

3/4.8 ELECTRICAL POWER SYSTEMS3/4.8.1 A.C. SOURCESOPERATINGLIMITING CONDITION FOR OPERATION

3.8.1.1 As a minimum, the following A.C. 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. Two separate and independent diesel generators each with:
 1. Separate day and engine-mounted fuel tanks containing a minimum of 900 gallons of fuel,
 2. A separate fuel storage system-containing a minimum of 17,500 gallons of fuel, and
 3. A separate fuel transfer pump.

APPLICABILITY: MODES 1,2,3 and 4.

REPLACE WITH INSERT "A" →

ACTION:

- a. With either an offsite circuit or diesel generator* of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirements 4.8.1.1.1.a and 4.8.1.1.2.a.5 within one hour and at least once per 8 hours thereafter; restore at least two offsite circuits and two diesel generators to OPERABLE status within 72 hours or be in COLD SHUTDOWN within the next 36 hours.
- b. With one offsite circuit and one diesel generator* of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirements 4.8.1.1.1.a and 4.8.1.1.2.a.5 within one hour and at least once per 8 hours thereafter; restore at least one of the inoperable sources to OPERABLE status within 12 hours or be in COLD SHUTDOWN within the next 36 hours. Restore at least two offsite circuits and two diesel generators to OPERABLE status within 72 hours from the time of initial loss or be in COLD SHUTDOWN within the next 36 hours.

REPLACE WITH INSERT
"A"ACTION (Continued)

- c. With two of the above required Offsite A.C. circuits inoperable, demonstrate the OPERABILITY of two diesel generators by performing Surveillance Requirement 4.8.1.1.2.a.5 within one hour and at least once per 8 hours thereafter, unless the diesel generators are already operating; restore at least one of the inoperable offsite sources to OPERABLE Status within 24 hours or be in at least HOT STANDBY within the next 4 hours. With only one offsite source restored, restore at least two offsite circuits to OPERABLE status within 72 hours from time of initial loss or be in COLD SHUTDOWN within the next 36 hours.
- d. With two of the above required diesel generators* inoperable, demonstrate the OPERABILITY of two offsite A.C. circuits by performing Surveillance Requirement 4.8.1.1.1.a within one hour and at least once per 8 hours thereafter; restore at least one of the inoperable diesel generators to OPERABLE status within 2 hours or be in COLD SHUTDOWN within the next 36 hours. Restore at least two diesel generators to OPERABLE status within 72 hours from time of initial loss or be in COLD SHUTDOWN within the next 36 hours.

SURVEILLANCE REQUIREMENTS

4.8.1.1.1 Two physically independent circuits between the offsite transmission network and the onsite Class 1E distribution system shall be:

- a. Determined OPERABLE at least once per 7 days by verifying correct breaker alignments, indicated power availability, and
- b. Demonstrated OPERABLE at least once per 18 months by transferring (manually and automatically) unit power supply from the unit circuit to the system circuit.

4.8.1.1.2 Each diesel generator shall be demonstrated OPERABLE:

- a. At least once per 31 days on a STAGGERED TEST BASIS by:
 1. Verifying the fuel level in the day and engine-mounted fuel tank,
 2. Verifying the fuel level in the fuel storage tank,

* Fuel oil contained in the storage tanks not meeting the properties in accordance with 4.8.1.1.2.d.2 or 4.8.1.1.2.e shall be brought within the specified limits within 7 days.

REPLACE WITH
INSERT "A"

(Proposed Wording)

Attachment to A.C. Sources - Operating

Insert "A"

ACTION:

- a. With one offsite circuit of 3.8.1.1.a inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter. If either diesel generator has not been successfully tested within the past 24 hours, demonstrate its OPERABILITY by performing Surveillance Requirement 4.8.1.1.2.a.5 separately for each such diesel generator within 24 hours. Restore the offsite circuit to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and COLD SHUTDOWN within the following 30 hours.
- b. With one diesel generator⁽¹⁾ of 3.8.1.1.b inoperable, demonstrate the OPERABILITY of the A.C. offsite sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter; and if the diesel generator became inoperable due to any cause other than testing or preplanned preventative maintenance, demonstrate the OPERABILITY of the remaining OPERABLE diesel generator by performing Surveillance Requirement 4.8.1.1.2.a.5 within 24 hours⁽²⁾; restore the diesel generator to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- c. With one offsite circuit and one diesel generator⁽¹⁾ inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within one hour and at least once per 8 hours thereafter; and if the diesel generator became inoperable due to any cause other than testing or preplanned preventative maintenance, demonstrate the OPERABILITY of the remaining OPERABLE diesel generator by performing Surveillance Requirement 4.8.1.1.2.a.5 within 8 hours⁽²⁾; restore one of the inoperable sources to OPERABLE status within 12 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Restore the other A.C. power source (offsite circuit or diesel generator) to OPERABLE status in accordance with the provisions of Section 3.8.1.1 Action Statement a or b, as appropriate with the time requirement of that Action Statement based on the time of initial loss of the remaining inoperable A.C. power source. A successful test of diesel OPERABILITY per Surveillance Requirement 4.8.1.1.2.a.5 performed under this Action Statement for an OPERABLE diesel or a restored to OPERABLE diesel satisfies the diesel generator test requirement of Action Statement a or b.

