

Mr. J. E. Cross  
 Senior Vice President and  
 Chief Nuclear Officer  
 Nuclear Power Division  
 Duquesne Light Company  
 Post Office Box 4  
 Shippingport, PA 15077

February 1, 1996

SUBJECT: BEAVER VALLEY POWER STATION, UNIT NOS. 1 AND 2 (TAC NOS. M92954 AND M92955)

Dear Mr. Cross:

The Commission has issued the enclosed Amendment No. 196 to Facility Operating License No. DPR-66 and Amendment No. 79 to Facility Operating License No. NPF-73 for the Beaver Valley Power Station, Unit Nos. 1 and 2. These amendments consist of changes to the Technical Specifications (TSs) in response to your application dated July 20, 1995, as supplemented December 4, 1995.

These amendments revise TS 3/4.8.1.1, "A.C. Sources-Operating," to incorporate guidance provided in NRC Generic Letter (GL) 84-15, "Proposed Staff Actions to Improve and Maintain Diesel Generator Reliability," and GL 93-05, "Line-Item Technical Specification Improvements to Reduce Surveillance Requirements for Testing During Power Operation," which includes (1) revised requirements for testing the operable emergency diesel generators (EDGs) for various combinations of inoperable offsite circuits and EDGs and (2) revised surveillance requirements for the EDGs. The revised surveillance requirements include specifying generator voltage, frequency limits, and diesel starting time. The amendments also make several editorial changes to TS 3/4.8.1.1 to make TS 3/4.8.1.1 consistent with the guidance provided in the NRC's Improved Standard Technical Specifications (NUREG-1431).

A copy of our Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

/s/  
 Donald S. Brinkman, Senior Project Manager  
 Project Directorate I-2  
 Division of Reactor Projects - I/II  
 Office of Nuclear Reactor Regulation

Docket Nos. 50-334/412

- Enclosures: 1. Amendment No. 196 to License No. DPR-66  
 2. Amendment No. 79 to License No. NPF-73  
 3. Safety Evaluation

cc w/encls: See next page

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

February 12, 1996

Mr. J. E. Cross  
Senior Vice President and  
Chief Nuclear Officer  
Nuclear Power Division  
Duquesne Light Company  
Post Office Box 4  
Shippingport, PA 15077

SUBJECT: BEAVER VALLEY POWER STATION, UNIT NOS. 1 AND 2 (TAC NOS. M92954  
AND M92955)

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These amendments revise TS 3/4.8.1.1, "A.C. Sources-Operating," to incorporate guidance provided in NRC Generic Letter (GL) 84-15, "Proposed Staff Actions to Improve and Maintain Diesel Generator Reliability," and GL 93-05, "Line-Item Technical Specification Improvements to Reduce Surveillance Requirements for Testing During Power Operation," which includes (1) revised requirements for testing the operable emergency diesel generators (EDGs) for various combinations of inoperable offsite circuits and EDGs and (2) revised surveillance requirements for the EDGs. The revised surveillance requirements include specifying generator voltage, frequency limits, and diesel starting time. The amendments also make several editorial changes to TS 3/4.8.1.1 to make TS 3/4.8.1.1 consistent with the guidance provided in the NRC's Improved Standard Technical Specifications (NUREG-1431).

A copy of our Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

A handwritten signature in cursive script, reading "Donald S. Brinkman".

Donald S. Brinkman, Senior Project Manager  
Project Directorate I-2  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Docket Nos. 50-334/412

Enclosures: 1. Amendment No. 196 to  
License No. DPR-66  
2. Amendment No. 79 to  
License No. NPF-73  
3. Safety Evaluation

cc w/encls: See next page

J. E. Cross  
Duquesne Light Company

Beaver Valley Power Station  
Units 1 & 2

cc:

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

DUQUESNE LIGHT COMPANY

OHIO EDISON COMPANY

PENNSYLVANIA POWER COMPANY

DOCKET NO. 50-334

BEAVER VALLEY POWER STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 196  
License No. DPR-66

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Duquesne Light Company, et al. (the licensee) dated July 20, 1995, as supplemented December 4, 1995, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-66 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 196, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance, to be implemented within 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION



John F. Stolz, Director  
Project Directorate I-2  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical  
Specifications

Date of Issuance: February 12, 1996

ATTACHMENT TO LICENSE AMENDMENT NO. 196

FACILITY OPERATING LICENSE NO. DPR-66

DOCKET NO. 50-334

Replace the following pages of Appendix A Technical Specifications, with the enclosed pages as indicated. The revised pages are identified by amendment number and contain vertical lines indicating the areas of change.

