



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20545

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. 48
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 August 14, 1990, 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 set forth in 10 CFR Chapter I;
 - D. The issuance of this license 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. 48, 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 beginning with the initial loading of VANTAGE-5 fuel into Unit 1 Cycle 4.

FOR THE NUCLEAR REGULATORY COMMISSION

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

Attachment: Technical Specification Changes

Date of Issuance: November 1, 1991



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. 27
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 1 (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 August 14, 1990, 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 set forth in 10 CFR Chapter I;
 - D. The issuance of this license 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.

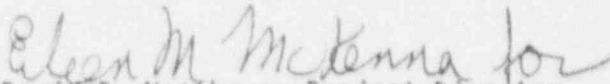
2. Accordingly, the license is hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of Facility Operating License No. NPF-81 is hereby amended to read as follows:

Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 27, 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 beginning with the initial loading of VANTAGE-5 fuel into Vogtle Unit 1 Cycle 4.

FOR THE NUCLEAR REGULATORY COMMISSION


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

Attachment: Technical Specification Changes

Date of Issuance: November 1, 1991



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20586

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. 49
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 August 14, 1990, 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 set forth in 10 CFR Chapter I;
 - D. The issuance of this license 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.(?) 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. 49, 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 beginning with the initial loading of VANTAGE-5 fuel into Vogtle Unit 2 Cycle 3.

FOR THE NUCLEAR REGULATORY COMMISSION

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

Attachment: Technical Specification Changes

Date of Issuance: November 1, 1991



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

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

Amendme No. 28
License NPF-81

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-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 August 14, 1990, 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 set forth in 10 CFR Chapter I;
 - D. The issuance of this license 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. 28, 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 beginning with the initial loading of VANTAGE-5 fuel into Vogtle Unit 2 Cycle 3.

FOR THE NUCLEAR REGULATORY COMMISSION

Elean M McKenna for
David R. Matthews, Project Director
Project Directorate II-3
Division of Reactor Projects - 1/11
Office of Nuclear Reactor Regulation

Attachment: Technical Specification Changes

Date of Issuance: November 1, 1991

ATTACHMENT TO LICENSE AMENDMENT NOS. 48 AND 49

FACILITY OPERATING LICENSE NO. NPF-68

AND LICENSE AMENDMENTS NOS. 27 AND 28

FACILITY OPERATING LICENSE NO. NPF-81

DOCKETS NOS. 50-424 AND 50-425

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

Remove Pages

Insert Pages

PHASE 1 (Effective beginning with the initial loading of VANTAGE-5 fuel into Vogtle Unit 1 Cycle 4)

2-4
2-12
B 2-4
3/4 3-1* and 3/4 3-2
3/4 3-9 and 3/4 3-10*

2-4
2-12
B 2-4
3/4 3-1* and 3/4 3-2
3/4 3-9 and 3/4 3-10*

PHASE 2 (Effective beginning with the initial loading of VANTAGE-5 fuel into Vogtle Unit 2 Cycle 3. INSERT THESE PAGES AFTER INSERTING AMENDMENT NOS. 44 AND 46 (Unit 1), 24 AND 25 (Unit 2))

2-4
3/4 3-9 and 3/4 3-10*

2-4
3/4 3-9 and 3/4 3-10*

*Overleaf pages without changes (not enclosed)