Attachment to A.C. Sources - Operating

Insert "A" (Continued)

- d. With two of the required offsite A.C. circuits inoperable, demonstrate the OPERABILITY of two diesel generators by sequentially performing Surveillance Requirement 4.8.1.1.2.a.5 on both diesels within 8 hours, unless the diesel generators are already operating; restore one of the inoperable offsite sources to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours. Following restoration of one offsite source, follow Action Statement a with the time requirement of that Action Statement based on the time of initial loss of the remaining inoperable offsite A.C. circuit. A successful test(s) of diesel OPERABILITY per Surveillance Requirement 4.8.1.1.2.a.5 performed under this Action Statement for the OPERABLE diesels satisfies the diesel generator test requirement of Action Statement a.
- e. With two of the above required diesel generators⁽¹⁾ inoperable, demonstrate the OPERABILITY of two offsite A.C. circuits by performing Surveillance Requirement 4.8.1.1.1.a within one hour and at least once per 8 hours thereafter; restore one of the inoperable diesel generators to OPERABLE status within 2 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Following restoration of one diesel generator unit, follow Action Statement b with the time requirement of that Action Statement based on the time of initial loss of the remaining inoperable diesel generator. A successful test of diesel OPERABILITY per Surveillance Requirement 4.8.1.1.2.a.5 performed under this Action Statement for a restored to OPERABLE diesel satisfies the diesel generator test requirement of Action Statement b.

(1) Fuel oil contained in the storage tanks not meeting the properties in accordance with 4.8.1.1.2.d.2 or 4.8.1.1.2.e shall be brought within the specified limits within 7 days.

(2) This test is required to be completed regardless of when the inoperable diesel generator is restored to OPERABILITY.

ATTACHMENT A-2

Beaver Valley Power Station, Unit No. 2
Proposed Technical Specification Change No. 67

Revise the Technical Specification as follows:

Remove Pages

3/4 8-1

3/4 8-2

3/4 8-3

3/4 8-5

Insert Pages

3/4 8-1

3/4 8-2

3/4 8-3

3/4 8-5

NPF-73

3/4.8 ELECTRICAL POWER SYSTEMS

3/4.8.1 A.C. SOURCES

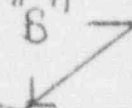
OPERATING

LIMITING CONDITION FOR OPERATION

3.8.1.1 As a minimum, the following A.C. 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. Two separate and independent diesel generators each with:
 1. Separate day tank containing a minimum of 350 gallons of fuel,
 2. A separate fuel storage system containing a minimum of 53,225 gallons of fuel,
 3. A separate fuel transfer pump,
 4. Lubricating oil storage containing a minimum total volume of 504 gallons of lubricating oil, and
 5. Capability to transfer lubricating oil from storage to the diesel generator unit.

APPLICABILITY: MODES 1, 2, 3 and 4.

REPLACE WITH INSERT "B" 

ACTION:

- a. With either an offsite circuit or diesel generator* of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirements 4.8.1.1.1.a and 4.8.1.1.2.a.5 within one hour and at least once per 8 hours thereafter; restore at least two offsite circuits and two diesel generators to OPERABLE status within 72 hours or be in COLD SHUTDOWN within the next 36 hours.
- b. With one offsite circuit and one diesel generator* of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirements 4.8.1.1.1.a and 4.8.1.1.2.a.5 within one hour and at least once per 8 hours thereafter; restore at least one of the inoperable sources to OPERABLE status within 12 hours or be in COLD SHUTDOWN within the next 36 hours. Restore at least two offsite circuits and two diesel generators to OPERABLE status within 72 hours from the time of initial loss or be in COLD SHUTDOWN within the next 36 hours.

ELECTRICAL POWER SYSTEMS

REPLACE WITH INSERT "B"

LIMITING CONDITION FOR OPERATION (Continued)

- c. With two of the above required offsite A.C. circuits inoperable, demonstrate the OPERABILITY of two diesel generators by performing Surveillance Requirements 4.8.1.1.2.a.5 within one hour and at least once per 8 hours thereafter, unless the diesel generators are already operating; restore at least one of the inoperable offsite sources to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 4 hours. With only one offsite source restored, restore at least two offsite circuits to OPERABLE status within 72 hours from time of initial loss or be in COLD SHUTDOWN within the next 36 hours.
- d. With two of the above required diesel generators inoperable*, demonstrate the OPERABILITY of two offsite A.C. circuits by performing Surveillance Requirement 4.8.1.1.1.a within one hour and at least once per 8 hours thereafter; restore at least one of the inoperable diesel generators to OPERABLE status within 2 hours or be in COLD SHUTDOWN within the next 36 hours. Restore at least two diesel generators to OPERABLE status within 72 hours from time of initial loss or be in COLD SHUTDOWN within the next 36 hours.

SURVEILLANCE REQUIREMENTS

4.8.1.1.1. Two physically independent circuits between the offsite transmission network and the onsite Class 1E distribution system shall be:

- a. Determine OPERABLE at least once per 7 days by verifying correct breaker alignment, indicated power availability, and
- b. Demonstrated OPERABLE at least once per 18 months by transferring (manually and automatically) unit power supply from the unit circuit to the system circuit.

4.8.1.1.2 Each diesel generator shall be demonstrated OPERABLE:

- a. At least once per 31 days on a STAGGERED TEST BASIS by:
 1. Verifying the fuel level in the day tank,
 2. Verifying the fuel level in the fuel storage tank,

*Fuel oil contained in the storage tanks not meeting the properties in accordance with 4.8.1.1.2.d.2 or 4.8.1.1.2.e shall be brought within the specified limits within 7 days.

REPLACE WITH INSERT "B"

Attachment to A.C. Sources - Operating

Insert "B"

ACTION:

- a. With one offsite circuit of 3.8.1.1.a inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter. If either diesel generator has not been successfully tested within the past 24 hours, demonstrate its OPERABILITY by performing Surveillance Requirement 4.8.1.1.2.a.5 separately for each such diesel generator within 24 hours. Restore the offsite circuit to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and COLD SHUTDOWN within the following 30 hours.
- b. With one diesel generator⁽¹⁾ of 3.8.1.1.b inoperable, demonstrate the OPERABILITY of the A.C. offsite sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter; and if the diesel generator became inoperable due to any cause other than testing or preplanned preventative maintenance, demonstrate the OPERABILITY of the remaining OPERABLE diesel generator by performing Surveillance Requirement 4.8.1.1.2.a.5 within 24 hours⁽²⁾; restore the diesel generator to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- c. With one offsite circuit and one diesel generator⁽¹⁾ inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within one hour and at least once per 8 hours thereafter; and if the diesel generator became inoperable due to any cause other than testing or preplanned preventative maintenance, demonstrate the OPERABILITY of the remaining OPERABLE diesel generator by performing Surveillance Requirement 4.8.1.1.2.a.5 within 8 hours⁽²⁾; restore one of the inoperable sources to OPERABLE status within 12 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Restore the other A.C. power source (offsite circuit or diesel generator) to OPERABLE status in accordance with the provisions of Section 3.8.1.1 Action Statement a or b, as appropriate with the time requirement of that Action Statement based on the time of initial loss of the remaining inoperable A.C. power source. A successful test of diesel OPERABILITY per Surveillance Requirement 4.8.1.1.2.a.5 performed under this Action Statement for an OPERABLE diesel or a restored to OPERABLE diesel satisfies the diesel generator test requirement of Action Statement a or b.

