

December 1995

Distribution w/encls:

Mr. John P. Stetz  
Vice President- Nuclear  
Centerior Service Company  
c/o Toledo Edison Company  
Davis-Besse Nuclear Power Station  
5501 North State Route 2  
Oak Harbor, OH 43449

Docket File GHill(2)  
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50-346

SUBJECT: AMENDMENT NO. 203 TO FACILITY OPERATING LICENSE NO. NPF-3 -  
DAVIS-BESSE NUCLEAR POWER STATION, UNIT NO. 1 (TAC NO. M93309)

Dear Mr. Stetz:

The Commission has issued the enclosed Amendment No. 203 to Facility Operating License No. NPF-3 for the Davis-Besse Nuclear Power Station, Unit No. 1. The amendment revises the Technical Specifications in response to your application dated July 28, 1995.

This amendment clarifies the limiting condition for operation for TS 3.8.1.1 and 3.8.1.2 from "independent" circuit to "qualified" circuit; explains in the Bases the requirements for operability of an offsite circuit; deletes the STAGGERED TEST BASIS scheduling requirement to perform emergency diesel generator surveillances; explains in the Bases an acceptable method for verification of Emergency Diesel Generator speed for surveillance requirements (SR) 4.8.1.1.2.a.4 and 4.8.1.1.2.c.4; removes a surveillance test extension that has expired for SR 4.8.1.1.1.b; adds an exception for SR 4.8.1.1.2.c.5 and 4.8.1.1.2.c.7 to SR 4.8.1.2; and revises Bases 3.0.5 to reflect the clarification from "independent" circuit to "qualified" circuit.

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

Sincerely,

ORIGINAL SIGNED BY:

Linda L. Gundrum, Project Manager  
Project Directorate III-3  
Division of Reactor Projects III/IV  
Office of Nuclear Reactor Regulation

Docket No. 50-346

- Enclosures: 1. Amendment No. 203 to License No. NPF-3
- 2. Safety Evaluation

cc w/encls: See next page

\*See previous concurrence.

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DAVIS-BESSE NUCLEAR POWER STATION

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Division of Reactor Projects III/IV  
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UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

December 8, 1995

Mr. John P. Stetz  
Vice President - Nuclear  
Centerior Service Company  
c/o Toledo Edison Company  
Davis-Besse Nuclear Power Station  
5501 North State Route 2  
Oak Harbor, OH 43449

SUBJECT: AMENDMENT NO. 203 TO FACILITY OPERATING LICENSE NO. NPF-3 -  
DAVIS-BESSE NUCLEAR POWER STATION, UNIT NO. 1 (TAC NO. M93309)

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This amendment clarifies the limiting condition for operation for TS 3.8.1.1 and 3.8.1.2 from "independent" circuit to "qualified" circuit; explains in the Bases the requirements for operability of an offsite circuit; deletes the STAGGERED TEST BASIS scheduling requirement to perform emergency diesel generator surveillances; explains in the Bases an acceptable method for verification of Emergency Diesel Generator speed for surveillance requirements (SR) 4.8.1.1.2.a.4 and 4.8.1.1.2.c.4; removes a surveillance test extension that has expired for SR 4.8.1.1.1.b; adds an exception for SR 4.8.1.1.2.c.5 and 4.8.1.1.2.c.7 to SR 4.8.1.2; and revises Bases 3.0.5 to reflect the clarification from "independent" circuit to "qualified" circuit.

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

Sincerely,

A handwritten signature in cursive script that reads "Linda L. Gundrum".

Linda L. Gundrum, Project Manager  
Project Directorate III-3  
Division of Reactor Projects III/IV  
Office of Nuclear Reactor Regulation

Docket No. 50-346

Enclosures: 1. Amendment No. 203 to  
License No. NPF-3  
2. Safety Evaluation

cc w/encls: See next page

Mr. John P. Stetz  
Toledo Edison Company

cc:

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Davis-Besse Nuclear Power Station  
Unit No. 1

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

TOLEDO EDISON COMPANY  
CENTERIOR SERVICE COMPANY  
AND  
THE CLEVELAND ELECTRIC ILLUMINATING COMPANY  
DOCKET NO. 50-346  
DAVIS-BESSE NUCLEAR POWER STATION, UNIT NO. 1  
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 203  
License No. NPF-3