<u>Remove</u>	<u>Insert</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
3/4 8-4	3/4 8-4
3/4 8-4a	3/4 8-4a
---	3/4 8-4b
B 3/4 8-2	B 3/4 8-2
---	B 3/4 8-3

3/4.8 ELECTRICAL POWER SYSTEMS

3/4.8.1 A.C. SOURCES

OPERATING

LIMITING CONDITION FOR OPERATION

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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 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. 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<sup>(1)</sup> 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 an independently testable component, testing or preplanned preventative maintenance, demonstrate the OPERABILITY of the remaining OPERABLE diesel generator by performing

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(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.

LIMITING CONDITION FOR OPERATION

ACTION (Continued)

Surveillance Requirement 4.8.1.1.2.a.5 within 24 hours<sup>(2)</sup> unless the absence of any potential common mode failure for the remaining diesel generator is demonstrated. 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<sup>(1)</sup> 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 an independently testable component, 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<sup>(2)</sup> unless the absence of any potential common mode failure for the remaining diesel generator is demonstrated. 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 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 b.

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- (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 action is required to be completed regardless of when the inoperable diesel generator is restored to OPERABILITY.

LIMITING CONDITION FOR OPERATION

ACTION (Continued)

- d. With two of the required offsite A.C. circuits inoperable, 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 and in COLD SHUTDOWN within the following 30 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.
- e. With two of the required diesel generators<sup>(1)</sup> 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.

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(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.

SURVEILLANCE REQUIREMENTS (Continued)

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)
  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 standby conditions,<sup>(4)</sup> and can be gradually accelerated to synchronous speed with generator voltage<sup>(3)</sup>  $\geq 4106$  volts and  $\leq 4368$  volts and frequency<sup>(3)</sup>  $\geq 58.8$  Hz and  $\leq 61.2$  Hz,
  6. Verifying the generator is synchronized, loaded<sup>(5)</sup> to  $\geq 1425$  kw, and operates for  $\geq 60$  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  $\geq 450$  kw without tripping,

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(3) The values for voltage and frequency are analysis values. These value bands shall be appropriately reduced to account for measurement uncertainties.

(4) All diesel generator starts may be followed by a warmup period prior to loading.

(5) Diesel generator loadings may include gradual loading as recommended by the manufacturer.

SURVEILLANCE REQUIREMENTS (Continued)

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 standby conditions on the auto-start signal, energizes the emergency busses with permanently connected loads in  $\leq 10$  seconds, energizes the auto-connected emergency loads through the load sequencer and operates for  $\geq 5$  minutes while its generator is loaded with the emergency loads. After energization of these loads, the steady state voltage<sup>(3)</sup> and frequency<sup>(3)</sup> shall be maintained at  $\geq 4106$  volts and  $\leq 4368$  volts, and  $\geq 58.8$  Hz and  $\leq 61.2$  Hz.<sup>(6)</sup>
  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  $\geq 60$  minutes while loaded to  $\geq 2750$  kw,
  6. Verifying that the auto-connected loads to each diesel generator do not exceed the 2000 hour rating of 2850 kw, and
  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.

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(3) The values for voltage and frequency are analysis values. These value bands shall be appropriately reduced to account for measurement uncertainties.

(6) The frequency limits apply for the diesel generator at full accident loading. An engineering evaluation of the test data at lower loads can be performed to demonstrate operability.

SURVEILLANCE REQUIREMENTS (Continued)

- 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,
    - d) A water and sediment content of less than or equal to 0.05% when tested in accordance with ASTM D1796-83, and
    - e) A total particulate contamination level of less than 10 mg/liter when tested in accordance with ASTM D2276-78, Method A.
  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.

## BASES

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A.C. SOURCES, D.C. SOURCES AND ONSITE POWER DISTRIBUTION SYSTEMS  
(Continued)

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 3.8-1 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 .015 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 .020 below the manufacturer's full charge specific gravity with an average specific gravity of all the connected cells not more than .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 3.8-1 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 .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 .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.

