generator EDG*2. Restore at least one of the inoperable diesel generators EDG*1 and EDG*3 to OPERABLE status within 2 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours. Restore both diesel generators EDG*1 and EDG*3 to OPERABLE status within 72 hours from time of initial loss or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

* This is required to be completed regardless of when the inoperable diesel generator is restored to OPERABLE status. The provisions of Specification 3.0.2 are not applicable.

3/4.8 ELECTRICAL POWER SYSTEMS

BASES

3/4.8.1, 3/4.8.2, & 3/4.8.3 AC SOURCES, DC SOURCES, AND ONSITE POWER DISTRIBUTION SYSTEMS

The OPERABILITY of the AC and DC power sources and associated distribution systems during operation ensures that sufficient power will be available to supply the safety-related equipment required for (1) the safe shutdown of the facility and (2) the mitigation and control of accident conditions within the facility. The minimum specified independent and redundant AC and DC power sources and distribution systems satisfy the requirements of GDC 17 of Appendix A to 10 CFR 50.

The ACTION requirements specified for the levels of degradation of the power sources provide restriction upon continued facility operation commensurate with the level of degradation. The OPERABILITY of the power sources consistent with the initial condition assumptions of the safety analyses and are based upon maintaining at least Division I or II of the onsite AC and DC power sources and associated distribution systems OPERABLE during accident conditions coincident with an assumed loss of offsite power and single failure of the other onsite AC or DC source. Division III supplies the high-pressure core spray (HPCS) system only.

The AC and DC source allowable out-of-service times are based on RG 1.93, "Availability of Electrical Power Sources," December 1974. When diesel generator EDG*1 (Division I) or EDG*3 (Division II) is inoperable, there is an additional ACTION requirement to verify that all required redundant systems, subsystems, trains, components, and devices that depend on the remaining OPERABLE diesel generator EDG*1 or EDG*3 as a source of emergency power, are also OPERABLE. This requirement is intended to provide assurance that a loss-of-offsite-power event will not result in a complete loss of safety function of critical systems during the period diesel generator EDG*1 or EDG*3 is inoperable. Critical systems are those systems that require emergency power to safely shut down the plant and maintain it in a safe shutdown condition in conjunction with a loss-of-offsite-power. Equipment which "fails safe" upon a loss of power are not included. The following systems/subsystems are required to be verified OPERABLE per this ACTION requirement:

1. primary containment hydrogen and oxygen concentration analyzer
2. airborne particulate/gaseous leak detection systems per Technical Specification 3.4.3.1
3. two low pressure ECCS subsystems
4. one suppression pool cooling subsystem of RHR
5. one standby gas treatment system
6. one primary containment hydrogen recombiner
7. one loop service water with 2 pumps in the loop operable
8. special filter train and associated HVC/HVK subsystem
9. standby liquid control
10. drywell/suppression chamber spray subsystem
11. one shutdown cooling loop

The above systems/subsystems are required to be capable of being powered by the OPERABLE diesel generator EDG*1 or EDG*3. Systems whose ACTION requirements are 72 hours or longer for a complete loss of its safety function are not included on the above

ELECTRICAL POWER SYSTEMS

BASES

AC SOURCES, DC SOURCES, AND ONSITE POWER DISTRIBUTION SYSTEMS

3/4.8.1-3 (Continued)

list. Continued plant operation is limited to 72 hours with diesel generator EDG*1 or EDG*3 inoperable. The term "verify" as used in this context means to administratively check by examining logs or other information to determine if certain components are out of service for maintenance or other reasons. It does not mean to perform the Surveillance Requirements needed to demonstrate the OPERABILITY of the component.

When a diesel generator becomes inoperable due to any cause other than preplanned maintenance or testing, there is a requirement in the ACTION to, for each OPERABLE diesel generator separately, either verify that the cause of the diesel generator being inoperable does not impact the OPERABILITY of the OPERABLE diesel generator or perform Surveillance Requirement 4.8.1.1.2.a.4. The term verify in this context means to determine by visual inspection, functional test or other means that the subsystem will perform its function. For diesel generators made by different manufacturers, this verification may consist of a determination that the cause cannot exist if the comparable subsystem is of a different design.

The OPERABILITY of the minimum specified AC and DC power sources and associated distribution systems during shutdown and refueling ensures that (1) the facility can be maintained in the shutdown or refueling condition for extended time periods and (2) sufficient instrumentation and control capability is available for monitoring and maintaining the unit status.

The Surveillance Requirements for demonstrating the OPERABILITY of the diesel generators are in accordance with the recommendations of RG 1.9, "Selection of Diesel Generator Set Capacity for Standby Power Supplies," December 1979; RG 1.108, "Periodic Testing of Diesel Generator Units Used as Onsite Electric Power Systems at Nuclear Power Plants," Revision 1, August 1977; and RG 1.137, "Fuel-Oil Systems for Standby Diesel Generators," Revision 1, October 1979.