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by the Toledo Edison Company, Centerior Service Company, and the Cleveland Electric Illuminating Company (the licensees) dated July 28, 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-3 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 203, are hereby incorporated in the license. The Toledo Edison Company shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance and shall be implemented not later than 90 days after issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Linda L. Gundrum, Project Manager  
Project Directorate III-3  
Division of Reactor Projects III/IV  
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical  
Specifications

Date of issuance: December 8, 1995

ATTACHMENT TO LICENSE AMENDMENT NO. 203

FACILITY OPERATING LICENSE NO. NPF-3

DOCKET NO. 50-346

Replace the following pages of the Appendix "A" Technical Specifications with the attached pages. The revised pages are identified by amendment number and contain vertical lines indicating the area of change.

Remove

3/4 8-1  
3/4 8-2  
3/4 8-3  
3/4 8-5  
B 3/4 0-1a  
B 3/4 8-1

Insert

3/4 8-1  
3/4 8-2  
3/4 8-3  
3/4 8-5  
B 3/4 0-1a  
B 3/4 8-1  
B 3/4 8-1a

### 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 qualified circuits between the offsite transmission network and the onsite Class 1E A.C. electrical power distribution system, and
- b. Two separate and independent diesel generators each with:
  1. A separate day fuel tank containing a minimum volume of 4000 gallons of fuel,
  2. A separate fuel storage system containing a minimum volume of 32,000 gallons of fuel, and
  3. A separate fuel transfer pump.

APPLICABILITY: MODES 1, 2, 3 and 4.

##### 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 Requirement 4.8.1.1.1.a within one hour and at least once per 8 hours thereafter and by performing Surveillance Requirement 4.8.1.1.2.a.4 within 24 hours. Restore at least two offsite circuits and two diesel generators 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.
- 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 Requirement 4.8.1.1.1.a within one hour and at least once per 8 hours thereafter and by performing Surveillance Requirement 4.8.1.1.2.a.4 within 8 hours. Restore at least 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 at least two offsite circuits and two diesel generators to OPERABLE status within 72 hours from the time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

## ELECTRICAL POWER SYSTEMS

### 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.4 within 8 hours 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 6 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 at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 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 at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Restore at least two diesel generators to OPERABLE status within 72 hours from time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

### SURVEILLANCE REQUIREMENTS

4.8.1.1.1 Each of the above required qualified circuits between the offsite transmission network and the onsite Class 1E A.C. electrical power distribution system shall be:

- a. Determined OPERABLE at least once per 7 days by verifying correct breaker alignments and indicated power availability, and
- b. Demonstrated OPERABLE at least once per 18 months during shutdown by transferring (manually and automatically) unit power supply to each of the offsite circuits.

4.8.1.1.2 Each diesel generator shall be demonstrated OPERABLE:

- a. At least once per 31 days, if Surveillance Requirement 4.8.1.1.2.c has not been performed within the previous 31 days, by:

## ELECTRICAL POWER SYSTEMS

### SURVEILLANCE REQUIREMENTS (Continued)

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1. Verifying the fuel level in the day fuel tank.
  2. Verifying the fuel level in the fuel storage tank.
  3. Verifying the fuel transfer pump can be started and transfers fuel from the storage system to the day tank.
  4. Verifying the diesel starts and accelerates up to 900 rpm, preceded by an engine prelube and/or appropriate other warmup procedures.
  5. Verifying the generator is synchronized, loaded to  $\geq 1000$  kw, and operates for  $\geq 60$  minutes.
  6. Verifying the diesel generator is aligned to provide standby power to the associated essential busses.
  7. Verifying that the automatic load sequence timer is OPERABLE with each load sequence time within  $\pm 10\%$  of its required value.
- b. At least once per 92 days by verifying that a sample of diesel fuel from the fuel storage tank is within the acceptable limits specified in Table 1 of ASTM D975-68 when checked for viscosity, water and sediment.
- c. At least once per 184 days by:
1. Verifying the fuel level in the day fuel tank.
  2. Verifying the fuel level in the fuel storage tank.
  3. Verifying the fuel transfer pump can be started and transfers fuel from the storage system to the day tank.
  4. Verifying the diesel starts from ambient condition and accelerates to at least 900 rpm in  $\leq 10$  seconds.
  5. Verifying the generator is synchronized, loaded to  $\geq 1000$  kw, and operates for  $\geq 60$  minutes.
  6. Verifying the diesel generator is aligned to provide standby power to the associated essential busses.
  7. Verifying that the automatic load sequence timer is OPERABLE with each load sequence time within  $\pm 10\%$  of its required value.