Note (1) provides clarification of Specification 3.8.1.1 action requirements when the diesel generators are inoperable as a result of Surveillance Requirements 4.8.1.1.2.d.2 and 4.8.1.1.2.e in accordance with Regulatory Guide 1.137 Revision 1 Regulatory Position C.2.a.

For the purposes of SR 4.8.1.1.2.a.5 and SR 4.8.1.1.2.b.3.b testing, the diesel generators are started from standby conditions. Standby conditions for a diesel generator mean that the diesel engine oil is being continuously circulated and engine coolant and oil temperatures are being maintained consistent with manufacturer recommendations.

BASES

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A.C. SOURCES, D.C. SOURCES AND ONSITE POWER DISTRIBUTION SYSTEMS  
(Continued)

Footnote (6) permits an engineering evaluation to be performed if the frequency limits of SR 4.8.1.1.2.b.3.b are not met. The frequency limits prescribed in SR 4.8.1.1.2.b.3.b are based on full load conditions. Since SR 4.8.1.1.2.b.3.b is normally performed at less than full loading conditions, the resultant generator frequency may exceed the required frequency value range due to the design of the diesel generator governor, especially during lower loading. Under these conditions, it is acceptable to examine the frequency response vs. loading and by an engineering evaluation, determine that the governor is responding properly and would fall within the required frequency band while at full accident loading. The engineering evaluation consists of comparing previous voltage, frequency and power plots with the current plots of these same parameters. By comparing the above data, proper governor response can be verified. Based on governor response and the current governor droop setting, the frequency value obtained during performance of SR 4.8.1.1.2.b.3.b can be evaluated to ensure the frequency limits of SR 4.8.1.1.2.b.3.b at full accident loading would be met.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

DUQUESNE LIGHT COMPANY

OHIO EDISON COMPANY

THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

THE TOLEDO EDISON COMPANY

DOCKET NO. 50-412

BEAVER VALLEY POWER STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 79  
License No. NPF-73

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Duquesne Light Company, et al. (the licensee) dated July 20, 1995, as supplemented December 4, 1995, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-73 is hereby amended to read as follows:

**(2) Technical Specifications**

The Technical Specifications contained in Appendix A, as revised through Amendment No. 79, and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto are hereby incorporated in the license. DLCO shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance, to be implemented within 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION



John F. Stolz, Director  
Project Directorate I-2  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: February 12, 1996

ATTACHMENT TO LICENSE AMENDMENT NO. 79

FACILITY OPERATING LICENSE NO. NPF-73

DOCKET NO. 50-412

Replace the following pages of Appendix A, Technical Specifications, with the enclosed pages as indicated. The revised pages are identified by amendment number and contain vertical lines indicating the areas of change.

<u>Remove</u>	<u>Insert</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
3/4 8-4	3/4 8-4
3/4 8-5	3/4 8-5
---	3/4 8-5a
---	3/4 8-5b
B 3/4 8-3	B 3/4 8-3

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

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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 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. 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<sup>(1)</sup> 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

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(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.

LIMITING CONDITION FOR OPERATION

ACTION (Continued)

generator became inoperable due to any cause other than an independently testable component, 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<sup>(2)</sup> unless the absence of any potential common mode failure for the remaining diesel generator is demonstrated. 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<sup>(1)</sup> 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 an independently testable component, 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<sup>(2)</sup> unless the absence of any potential common mode failure for the remaining diesel generator is demonstrated. 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 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 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 action is required to be completed regardless of when the inoperable diesel generator is restored to OPERABILITY.

LIMITING CONDITION FOR OPERATION

ACTION (Continued)

- d. With two of the required offsite A.C. circuits inoperable, 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 and in COLD SHUTDOWN within the following 30 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.
  
- e. With two of the required diesel generators<sup>(1)</sup> 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 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.

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(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.

SURVEILLANCE REQUIREMENTS (Continued)

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)
  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 standby conditions,<sup>(4)</sup> and achieves steady state voltage<sup>(3)</sup> of  $\geq 3994$  volts and  $\leq 4368$  volts and frequency<sup>(3)</sup> of  $\geq 58.8$  Hz and  $\leq 61.2$  Hz,
  6. Verifying the generator is synchronized, loaded<sup>(5)</sup> to  $\geq 4,238$  kw, and operates for  $\geq 60$  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  $\geq 825$  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.

