



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

GEORGIA POWER COMPANY
OGLETHORPE POWER CORPORATION
MUNICIPAL ELECTRIC AUTHORITY OF GEORGIA
CITY OF DALTON, GEORGIA
VOGTLE ELECTRIC GENERATING PLANT, UNIT 1
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 90
License No. NPF-68

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to the Vogtle Electric Generating Plant, Unit 1 (the facility) Facility Operating License No. NPF-68 filed by the Georgia Power Company, acting for itself, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, and City of Dalton, Georgia (the licensees), dated January 3, 1995, as supplemented by letters dated June 14 and July 6, 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 as 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 set forth in 10 CFR Chapter I;
 - 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.

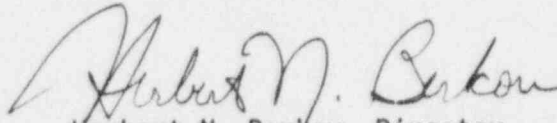
2. Accordingly, the license is hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-68 is hereby amended to read as follows:

Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 90 , and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this license. GPC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance and shall be implemented within 30 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Herbert N. Berkow, Director
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Technical Specification
Changes

Date of Issuance: August 29, 1995



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

GEORGIA POWER COMPANY
OGLETHORPE POWER CORPORATION
MUNICIPAL ELECTRIC AUTHORITY OF GEORGIA
CITY OF DALTON, GEORGIA
VOGTLE ELECTRIC GENERATING PLANT, UNIT 2
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 68
License No. NPF-81

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to the Vogtle Electric Generating Plant, Unit 2 (the facility) Facility Operating License No. NPF-81 filed by the Georgia Power Company, acting for itself, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, and City of Dalton, Georgia (the licensees), dated January 3, 1995, as supplemented by letters dated June 14 and July 6, 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 as 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 set forth in 10 CFR Chapter I;
 - 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.

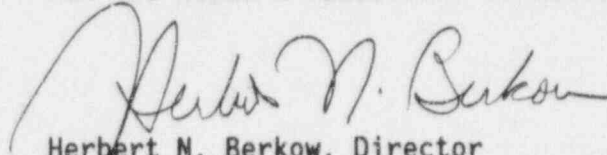
2. Accordingly, the license is hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-81 is hereby amended to read as follows:

Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 68, and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this license. GPC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance and shall be implemented within 30 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Herbert N. Berkow, Director
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Technical Specification
Changes

Date of Issuance: August 29, 1995

ATTACHMENT TO LICENSE AMENDMENT NO. 90

FACILITY OPERATING LICENSE NO. NPF-68

DOCKET NO. 50-424

AND

TO LICENSE AMENDMENT NO. 68

FACILITY OPERATING LICENSE NO. NPF-81

DOCKET NO. 50-425

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

Remove Pages

Insert Pages

XVIII	XVIII
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 8-10	3/4 8-10
3/4 8-15	3/4 8-15
B 3/4 8-1	B 3/4 8-1
B 3/4 8-2	B 3/4 8-2*
B 3/4 8-3	B 3/4 8-3*
B 3/4 8-4	B 3/4 8-4*

* Overflow pages - no change.

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3/4.8 ELECTRICAL POWER SYSTEMS

3/4.8.1 A.C. SOURCES

OPERATING

LIMITING CONDITION FOR OPERATION

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

- a. Two physically independent circuits connected between the offsite transmission network and the onsite Class 1E Distribution System, each with an automatic load sequencer, and
- b. Two separate and independent diesel generators, each with:
 - 1) A day tank containing a minimum volume of 650 gallons of fuel (52% of instrument span) (LI-9018, LI-9019),
 - 2) A separate Fuel Storage System containing a minimum volume of 68,000 gallons of fuel (76% of instrument span) (LI-9024, LI-9025),
 - 3) A separate fuel transfer pump, and
 - 4) An automatic load sequencer.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

- a. With one less than the above minimum required offsite A.C. circuits OPERABLE, due to other than an inoperable automatic load sequencer, demonstrate the OPERABILITY of the remaining required A.C. offsite circuit by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter. Restore a second A.C. offsite circuit 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 either diesel generator inoperable due to other than an inoperable automatic load sequencer, demonstrate the OPERABILITY of the above required A.C. offsite circuits by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter. If the diesel generator became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventive maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE diesel generator by performing Surveillance Requirements 4.8.1.1.2.g.1 and 4.8.1.1.2.a.5 within 8 hours*, unless the absence of any potential common mode failure for the remaining diesel generator is demonstrated. Restore the inoperable 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.