## ELECTRICAL POWER SYSTEMS

### A.C. SOURCES

#### SHUTDOWN

#### LIMITING CONDITION FOR OPERATION

---

3.8.1.2 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

- a. One qualified circuit between the offsite transmission network and the onsite Class 1E A.C. electrical power distribution system, and
- b. One diesel generator with:
  1. Day fuel tank containing a minimum volume of 4000 gallons of fuel,
  2. A fuel storage system containing a minimum volume of 32,000 gallons of fuel, and
  3. A fuel transfer pump.

APPLICABILITY: MODES 5 and 6.

#### ACTION:

With less than the above minimum required A.C. electrical power sources OPERABLE, suspend all operations involving CORE ALTERATIONS or positive reactivity changes until the minimum required A.C. electrical power sources are restored to OPERABLE status.

#### SURVEILLANCE REQUIREMENTS

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4.8.1.2 The above required A.C. electrical power sources shall be demonstrated OPERABLE by the performance of each of the Surveillance Requirements of 4.8.1.1.1 and 4.8.1.1.2 except for requirements 4.8.1.1.2.a.5, 4.8.1.1.2.a.7, 4.8.1.1.2.c.5 and 4.8.1.1.2.c.7.

## APPLICABILITY

### BASES

3.0.5 This specification delineates what additional conditions must be satisfied to permit operation to continue, consistent with the ACTION statements for power sources, when a normal or emergency power source is not OPERABLE. It specifically prohibits operation when one division is inoperable because its normal or emergency power source is inoperable and a system, subsystem, train, component or device in another division is inoperable for another reason.

The provisions of this specification permit the ACTION statements associated with individual systems, subsystems, trains, components, or devices to be consistent with the ACTION statements of the associated electrical power source. It allows operation to be governed by the time limits of the ACTION statement associated with the Limiting Condition for Operation for the normal or emergency power source, not the individual ACTION statements for each system, subsystem, train, component or device that is determined to be inoperable solely because of the inoperability of its normal or emergency power source.

For example, Specification 3.8.1.1 requires in part that two emergency diesel generators be OPERABLE. The ACTION statement provides for a 72-hour out-of-service time when one emergency diesel generator is not OPERABLE. If the definition of OPERABLE were applied without consideration of Specification 3.0.5, all systems, subsystems, trains, components and devices supplied by the inoperable emergency power source would also be inoperable. This would dictate invoking the applicable ACTION statements for each of the applicable Limiting Conditions for Operation. However, the provisions of Specification 3.0.5 permit the time limits for continued operation to be consistent with the ACTION statement for the inoperable emergency diesel generator instead, provided the other specified conditions are satisfied. In this case, this would mean that the corresponding normal power source must be OPERABLE, and all redundant systems, subsystems, trains, components, and devices must be OPERABLE, or otherwise satisfy Specification 3.0.5 (i.e., be capable of performing their design function and have at least one normal or one emergency power source OPERABLE). If they are not satisfied, action is required in accordance with this specification.

As a further example, Specification 3.8.1.1 requires in part that two qualified circuits between the offsite transmission network and the onsite Class IE distribution system be OPERABLE. The ACTION statement provides a 24-hour out-of-service time when both required qualified circuits are not OPERABLE. If the definition of OPERABLE were applied without consideration of Specification 3.0.5; all systems, subsystems, trains, components and devices supplied by the inoperable normal power sources, both of the qualified circuits, would also be inoperable. This would dictate invoking the applicable ACTION statements for each of the applicable LCOs. However, the provisions of Specification 3.0.5 permit the time limits for continued operation to be consistent with the ACTION statement for the inoperable normal power sources instead, provided the

## 3/4.8 ELECTRICAL POWER SYSTEMS

### BASES

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

Qualified offsite to onsite circuits are those that are described in the USAR and are part of the licensing basis for the plant.