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(3) The values for voltage and frequency are analysis values. These value bands shall be appropriately reduced to account for measurement uncertainties.

(4) All diesel generator starts may be preceded by an engine prelube period and followed by a warmup period prior to loading.

(5) Diesel generator loadings may include gradual loading as recommended by the manufacturer.

SURVEILLANCE REQUIREMENTS (Continued)

- b) Verifying the diesel starts from standby conditions<sup>(6)</sup> on the auto-start signal, energizes the emergency busses with permanently connected loads in  $\leq 10$  seconds, energizes the auto-connected emergency loads through the load sequencer and operates for  $\geq 5$  minutes while its generator is loaded with the emergency loads. After energization of these loads, the steady state voltage<sup>(3)</sup> and frequency<sup>(3)</sup> shall be maintained at  $\geq 3994$  volts and  $\leq 4368$  volts, and  $\geq 58.8$  Hz and  $\leq 61.2$  Hz.
- 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,
- 5. Verifying the diesel generator operates for  $\geq 60$  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, and
- 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:

- 
- (3) The values for voltage and frequency are analysis values. These value bands shall be appropriately reduced to account for measurement uncertainties.
  - (6) All diesel generator starts may be preceded by an engine prelube period.

SURVEILLANCE REQUIREMENTS (Continued)

1. By verifying in accordance with the test 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,
  - d) A water and sediment content of less than or equal to 0.05% when tested in accordance with ASTM D1796-83, and
  - e) A total particulate contamination level of less than 10 mg/liter when tested in accordance with ASTM D2276-78, Method A.
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.

SURVEILLANCE REQUIREMENTS (Continued)

- f. At least once per 10 years or after any modifications which could affect diesel generator interdependence by starting from standby conditions<sup>(6)</sup> both diesel generators simultaneously, during shutdown, and verifying that each diesel generator achieves, in  $\leq 10$  seconds, voltage<sup>(3)</sup>  $\geq 3994$  volts and  $\leq 4368$  volts, and frequency<sup>(3)</sup>  $\geq 58.8$  Hz and  $\leq 61.2$  Hz.
- g. At least once per 10 years by 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.

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(3) The values for voltage and frequency are analysis values. These value bands shall be appropriately reduced to account for measurement uncertainties.

(6) All diesel generator starts may be preceded by an engine prelube period.

**BASES**

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**3/4.8.1, 3/4.8.2 A.C. SOURCES AND ONSITE POWER DISTRIBUTION**  
(Continued)

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.

Note (1) provides clarification of Specification 3.8.1.1 Action requirements when the diesel generators are inoperable as a result of Surveillance Requirements 4.8.1.1.2.d.2 and 4.8.1.1.2.e in accordance with Regulatory Guide 1.137, Revision 1, Position C.2.a.

For the purposes of SR 4.8.1.1.2.a.5, 4.8.1.1.2.b.3.b and 4.8.1.1.2.f testing, the diesel generators are started from standby conditions. Standby conditions for a diesel generator mean that the diesel engine coolant and oil are being continuously circulated and temperatures are being maintained consistent with manufacturer recommendations.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NOS. 196 AND 79 TO FACILITY OPERATING