The Surveillance Requirements for demonstrating the OPERABILITY of the unit batteries are in accordance with the recommendations of RG 1.129, "Maintenance Testing and Replacement of Large Lead Storage Batteries for Nuclear Power Plants," February 1978, and IEEE Standard 450-1980, "IEEE Recommended Practice for Maintenance, Testing, and Replacement of Large Lead Storage Batteries for Generating Stations and Substations."

Verifying average electrolyte temperature above the minimum for which the battery was sized, total battery terminal voltage on float charge, connection resistance values, and the performance of battery service and discharge tests ensures the effectiveness of the charging system, the ability to handle high discharge rates, and compares the battery capacity at that time with the rated capacity.

Table 4.8.2.1-1 specifies the normal limits for each designated pilot cell and each connected cell for electrolyte level, float voltage, and specific gravity. The limits for the designated pilot cells float voltage and specific gravity, greater than 2.13 volts and 0.015

ELECTRICAL POWER SYSTEMS

BASES

AC SOURCES, DC SOURCES, AND ONSITE POWER DISTRIBUTION SYSTEMS

3/4.8.1-3 (Continued)

below the manufacturer's full-charge specific gravity or a battery charger current that had stabilized at a low value, is characteristic of a charged cell with adequate capacity. The normal limits for each connected cell for float voltage and specific gravity, greater than 2.13 volts and not more than 0.020 below the manufacturer's full-charge specific gravity with an average specific gravity of all the connected cells not more than 0.010 below the manufacturer's full-charge specific gravity, ensures the OPERABILITY and capability of the battery.

Operation with a battery cell's parameter outside the normal limit but within the allowable value specified in Table 4.8.2.1-1 is permitted for up to 7 days. During this 7-day period: (1) the allowable values for electrolyte level ensures no physical damage to the plates with an adequate electron transfer capability; (2) the allowable value for the average specific gravity of all the cells, not more than 0.020 below the manufacturer's recommended full-charge specific gravity ensures that the decrease in rating will be less than the safety margin provided in sizing; (3) the allowable value for an individual cell's specific gravity, ensures that an individual cell's specific gravity will not be more than 0.040 below the manufacturer's full-charge specific gravity and that the overall capability of the battery will be maintained within an acceptable limit; and (4) the allowable value for an individual cell's float voltage, greater than 2.07 volts, ensures the battery's capability to perform its design function.

3/4.8.4 ELECTRICAL EQUIPMENT PROTECTIVE DEVICES

Primary containment electrical penetrations and penetration conductors are protected by either de-energizing circuits not required during reactor operation or demonstrating the OPERABILITY of primary and backup overcurrent protection circuit breakers by periodic surveillance. The list of primary containment AC circuits required to be deenergized is contained in administrative procedure AP-8.8 and revisions will be processed in accordance with Section 6.0, Administrative Controls.

The Surveillance Requirements applicable to lower voltage circuit breakers provides assurance of breaker reliability by testing at least one representative sample of each manufacturer's brand of circuit breaker. Each manufacturer's molded case and metal case circuit breakers are grouped into representative samples which are then tested on a rotating basis to ensure that all breakers are tested. If a wide variety exists within any manufacturer's brand of circuit breakers, it is necessary to divide that manufacturer's breakers into groups and treat each group as a separate type of breaker for surveillance purposes.

The emergency lighting system overcurrent protective devices ensure that a failure of the non-Class 1E portion of the circuit will not affect the operation of the remaining portions of the Class 1E circuits that are necessary for safe shutdown. The list of these overcurrent protective devices is contained in administrative procedure AP-8.8 and revisions will be processed in accordance with Section 6.0, Administrative Controls.

ELECTRICAL POWER SYSTEMS

BASES

ELECTRICAL EQUIPMENT PROTECTIVE DEVICES

3/4.8.4 (Continued)

The EPAs provide Class 1E isolation capabilities for the RPS power supplies and the scram power supplies. This is required because the power supplies are not Class 1E power supplies.

ATTACHMENT B

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

Supporting Information and No Significant Hazards Consideration
Analysis

INTRODUCTION

The Nine Mile Point Unit 2 (NMP2) Emergency AC Power System is divided into three physically separate and electrically independent divisions designated Divisions I, II and III. The Division I and II Electrical systems supply power to most of the Emergency Core Cooling System, with the exception of the High Pressure Core Spray system. The High Pressure Core Spray system and related equipment are solely supplied by Division III power. All three divisions are normally energized from two offsite power sources via reserve station service transformers. Each division also has a standby AC power system available (standby diesel generator) in the event offsite power is lost.