An OPERABLE qualified offsite to onsite circuit consists of all breakers, transformers, switches, interrupting devices, cabling, and controls required to transmit power from the offsite transmission network to the onsite Class 1E essential buses.

An OPERABLE qualified offsite to onsite circuit consists of:

1. One OPERABLE 345 kV transmission line
2. One OPERABLE 345 - 13.8 kV startup transformer
3. One OPERABLE 13.8 kV bus, and
4. One OPERABLE 13.8 - 4.16 kV bus tie transformer.

Typically, the electrical power reserve source selector switches are selected to the two different startup transformers. However, under certain conditions it is appropriate to select both switches to the same startup transformer. The circuit in which the startup transformer does not have a reserve source selector switch pre-selected to it must still meet the requirements of having its 345 kV transmission line, startup transformer, 13.8 kV bus and bus tie transformer OPERABLE.

In the case where a 13.8 kV bus is powered from a startup transformer, the reserve source selector switch should be selected to the opposite startup transformer.

In MODES 1-4, if one of the required 13.8 kV - 4.16 kV bus tie transformers is inoperable, then one qualified offsite to onsite circuit is inoperable and the requirement of LCO 3.8.1.1.a is not met. The appropriate corresponding ACTION statement must be entered. The essential 4.16 kV buses remain OPERABLE while energized with one 13.8 kV - 4.16 kV bus tie transformer inoperable.

The ACTION requirements specified for the levels of degradation of the power sources provide restriction upon continued facility operation commensurate with the level of degradation. The OPERABILITY of the power sources are consistent with the initial condition assumptions of the safety analyses and are based upon maintaining at least one of each of the onsite A.C. and D.C. power sources and associated distribution systems OPERABLE during accident conditions coincident with an assumed loss of offsite power and single failure of the other onsite A.C. source.

### 3/4.8 ELECTRICAL POWER SYSTEMS

#### BASES

Surveillance Requirements 4.8.1.1.2.a.4 and 4.8.1.1.2.c.4 verify proper starting of the Emergency Diesel Generators from standby conditions. Verification that an Emergency Diesel Generator has achieved a frequency of 60 Hz within the required time constraints meets the requirement for verifying the Emergency Diesel Generator has accelerated to 900 RPM.

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

The Surveillance Requirements for demonstrating the OPERABILITY of the station batteries are based on the recommendations of Regulatory Guide 1.129, "Maintenance Testing and Replacement of Large Lead Storage Batteries for Nuclear Power Plants", February 1978, and IEEE Std. 450-1980, "IEEE Recommended Practice for Maintenance, Testing, and Replacement of Large Lead Storage Batteries for Generating Stations and Substations".

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

Table 4.8-1 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 of less than two amps 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. Exceptions to the specific gravity requirements are taken to allow for the normal deviations experienced after a battery discharge and subsequent recharge associated with a service or performance discharge test. The specific gravity deviations are recognized and discussed in IEEE 450-1980.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 203 TO FACILITY OPERATING LICENSE NO. NPF-3

TOLEDO EDISON COMPANY

CENTERIOR SERVICE COMPANY

AND

THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

DAVIS-BESSE NUCLEAR POWER STATION, UNIT NO. 1

DOCKET NO. 50-346

1.0 INTRODUCTION

By letter dated July 28, 1995, the Toledo Edison Company, Centerior Service Company, and the Cleveland Electric Illuminating Company (the licensees), submitted a request for changes to the Davis-Besse Nuclear Power Station (DBNPS) Technical Specifications (TS). The requested amendment would clarify the limiting condition for operation for TS 3.8.1.1 and 3.8.1.2 from "independent" circuit to "qualified" circuit; explain in the Bases the requirements for operability of an offsite circuit; delete the STAGGERED TEST BASIS scheduling requirement to perform emergency diesel generator surveillances; explain in the Bases an acceptable method for verification of Emergency Diesel Generator speed for surveillance requirements (SR) 4.8.1.1.2.a.4 and 4.8.1.1.2.c.4; remove a surveillance test extension that has expired for SR 4.8.1.1.1.b; add an exception for SR 4.8.1.1.2.c.5 and 4.8.1.1.2.c.7 to SR 4.8.1.2; and revise Bases 3.0.5 to reflect the clarification from "independent" circuit to "qualified" circuit.