LICENSE NOS. DPR-66 AND NPF-73

DUQUESNE LIGHT COMPANY

OHIO EDISON COMPANY

PENNSYLVANIA POWER COMPANY

THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

THE TOLEDO EDISON COMPANY

BEAVER VALLEY POWER STATION, UNIT NOS. 1 AND 2

DOCKET NOS. 50-334 AND 50-412

1.0 INTRODUCTION

By letter dated July 20, 1995, as supplemented December 4, 1995, the Duquesne Light Company (the licensee) submitted a request for changes to the Beaver Valley Power Station, Unit Nos. 1 and 2 (BVPS-1 and BVPS-2), Technical Specifications (TSs). The requested changes would revise TS 3/4.8.1.1 to incorporate guidance provided in NRC Generic Letter (GL) 84-15, "Proposed Staff Actions to Improve and Maintain Diesel Generator Reliability," and GL 93-05, "Line-Item Technical Specification Improvements to Reduce Surveillance Requirements for Testing During Power Operation," which includes (1) revised requirements for testing the operable emergency diesel generators (EDGs) for various combinations of inoperable offsite circuits and EDGs and (2) revised surveillance requirements for the EDGs. The revised surveillance requirements include specifying generator voltage, frequency limits, and diesel starting time. In addition, several editorial changes would be made to TS 3/4.8.1.1 which would be consistent with the guidance provided in the NRC's Improved Standard Technical Specifications (NUREG-1431). The December 4, 1995, letter provided clarifying information that did not change the initial proposed no significant hazards consideration determination or expand the amendment request beyond the scope of the August 16, 1995, Federal Register notice.

2.0 EVALUATION

The proposed changes pertain to both the BVPS-1 and BVPS-2 TSs unless otherwise specified. The NRC staff's evaluation of the licensee's proposed changes to the TSs follows.

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**TS 3.8.1.1**

The licensee proposes to change the designation of the footnote from \* to (1). Footnote (1) states that fuel oil properties not in accordance with TS 4.8.1.1.2.d.2 or TS 4.8.1.1.2.e shall be brought within the specified limits within 7 days. Footnote (1) applies to Action Statements 3.8.1.1.b, 3.8.1.1.c and 3.8.1.1.e. In addition, the licensee proposes to add a footnote (2) to indicate that the designated test is required to be completed regardless of when the inoperable diesel generator is restored to operability. Footnote (2) is added in order to verify that a common mode failure does not exist when one diesel generator has been declared inoperable. Footnote (2) applies to Action Statements 3.8.1.1.b and 3.8.1.1.c. This change is consistent with the Standard Technical Specifications (STS) or editorial in nature and is therefore, acceptable.

**Action Statement 3.8.1.1.a**

The subject action statement currently addresses either one inoperable offsite circuit or one inoperable EDG. The licensee proposes to revise this section to exclusively address one inoperable offsite circuit. In addition, TS 4.1.1.1.2.a.5, to verify the operability of the diesel generators, will no longer be performed for an inoperable offsite circuit. The licensee asserts that TS 4.1.1.1.2.a.5 is unnecessary because the circumstances which could lead to an inoperable offsite power source do not imply that the diesel generators will be unable to perform their safety function.

The NRC staff provided relaxation to EDG surveillance requirements by GL 93-05. In this letter, the NRC staff recommended deletion of the following requirement: "If either diesel generator has not been successfully tested within the past 24 hours demonstrate its OPERABILITY by performing Surveillance Requirements 4.8.1.1.2.a.5 and 4.8.1.1.2.a.6 for each such diesel generator, separately, within 24 hours." Based on the above information, the NRC staff finds that the subject TS change is consistent with the STS and the intent of GL 93-05 and is therefore, acceptable.

**Action Statement 3.8.1.1.b**

A new action statement is added as a result of the proposed change to Action Statement 3.8.1.1.a in order to address one inoperable EDG. In addition, the licensee proposes to perform TS 4.8.1.1.2.a.5 within 24 hours if the EDG became inoperable due to any cause other than an independently testable component, testing or preplanned preventative maintenance unless the absence of any potential common mode failure for the remaining diesel generator is demonstrated by the licensee.

GL 93-05 recommends that the operability of the remaining EDGs be demonstrated when one EDG becomes inoperable. EDG operability has to be demonstrated only if the EDG became inoperable due to any cause other

than an independently testable component, testing or preplanned preventative maintenance. Based on the above information, the NRC staff finds that the subject TS change is consistent with the STS and the intent of GL 93-05 and is therefore, acceptable.

#### **Action Statement 3.8.1.1.c**

The subject action statement addresses the limiting conditions for operations (LCO) when one offsite circuit and one diesel generator become inoperable. Similar to the above change for Action Statement 3.8.1.1.b, the licensee proposes to demonstrate the operability of the remaining operable EDG by performing TS 4.8.1.1.2.a.5 within 8 hours if the EDG became inoperable due to any cause other than an independently testable component, testing or preplanned preventative maintenance unless the absence of any potential common failure for the remaining EDG is demonstrated by the licensee. In addition, the licensee proposes to add the following administrative text "Restore the other A. C. power source (offsite circuit or diesel generator) to OPERABLE status in accordance with the provisions of Action Statement a or b, as appropriate with 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 b."