The reliability of diesel generators during normal plant operation is demonstrated by routine surveillance testing required by the plant's Technical Specifications. The frequency of such testing is based on past performance with increased testing required to demonstrate continued reliability when test failures occur. In addition to these normal surveillance tests, Technical Specifications require diesel generator testing whenever an offsite power source is lost or if a diesel generator is declared inoperable for a reason other than preplanned preventive maintenance. The purpose of the latter testing is to verify that there is no common mode problem that could affect the remaining diesel generators and to provide additional assurance that the diesel generators are, in fact, operable during those conditions when they might be called upon.

While the additional testing described above provides assurance that the diesel generators are operable, the demands of testing cause additional wear on the diesel components. Operational experience has shown that Technical Specifications have required diesel generator testing when there was clearly no reason to believe that common mode failure was a possibility. Such testing does not contribute to improved diesel generator reliability and is considered excessive. Excessive testing is detrimental to the mechanical components in that it could contribute to an overall reduction in the reliability of the diesel to start and perform its intended function.

The proposed amendment, in part, would change the Action requirements and associated Bases for Technical Specification 3.8.1.1 to eliminate unnecessary diesel generator testing when a diesel generator or an offsite power source becomes inoperable. The proposed amendment will increase diesel generator reliability by reducing the stresses on the diesel generators caused by

unnecessary testing. This increased diesel reliability will result in an overall increase in plant safety. Additional changes to Technical Specification 3.8.1.1 have also been proposed to further enhance diesel generator reliability and to make administrative changes as indicated in the enclosed amendment application.

PROPOSED CHANGES TO TECHNICAL SPECIFICATIONS

- 1) Technical Specification 3.8.1.1, Actions b, c, d, and g, have been revised to delete the requirement to demonstrate the operability of the operable diesel generator(s) by performing Surveillance Requirements (SR) 4.8.1.1.2.a.4 (startup) and 4.8.1.1.2.a.5 (load) when a diesel generator(s) is determined to be inoperable. Instead, station personnel will be required to verify that the cause of the diesel generator(s) being inoperable does not impact the operable diesel generator(s) or perform SR 4.8.1.1.2.a.4 (startup only). This change would allow station personnel to determine whether the potential for a common mode failure exists rather than require unnecessary testing of the operable diesel generator(s).
- 2) Technical Specification 3.8.1.1, Actions b, c, and d, have been revised to delete the word "preventive" from the phrase "preplanned preventive maintenance".
- 3) Technical Specification 3.8.1.1, Actions a and f, have been revised to delete the requirement to demonstrate the operability of the specified operable diesel generators when an offsite power source(s) is determined to be inoperable.
- 4) Technical Specification 3.8.1.1, Action e, has been revised to add the option of declaring inoperable the redundant system, subsystem, train, component or device served by the inoperable diesel generator and taking the Actions required for both divisional systems, subsystems, trains, components or devices being inoperable versus shutting down the plant. Also, the word "redundant" will be added such that Action e reads "all required redundant systems".
- 5) Technical Specification 3.8.1.1, Action d, has been revised to delete the reference made to Technical Specification 3.7.1.1, Service Water.
- 6) The Bases section for Technical Specification 3.8.1.1 has been revised to i) discuss the Actions required to "verify" that the cause of diesel generator being inoperable does not impact an operable diesel generator and ii) define which systems are considered critical and therefore required to be verified operable per Technical Specification 3.8.1.1 Action e.
- 7) The word "test" has been deleted from the single asterisk (*) note in Technical Specification 3.8.1.1. Currently Technical Specification 3.8.1.1, Actions b, c, d, and g, via this note, require that a "test" be performed to demonstrate

diesel generator operability. Because of the changes proposed above, a "test" is no longer always required to meet the Action requirements. Therefore the word "test" will be deleted.

EVALUATION

Testing of Operable Diesel Generators When a Diesel Generator Becomes Inoperable

Technical Specification 3.8.1.1, Actions b, c, d and g, require that the operable diesel generator(s) be started and loaded to offsite power to demonstrate its operability in the event a diesel generator(s) becomes inoperable due to any cause other than preplanned preventive maintenance or testing. The intent of this additional testing is, in part, to determine if a common mode failure exists and, in part, to provide added assurance that the remaining operable diesel generator(s) is capable of supplying emergency power. However, this requirement can result in unnecessary testing of an otherwise operable diesel generator(s) when a different diesel generator(s) is declared inoperable and the cause does not impact the operable diesel generator(s) (i.e., no common mode failure exists).

Niagara Mohawk proposes to change Technical Specification 3.8.1.1, Actions b, c, d and g, to allow verification that the cause of the diesel generator(s) being inoperable does not impact the operability of the operable diesel generator(s). This change would allow station personnel to determine whether the potential for a common mode failure exists rather than require unnecessary testing of the operable diesel generator(s). Also proposed are changes to the associated Bases to discuss the actions required to "verify" that the cause of a diesel generator(s) being inoperable does not impact an operable diesel generator(s).