2.0 EVALUATION

2.1 Qualified Circuits

The licensee proposes to revise TS Section 3/4.8.1.1, "Electrical Power Systems - A.C. Sources - Operating" and TS Section 3.8.1.2, "Electrical Power Systems - A.C. Sources - Shutdown" to replace the term "independent" circuit with "qualified" circuit and add the clarification that the qualified circuit is between the offsite transmission network and the onsite Class 1E A.C. electrical power distribution system. This terminology is consistent with NUREG-1430, Revision 1, "Improved Standard Technical Specifications for Babcock and Wilcox Plants."

The term "qualified circuit" would be added to the Bases 3/4.8, "Electrical Power Systems," as follows.

"Qualified offsite to onsite circuits are those that are described in the USAR and are part of the licensing basis for the plant."

An OPERABLE qualified offsite to onsite circuit consists of all breakers, transformers, switches, interrupting devices, cabling, and controls required to transmit power from the offsite transmission network to the onsite Class 1E essential buses.

An OPERABLE qualified offsite to onsite circuit consists of:

1. One OPERABLE 345 kV transmission line
2. One OPERABLE 345 - 13.8 kV startup transformer
3. One OPERABLE 13.8 kV bus, and
4. One OPERABLE 13.8 - 4.16 kV bus tie transformer.

Typically, the electrical power reserve source selector switches are selected to the two different startup transformers. However, under certain conditions it is appropriate to select both switches to the same startup transformer. The circuit in which the startup transformer does not have a reserve source selector switch pre-selected to it must still meet the requirements of having its 345 kV transmission line, startup transformer, 13.8 kV bus and bus tie transformer OPERABLE.

In the case where a 13.8 kV bus is powered from a startup transformer, the reserve source selector switch should be selected to the opposite startup transformer.

In MODES 1-4, if one of the required 13.8 kV - 4.16 kV bus tie transformers is inoperable, then one qualified offsite to onsite circuit is inoperable and the requirement of LCO 3.8.1.1.a is not met. The appropriate corresponding ACTION statement must be entered. The essential 4.16 kV buses remain OPERABLE while energized with one 13.8 kV - 4.16 kV bus tie transformer inoperable."

Additionally, the licensee proposes to revise Bases 3.0.5 to reflect the change from "independent circuit" to "qualified circuit."

These additions to the Bases clarify qualified circuit operability requirements, provide a discussion of the positioning of the reserve source selector switches and their effect on operability, and provide a discussion of the effect of the inoperability of a 13.8 kV - 4.16 kV bus tie transformer.

The staff has reviewed the proposed TS revisions against the guidance provided in NUREG-1430 and finds them acceptable. The revisions to the TS Bases are consistent with the guidance provided by NUREG-1430 and are consistent with the licensing bases as currently defined for DBNPS.

## 2.2 Elimination of STAGGERED TEST BASIS

The licensee proposes to eliminate the term "STAGGERED TEST BASIS" in surveillance scheduling requirements for the emergency diesel generators as

described in SR 4.8.1.1.2.a and SR 4.8.1.1.2.c and proposes wording that requires surveillance scheduling as conservative as the current requirements.

SR 4.8.1.1.2 currently requires "Each diesel generator shall be demonstrated OPERABLE: a. At least once per 31 days on a STAGGERED TEST BASIS if Surveillance Requirement 4.8.1.1.2.c has not been performed within the previous 31 days." The proposed revision is "Each diesel generator shall be demonstrated OPERABLE: a. at least once per 31 days, if Surveillance Requirement 4.8.1.1.2.c has not been performed within the previous 31 days."

SR 4.8.1.1.2 currently requires "Each diesel generator shall be demonstrated OPERABLE: c. At least once per 184 days on a STAGGERED TEST BASIS by:..." The proposed revision is "Each diesel generator shall be demonstrated OPERABLE: c. At least once per 184 days by...."

The staff has reviewed the wording change against the guidance of NUREG-1430 and finds the proposed changes acceptable.

### 2.3 Deletion of Footnote to SR 4.8.1.1.1.b

The licensee proposes to delete the footnote associated with SR 4.8.1.1.1.b which states, "The 18 month surveillance which is due on March 1, 1988 may be delayed until April 1, 1988," since the applicable date has past.