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

#The diesel shall not be rendered inoperable by activities performed to support testing pursuant to the ACTION Statement (e.g., an air roll).

ELECTRICAL POWER SYSTEMS

LIMITING CONDITION FOR OPERATION

ACTION (Continued)

- c. With only one A.C. offsite circuit OPERABLE and one diesel generator of the above required A.C. electrical power sources inoperable due to other than an inoperable automatic load sequencer, demonstrate the OPERABILITY of the remaining connected A.C. offsite circuit 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 inoperable support system, an independently testable component, or preplanned preventative maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE diesel generator by performing Surveillance Requirements 4.8.1.1.2.g.1 and 4.8.1.1.2.a.5 within 8 hours*, unless the OPERABLE diesel generator is already operating#, or the absence of any potential common mode failure for the remaining diesel generator is demonstrated. Restore at least one source 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 (any connected offsite circuit or diesel generator) to OPERABLE status in accordance with the provisions of 3.8.1.1, ACTION Statement a or b, as appropriate, with the time requirement of that ACTION Statement based on the time of initial loss of the remaining inoperable A.C. power source. A successful test of diesel generator OPERABILITY per Surveillance Requirements 4.8.1.1.2.g.1 and 4.8.1.1.2.a.5 performed under the ACTION Statement for an OPERABLE diesel generator or a restored to OPERABLE diesel generator satisfies the diesel generator test requirement of ACTION Statement b.
- d. With one diesel generator inoperable in addition to ACTION b. or c. above, verify that:
1. All required systems, subsystems, trains, components, and devices that depend on the remaining OPERABLE diesel generator as a source of emergency power are also OPERABLE, and
 2. When in MODE 1, 2, or 3, the steam-driven auxiliary feedwater pump is OPERABLE.

If these conditions are not satisfied within 2 hours be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

- e. With none of the above required offsite A.C. circuits OPERABLE, restore at least one offsite A.C. circuit to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours. Following

*This test is required to be completed regardless of when the inoperable EDG is restored to OPERABILITY.

#The diesel shall not be rendered inoperable by activities performed to support testing pursuant to the ACTION Statement (e.g., an air roll).

ELECTRICAL POWER SYSTEMS

LIMITING CONDITION FOR OPERATION

ACTION (Continued)

restoration of one offsite A.C. circuit, follow ACTION Statement a with the time requirement of that ACTION Statement based on the time of the initial loss of the second offsite a.c. circuit.

- f. With two of the above required diesel generators inoperable, demonstrate the OPERABILITY of two offsite A.C. circuits by performing the requirements of Specification 4.8.1.1.1.a. within 1 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. 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 Requirements 4.8.1.1.2.g.1 and 4.8.1.1.2.a.5 performed under this ACTION Statement for a restored to OPERABLE diesel satisfies the diesel generator test requirements of ACTION Statement b.
- g. With less than the above minimum required A.C. electrical power sources OPERABLE due to an inoperable automatic load sequencer, restore the inoperable automatic load sequencer 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.

SURVEILLANCE REQUIREMENTS

4.8.1.1.1 Each of the above required independent circuits connected 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, and indicated power availability.

4.8.1.1.2 Each diesel generator shall be demonstrated OPERABLE:

- a. In accordance with the frequency specified in Table 4.8-1 on a STAGGERED TEST BASIS by:
 - 1) Verifying the fuel level in the day tank (LI-9018, LI-9019),
 - 2) Verifying the fuel level in the fuel storage tank (LI-9024, LI-9025),
 - 3) Verifying the fuel transfer pump starts and transfers fuel from the storage system to the day tank,
 - 4) Verifying the diesel starts and accelerates to at least 440 RPM with generator voltage and frequency at 4160 ± 170 , -135 volts and 60 ± 1.2 Hz. The diesel generator shall be started for this test by using one of the following signals:

*All diesel generator starts for the purpose of surveillance testing as required by Specification 4.8.1.1.2 may be preceded by an engine prelube period as recommended by the manufacturer so that the mechanical stress and wear on the diesel engine is minimized.