Attachment to A.C. Sources - Operating

Insert "B" (Continued)

- d. With two of the required offsite A.C. circuits inoperable, demonstrate the OPERABILITY of two diesel generators by sequentially performing Surveillance Requirement 4.8.1.1.2.a.5 on both diesels within 8 hours, unless the diesel generators are already operating; restore one of the inoperable offsite sources to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours. Following restoration of one offsite source, follow Action Statement a with the time requirement of that Action Statement based on the time of initial loss of the remaining inoperable offsite A.C. circuit. A successful test(s) of diesel OPERABILITY per Surveillance Requirement 4.8.1.1.2.a.5 performed under this Action Statement for the OPERABLE diesels satisfies the diesel generator test requirement of Action Statement a.
- e. With two of the above required diesel generators⁽¹⁾ inoperable, demonstrate the OPERABILITY of two offsite A.C. circuits by performing Surveillance Requirement 4.8.1.1.1.a within one hour and at least once per 8 hours thereafter; restore one of the inoperable diesel generators to OPERABLE status within 2 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Following restoration of one diesel generator unit, follow Action Statement b with the time requirement of that Action Statement based on the time of initial loss of the remaining inoperable diesel generator. A successful test of diesel OPERABILITY per Surveillance Requirement 4.8.1.1.2.a.5 performed under this Action Statement for a restored to OPERABLE diesel satisfies the diesel generator test requirement of Action Statement b.

(1) Fuel oil contained in the storage tanks not meeting the properties in accordance with 4.8.1.1.2.d.2 or 4.8.1.1.2.e shall be brought within the specified limits within 7 days.

(2) This test is required to be completed regardless of when the inoperable diesel generator is restored to OPERABILITY.

ELECTRICAL POWER SYSTEMSSURVEILLANCE REQUIREMENTS (Continued)

3. (Deleted)
4. Verifying the fuel transfer pump can be started and transfers fuel from the storage system to the day tank,
5. Verifying the diesel starts from ambient condition,
6. Verifying the generator is synchronized, loaded to $\geq 4,238$ kw, and operates for at least 60 minutes,
7. Verifying the diesel generator is aligned to provide standby power to the associated emergency busses, and

DELETE

8. Verifying the lubricating oil inventory in storage.

b. 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 generator capability to reject a load of ≥ 825 kw without tripping,
3. Simulating a loss of offsite power in conjunction with a safety injection signal, and:
 - a. Verifying de-energization of the emergency busses and load shedding from the emergency busses.
 - b. Verifying the diesel starts from ambient condition on the auto-start signal, energizes the emergency busses with permanently connected loads, energizes the auto-connected emergency loads through the load sequencer and operates for > 5 minutes while its generator is loaded with the emergency loads.

DELETE

4. Verifying that on a loss of power to the emergency busses, all diesel generator trips, except engine overspeed, backup phase fault detection^(#), generator differential current, and generator overexcitation are automatically disabled.

*The specified 18-month surveillance interval during the first fuel cycle may be extended to coincide with completion of the first refueling outage.

#This item (backup phase fault detection) is to be implemented no later than startup from the second refueling outage.

DELETE

(Proposed wording)

ELECTRICAL POWER SYSTEMSSURVEILLANCE REQUIREMENTS (Continued)

- e. At least once every 31 days by obtaining a sample of fuel oil from the storage tanks and day tanks in accordance with ASTM D2276-78, and verifying that total particulate contamination is less than 10 mg/liter when checked in accordance with ASTM D2276-78, Method A.
- f. At least once per 10 years or after any modifications which ⁽³⁾ could affect diesel generator interdependence by starting** both diesel generators simultaneously, during shutdown, and verifying that both diesel generators accelerate to at least 514 rpm in less than or equal to 10 seconds.
- g. At least once per 10 years by:
- 1) Draining each main fuel oil storage tank, removing the accumulated sediment, and cleaning the tank using a sodium hypochlorite solution or other appropriate cleaning solution, and
 - 2) Performing a pressure test, of those portions of the diesel fuel oil system designed to Section III, subsection ND of the ASME Code, at a test pressure equal to 110% of the system design pressure.

(3)

*This test shall be conducted in accordance with the manufacturer's recommendations regarding engine prelube and warmup procedures, and as applicable regarding loading recommendations.

ATTACHMENT B

Beaver Valley Power Station, Unit Nos. 1 and 2 Proposed Technical Specification Change No. 200 and 67 REVISION OF SPECIFICATION 3.8.1.1 TITLED "A. C. SOURCES - OPERATING"

A. DESCRIPTION OF AMENDMENT REQUEST

The proposed changes would revise the action statements of Limiting Condition of Operation (LCO) 3.8.1.1, titled "A.C. Sources-Operating." The proposed Action Statement "a" would provide actions to be taken with one offsite circuit of the required A.C. electrical power sources inoperable. The actions required when one diesel generator (D/G) is inoperable are being separated from this action statement and incorporated into individual Action Statement "b". The present requirement of Action Statement "a" to perform surveillance requirement SR 4.8.1.1.2.a.5 within one hour and at least once per 8 hours thereafter would be altered to require that SR 4.8.1.1.2.a.5 be performed once within 24 hours of declaring the offsite circuit inoperable unless previously tested within the past 24 hours.

