



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20565

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. 52  
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 November 11, 1991, as supplemented January 23, 1991, 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.

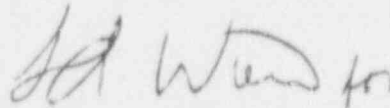
2. Accordingly, the license is hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-68 is hereby amended to read as follows:

Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 52, 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.

FOR THE NUCLEAR REGULATORY COMMISSION



David B. Matthews, Director  
Project Directorate II-3  
Division of Reactor Projects-1/II  
Office of Nuclear Reactor Regulation

Attachment:  
Technical Specification  
Changes

Date of Issuance: July 9, 1992



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

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. 31  
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 November 11, 1991, as supplemented January 23, 1992, 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.

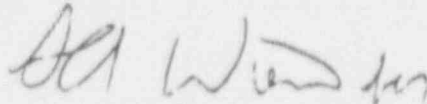
2. Accordingly, the license is hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-81 is hereby amended to read as follows:

Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 31 , 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.

FOR THE NUCLEAR REGULATORY COMMISSION



David B. Matthews, Director  
Project Directorate II-3  
Division of Reactor Projects-I/II  
Office of Nuclear Reactor Regulation

Attachment:  
Technical Specification  
Changes

Date of Issuance: July 9, 1992

ATTACHMENT TO LICENSE AMENDMENT NO. 52

FACILITY OPERATING LICENSE NO. NPF-68

DOCKET NO. 50-424

AND

TO LICENSE AMENDMENT NO. 31

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

3/4 7-15  
3/4 7-16\*

3/4 7-18

3/4 9-15  
3/4 9-16\*

B 3/4 7-4  
B 3/4 7-5  
B 3/4 7-5a

B 3/4 9-3

Insert Pages

3/4 7-15  
3/4 7-16\*

3/4 7-18

3/4 9-15  
3/4 9-16\*

B 3/4 7-4  
B 3/4 7-5\*\*  
B 3/4 7-5a\*\*

B 3/4 9-3

\*overleaf pages containing no change  
\*\*overflow pages, no changes

## PLANT SYSTEMS

### SURVEILLANCE REQUIREMENTS (Continued)

- b. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, flow (FI-12191, FI-12192) through the HEPA filters and charcoal adsorbers and verifying that the system operates for at least 10 continuous hours with the heater control circuit energized.
- c. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire, or chemical release in any ventilation zone communicating with the system by:
- 1) Verifying that the filtration system satisfies the in-place testing acceptance criteria of greater than or equal to 99.95% filter retention while operating the system at a flow rate of 19,000 cfm  $\pm$ 10% and performing the following tests:
    - (a) A visual inspection of the control room emergency filtration system shall be made before each DOP test or activated carbon adsorber section leak test in accordance with Section 5 of ANSI N510-1980.
    - (b) An in-place DOP test for the HEPA filters shall be performed in accordance with Section 10 of ANSI N510-1980.
    - (c) A charcoal adsorber section leak test with a gaseous halogenated hydrocarbon refrigerant shall be performed in accordance with Section 12 of ANSI N510-1980.
  - 2) Verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Section 13 of ANSI N510-1980 meets the laboratory testing criterion of greater than or equal to 99.8% when tested with methyl iodide at 30°C and 70% relative humidity in accordance with ASTM D3803-89.
  - 3) Verifying a system flow rate of 19,000 cfm  $\pm$  10% during system operation when tested in accordance with Section 8 of ANSI N510-1980.
- d. After every 720 hours of charcoal adsorber operation, by verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Section 13 of ANSI N510-1980 meets the laboratory testing criterion of greater than or equal to 99.8% when tested with methyl iodide at 30°C and 70% relative humidity in accordance with ASTM D3803-89.
- e. At least once per 18 months by:
- 1) Verifying that the pressure drop across the combined HEPA filters, charcoal adsorber banks and cooling coil is less than 7.1 inches Water Gauge while operating the system at a flow rate of 19,000 cfm  $\pm$  10%;
  - 2) Verifying that on a Control Room Isolation Test Signal, the system automatically switches into an emergency mode of operation with flow through the HEPA filters and charcoal adsorber banks;

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

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- 3) Verifying that the system maintains the control room at a positive pressure of greater than or equal to 1/8 inch Water Gauge at less than or equal to a pressurization flow of 1500 cfm relative to adjacent areas during system operation and
  - 4) Verifying that the heaters dissipate  $118 \pm 6$  kW when tested in accordance with Section 14 of ANSI N510-1980;
- f. After each complete or partial replacement of a HEPA filter bank, by verifying that the HEPA filter banks remove greater than or equal to 99.95% of the DOP when they are tested in place in accordance with Section 10 of ANSI N510-1980 while operating the system at a flow rate of 19,000 cfm  $\pm$  10%; and
- g. After each complete or partial replacement of a charcoal adsorber bank, by verifying that the charcoal absorbers remove greater than or equal to 99.95% of a halogenated hydrocarbon refrigerant test gas when tested in-place in accordance with Section 12 of ANSI N510-1980 while operating the system at a flow rate of 19,000 cfm  $\pm$  10%.