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 circuit connected between the offsite transmission network and the Onsite Class 1E Distribution System, including the loss of power and undervoltage function of the associated automatic load sequencer, and
- b. One diesel generator with:
 - 1) A day tank containing a minimum volume of 650 gallons (52% of instrument span) (LI-9018, LI-9019) of fuel,
 - 2) A fuel storage system containing a minimum volume of 68,000 gallons of fuel (76% of instrument span) (LI-9024, LI-9025),
 - 3) A fuel transfer pump, and
 - 4) The loss of power and undervoltage function of the associated automatic load sequencer.

APPLICABILITY: MODES 5 and 6.

ACTION:

With less than the above minimum required A.C. electrical power sources OPERABLE, immediately suspend all operations involving CORE ALTERATIONS, positive reactivity changes, movement of irradiated fuel, or crane operation with loads over the fuel storage pool, and provide relief capability for the Reactor Coolant System in accordance with Specification 3.4.9.3. In addition, when in MODE 5 with the reactor coolant loops not filled, or in MODE 6 with the water level less than 23 feet above the reactor vessel flange, immediately initiate corrective action to restore the required sources to OPERABLE status as soon as possible.

SURVEILLANCE REQUIREMENTS

4.8.1.2.1 The above required A.C. electrical power sources shall be demonstrated OPERABLE by the performance of each of the requirements of Specifications 4.8.1.1.1, 4.8.1.1.2 (except for Specification 4.8.1.1.2.h, i, and j), and 4.8.1.1.3.

4.8.1.2.2 At least once per 18 months during shutdown, verify the loss of power and undervoltage function of the associated automatic load sequencer OPERABILITY upon LOSP signal by verifying deenergization of the emergency bus, load shedding of the operating loads from the emergency bus, and verifying the diesel starts and energizes the emergency bus with the available auto-connected shutdown loads.

3/4.8.3 ONSITE POWER DISTRIBUTION

OPERATING

LIMITING CONDITION FOR OPERATION

3.8.3.1 The following electrical busses shall be energized in the specified manner with tie breakers open between redundant busses within the unit:

- a. A.C. Emergency Busses consisting of:
 1. Train A
 - a) 4160 volt switchgear 1/2AA02**
 - b) 480 volt switchgear 1/2AB04
 - 1) MCC 1/2ABE
 - c) 480 volt switchgear 1/2AB05
 - 1) MCC 1/2ABA
 - 2) MCC 1/2ABC
 - 3) MCC 1/2ABF
 - d) 480 volt switchgear 1/2AB15
 - 1) MCC 1/2ABB
 - 2) MCC 1/2ABD
 2. Train B
 - a) 4160 volt switchgear 1/2BA03**
 - b) 480 volt switchgear 1/2BB06
 - 1) MCC 1/2BBE
 - c) 480 volt switchgear 1/2BB07
 - 1) MCC 1/2BBA
 - 2) MCC 1/2BBC
 - 3) MCC 1/2BBF
 - d) 480 volt switchgear 1/2BB16
 - 1) MCC 1/2BBB
 - 2) MCC 1/2BBD
- b. 120 volt A.C. vital Busses
 1. Associated with Train A
 - a) Channel I
 - 1) Panel 1/2AY1A energized from inverter 1/2AD1I1 connected to switchgear 1/2AD1*
 - 2) Panel 1/2AY2A energized from inverter 1/2AD1I11 connected to switchgear 1/2AD1*
 - b) Channel III
 - 1) Panel 1/2CY1A energized from inverter 1/2CD1I3 connected to switchgear 1/2CD1*
 2. Associated with Train B
 - a) Channel II
 - 1) Panel 1/2BY1B energized from inverter 1/2BD1I2 connected to switchgear 1/2BD1*

* Two inverters in a single train may be disconnected from their associated switchgear for up to 24 hours as necessary, for the purpose of performing an equalizing charge on their associated battery bank provided: (1) their associated panels are energized from their regulated transformers, and (2) the panels associated with the other battery bank powered from that AC train are energized in the specified manner.