The proposed Action Statement "b" would provide actions to be taken with one D/G inoperable. The performance of SR 4.8.1.1.2.a.5, will be performed once within 24 hours on the remaining D/G. This test is required to be performed regardless of when the inoperable D/G is restored to operability. A provision would be added to not require performance of SR 4.8.1.1.2.a.5 if the D/G has been rendered inoperable due to preplanned maintenance or surveillance testing.

The proposed Action Statement "c" would provide actions to be taken with one offsite circuit and one D/G inoperable. In the existing LCO 3.8.1.1 specification, this is Action Statement "b" with the following revisions. Surveillance requirement 4.8.1.1.2.a.5 will be performed on the remaining D/G within 8 hours of declaring one D/G inoperable. The existing Action Statement "b" requires SR 4.8.1.1.2.a.5 to be performed within one hour and at least once per 8 hours thereafter. A provision would be added to not require performance of SR 4.8.1.1.2.a.5 if the D/G has been rendered inoperable due to preplanned maintenance or surveillance testing. Also, guidance would be provided to enter the appropriate Action Statement "a" or "b" once either a D/G or offsite circuit has been restored to operable status.

The proposed Action Statement "d" would provide actions to be taken when two offsite power circuits are declared inoperable. In the existing LCO 3.8.1.1 specification, this is Action Statement "c" with the following revisions. Surveillance requirement 4.8.1.1.2.a.5 will be performed on both diesels within 8 hours of declaring both offsite circuits inoperable.

The existing Action Statement "c" requires SR 4.8.1.1.2.a.5 to be performed within one hour and at least once per 8 hours

thereafter. The requirement to be in Hot Standby with the next 4 hours would be changed to require the plant to be in Hot Standby with the next 6 hours. Also, guidance would be provided to enter Action Statement "a" once a single offsite circuit has been restored to operable status.

The proposed Action Statement "e" would provide action to be taken when two diesel generators are declared inoperable. In the existing LCO 3.8.1.1 specification, this is Action Statement "d" with the addition of a statement which refers back to Action Statement "b" once one D/G is restored to operable status.

A new footnote would be added which applies to testing of the diesel generators. The footnote would require starting of the remaining diesel generator regardless of when the inoperable diesel generator is restored to operable status. The existing footnotes would be designated by numbers instead of symbols to ensure correct application. On BVPS Unit No. 2 only, the two footnotes contained on the present Page 3/4 8-3 would be deleted since they no longer apply. These two footnotes were only applicable for the first and second fuel cycle. BVPS Unit 2 is currently on its fourth fuel cycle.

B. BACKGROUND

Beaver Valley Power Station (BVPS) Unit No. 1 and 2 each have two emergency diesel generators. Two diesels are fully dedicated to each plant, with one diesel assigned to each of the redundant electrical power divisions of each plant. There is no sharing of diesel generators between units. Power from one diesel to one electrical division of each plant is sufficient to provide either for safe shutdown loads or for accident loads. The D/G's at BVPS Unit 1 are manufactured by General Motors Electro-Motive Division and BVPS Unit 2 D/G's are manufactured by Fairbanks Morse Engine Division of Colt Industries.

Our present technical specifications require starting the operable diesel within 1 hour and every 8 hours thereafter when specific conditions exist. Generic Letter (GL) 84-15, "Proposed Staff Actions to Improve and Maintain Diesel Generator Reliability," provides guidance for revising start frequencies for diesel generators under certain conditions to improve reliability. This proposed change incorporates NRC guidance intended to improve diesel generator reliability.

C. JUSTIFICATION

The proposed revisions to LCO 3.8.1.1 action statements are consistent with the action statements approved for Virginia Power Company North Anna Unit 1 and 2 and similar to those approved for Northeast Utilities Millstone Unit 2. The proposed revisions are also similar to those contained in Appendix A of GL 84-15.

The following is a discussion on the provision that would be added to not require performance of SR 4.8.1.1.2.a.5 if the D/G has been rendered inoperable due to preplanned maintenance or surveillance testing. This provision would be added to the proposed Action Statements "b" and "c". The current wording requires that the alternate train testing be performed, i.e., starting of the opposite train D/G, to provide a positive demonstration that a loss of safety function has not occurred. There are situations where reduced operability testing on the remaining diesel can exist when a diesel is made inoperable due to preventative maintenance or testing. The purpose for testing the remaining diesel is to assure a common mode failure does not exist. Since the reason for D/G inoperability is known, i.e., preventative maintenance or testing, then a common mode failure on the remaining D/G does not exist. The NRC staff has recommended, per a memorandum dated February 11, 1991, (Entry Into A Technical Specification LCO During Performance of Surveillance Testing) that licensees change their current technical specification wording to eliminate the need for such testing if a D/G is taken out of service for preplanned preventative maintenance or testing. Therefore, the provision that would not require that performance of SR 4.8.1.1.2.a.5, if the D/G has been rendered inoperable due to preplanned maintenance or surveillance testing, is proposed to be added to Action Statements "b" and "c".

The present Action Statement "a" would be divided into two separate action statements based on GL 84-15. The present requirement to start each D/G within one hour and every 8 hours thereafter, due to a loss of an offsite power source, we believe is excessive and will lead to accelerated D/G wear. This action is intended to verify the availability of a backup power source. The D/Gs are designed and are intended to be standby power sources. Under the present wording, in just one 72 hour period a total of nine D/G tests would be required per D/G. This repetitive type testing introduces accelerated D/G wear and provides little additional assurance of D/G availability than what was provided in the previous successful test. A test frequency of one D/G test in the first 24 hours of one offsite source being inoperable, unless the D/G has been tested in the previous 24 hours, is proposed to minimize repetitive testing. This test frequency will provide assurance of starting capability and also provide additional time for inspection and prelude and other pre-start activities recommended by the manufacturers to minimize the mechanical stress and wear on the D/Gs. Furthermore, 24 hours permits sequential testing of the D/Gs rather than the simultaneous testing of both. Repetitive testing increases the likelihood of a D/G failure rather than providing continued assurance of starting capability especially since loss of an offsite power source does not directly imply a failure of the D/Gs.