The normal Technical Specification surveillance testing schedule established in accordance with GL 84-15 demonstrates acceptable reliability and assures that the operable diesel generator(s) is capable of performing its intended safety functions. A failure of a different diesel generator does not reduce the reliability of the operable AC sources as demonstrated by previous Technical Specification surveillance testing, provided the potential for a common mode failure has been examined and dismissed. Once the potential for a common mode failure has been examined and dismissed, testing beyond the normal surveillance schedule is excessive and does not contribute to improved diesel generator reliability. Industry and NRC studies (such as presented in NUREG/CR-4810) have shown that excessive testing of diesel generators can cause reduced reliability. The proposed change will preclude unnecessary testing and therefore increase overall plant safety by increasing diesel generator reliability. The NMP2 Division I diesel generator has incurred only 2 failures out of the last 100 valid tests. The Division II diesel generator has also incurred only 2 failures in the last 100 valid tests. The Division III diesel generator has had zero failures in its last 100 valid tests.

In addition, Regulatory Guide (RG) 1.108 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. Inoperabilities of diesel generators caused by failures of equipment that are not part of the defined diesel generator unit are categorized as invalid failures in accordance with RG 1.108 since the failure would not have prevented the other operable diesel generator unit(s) from performing its intended safety function in an emergency (i.e., would not impact the operability of the operable diesel generator(s)). As such, they do not impact the surveillance frequency of the diesel generator that failed. Likewise, there should be no reason to perform additional testing of operable diesel generator(s) to determine if the same invalid failure mode exists. Therefore, subjecting the operable diesel generator(s) to increased testing should not be required when a diesel generator(s) is declared inoperable because of a component which can be tested independently to restore the inoperable diesel generator(s) to operable status.

In conclusion, while testing of an operable diesel generator(s) reduces its probability of failure due to an undetected condition, it adds an additional demand on the diesel generator. Testing beyond the normal surveillance requirements is not warranted unless a potential common mode failure exists. Therefore, Niagara Mohawk proposes to allow verification that the cause of one or two diesel generator(s) being inoperable does not impact the operability of the other diesel generator(s). This will preclude unnecessary testing of the operable diesel generator(s) and improve diesel generator reliability.

Loading an Operable Diesel Generator to Offsite Power Source When a Diesel Generator Becomes Inoperable

Technical Specification 3.8.1.1, Actions b, c, d and g, require that the operable diesel generator(s) be started and loaded to offsite power to demonstrate its operability in the event any diesel generator(s) becomes inoperable due to any cause other than preplanned preventive maintenance or testing. As addressed in Information Notice 84-69, when a diesel generator is operated connected to an offsite power source and its associated non-vital loads, disturbances on the non-vital loads and offsite power systems can adversely affect diesel generator reliability. Therefore, diesel generator availability can be adversely affected by a demonstration of operability requiring connection of the diesel generator(s) to offsite power sources and associated non-vital loads.

At a time when at least one diesel generator is already inoperable, these Action statements could add further risk to losing the remaining operable diesel generator(s). Therefore, Niagara Mohawk proposes that the requirement in Action statements b, c, d, and g to load a diesel generator to an offsite power source be deleted.

Niagara Mohawk operating procedures do contain limitations on the length of time a diesel generator can be operated unloaded. This Technical Specification change does not preclude loading a diesel generator as necessary but provides flexibility as to when this loading occurs.

In conclusion, Niagara Mohawk proposes to delete the Action requirement to load the operable diesel generators to an offsite power source when a diesel generator(s) is determined inoperable. These changes will preclude offsite power source disturbances from affecting diesel generator reliability.

Deletion of the Word "Preventive"

Technical Specification 3.8.1.1, Actions b, c, and d, require that the operable diesel generator(s) be started and loaded to offsite power to demonstrate its operability in the event any diesel generator(s) becomes inoperable due to any cause other than preplanned preventive maintenance or testing. The intent of this exclusion is to require additional testing only in those cases where a potential for a common mode failure exists.

This requirement would cause unnecessary testing of the operable diesel generator(s) in the event of preplanned "corrective" maintenance. Corrective maintenance is considered work that is not required to be performed to maintain diesel generator operability. Accordingly, the condition requiring corrective maintenance has not prevented the diesel generator from performing its intended function. The current requirements could delay minor corrective maintenance to preclude having to demonstrate the operability of the remaining diesel generator(s). This is contrary to maintaining diesel generator reliability and plant safety. Therefore, Niagara Mohawk proposes to delete the word "preventive" from Technical Specification 3.8.1.1, Actions b, c, and d.