PHASE 1

Effective beginning with Unit 1 Cycle 4

THIS PAGE APPLICABLE TO UNIT 1 ONLY

TABLE 2.2-1 - UNIT 1

REACTOR TRIP SYSTEM INSTRUMENTATION TRIP SETPOINTS

FUNCTIONAL UNIT	TOTAL ALLOWANCE (TA)	Z	SENSOR ERROR (S)	TRIP SETPOINT	ALLOWABLE VALUE
1. Manual Reactor Trip	N.A.	N.A.	N.A.	N.A.	N.A.
2. Power Range, Neutron Flux (NI-0041B&C, NI-0042B&C, NI-0043B&C, NI-0044B&C)					
a. High Setpoint	7.5	4.56	0	<10% of RTP#	<111.3% of RTP#
b. Low Setpoint	8.3	4.56	0	<25% of RTP#	<27.3% of RTP#
3. Power Range, Neutron Flux, High Positive Rate (NI-0041B&C, NI-0042B&C, NI-0043B&C, NI-0044B&C)	1.6	0.50	0	<5% of RTP# with a time constant >2 seconds	<6.3% of RTP# with a time constant >2 seconds
4. DELETED					
5. Intermediate Range, Neutron Flux (NI-0035B, NI-0036B)	17.0	8.41	0	<25% of RTP#	<31.1% of RTP#
6. Source Range, Neutron Flux (NI-0031B, NI-0032B)	17.0	10.01	0	<10 ⁵ cps	<1.4 x 10 ⁵ cps
7. Overtemperature ΔT (TDI-411C, TDI-421C, TDI-431C, TDI-441C)	10.7 (UNIT 1)	7.04 (UNIT 1)	1.96 + 1.17 (UNIT 1)	See Note 1	See Note 2
8. Overpower ΔT (TDI-411B, TDI-421B, TDI-431B, TDI-441B)	4.3 (UNIT 1)	1.54	1.96 (UNIT 1)	See Note 3	See Note 4

#RTP = RATED THERMAL POWER

VOGTELE UNITS - 1 & 2

2-4

Amendment No. 48 (Unit 1)
Amendment No. 27 (Unit 2)

THIS PAGE APPLICABLE TO UNIT 2 ONLY

TABLE 2.2-1a - UNIT 2

REACTOR TRIP SYSTEM INSTRUMENTATION TRIP SETPOINTS

FUNCTIONAL UNIT	TOTAL ALLOWANCE (TA)	Z	SENSOR ERROR (S)	TRIP SETPOINT	ALLOWABLE VALUE
1. Manual Reactor Trip	N.A.	N.A.	N.A.	N.A.	N.A.
2. Power Range, Neutron Flux (NI-0041B&C, NI-0042B&C, NI-0043B&C, NI-0044B&C)					
a. High Setpoint	7.5	4.56	0	<109% of RTP#	<111.3% of RTP#
b. Low Setpoint	8.3	4.56	0	<25% of RTP#	<27.3% of RTP#
3. Power Range, Neutron Flux, High Positive Rate (NI-0041B&C, NI-0042B&C, NI-0043B&C, NI-0044B&C)	1.6	0.50	0	<5% of RTP# with a time constant >2 seconds	<6.3% of RTP# with a time constant >2 seconds
4. Deleted					
5. Intermediate Range, Neutron Flux (NI-0035B, NI-0036B)	17.0	8.41	0	<25% of RTP#	<31.1% of RTP#
6. Source Range, Neutron Flux (NI-0031B, NI-0032B)	17.0	10.01	0	<10 ⁵ cps	<1.4 x 10 ⁵ cps
7. Overtemperature ΔT (TDI-411C, TDI-421C, TDI-431C, TDI-441C)	6.6 (UNIT 2)	3.37 (UNIT 2)	1.95 + 0.50 (UNIT 2)	See Note 1	See Note 2
8. Overpower ΔT (TDI-411B, TDI-421B, TDI-431B, TDI-441B)	4.9 (UNIT 2)	1.54	1.95 (UNIT 2)	See Note 3	See Note 4

#RTP = RATED THERMAL POWER

VOGTLE UNITS - 1 & 2

2-12

Amendment No. 48 (Unit 1)
Amendment No. 27 (Unit 2)

LIMITING SAFETY SYSTEM SET

BASES

REACTOR TRIP SYSTEM INSTRUMENTATION SETPOINTS (Continued)

The various Reactor trip circuits automatically open the Reactor trip breakers whenever a condition monitored by the Reactor Trip System reaches a preset or calculated level. In addition to redundant channels and trains, the design approach provides a Reactor Trip System which monitors numerous system variables, therefore providing Trip System functional diversity. The functional capability at the specified trip setting is required for those anticipatory or diverse reactor trips for which no direct credit was assumed in the safety analysis to enhance the overall reliability of the Reactor Trip System. The Reactor Trip System initiates a Turbine trip signal whenever Reactor trip is initiated. This prevents the reactivity insertion that would otherwise result from excessive Reactor Coolant System cooldown and thus avoids unnecessary actuation of the Engineered Safety Features Actuation System.