The proposed Action Statement "b" provides the appropriate responses when declaring one D/G inoperable. The present wording requires that the opposite train be tested within 1 hour and at

least once per 8 hours thereafter. The reason to perform a diesel test following the loss of one diesel is to ensure that the remaining diesel will be operable and capable of starting as designed. Specifically, an operability test of the remaining diesel provides assurance that the remaining operable diesel is not subject to the same failure (i.e., common mode failure). Testing within 24 hours provides timely assurance of diesel operability while providing the additional time for inspection prior to testing. As stated in the discussion for the proposed Action Statement "a", repetitive testing every 8 hours following the initial confirmation of diesel operability is unnecessary. This change to require D/G testing within 24 hours is consistent with GL 84-15.

The proposed Action Statement "c" provides the appropriate response to be taken upon declaring one offsite circuit and one diesel generator inoperable. Consistent with the proposed changes to Action Statements "a" and "b", the proposed changes to Action Statement "c" provide adequate assurance of diesel operability by one-time testing while eliminating repetitive testing. The performance of the D/G test within 8 hours provides adequate assurance of the availability of the remaining D/G while eliminating excessive starts and also providing added time for inspection prior to testing. Since the allowable outage period for this action is 12 hours, follow-up D/G starts are not applicable.

The proposed Action Statement "d" provides the appropriate responses to be taken upon declaring two offsite power circuits inoperable. The proposed change is consistent with those made for Action Statements "a", "b", and "c". As noted in the discussion for Action Statement "a", loss of an offsite circuit does not suggest that the diesels have become less reliable than demonstrated by previous surveillance tests. Given the significance of losing both offsite circuits, one operability test per diesel within 8 hours provides adequate assurance of diesel reliability.

The proposed Action Statement "e" provides the appropriate responses to be taken upon declaring both D/Gs inoperable. The proposed change is the same as existing Action Statement "d". The only difference in the proposed change is the use of distinct action statements based on the number of D/Gs inoperable (either one or both).

The addition of the new footnote will ensure that the remaining operable diesel generator is started regardless of when the inoperable diesel generator is restored to operable status. This action will verify that a common mode failure does not exist on the remaining operable diesel. The change to the existing footnotes, by designating them with numbers instead of symbols, along with the deletion of two footnotes on Page 3/4 8-3 for BVPS Unit No. 2, is administrative in nature and does not affect plant safety.

D. SAFETY ANALYSIS

The A.C. electrical power sources are designed to provide sufficient capacity, capability, redundancy, and reliability to ensure the availability of necessary power to engineered safety features (ESF) systems so that the fuel, reactor coolant system, and containment design limits are not exceeded. The proposed changes to LCO 3.8.1.1 action statements will continue to ensure that the A.C. electrical power sources will perform as designed. The capacity, capability, and redundancy of the electrical power sources is not affected by this proposed change. The specific number of offsite circuits and diesel generators that are required to be operable remains unchanged. The length of time and number of components that can be inoperable for continued plant operation remains unchanged. The specific parameters, contained in the surveillance requirements, that each component must meet to be determined operable, remains unchanged. The proposed changes are intended to enhance diesel generator reliability by eliminating excessive testing which can lead to premature diesel failures. When a D/G is made inoperable due to preplanned maintenance or surveillance testing, there is not a concern that a common mode failure exists on the remaining D/G. The reason for D/G inoperability is known. Therefore, requiring the starting of the remaining D/G within 1 hour and at least once per 8 hours thereafter, provides no additional safety benefits and can lead to premature diesel failures. Also, the present requirement to perform nine D/G starts in a 72 hour period does not provide any additional safety benefits. This repetitive type testing introduces accelerated D/G wear and provides little additional assurance of D/G availability than what was provided in the previous successful test. A one time start of a D/G, while in an action statement, is sufficient to ensure a loss of safety function has not occurred.

Therefore, this change is considered safe based on continued ability of the A.C. electrical power sources to provide sufficient capacity, capability, redundancy, and reliability to ensure the availability of power to ESF systems. The proposed changes are intended to enhance D/G reliability by eliminating excessive testing. The overall result of this change is to enhance the ability of A.C. electrical power sources to perform as originally designed to ensure continued safe plant operation.

E. NO SIGNIFICANT HAZARDS EVALUATION

The no significant hazard considerations involved with the proposed amendment have been evaluated, focusing on the three standards set forth in 10 CFR 50.92(c) as quoted below:

The Commission may make a final determination, pursuant to the procedures in paragraph 50.91, that a proposed amendment to an operating license for a facility licensed under paragraph 50.21(b) or paragraph 50.22 or for a testing facility involves no significant hazards consideration, if

operation of the facility in accordance with the proposed amendment would not:

- (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or
- (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or
- (3) Involve a significant reduction in a margin of safety.

The following evaluation is provided for the no significant hazards consideration standards.

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

The probability of occurrence of a previously evaluated accident is not increased because the allowable outage times for the offsite circuits and diesel generators remains unchanged. The consequences of an accident previously evaluated is not increased because reducing the diesel generator test frequency is intended to enhance diesel reliability. By eliminating excessive testing, which can lead to premature diesel failures, the diesel generator reliability is increased. This proposed change does not affect the availability or reliability of the offsite circuits.

Therefore, this change will not increase the probability or consequences of an accident previously evaluated due to the continued availability and reliability of the A.C. electrical power sources.

2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?

The proposed changes do not alter the method of operating the plant. The changes do not introduce any new failure modes and are intended to increase the diesel generator reliability. The revision to the various action statements provide assurance that the diesel generators will be able to power their respective safety systems if required. The proposed changes do not impact the performance of any safety system.

Therefore, this proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the change involve a significant reduction in a margin of safety?