PLANT SYSTEMS

3/4.7.7 PIPING PENETRATION AREA FILTRATION AND EXHAUST SYSTEM

SURVEILLANCE REQUIREMENTS (Continued)

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- 2) Verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Section 13 of ANSI N510-1980 meets the laboratory testing criterion of greater than or equal to 90.0% when tested with methyl iodide at 30°C and 95% relative humidity in accordance with ASTM D3803-89.
  - 3) Verifying a system flow rate of 15,500 cfm  $\pm$  10% during system operation when tested in accordance with Section 8 of ANSI N510-1980.
- c. After every 720 hours of charcoal adsorber operation, by verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Section 13 of ANSI N510-1980 meets the laboratory testing criteria of greater than or equal to 90.0% when tested with methyl iodide at 30°C and 95% relative humidity in accordance with ASTM D3803-89;
- d. At least once per 18 months by:
- 1) Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 6 inches Water Gauge while operating the system at a flow rate of 15,500 cfm  $\pm$  10%.
  - 2) Verifying that the system starts on a Containment Ventilation Isolation test signal,
  - 3) Verifying that the system maintains the Piping Penetration Filtration Exhaust Unit Room at a negative pressure of greater than or equal to 1/4 inch Water Gauge relative to the outside atmosphere (PDI-2550, PDI-2551), and
  - 4) Verifying that the heaters dissipate a minimum of 65 kw when tested in accordance with Section 14 of ANSI N510-1980.
- e. After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter banks remove greater than or equal to 99.95% of the DOP when they are tested in-place in accordance with Section 10 of ANSI N510-1980 while operating the system at a flow rate of 15,500 cfm  $\pm$  10%.



## REFUELING OPERATIONS

### SURVEILLANCE REQUIREMENTS (Continued)

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- 1) Verifying that the cleanup system satisfies the in-place testing acceptance criteria of greater than or equal to 99.0% filter retention while operating the system at a flow rate of 5000 cfm  $\pm$  10%, (FI-12551, FI-12552) and performing the following tests:
    - (a) A visual inspection of the Fuel Handling Building Post Accident Ventilation System shall be made before each DOP test or activated carbon adsorber section leak test in accordance with Section 5 of ANSI N510-1980.
    - (b) An in-place DOP test for the HEPA filters shall be performed in accordance with Section 10 of ANSI N510-1980.
    - (c) A charcoal adsorber section leak test with a gaseous halogenated hydrocarbon refrigerant shall be performed in accordance with Section 12 of ANSI N510-1980.
  - 2) Verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Section 13 of ANSI N510-1980, meets the laboratory testing criteria of greater than or equal to 90.0% when tested with methyl iodide at 30°C and 95% relative humidity in accordance with ASTM D3803-89; and
  - 3) Verifying a system flow rate of 5000 cfm  $\pm$  10% during system operation when tested in accordance with Section 8 of ANSI N510-1980.
- c. After every 720 hours of charcoal adsorber operation by verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Section 13 of ANSI N510-1980 meets the laboratory testing criteria of greater than or equal to 90.0% when tested with methyl iodide at 30°C and 95% relative humidity in accordance with ASTM D3803-89.
- d. At least once per 18 months by:
- 1) Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 6 inches Water Gauge while operating the system at a flow rate of 5000 cfm  $\pm$  10%,
  - 2) Verifying that on a High Radiation test signal, the system automatically starts (unless already operating) and directs its exhaust flow through the HEPA filters and charcoal adsorber banks,

## REFUELING OPERATIONS

### SURVEILLANCE REQUIREMENTS (Continued)

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- 3) Verifying that the system maintains the spent fuel storage pool area at a slightly negative pressure relative to the outside atmosphere during system operation, and
  - 4) Verifying that the heaters dissipate  $20 \pm 2$  kW when tested in accordance with Section 14 of ANSI N510-1980.
- e. After each complete or partial replacement of a HEPA filter bank, by verifying that the HEPA filter banks remove greater than or equal to 99% of the DOP when tested in-place in accordance with Section 10 of ANSI N510-1980 while operating the system at a flow rate of 5000 cfm  $\pm$  10%.
- f. After each complete or partial replacement of a charcoal adsorber bank, by verifying that the charcoal absorbers remove greater than or equal to 99% of a halogenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with Section 12 of ANSI N510-1980 while operating the system at a flow rate of 5000 cfm  $\pm$  10%.