However, if during the performance of preplanned maintenance it is discovered that one or more diesel generators are in fact inoperable and require corrective maintenance to restore them to operable status, plant personnel would either verify that the cause of the diesel generators being inoperable does not impact the operability of the other diesel generators or perform surveillance 4.8.1.1.2.a.4.

In conclusion, this proposed change would allow corrective maintenance to be performed without having to test the remaining diesel generators. This change would maintain diesel generator reliability and plant safety while supporting the intent of the current Action requirements.

Deletion of Diesel Generator Testing Following Inoperability of an Offsite Power Source

Technical Specification 3.8.1.1, Actions a and f, require that the specified diesel generators be started and loaded to offsite power to demonstrate their operability in the event an offsite source becomes inoperable. The intent of this additional testing is to provide added assurance that the operable diesel generators

are capable of supplying emergency power when the offsite AC sources are degraded.

The normal Technical Specification surveillance testing schedule established in accordance with Generic Letter (GL) 84-15 provides assurance that the operable diesel generators are capable of performing their intended safety functions. The inoperability of one or both of the offsite AC sources in no way affects the reliability of the operable diesel generators. Further, GL 84-15 encouraged licensees to delete testing of diesel generators as a result of other systems or components becoming inoperable.

In addition, the most probable cause of an offsite AC power source becoming inoperable is severe weather or an off-normal grid condition. The severe weather or off-normal grid conditions can also cause the loss of a diesel generator if the diesel generator is tied to the offsite source. Information Notice 84-69 warns against operating diesel generators tied to offsite power when the unit's AC sources are degraded or threatened. As addressed in Information Notice 84-69, when an operating diesel generator is connected to an offsite source and its associated non-vital loads, disturbances in these areas can adversely affect diesel generator reliability. The loss of an AC source will automatically start the associated diesel generator. In these cases the diesel generator will already be supplying the safety bus. To require the remaining operable diesel generator(s) to be started and loaded to offsite power increases the risk of losing all AC power to their associated safety buses. Therefore, diesel generator availability is adversely impacted by connecting the diesel generators to offsite sources when the offsite sources are degraded.

Therefore, Niagara Mohawk proposes to change Action statements a and f to delete the requirement to demonstrate that the diesel generators are operable when one or both offsite power sources are found to be inoperable. The inoperability of an offsite AC source in no way affects the reliability of the operable diesel generators. Also, connecting a diesel generator to an offsite source can result in a loss of the diesel generator due to offsite disturbances. Therefore, deletion of the Action statement to start and load operable diesel generators when an offsite source becomes inoperable does not decrease diesel generator reliability.

While it is recognized that the occurrence of an inoperable offsite AC source is infrequent, these Action statements are one additional source of unnecessary testing of the diesel generators. While the reduction in stress on the diesel generators due to the proposed change is small, the reduction in risk of a total loss of AC power to the safety busses may be significant and offsets any added assurance of diesel generator operability provided by the required testing.

Verification of Operability of Redundant Equipment

Technical Specification 3.8.1.1, Action e, requires that, within 2 hours of the Division I or II diesel generator becoming inoperable, all required systems, subsystems, trains, components

and devices that depend on the remaining operable Division I or II diesel generator as a source of emergency power be verified as operable. If this condition cannot be met, the plant is required to be placed in HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours. This Action requirement is intended to provide assurance that a loss of offsite power, during the period that the Division I or II diesel generator is inoperable, will not result in a complete loss of safety function of critical systems.

There are redundant systems, subsystems, trains, components and devices which depend on diesel generators as a source of emergency power that do not represent a significant safety function or critical systems. This is indicated by their associated Action requirements which allow continued plant operation for a limited time when all redundant components are determined inoperable. Accordingly, Technical Specification 3.8.1.1 Action e can result in an unnecessary plant shutdown when the current Technical Specification Action statements for the affected equipment allow continued plant operation for a time period longer than 2 hours when both pieces of redundant equipment are inoperable.

The current Action requirements for the affected equipment should determine if an immediate plant shutdown is required since they have been established to support safe operation based upon the effect of the loss of the equipment's safety function(s). Therefore, Niagara Mohawk proposes to change Action statement e to add the option of declaring inoperable the redundant system, subsystem, train, component or device served by the inoperable diesel generator and taking the Actions required for both divisional systems, subsystems, trains, components or devices being inoperable versus shutting down the plant.