The margin of safety is not reduced because the A.C. electrical power sources will continue to provide sufficient

capacity, capability, redundancy, and reliability to ensure availability of necessary power to ESF systems. The ESF systems will continue to function, as assumed in the safety analyses, to ensure that the fuel, reactor coolant system and containment design limits are not exceeded. The elimination of excessive testing on the diesel generators is intended to increase reliability by reducing wear on the diesel. The increased reliability of the diesels adds to the ability of A.C. electrical power source to provide power to ESF systems.

Therefore, this proposed change does not involve a significant reduction in a margin of safety.

F. NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

Based on the considerations expressed above, it is concluded that the activities associated with this license amendment request satisfies the no significant hazards consideration standards of 10 CFR 50.92(c) and, accordingly, a no significant hazards consideration finding is justified.

ATTACHMENT C-1

Beaver Valley Power Station, Unit No. 1
Proposed Technical Specification Change No. 200

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3/4.8 ELECTRICAL POWER SYSTEMS3/4.8.1 A.C. SOURCESOPERATINGLIMITING CONDITION FOR OPERATION

3.8.1.1 As a minimum, the following A.C. 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. Two separate and independent diesel generators each with:
 1. Separate day and engine-mounted fuel tanks containing a minimum of 900 gallons of fuel,
 2. A separate fuel storage system-containing a minimum of 17,500 gallons of fuel, and
 3. A separate fuel transfer pump.

APPLICABILITY: MODES 1,2,3 and 4.

ACTION:

- a. With one offsite circuit of 3.8.1.1.a inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter. If either diesel generator has not been successfully tested within the past 24 hours, demonstrate its OPERABILITY by performing Surveillance Requirement 4.8.1.1.2.a.5 separately for each such diesel generator within 24 hours. Restore the offsite circuit to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and COLD SHUTDOWN within the following 30 hours.
- b. With one diesel generator⁽¹⁾ of 3.8.1.1.b inoperable, demonstrate the OPERABILITY of the A.C. offsite sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter; and if the diesel generator became inoperable due to any cause other than testing or preplanned preventative maintenance, demonstrate the OPERABILITY of the remaining OPERABLE diesel generator by performing Surveillance Requirement 4.8.1.1.2.a.5 within 24 hours⁽²⁾; restore the diesel

LIMITING CONDITION FOR OPERATION

ACTION (Continued)

generator to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

- c. With one offsite circuit and one diesel generator⁽¹⁾ inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within one hour and at least once per 8 hours thereafter; and if the diesel generator became inoperable due to any cause other than testing and preplanned preventative maintenance, demonstrate the OPERABILITY of the remaining OPERABLE diesel generator by performing Surveillance Requirement 4.8.1.1.2.a.5 within 8 hours⁽²⁾; restore one of the inoperable sources to OPERABLE status within 12 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Restore the other A.C. power source (offsite circuit or diesel generator) to OPERABLE status in accordance with the provisions of Section 3.8.1.1 Action Statement a or b, as appropriate with the time requirement of that Action Statement based on the time of initial loss of the remaining inoperable A.C. power source. A successful test of diesel OPERABILITY per Surveillance Requirement 4.8.1.1.2.a.5 performed under this Action Statement for an OPERABLE diesel or a restored to OPERABLE diesel satisfies the diesel generator test requirement of Action Statement a or b.
- d. With two of the required offsite A.C. circuits inoperable, demonstrate the OPERABILITY of two diesel generators by sequentially performing Surveillance Requirement 4.8.1.1.2.a.5 on both diesels within 8 hours, unless the diesel generators are already operating; restore one of the inoperable offsite sources to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours. Following restoration of one offsite source, follow Action Statement a with the time requirement of that Action Statement based on the time of initial loss of the remaining inoperable offsite A.C. circuit. A successful test(s) of diesel OPERABILITY per Surveillance Requirement 4.8.1.1.2.a.5 performed under this Action Statement for the OPERABLE diesels satisfies the diesel generator test requirement of Action Statement a.

LIMITING CONDITION FOR OPERATION

ACTION (Continued)

- e. With two of the above required diesel generators⁽¹⁾ inoperable, demonstrate the OPERABILITY of two offsite A.C. circuits by performing Surveillance Requirement 4.8.1.1.1.a within one hour and at least once per 8 hours thereafter; restore one of the inoperable diesel generators to OPERABLE status within 2 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Following restoration of one diesel generator unit, follow Action Statement b with the time requirement of that Action Statement based on the time of initial loss of the remaining inoperable diesel generator. A successful test of diesel OPERABILITY per Surveillance Requirement 4.8.1.1.2.a.5 performed under this Action Statement for a restored to OPERABLE diesel satisfies the diesel generator test requirement of Action Statement b.

SURVEILLANCE REQUIREMENTS

4.8.1.1.1 Two physically independent circuits between the offsite transmission network and the onsite Class 1E distribution system shall be:

- a. Determined OPERABLE at least once per 7 days by verifying correct breaker alignments, indicated power availability, and
- b. Demonstrated OPERABLE at least once per 18 months by transferring (manually and automatically) unit power supply from the unit circuit to the system circuit.

4.8.1.1.2 Each diesel generator shall be demonstrated OPERABLE:

- a. At least once per 31 days on a STAGGERED TEST BASIS by:
1. Verifying the fuel level in the day and engine-mounted fuel tank,
 2. Verifying the fuel level in the fuel storage tank,
 3. (Deleted)

(1) Fuel oil contained in the storage tanks not meeting the properties in accordance with 4.8.1.1.2.d.2 or 4.8.1.1.2.e shall be brought within the specified limits within 7 days.

(2) This test is required to be completed regardless of when the inoperable diesel generator is restored to OPERABILITY.