The addition of the above administrative text does not alter the original intent of the Action Statement and is therefore, acceptable. The testing of the remaining operable EDG every 8 hours is removed by this TS change. This change is consistent with the intent of GL 84-15 to reduce the number of cold fast start surveillance tests for diesel generators. For the reasons stated above for Action Statements 3.8.1.1.a and 3.8.1.1.b the NRC staff finds that the subject TS change is acceptable.

#### **Action Statement 3.8.1.1.d**

The subject action statement, formerly action statement 3.8.1.1.c, describes the LCO when two of the required offsite power circuits become inoperable. Currently, the licensee must restore at least one of the inoperable offsite sources to OPERABLE status within 24 hours or to be in at least HOT STANDBY within the next 4 hours. The revised action statement changes the time to reach the HOT STANDBY condition from 4 hours to 6 hours.

The NRC staff noted that the proposed action statement did not stipulate any time period that the unit must reach the COLD SHUTDOWN operating condition assuming that the two offsite power circuits are still inoperable. After a teleconference on October 12, 1995, the licensee submitted a revision letter dated December 4, 1995, to add "and in COLD SHUTDOWN within the following 30 hours" after the words "...at least HOT STANDBY within the next 6 hours." Similar to Action Statement 3.8.1.1.a, TS 4.1.1.1.2.a.5, to verify the operability of the diesel generators,

will no longer be performed for the LCO involving two inoperable offsite circuits. The licensee asserts that TS 4.1.1.1.2.a.5 is unnecessary because the circumstances which could lead to inoperable offsite power sources do not imply that the diesel generators will be unable to perform their safety function.

Based on the above information, the NRC staff finds that the subject TS change is consistent with the STS and GL 93-05, is therefore, acceptable.

#### **Action Statement 3.8.1.1.e**

The subject action statement, formerly action statement 3.8.1.1.d, addresses the LCO associated with two inoperable EDGs. Similar to the above change for Action Statement 3.8.1.1.b, the licensee proposes to change "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 the time of initial loss or be in COLD SHUTDOWN within the next 36 hours" to "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."

Except for specifying that the unit should be in HOT STANDBY within a 6-hour period which is consistent with STS, the addition of the above administrative text does not alter the original intent of the Action Statement. Therefore, the NRC staff finds that the subject TS change is acceptable.

#### **TS 4.8.1.1**

The licensee proposes to replace "ambient conditions" with "standby conditions" throughout TS 4.8.1.1. This change is acceptable because it does not change the original intent that the diesel generator be tested in "as found" conditions which is equivalent to standby conditions. Regulatory Guide 1.9 permits the testing of a diesel generator in standby conditions if those conditions refer to the operation of prewarm systems designed to maintain lube oil and jacket water cooling at certain temperatures or prelubrication systems which would normally be in operation. Given that the TS change do not alter the original intent of the surveillance requirement the NRC staff finds that it is acceptable.

The licensee proposes to add a footnote (3) which states that "The values for voltage and frequency are analysis values and do not include measurement uncertainties." During the NRC staff teleconference with the licensee on October 12, 1995, the NRC staff indicated that the footnote may lead to a misinterpretation of the test results. By letter dated December 4, 1995, the licensee revised the proposed footnote as follows: "The values for voltage and frequency are analysis values. These value bands shall be appropriately reduced to account for measurement uncertainties." This footnote applies to TS 4.8.1.1.2.a.5, 4.8.1.1.2.b.3.b and 4.8.1.1.2.f (Unit 2 only). Given that the TS change does not change the original intent of the surveillance requirement, the NRC staff finds the TS change acceptable as revised.

The licensee proposes to add footnote (4) which states for Unit 1 that "All diesel generator starts may be followed by a warmup period prior to loading" and for Unit 2 that "All diesel generator starts may be preceded by an engine prelube period and followed by a warmup period prior to loading." The footnote is applicable to TS 4.8.1.1.2.a.5. The NRC staff finds that the TS change associated with the warmup period is consistent with GL 84-15 which recommends that diesel generator test starts be conducted in a manner which will minimize mechanical stress and wear on the engine. The use of a prelube period recommended by the manufacturer is consistent with the STS guidance for the applicable tests. Based on the above information, the NRC staff finds that the subject TS change is acceptable.