Niagara Mohawk also proposes to add the word "redundant" to Technical Specification 3.8.1.1, Action e, to remove the requirement to verify operability of equipment which is served by only one diesel generator. The accident analyses does not take credit for operation of equipment which is not served by both diesel generators (i.e., equipment that is not redundant) since a single failure during a design basis accident would prevent such equipment from performing its safety function. Additionally, there are redundant systems/components that are supplied emergency power by both diesel generators, but are not required for safe shutdown of the plant. In both of these instances, loss of function for these components is not a threat to plant safety and verification of operability, in the event of an inoperable diesel generator, is not necessary. Therefore, the word "redundant" was added to Action statement e and the Bases for Specification 3.8.1.1 has been revised to clearly define which redundant equipment is required to be verified operable per Action e.

In conclusion, the proposed revision to Action e will maintain the current level of safety for critical systems while allowing the operational flexibility intended for less critical emergency powered systems/components. The current Action statements for the affected equipment should determine if an immediate plant

shutdown is required since the actions have been established to support safe operation based upon the effect of the loss of the equipment's safety function(s). If the Action requirement for both redundant systems/components being inoperable is less than 72 hours, the Action requirements for both redundant components not being capable of performing their safety function(s) must be followed. Therefore, actions required by the proposed change will maintain a level of safety commensurate with the Technical Specification Actions for the affected redundant equipment.

Deleting the Reference to Specification 3.7.1.1

Technical Specification 3.8.1.1, Action d, requires that when Division III diesel generator EDG*2 is found to be inoperable, EDG*2 be restored to an operable status within 72 hours or High Pressure Core Spray declared inoperable and the actions required by Technical Specifications 3.5.1 and 3.7.1.1 be taken. Technical Specification 3.7.1.1 provides the operability requirements for the plant service water system. The service water system consists of two loops, Division I and Division II. The inoperability of the Division III diesel generator does not affect the operability of the Division I or II service water systems. Therefore, the reference made to Technical Specification 3.7.1.1 should be deleted. This is an administrative change and does not affect the design or performance of the diesel generator.

Deleting the word "test" from the note in Technical Specification 3.8.1.1

The word "test" has been deleted from the note (indicated by the asterisk(*)) in Technical Specification 3.8.1.1. Currently Technical Specification 3.8.1.1, Actions b, c, d, and g, require that a "test" be performed to demonstrate diesel generator operability. Because of the changes proposed above, a "test" is no longer always required to meet the Action requirements. Therefore the word "test" will be deleted.

CONCLUSION

Technical Specification 3.8.1.1, Actions b, c, d, and g, have been revised to delete the requirement to start and load the diesel generator(s) when a diesel generator(s) is determined to be inoperable. Instead, station personnel will be allowed to verify that the cause of the diesel generator(s) being inoperable does not impact the operability of the remaining diesel generator(s). This would allow station personnel to determine whether the potential for a common mode failure exists rather than require unnecessary testing of the operable diesel generator(s). Once the potential for a common mode failure has been dismissed, testing beyond the normal surveillance schedule is excessive and does not improve diesel generator reliability. Also, connecting and loading a diesel generator to an offsite power source and associated non-vital loads subjects the diesel generator to disturbances which could adversely affect diesel generator reliability.

Technical Specification 3.8.1.1, Actions b, c, and d, have been revised to delete the word "preventive" from the phrase "preplanned preventive maintenance". Deleting the word "preventive" would allow "corrective" maintenance to be performed without declaring a diesel generator inoperable. Niagara Mohawk interprets this exclusion to testing to apply to preplanned corrective or preventive maintenance provided the maintenance, if not performed, would not in itself render the diesel generator inoperable.

Technical Specification 3.8.1.1, Actions a and f, have been revised to delete the requirement to demonstrate the operability of the operable diesel generator(s) when an offsite power source(s) is determined to be inoperable. The loss of an offsite power source does not imply any loss of diesel generator reliability or a common mode failure. Also, loading a diesel generator to an already potentially unstable offsite grid can adversely affect diesel generator reliability.

Technical Specification 3.8.1.1, Action e, has been revised to add the option of declaring inoperable a system, subsystem, train, component or device served by an inoperable diesel generator and taking the Action required by the associated specification(s) for both divisional systems, subsystems, trains, components or devices inoperable versus shutting down the plant. The current Action requirements for the affected equipment should determine if an immediate plant shutdown is required since they have been established to support safe operation based upon the affect of the loss of the equipment's safety function(s).

Also the word "redundant" will be added such that Action statement e reads "all required redundant systems". The word "redundant" was added to avoid testing non-essential systems, subsystems, etc (equipment powered by a single diesel generator). The Bases for Action statement e have been revised to clearly define which equipment is required to be verified operable per this Action statement.