** The redundant emergency busses of 4160 volt switchgear 1/2AA02 and 1/2BA03 may be manually connected within the unit by tie breakers in order to allow transfer of preferred offsite power sources provided surveillance requirements of 4.8.1.1(a) are successfully performed within 12 hours prior to the interconnection. This interconnection will be implemented and controlled by plant procedures to assure certain preconditions and limitations are met, as described in TS Bases 3/4.8, so that the ability to simultaneously sequence both trains of LOCA loads is not adversely impacted.

3/4.8 ELECTRICAL POWER SYSTEMS

BASES

3/4.8.1, 3/4.8.2, and 3/4.8.3 A.C. SOURCES, D.C. SOURCES, and ONSITE POWER DISTRIBUTION

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 Part 50.

Normally, the two required offsite power source circuits are connected to the onsite Class 1E Distribution System through their respective reserve auxiliary transformers (RATs). These transformers are utilized as the final point of transmission grid voltage reduction to the onsite Class 1E electrical distribution system. When a RAT is unavailable, the standby auxiliary transformer (an additional 10 CFR 50 Appendix A, GDC 17 power source) may be placed into service and connected to the onsite Class 1E distribution system in order to meet the TS requirements as an OPERABLE A.C. electrical offsite power circuit.

During power operation, in order to facilitate the transfer of preferred offsite power sources independent of emergency diesel generator operation, the emergency safety busses of 4160 volt switchgear may be manually connected within the unit by tie breakers and fed from one offsite power source provided the following precautions and limitations are followed: 1) either one of the RATs, but not the SAT, may be utilized as the single offsite power source for both 4160 volt safety busses during the transfer evolution; 2) no additional nonsafety related 4160 volt loads, other than those normally fed from 4160 volt safety busses 1/2AA02 and 1/2BA03, shall be manually connected to the RAT while the busses are interconnected; 3) the automatic bus transfer schemes for the nonsafety related 4160 volt busses shall be disabled during the interconnection; and 4) the offsite power system shall have the minimum voltage necessary to assure that the offsite power source feeding both interconnected 4160 volt safety busses has the capacity and capability to simultaneously sequence both trains of LOCA loads.

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 redundant set of 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. The A.C. and D.C. source allowable out-of-service times are based on Regulatory Guide 1.93, "Availability of Electrical Power Sources," December 1974 and Appendix A to Generic Letter 84-15, "Proposed Staff Position to Improve and Maintain Diesel Generator Reliability." When one diesel generator is inoperable, there is an additional ACTION requirement to verify that all required systems, subsystems, trains, components and devices, that depend on the remaining OPERABLE diesel generator

ELECTRICAL POWER SYSTEMS

BASES

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

as a source of emergency power, are also OPERABLE, and that the steam-driven auxiliary feedwater pump is OPERABLE. This requirement is intended to provide assurance that a loss-of-offsite power event will not result in a complete loss of safety function of critical systems during the period one of the diesel generators is inoperable. The term, verify, as used in this context means to administratively check by examining logs or other information to determine if certain components are out-of-service for maintenance or other reasons. It does not mean to perform the Surveillance Requirements needed to demonstrate the OPERABILITY of the component.

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 unit status.

The ACTION times specified for an inoperable automatic load sequencer are based on the times allowed when a combination of one diesel generator and one offsite circuit is inoperable. Under this condition the 4.16 kV Class 1E bus would remain energized. The ACTION conservatively addresses any consequential effects of an inoperable load sequencer on other engineered safety features.

In Modes 5 and 6 the automatic load sequencer is necessary to automatically strip the loads from the 1E bus and start the operable diesel generator in the event of a loss of off site power (LOSP). Since the design basis LOCA is not applicable in Modes 5 and 6 the automatic LOCA load sequencer function of the load sequencer is not required to be demonstrated as operable. Therefore, those surveillances that require sequencing of loads because of an SI signal are not required in Modes 5 and 6.