The licensee proposes to add a footnote (5) which states "Diesel generator loading may include gradual loading as recommended by the manufacturer." The footnote is applicable to TS 4.8.1.1.2.a.6. The NRC staff finds that the subject TS change is consistent with the guidance of GL 84-15 to minimize the wear and stress on the diesel engine during tests and, therefore, is acceptable.

The licensee proposes to add a footnote (6) for Unit 1 only which states "The frequency limits apply for the diesel generator at full accident loading. Extrapolation of test data at lower loads can be performed to meet criteria." During the NRC staff teleconference with the licensee on October 12, 1995, the NRC staff indicated that the footnote lacked sufficient clarity regarding the method to be used in the extrapolation of test data. By letter dated December 4, 1995, the licensee revised the proposed footnote as follows: "The frequency limits apply for the diesel generator at full loading. An engineering evaluation of the test data at lower loads can be performed to demonstrate operability." This footnote applies to TS 4.8.1.1.2.b.3.b and 4.8.1.1.2.f. Given that the TS change does not change the original intent of the surveillance requirement, the NRC staff finds the TS change acceptable as revised.

The licensee proposes to add a footnote (6) for Unit 2 only which states "All diesel generator starts may be preceded by an engine prelube period." This footnote is applicable to TS 4.8.1.1.2.b.3.b and 4.8.1.2.f. An engine prelube consists of lubricating internal moving

parts on the diesel engine which normally do not get lubricated when the engine is not running. This period is intended to minimize the wear on the diesel engine during surveillance testing. For the same rationale stated above for Footnote (4), the NRC staff finds that the subject TS change is acceptable.

#### TS 4.8.1.1.2.a.5

The licensee proposes to add at the end of the specification the following text: "and can be gradually accelerated to synchronous speed with generator voltage <sup>(3)</sup>  $\geq 4106$  volts (Unit 1) / 3994 volts (Unit 2) and  $\leq 4368$  volts and frequency <sup>(3)</sup>  $\geq 58.8$  Hz and  $\leq 61.2$  Hz." The subject change provides voltage and frequency limits for surveillance testing. The subject change was requested by the NRC staff after the review of Amendment Request Nos. 200 and 67 dated October 6, 1992.

The slight difference in voltage limits between the Unit 1 and 2 EDGs is due to a difference in design. The Unit 1 EDGs were manufactured by General Motors Electro-Motive Division. The Unit 2 EDGs were manufactured by Fairbanks Morse Engine Division of Colt Industries. For example, the licensee specified that the Unit 1 EDGs be designed to obtain 50% speed (i.e., approximately 450 rpm) when started manually in the exercise mode. The Unit 2 EDGs possesses a 50% speed of approximately 514 rpm when started manually in the exercise mode.

Based on the above information, the NRC staff finds the subject TS change consistent with the STS and, is therefore, acceptable.

#### Technical Specification 4.8.1.1.2.b.3.b

Similar to TS 4.8.1.1.2.a.5, the licensee proposes to add at the end of the specification the following text: "After energization of these loads, the steady state voltage <sup>(3)</sup> and frequency <sup>(3)</sup> shall be maintained at  $\geq 4106$  volts (Unit 1) / 3994 volts (Unit 2) and  $\leq 4368$  volts and frequency <sup>(6)</sup>  $\geq 58.8$  Hz and  $\leq 61.2$  Hz." Also, the licensee adds a time period requirement, "in  $\leq 10$  seconds", in which the EDG must energize the permanently connected loads.

Based on the above information, the NRC staff finds the subject TS change consistent with the STS and, is therefore, acceptable.

#### Unit 2: Page 3/4 8-3

The licensee proposes to delete footnotes denoted by \* and #. Footnote \* specifies that the 18-month surveillance interval during the first fuel cycle may be extended to coincide with completion of the first refueling outage. Footnote # requires that the testing of backup phase fault detection is to be implemented no later than the second refueling outage.

In addition, the licensee proposes to change "at least" to " $\geq$ " in TS 4.8.1.1.a.6 and add a comma at the end of TS 4.8.1.1.b.4. Given that the subject TS change is administrative in nature, the NRC staff finds that the change is acceptable.