Technical Specification 3.8.1.1, Action d, has been revised to delete the reference made to Specification 3.7.1.1. Technical Specification 3.8.1.1, Action d, requires that when Division III diesel generator EDG*2 is found to be inoperable EDG*2 be restored to an operable status within 72 hours or HPCS declared inoperable and the action required by Technical Specifications 3.5.1 and 3.7.1.1 be taken. Technical Specification 3.7.1.1 provides the operability requirements of the plant service water system. The service water system consists of two loops, Division I and Division II. The inoperability of the Division III diesel generator does not affect the operability of the Division I or II service water systems. Therefore, the reference to Specification 3.7.1.1 should be deleted. This is an administrative change and does not affect the diesel generator design or performance.

The word "test" has been deleted from the note (indicated by the asterisk(*)) in Technical Specification 3.8.1.1. Currently, Technical Specification 3.8.1.1, Actions b, c, d, and g, require that a "test" be performed to demonstrate diesel generator operability. Because of the changes proposed above, a "test" is

no longer always required to meet the Action requirements. Therefore the word "test" will be deleted.

In conclusion, there is reasonable assurance that operation of NMP2 in the proposed manner will not endanger the public health and safety and that issuance of the proposed amendment will not adversely impact common defense and security.

No Significant Hazards Consideration Analysis

10CFR50.91 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 10CFR50.91 and 10CFR50.92, 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.

Technical Specification 3.8.1.1, Actions b, c, d and g, require that the operable diesel generator(s) be started and loaded to offsite power to demonstrate their operability in the event any diesel generator(s) becomes inoperable due to any cause other than preplanned preventive maintenance or testing. The proposed change would add wording to Technical Specification 3.8.1.1 Actions b, c, d, and g which would allow verification that the cause of the diesel generator(s) being inoperable does not impact the operability of the operable diesel generator(s). This will allow station personnel to determine whether the potential for a common mode failure exists rather than requiring unnecessary testing of the operable diesel generators.

The normal Technical Specification surveillance testing schedule established in accordance with GL 84-15 assures that operable diesel generators(s) are capable of performing their intended safety functions. A failure of a different diesel generators does not reduce the reliability of an otherwise operable diesel generator(s) if the cause of failure is not common to the diesel generator(s). Deleting the requirement to demonstrate the operability of an otherwise operable diesel generator, once the potential for a common mode failure has been dismissed, does not affect the design or performance characteristics of a diesel generator. Therefore, the diesel generator(s) maintain their ability to perform their design function.

Technical Specification 3.8.1.1, Actions b, c, d and g, also require that the operable diesel generator(s) be started and loaded to offsite power to demonstrate their operability in the event any diesel generator becomes inoperable due to any cause other than preplanned preventive maintenance or testing. The proposed change would delete the requirement to load a diesel generator(s) to offsite power. As addressed in Information Notice 84-69, when a diesel generator is operated connected to an offsite power source and its associated non-vital loads, disturbances on the non-vital loads and offsite power systems can adversely affect diesel generator reliability. Therefore, diesel

generator availability can be adversely affected by a demonstration of operability requiring connection of the diesel generators to offsite power sources and associated non-vital loads. At a time when at least one diesel generator is already inoperable, these Action statements increase the risk of losing the remaining operable diesel generator(s). Deleting the requirement to load the operable diesel generator(s) does not affect the design or performance characteristics or the reliability of the diesel generator(s). Therefore, the diesel generators maintain their ability to perform their design function.

Technical Specification 3.8.1.1, Actions b, c, and d, require that all operable diesel generator(s) be started and loaded to offsite power to demonstrate their operability in the event any diesel generator becomes inoperable due to any cause other than "preplanned preventive maintenance or testing." The proposed change would revise Technical Specification 3.8.1.1, Actions b, c, and d, to remove the word "preventive" from the phrase "preplanned preventive maintenance." This requirement could cause unnecessary testing of the operable diesel generators if preplanned "corrective" maintenance was performed. Since, by its nature, preplanned corrective maintenance could be delayed without declaring the diesel generator inoperable, the condition requiring corrective maintenance has not prevented the diesel generator from being capable of performing its intended safety function. Under the current requirements, minor corrective maintenance could be delayed in order to prevent having to demonstrate the operability the operable diesel generators. The ability to perform types of maintenance other than preventive without subsequent testing does not affect the design or performance characteristics of the diesel generators.

Technical Specification 3.8.1.1, Actions a and f, require that the operable diesel generator(s) be started and loaded to offsite power to demonstrate its operability in the event an offsite source becomes inoperable. The inoperability of an offsite AC power source in no way affects the reliability of a diesel generator. Accordingly, the proposed Technical Specification change would delete the requirement to demonstrate the operability of the operable diesel generator(s) when an offsite power source is determined to be inoperable. Deleting the requirement to demonstrate the operability of the diesel generator(s) when offsite power is lost does not affect the design or performance characteristics of the diesel generator(s). Therefore, the diesel generator(s) maintain their ability to perform their design function.