## PLANT SYSTEMS

### BASES

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#### CONTROL ROOM EMERGENCY FILTRATION SYSTEM (Continued)

moisture on the adsorbers and HEPA filters. The OPERABILITY of this system in conjunction with control room design provisions is based on limiting the radiation exposure to personnel occupying the control room to 5 rems or less whole body, or its equivalent. This limitation is consistent with the requirements of General Design Criterion 19 of Appendix A, 10 CFR Part 50. ANSI N510-1980 and ASTM D3803-89 will be used as a procedural guide for surveillance testing. Heaters are provided to ensure that the relative humidity of the airstream entering the adsorbers does not exceed 70 percent. Verification of heater power dissipation (KW) for surveillance testing is referenced to 460 volts.

#### 3/4.7.7 PIPING PENETRATION AREA FILTRATION AND EXHAUST SYSTEM

The OPERABILITY of the Piping Penetration Area Filtration and Exhaust System ensures that radioactive materials leaking from the containment mechanical penetration rooms and ECCS equipment within the pump room following a LOCA are filtered prior to reaching the environment. Operation of the system with the heater control circuit energized for at least 10 continuous hours in a 31-day period is sufficient to reduce the buildup of moisture on the adsorbers and HEPA filters. Heaters are not required for controlling the relative humidity of the airstream through the adsorbers following a LOCA since no credit is taken for heaters in the dose analyses. However, the heaters are available during accident conditions as defense-in-depth. Verification of heater power dissipation (KW) for surveillance testing is referenced to 460 volts. The operation of this system and the resultant effect on offsite dosage calculations was assumed in the safety analyses. Adsorber testing is based on methyl iodide penetration, and safety analysis credited decontamination efficiency used for dose analyses is based on no humidity controls (i.e., inside containment) consistent with Regulatory Guide 1.52. ANSI N510-1980 and ASTM D3803-89 will be used as a procedural guide for surveillance testing.

#### 3/4.7.8 SNUBBERS

All snubbers are required OPERABLE to ensure that the structural integrity of the Reactor Coolant System and all other safety-related systems is maintained during and following a seismic or other event initiating dynamic loads.

Snubbers are classified and grouped by design and manufacturer but not by size. For example, mechanical snubbers utilizing the same design features of the 2-kip, 10-kip and 100-kip capacity manufactured by Company "A" are of the same type. The same design mechanical snubbers manufactured by Company "B" for the purposes of this Technical Specification would be of a different type, as would hydraulic snubbers from either manufacturer.

## PLANT SYSTEMS

### BASES

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#### SNUBBERS (Continued)

A list of individual snubbers with detailed information of snubber location and size and of system affected shall be available at the plant in accordance with Section 50.71(c) of 10 CFR Part 50. The accessibility of each snubber shall be determined and approved by the Plant Review Board. The determination shall be based upon the existing radiation levels and the expected time to perform a visual inspection in each snubber location as well as other factors associated with accessibility during plant operations (e.g., temperature, atmosphere, location, etc.), and the recommendations of Regulatory Guides 8.8 and 8.10. The addition or deletion of any hydraulic or mechanical snubber shall be made in accordance with Section 50.59 of 10 CFR Part 50.