SURVEILLANCE REQUIREMENTS (Continued)

4. Verifying the fuel transfer pump can be started and transfers fuel from the storage system to the day and engine-mounted tank,
 5. Verifying the diesel starts from ambient condition,
 6. Verifying the generator is synchronized, loaded to ≥ 1425 kw, and operates for ≥ 60 minutes, and
 7. Verifying the diesel generator is aligned to provide standby power to the associated emergency busses.
- b. 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 generator capability to reject a load of ≥ 450 kw without tripping,
 3. Simulating a loss of offsite power in conjunction with a safety injection signal, and:
 - a) Verifying de-energization of the emergency busses and load shedding from the emergency busses.
 - b) Verifying the diesel starts from ambient condition on the auto-start signal, energizes the emergency busses with permanently connected loads, energizes the auto-connected emergency loads through the load sequencer and operates for ≥ 5 minutes while its generator is loaded with the emergency loads.
 4. Verifying that on a loss of power to the emergency busses, all diesel generator trips, except engine overspeed, generator differential and overcurrent, are automatically disabled.
 5. Verifying the diesel generator operates for ≥ 60 minutes while loaded to ≥ 2750 kw.
 6. Verifying that the auto-connected loads to each diesel generator do not exceed the 2000 hour rating of 2850 kw.
 7. Verifying that the automatic load sequence timer is OPERABLE with each load sequence time within $\pm 10\%$ of its required value.

ELECTRICAL POWER SYSTEMSSURVEILLANCE REQUIREMENTS (Continued)

- c. Check for and remove accumulated water:
 - 1. From the day tank, at least once per 31 days and after each operation of the diesel where the period of operation was greater than 1 hour, and
 - 2. From the fuel oil storage tank, at least once per 92 days.
- d. By sampling new fuel oil in accordance with ASTM D4057-81 prior to addition to the storage tanks and:
 - 1. By verifying in accordance with the tests specified in ASTM D975-81 prior to addition to the storage tanks that the sample has:
 - a) An API Gravity of within 0.3 degrees at 60°F or a specific gravity of within 0.0016 at 60/60°F, when compared to the supplier's certificate or an absolute specific gravity at 60/60°F of greater than or equal to 0.83 but less than or equal to 0.89 or an API gravity at 60°F of greater than or equal to 27 degrees but less than or equal to 39 degrees,
 - b) A kinematic viscosity at 40°C of greater than or equal to 1.9 centistokes, but less than or equal to 4.1 centistokes, if gravity was not determined by comparison with the supplier's certification,
 - c) A flash point equal to or greater than 125°F, and
 - d) A clear and bright appearance with proper color when tested in accordance with ASTM D4176-82.
 - 2. By verifying within 31 days of obtaining the sample that the other properties specified in Table 1 of ASTM D975-81 are met when tested in accordance with ASTM D975-81 except that the analysis for sulfur may be performed in accordance with ASTM D1552-79 or ASTM D2622-82.
- e. At least once every 31 days by obtaining a sample of fuel oil from the storage tanks and day tanks in accordance with ASTM D2276-78, and verifying that total particulate contamination is less than 10 mg/liter when checked in accordance with ASTM D2276-78, Method A.

ATTACHMENT C-2

Beaver Valley Power Station, Unit No. 2
Proposed Technical Specification Change No. 67

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3/4.8 ELECTRICAL POWER SYSTEMS3/4.8.1 A.C. SOURCESOPERATINGLIMITING CONDITION FOR OPERATION

3.8.1.1 As a minimum, the following A.C. 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. Two separate and independent diesel generators each with:
 1. Separate day tank containing a minimum of 350 gallons of fuel,
 2. A separate fuel storage system containing a minimum of 53,225 gallons of fuel,
 3. A separate fuel transfer pump,
 4. Lubricating oil storage containing a minimum total volume of 504 gallons of lubricating oil, and
 5. Capability to transfer lubricating oil from storage to the diesel generator unit.

APPLICABILITY: MODES 1,2,3 and 4.

ACTION:

- a. With one offsite circuit of 3.8.1.1.a inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter. If either diesel generator has not been successfully tested within the past 24 hours, demonstrate its OPERABILITY by performing Surveillance Requirement 4.8.1.1.2.a.5 separately for each such diesel generator within 24 hours. Restore the offsite circuit to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and COLD SHUTDOWN within the following 30 hours.
- b. With one diesel generator⁽¹⁾ of 3.8.1.1.b inoperable, demonstrate the OPERABILITY of the A.C. offsite sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter; and if the diesel generator became inoperable due to any cause other

LIMITING CONDITION FOR OPERATIONACTION (Continued)

- than testing or preplanned preventative maintenance, demonstrate the OPERABILITY of the remaining OPERABLE diesel generator by performing Surveillance Requirement 4.8.1.1.2.a.5 within 24 hours⁽²⁾; restore the diesel generator to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- c. With one offsite circuit and one diesel generator⁽¹⁾ inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within one hour and at least once per 8 hours thereafter; and if the diesel generator became inoperable due to any cause other than testing or preplanned preventative maintenance, demonstrate the OPERABILITY of the remaining OPERABLE diesel generator by performing Surveillance Requirement 4.8.1.1.2.a.5 within 8 hours⁽²⁾; restore one of the inoperable sources to OPERABLE status within 12 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Restore the other A.C. power source (offsite circuit or diesel generator) to OPERABLE status in accordance with the provisions of Section 3.8.1.1 Action Statement a or b, as appropriate with the time requirement of that Action Statement based on the time of initial loss of the remaining inoperable A.C. power source. A successful test of diesel OPERABILITY per Surveillance Requirement 4.8.1.1.2.a.5 performed under this Action Statement for an OPERABLE diesel or a restored to OPERABLE diesel satisfies the diesel generator test requirement of Action Statement a or b.
- d. With two of the required offsite A.C. circuits inoperable, demonstrate the OPERABILITY of two diesel generators by sequentially performing Surveillance Requirement 4.8.1.1.2.a.5 on both diesels within 8 hours, unless the diesel generators are already operating; restore one of the inoperable offsite sources to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours. Following restoration of one offsite source, follow Action Statement a with the time requirement of that Action Statement based on the time of initial loss of the remaining inoperable offsite A.C. circuit. A successful test(s) of diesel OPERABILITY per Surveillance Requirement 4.8.1.1.2.a.5 performed under this Action Statement for the OPERABLE diesels satisfies the diesel generator test requirement of Action Statement a.