The staff finds this change is acceptable.

### 2.4 Addition of Exception to SR 4.8.1.2

The licensee proposes to add exceptions to performing SRs 4.8.1.1.2.c.5 and 4.8.1.1.2.c.7 to SR 4.8.1.2. TS 3/4.8.1.2 specifies the required A.C. power sources during shutdown. SR 4.8.1.2 states that the required A.C. electrical power sources shall be demonstrated OPERABLE by the performance of each of the SRs of 4.8.1.1.1 and 4.8.1.1.2. Currently, SR 4.8.1.2 excepts performance of 4.8.1.1.2.a.5, which requires verifying every 31 days that the generator is synchronized, loaded to greater than or equal to 1000 kW, and operates for greater than or equal to 60 minutes. SR 4.8.1.1.2.c was added by TS Amendment 97 to reduce the number of EDG cold starts. SR 4.8.1.1.2.c verifies the fast start capability of the EDGs once per 184 days rather than monthly as previously required. As part of this test, item c.5 requires verifying the generator is synchronized, loaded to greater than or equal to 1000 kW, and operates for greater than or equal to 60 minutes. SR 4.8.1.1.2.a.5 is similar to SR 4.8.1.1.2.c.5 but it allows EDG warm-up and is performed on a 31 day test frequency. SR 4.8.1.2 currently allows an exception for performing 4.8.1.1.2.a.5 because only one EDG is required in the TS mode of applicability (Modes 5 and 6) and it is not desirable to put the one OPERABLE EDG in a synchronized condition. SR 4.8.1.1.2.c.5 is a similar surveillance test for synchronizing and loading the EDGs as SR 4.8.1.2.a.5. Adding the exception to 4.8.1.2 of synchronizing and loading the EDGs under TS 4.8.1.1.2.c.5 is consistent with the exception to SR 4.8.1.2 for SR 4.8.1.1.2.a.5. Therefore, exception of SR 4.8.1.1.2.c.5 in SR 4.8.1.2 does not affect the safety function of the EDGs.

TS Amendment 75 added the existing exception to SR 4.8.1.2 for SR 4.8.1.1.2.a.7, verification that the automatic load sequence timer is operable. As discussed in the amendment's Safety Evaluation by the NRC Staff, the load sequencer tested by SR 4.8.1.1.2.a.7 is required to be operable only when the unit is in an operational mode other than cold shutdown (Mode 5) or refueling (Mode 6) per TS 3.3.2.3, Safety Features Actuation Instrumentation. SR 4.8.1.2 is applicable when the unit is in a cold shutdown or refueling. During cold shutdown and refueling operational modes, the load sequencer is not required as the reactor coolant system is sufficiently cooled down and depressurized eliminating the need to sequence the loading of emergency loads on the EDG. The surveillance test required by SR 4.8.1.1.2.c.7 is similar to SR 4.8.1.1.2.a.7. Therefore, adding the exception of this surveillance test does not affect the safety function of the EDGs.

The staff has reviewed the licensees' proposed changes and finds them in accordance with the guidance provided in NUREG-1430, Revision 1 and, therefore, acceptable.

## 2.5 Using Frequency to Verify EDG Speed

A proposed change to Bases 3/4.8 will allow the use of frequency measurement for verifying the EDG acceleration to 900 RPM as required by SR 4.8.1.1.2.a.4 and SR 4.8.1.1.2.c.4. Frequency is an equivalent measurement to speed or RPM.

The staff has reviewed the proposed change to use frequency measurements to determine EDG acceleration and found it consistent with NUREG-1430, Revision 1. The staff notes that procedures implementing the guidance contained in the proposed Bases should include the allowed tolerances, including instrument inaccuracies, for the frequency measurement.

## 3.0 STATE CONSULTATION

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

## 4.0 ENVIRONMENTAL CONSIDERATION

This amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 or changes a surveillance requirement. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluent 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 amendment involves no significant hazards consideration and there has been no public comment on such finding (60 FR 56370). Accordingly, the amendment meets 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 amendment.

## 5.0 CONCLUSION

The staff 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 this amendment will not be inimical to the common defense and security or to the health and safety of the public.

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