Nuclear Regulatory Commission (NRC) Generic Letter 90-09, "Alternative Requirements for Snubber Visual Inspection Intervals and Corrective Actions," dated December 11, 1990, provides an alternate method for determining the next interval for the visual inspection of snubbers from that to which the plant was originally licensed. The original schedule for snubber visual inspection was based only on the number of inoperable snubbers found during the previous visual inspection, irrespective of the size of the snubber population. As a result, plants having a large number of snubbers found the original inspection schedule to be excessively restrictive. Significant resources, including subjecting plant personnel to unnecessary radiological exposure, were expended in order to comply with the visual inspection requirements. The alternate schedule provided by NRC Generic Letter 90-09 maintains the same confidence level as that to which the plant was originally licensed and generally allows for the performance of visual inspections and any corrective actions during plant outages. Incorporated herein as Table 4.7-2, "Snubber Visual Inspection Interval," the alternate inspection schedule is based upon the number of unacceptable snubbers found during the previous inspection in proportion to the size of various snubber populations or categories. Snubbers may be categorized, based upon their accessibility during power operation, as accessible or inaccessible. The categories may be inspected separately or jointly. However, categorization and inspection thereof must be made and documented prior to any inspection and that decision will constitute the basis for determining the next inspection interval for that category. A snubber is considered unacceptable if it fails to satisfy the acceptance criteria for the visual inspection. If review and evaluation can not justify continued operation with an unacceptable snubber, the snubber shall be declared inoperable and the applicable ACTION requirements shall be met. To determine the next inspection interval, the unacceptable snubber may be reclassified as acceptable if it can be demonstrated that the snubber is operable in its as-found condition by the performance of a functional test and if it satisfies the acceptance criteria for functional testing. The next inspection interval may be twice, the same, or reduced to as much as two-thirds of the previous inspection interval and is contingent upon the number of unacceptable snubbers found in proportion to the population or category for each type of snubber included in the previous inspection. While the original inspection schedule requirements established inspection intervals of 18 months (the length of a nominal fuel cycle) or a fraction thereof based on the number of inoperable snubbers of each type for the previous inspection period, the

## PLANT SYSTEMS

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#### SNUBBERS (Continued)

alternate method allows inspection intervals to be compatible with a 24-month fuel cycle. The interval may be increased to every other refueling outage for plants on a 24-month fuel cycle or up to 48 months for plants with other fuel cycles if few unacceptable snubbers are found from the previous inspection. Table 4.7-2 establishes limits for determining the next inspection interval and is consistent with the guidance provided in NRC Generic Letter 90-09.

The acceptance criteria are to be used in the visual inspection to determine OPERABILITY of the snubbers. For example, if a fluid port of a hydraulic snubber is found to be uncovered, the snubber shall be counted as unacceptable and may be reclassified as acceptable for determining the next visual inspection interval provided that certain criteria in Specification 4.7.8c are met. A review and evaluation shall be performed and documented to justify continued operation with the unacceptable snubber. If continued operation cannot be justified, the snubber shall be declared inoperable and the ACTION requirements shall be met.

To provide assurance of snubber functional reliability, one of three functional testing methods is used with the stated acceptance criteria:

1. Functionally test 10% of a type of snubber with an additional 10% tested for each functional testing failure, or
2. Functionally test a sample size and determine sample acceptance or rejection using Figure 4.7-1, or
3. Functionally test a representative sample size and determine sample acceptance or rejection using the stated equation.

Figure 4.7-1 was developed using "Wald's Sequential Probability Ratio Plan" as described in "Quality Control and Industrial Statistics" by Acheson J. Duncan.

Permanent or other exemptions from the surveillance program for individual snubbers may be granted by the Commission if a justifiable basis for exemption is presented and, if applicable, snubber life destructive testing was performed to qualify the snubbers for the applicable design conditions at either the completion of their fabrication or at a subsequent date. Snubbers so exempted shall be listed in the list of individual snubbers indicating the extent of the exemptions.

## REFUELING OPERATIONS

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#### 3/4.9.9 CONTAINMENT VENTILATION ISOLATION SYSTEM

The OPERABILITY of this system ensures that the containment vent and purge penetrations will be automatically isolated upon detection of high radiation levels within the containment. The OPERABILITY of this system is required to restrict the release of radioactive material from the containment atmosphere to the environment.

#### 3/4.9.10 and 3/4.9.11 WATER LEVEL - REACTOR VESSEL and STORAGE POOL

The restrictions on minimum water level ensure that sufficient water depth is available to remove 99% of the assumed 10% iodine gas activity released from the rupture of an irradiated fuel assembly. The minimum water depth is consistent with the assumptions of the safety analysis.

#### 3/4.9.12 FUEL HANDLING BUILDING POST ACCIDENT VENTILATION SYSTEM

The operability requirements on the Fuel Handling Building Post-Accident Ventilation Systems are intended to ensure that this equipment will be available in the event that a fuel handling accident results in the release of radioactive material from an irradiated fuel assembly. Although no credit is taken for the operation of this equipment in the safety analyses, its availability will serve as defense-in-depth in the event of a fuel handling accident in the fuel handling building. ANSI N510-1980 and ASTM D3803-89 will be used as a procedural guide for surveillance testing. Verification of heater power dissipation (KW) for surveillance testing is referenced to 460 volts.