LIMITING CONDITION FOR OPERATION

ACTION (Continued)

- e. With two of the above required diesel generators⁽¹⁾ inoperable, demonstrate the OPERABILITY of two offsite A.C. circuits by performing Surveillance Requirement 4.8.1.1.1.a within one hour and at least once per 6 hours thereafter; restore one of the inoperable diesel generators to OPERABLE status within 2 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Following restoration of one diesel generator unit, follow Action Statement b with the time requirement of that Action Statement based on the time of initial loss of the remaining inoperable diesel generator. A successful test of diesel OPERABILITY per Surveillance Requirement 4.8.1.1.2.a.5 performed under this Action Statement for a restored to OPERABLE diesel satisfies the diesel generator test requirement of Action Statement b.

SURVEILLANCE REQUIREMENTS

4.8.1.1.1 Two physically independent circuits between the offsite transmission network and the onsite Class 1E distribution system shall be:

- a. Determined OPERABLE at least once per 7 days by verifying correct breaker alignments, indicated power availability, and
- b. Demonstrated OPERABLE at least once per 18 months by transferring (manually and automatically) unit power supply from the unit circuit to the system circuit.

4.8.1.1.2 Each diesel generator shall be demonstrated OPERABLE:

- a. At least once per 31 days on a STAGGERED TEST BASIS by:
 1. Verifying the fuel level in the day tank,
 2. Verifying the fuel level in the fuel storage tank,
 3. (Deleted)

(1) Fuel oil contained in the storage tanks not meeting the properties in accordance with 4.8.1.1.2.d.2 or 4.8.1.1.2.e shall be brought within the specified limits within 7 days.

(2) This test is required to be completed regardless of when the inoperable diesel generator is restored to OPERABILITY.

SURVEILLANCE REQUIREMENTS (Continued)

4. Verifying the fuel transfer pump can be started and transfers fuel from the storage system to the day tank,
 5. Verifying the diesel starts from ambient condition,
 6. Verifying the generator is synchronized, loaded to $\geq 4,238$ kw, and operates for at least 60 minutes,
 7. Verifying the diesel generator is aligned to provide standby power to the associated emergency busses, and
 8. Verifying the lubricating oil inventory in storage.
- b. 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 generator capability to reject a load of ≥ 825 kw without tripping,
 3. Simulating a loss of offsite power in conjunction with a safety injection signal, and:
 - a) Verifying de-energization of the emergency busses and load shedding from the emergency busses.
 - b) Verifying the diesel starts from ambient condition on the auto-start signal, energizes the emergency busses with permanently connected loads, energizes the auto-connected emergency loads through the load sequencer and operates for ≥ 5 minutes while its generator is loaded with the emergency loads.
 4. Verifying that on a loss of power to the emergency busses, all diesel generator trips, except engine overspeed, backup phase fault detection, generator differential current, and generator overexcitation are automatically disabled.

SURVEILLANCE REQUIREMENTS (Continued)

5. Verifying the diesel generator operates for at least 60 minutes while loaded to $\geq 4,238$ kw.
 6. Verifying that the auto-connected loads to each diesel generator do not exceed the 2000 hour rating of 4,535 kw.
 7. Verifying that the automatic load sequence timer is OPERABLE with each load sequence time within $\pm 10\%$ of its required value.
- c. Check for and remove accumulated water:
1. From the day tank, at least once per 31 days and after each operation of the diesel where the period of operation was greater than 1 hour, and
 2. From the fuel oil storage tank, at least once per 92 days.
- d. By sampling new fuel oil in accordance with ASTM D4057-81 prior to addition to the storage tanks and:
1. By verifying in accordance with the tests specified in ASTM D975-81 prior to addition to the storage tanks that the sample has:
 - a) An API Gravity of within 0.3 degrees at 60°F or a specific gravity of within 0.0016 at 60/60°F, when compared to the supplier's certificate or an absolute specific gravity at 60/60°F of greater than or equal to 0.83 but less than or equal to 0.89 or an API gravity at 60°F of greater than or equal to 27 degrees but less than or equal to 39 degrees,
 - b) A kinematic viscosity at 40°C of greater than or equal to 1.9 centistokes, but less than or equal to 4.1 centistokes, if gravity was not determined by comparison with the supplier's certification,
 - c) A flash point equal to or greater than 125°F, and
 - d) A clear and bright appearance with proper color when tested in accordance with ASTM D4176-82.

SURVEILLANCE REQUIREMENTS (Continued)

2. By verifying within 31 days of obtaining the sample that the other properties specified in Table 1 of ASTM D975-81 are met when tested in accordance with ASTM D975-81 except that the analysis for sulfur may be performed in accordance with ASTM D1552-79 or ASTM D2622-82.
- e. At least once every 31 days by obtaining a sample of fuel oil from the storage tanks and day tanks in accordance with ASTM D2276-78, and verifying that total particulate contamination is less than 10 mg/liter when checked in accordance with ASTM D2276-78, Method A.
- f. At least once per 10 years or after any modifications which could affect diesel generator interdependence by starting⁽³⁾ both diesel generators simultaneously, during shutdown, and verifying that both diesel generators accelerate to at least 514 rpm in less than or equal to 10 seconds.
- g. At least once per 10 years by:
 1. Draining each main fuel oil storage tank, removing the accumulated sediment, and cleaning the tank using a sodium hypochlorite solution or other appropriate cleaning solution, and
 2. Performing a pressure test, of those portions of the diesel fuel oil system designed to Section III, subsection ND of the ASME Code, at a test pressure equal to 110% of the system design pressure.

(3) This test shall be conducted in accordance with the manufacturer's recommendations regarding engine prelube and warmup procedures, and as applicable regarding loading recommendations.