The loss of power and undervoltage functions are the aspects of sequencer operation that: 1) function to trip all closed breakers on the 4.16 kV Class 1E bus on a loss of or degraded voltage; 2) start the associated diesel generator; 3) close the breaker to supply power to the 4.16 kV Class 1E bus from the associated diesel generator; and 4) close the breakers to supply power from the 4.16 kV Class 1E bus to the LOSP required loads in the appropriate sequence.

During shutdown, the operability of the loss of power and undervoltage function for modes 5 and 6 of the automatic load sequencer is not affected by the inability to sequence and load equipment that is not required to be operable in Modes 5 and 6. Surveillances to show the operability of the loss of power and undervoltage function of the automatic load sequencer will only include that equipment that is required to be OPERABLE in Modes 5 and 6.

ELECTRICAL POWER SYSTEMS

BASES

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

The Surveillance Requirements for demonstrating the OPERABILITY of the diesel generators are based on the recommendations of Regulatory Guides 1.9, Revision 3 "Selection, Design, Qualification, and Testing of Emergency Diesel Generator Units Used as Class 1E Onsite Electric Power Systems of Nuclear Power Plants," July 1993; and 1.137, "Fuel-Oil Systems for Standby Diesel Generators," Revision 1, October 1979, Appendix A to Generic Letter 84-15; Generic Letter 83-26, "Clarification of Surveillance Requirements for Diesel Fuel Impurity Level Tests;" and Generic Letter 93-05, "Line-Item Technical Specifications Improvements to Reduce Surveillance Requirements for Testing During Power Operation."

The Surveillance Requirement 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 450-1975, "IEEE Recommended Practice for Maintenance, Testing, and Replacement of Large Lead Storage Batteries for Generating Stations and Substations," and 484-1975 "Recommended Practice for Installation Design and Installation of Lead Storage Batteries for Generating Stations and Substations."

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

Table 4.8-2 specifies the normal limits for each designated pilot cell and each connected cell for electrolyte level, float voltage, and specific gravity. The limits for the designated pilot cells float voltage and specific gravity, greater than 2.13 volts and 0.015 below the manufacturer's full charge specific gravity or a battery charger current that had stabilized at a low value, is characteristic of a charged cell with adequate capacity. The normal limits for each connected cell for float voltage and specific gravity, greater than 2.13 volts and not more than 0.020 below the manufacturer's full charge specific gravity with an average specific gravity of all the connected cells not more than 0.010 below the manufacturer's full charge specific gravity, ensures the OPERABILITY and capability of the battery.

ELECTRICAL POWER SYSTEMS

BASES

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

Operation with a battery cell's parameter outside the normal limit but within the allowable value specified in Table 4.8-2 is permitted for up to 7 days. During this 7-day period: (1) the allowable values for electrolyte level ensures no physical damage to the plates with an adequate electron transfer capability; (2) the allowable value for the average specific gravity of all the cells, not more than 0.020 below the manufacturer's recommended full charge specific gravity, ensures that the decrease in rating will be less than the safety margin provided in sizing; (3) the allowable value for an individual cell's specific gravity, ensures that an individual cell's specific gravity will not be more than 0.040 below the manufacturer's full charge specific gravity and that the overall capability of the battery will be maintained within an acceptable limit; and (4) the allowable value for an individual cell's float voltage, greater than 2.07 volts, ensures the battery's capability to perform its design function.

3/4.8.4 ELECTRICAL EQUIPMENT PROTECTIVE DEVICES

Containment electrical penetrations and penetration conductors are protected by either deenergizing circuits not required during reactor operation or by demonstrating the OPERABILITY of primary and backup overcurrent protection circuit breakers during periodic surveillance. A list of containment penetration conductor overcurrent protective devices and feeder breakers to isolation transformers between 480 V class 1E busses and non-class 1E equipment is provided in Table 16.3-5 of the VEGP FSAR.

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

The bypassing of the motor-operated valves thermal overload protection except during periodic testing ensures that the thermal overload protection will not prevent safety-related valves from performing their function. The Surveillance Requirements for demonstrating the bypassing of the thermal overload protection continuously are in accordance with Regulatory Guide 1.106, "Thermal Overload Protection for Electric Motors on Motor Operated Valves," Revision 1, March 1977.