Technical Specification 3.8.1.1 Action e requires that, within 2 hours of a Division I or II diesel generator becoming inoperable, all required systems, subsystems, trains, components and devices that depend on the remaining operable Division I or II diesel generators as a source of emergency power be verified as operable. If this condition cannot be met, the plant is required to be placed in HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours. Technical Specification 3.8.1.1 Action e can result in an unnecessary plant shutdown when the current Technical Specification Action for the affected

equipment allows continued plant operation for a time period longer than 2 hours when both redundant pieces of equipment are inoperable.

Therefore, Niagara Mohawk proposes to change Action e to add the option of declaring inoperable the redundant system, subsystem, train, component or device served by the inoperable diesel generator and taking the Actions required by the associated specification(s) for both divisional systems, subsystems, trains, components or devices being inoperable versus shutting down the plant. The current Action requirements for the affected equipment will be used to determine if an immediate plant shutdown should be initiated. These Action statements have been established to support safe operation based upon the affect of the loss of the equipment's safety function(s). Therefore, plant safety is not adversely affected nor is the diesel generator(s) ability to perform its design function affected.

Niagara Mohawk also proposes to add the word "redundant" to Technical Specification 3.8.1.1 Action e to remove the requirement to verify operability of equipment which is served by only one diesel generator. The accident analyses does not take credit for operation of equipment which is not served by both EDG*1 and EDG*3 since a single failure during a design basis accident would prevent such equipment from performing its safety function(s). In addition, there are some systems that are supplied power by both diesel generator(s) that are not required for safe shutdown of the plant. Revised Bases for this Action statement clearly define which equipment is required to be verified operable per Action e. The proposed changes to Action e continue to limit plant operation to those periods of time allowed by the current Action statements for the affected equipment. Therefore, the same level of safety for those significant critical systems is maintained and plant safety is not adversely affected nor is the diesel generator(s) ability to perform its design function.

Technical Specification 3.8.1.1 Action d requires that when Division III diesel generator EDG*2 is found to be inoperable, EDG*2 be restored to an operable status within 72 hours or HPCS be declared inoperable and the actions required by Technical Specifications 3.5.1 and 3.7.1.1 be taken. Niagara Mohawk proposes to delete the reference made to Technical Specification 3.7.1.1. Technical Specification 3.7.1.1 provides the operability requirements of the plant service water system. The service water system consists of two loops, Division I and Division II. The inoperability of the Division III diesel generator does not affect the operability of the Division I or II service water systems. Therefore, the reference made to Technical Specification 3.7.1.1 should be deleted. This is an administrative change and does not affect the diesel generator design or performance.

The word "test" has been deleted from the note (indicated by the asterisk(*)) in Technical Specification 3.8.1.1. Currently Technical Specification 3.8.1.1, Actions b, c, d, and g, require that a "test" be performed to demonstrate diesel generator operability. Because of the changes proposed above, a "test" is

no longer always required to meet the Action requirements. Therefore, the word "test" will be deleted. This is an administrative change and does not affect the diesel generator design or performance.

Because the proposed changes do not affect the design or performance of the diesel generators or their ability to perform their design function, the changes will not result in an increase in the consequences of an accident previously evaluated. Because these changes do not affect the probability of accident precursors, the proposed changes do not affect the probability of an accident previously evaluated. The proposed changes will increase diesel generator reliability, thereby increasing overall plant safety.

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 to Technical Specification 3.8.1.1 Actions and Bases do not introduce any new modes of plant operation or new accident precursors, involve any physical alterations to plant configurations, or make any changes to system setpoints which could initiate a new or different kind of accident. The changes proposed do not affect the design or performance characteristics of any diesel generator or their ability to perform their design functions. The proposed changes will eliminate unnecessary diesel generator testing, increasing diesel generator reliability and thereby having an overall positive affect on plant safety. Accidents concerning loss of offsite power and a single failure (e.g., loss of a diesel generator) have previously been evaluated. 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 2, in accordance with the proposed amendment, will not involve a significant reduction in a margin of safety

The proposed changes to Technical Specification 3.8.1.1 Actions and Bases will not reduce the equipment required by Technical Specification Limiting Condition for Operation 3.8.1.1. The changes do not affect the design or performance of any diesel generator, but will increase diesel generator reliability by reducing the stresses on the diesel generator from unnecessary testing. This will result in an overall increase in plant safety. Niagara Mohawk proposes to change Action statement e to add the option of declaring inoperable the redundant system, subsystem, train, component, or device served by the inoperable diesel generator and taking the Actions required for both divisional systems, subsystems, trains, components or devices, being inoperable versus shutting down the plant. This allows the current action requirements, which have been established to support safe operation based upon the affect of the loss of the equipment's safety failure, to determine if an immediate plant shutdown is required. Therefore, the proposed changes do not involve a significant reduction in a margin of safety.