Unit 2: Page 3/4 8-4 and 8-5

**TS 4.8.1.1.2.f**

The licensee proposes to change "both diesel generators accelerate to at least 514 rpm in less than or equal to 10 seconds" to "each diesel generators achieves, in  $\leq$  10 seconds, voltage <sup>(3)</sup>  $\geq$  3994 volts and  $\leq$  4368 volts, and frequency <sup>(3)</sup>  $\geq$  58.8 Hz and  $\leq$  61.2 Hz." The existing footnote denoted by the double asterisk "\*\*\*" will be replaced by Footnote (6). The licensee asserts that an equivalent verification of the diesel engine speed performance can be obtained by using the EDG voltage and frequency limits.

The NRC staff finds that the subject TS change is consistent with STS and, therefore, is acceptable.

**TS 4.8.1.1.2.g**

The licensee proposes to delete TS 4.8.1.1.2.g.2 which pertains to the pressure testing of the fuel oil system. Regulatory Guide 1.137, "Fuel-oil Systems for Standby Diesel Generators," states that Section 7.3 of ANSI N195-1976 requires that fuel oil systems shall provide for inservice inspection and testing in accordance with ASME Section XI. In addition, for portions of the fuel oil systems for standby diesel generators that are designed to Section III, Subsection ND of the Code, an acceptable method of meeting the requirements of Section 7.3 is to ensure that the system arrangement would allow pressure testing of the fuel oil system to a pressure 1.10 times the system design pressure at 10-year intervals. The licensee asserts that the current wording of the subject TS is very restrictive and does not allow the use of alternative test methods permitted by the ASME Code.

If the NRC staff approves the deletion of the subject TS, the licensee commits to include the following requirement in the 10-year Inservice Inspection (ISI) Plan for Unit No. 2:

During each 10-year interval of operation, a pressure test will be performed on the diesel generator fuel oil system. The test will be done according to ASME XI rule approved at the time of the tests.

By placing the subject pressure test requirement in the ISI plan, the use of alternative test methods allowed by ASME would be permitted, therefore allowing additional testing flexibility while still ensuring the integrity of the fuel oil system. Finally, the performance of the subject test is not specified in the STS.

Based on the above information, the NRC staff finds that the subject TS change is acceptable.

#### Miscellaneous Editorial Changes

The licensee proposes to (1) change "at least" to "≥" and add a comma at the end of sentence for TS 4.8.1.1.2.b.5; (2) add ",and" to the end of TS 4.8.1.1.2.b.6; (3) remove ")" after letter headings for existing TS 4.8.1.1.2.e) to 4.8.1.1.2.g); and (4) combine the text for TS 4.8.1.1.2.g.1) into one paragraph for TS 4.8.1.1.2.g.

Given that the subject TS changes are administrative in nature, the NRC staff finds that the changes are acceptable.

Bases: Pages B 3/4 8-2 (Unit 1) and B 3/4 8-3 (Unit 2)

The licensee proposes to replace "\*" with (1) and to add text which describes what is meant by standby conditions for diesel generators. The phrase "on page 3/4 8-2" was also deleted after \* footnote for Unit 2 Bases only.

In addition, for Unit 1 only, the licensee provided text describing the engineering evaluation basis for the determination of operability based upon frequency test data at lower than accident loads on the EDG.

Given that the subject Bases changes are administrative in nature, the NRC staff has no objection to these changes.

#### Summary

Based upon a review of the licensee's submittal, the NRC staff has concluded that the changes for diesel generator surveillance testing meet either STS, GL 84-15 or GL 93-05 guidance and as such constitute acceptable practices to improve overall diesel generator reliability and performance. Therefore, the above changes are acceptable.

Other changes involving the action statements for the A. C. power sources, Footnote (3) and Footnote (6) are consistent with the STS and are therefore, acceptable. Given the licensee commitment to incorporate the diesel fuel oil pressure test (which is currently performed by TS 4.8.1.1.2.g.2) into the licensee's ISI plan, the NRC staff finds that the deletion of the subject TS acceptable.

### 3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Pennsylvania State official was notified of the proposed issuance of the amendments. The State official had no comments.

#### 4.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and change surveillance requirements. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (60 FR 42603). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

#### 5.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

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