Manual Reactor Trip

The Reactor Trip System includes manual Reactor trip capability.

Power Range, Neutron Flux

In each of the Power Range Neutron Flux channels there are two independent bistables, each with its own trip setting used for a High and Low Range trip setting. The Low Setpoint trip provides protection during subcritical and low power operations to mitigate the consequences of a power excursion beginning from low power, and the High Setpoint trip provides protection during power operations to mitigate the consequences of a reactivity excursion from all power levels.

The Low Setpoint trip may be manually blocked above P-10 (a power level of approximately 10% of RATED THERMAL POWER) and is automatically reinstated below the P-10 Setpoint.

Power Range, Neutron Flux, High Rates

The Power Range Positive Rate trip provides protection against rapid flux increases which are characteristic of a rupture of a control rod drive housing. Specifically, this trip complements the Power Range Neutron Flux High and Low trips to ensure that the criteria are met for rod ejection from mid-power.

TABLE 3.3-1

REACTOR TRIP SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
1. Manual Reactor Trip	2	1	2	1, 2	1
2. Power Range, Neutron Flux (NI-0041B&C, NI-0042B&C, NI-0043B&C, NI-0044B&C)	2	1	2	3 ^a , 4 ^a , 5 ^a	11
a. High Setpoint	4	2	3	1, 2	2 ^b
b. Low Setpoint	4	2	3	1 ^d , 2	2 ^b
3. Power Range, Neutron Flux, High Positive Rate (NI-0041B&C, NI-0042B&C, NI-0043B&C, NI-0044B&C)	4	2	3	1, 2	2 ^b
4. (Deleted)					
5. Intermediate Range, Neutron Flux (NI-0035B,D&E NI-0036B,D&G)					
a. Power Operation	2	1	2	1 ^d	3
b. Startup	2	1	2	2	3
6. Source Range, Neutron Flux (NI-0031B,D&E, NI-0032B,D&G)					
a. Startup	2	1	2	2 ^c	4
b. Shutdown	2	1	2	3 ^j , 4, 5	5

VOGTLE UNITS - 1 & 2

3/4 3-2

Amendment No. 48 (Unit 1)
Amendment No. 27 (Unit 2)

TABLE 4.3-1

REACTOR TRIP SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	ANALOG CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
1. Manual Reactor Trip	N.A.	N.A.	N.A.	R(14)	N.A.	1, 2, 3 ^a , 4 ^a , 5 ^a
2. Power Range, Neutron Flux (NI-0041B&C, NI-0042B&C, NI-0043B&C, NI-0044B&C)						
a. High Setpoint	S	D(2, 4), M(3, 4), Q(4, 6), R(4, 5)	Q(17)	N.A.	N.A.	1, 2
b. Low Setpoint	S	R(4)	S/U(1)	N.A.	N.A.	1 ^d , 2
3. Power Range, Neutron Flux, High Positive Rate (NI-0041B&C, NI-0042B&C, NI-0043B&C, NI-0044B&C)	N.A.	R(4)	Q(17)	N.A.	N.A.	1, 2
4. (Deleted)						
5. Intermediate Range, Neutron Flux (NI-0035B,D&E, NI-0036B,D&G)	S	R(4, 5)	S/U(1)	N.A.	N.A.	1 ^d , 2
6. Source Range, Neutron Flux (NI-0031B,D&E, NI-0032B,D&G)	S	R(4, 5)	S/U(1),Q(9,17)	N.A.	N.A.	2 ^c , 3, 4, 5
7. Overtemperature ΔT (TDI-0411C, TDI-0421C, TDI-0431C, TDI-0441C)	S	R(12)	Q(17)	N.A.	N.A.	1, 2

VOGTLE UNITS - 1 & 2

3/4 3-9

Amendment No. 48 (Unit 1)
Amendment No. 27 (Unit 2)

PHASE 2

Effective beginning with Unit 2 Cycle 3

TABLE 2.2-1

REACTOR TRIP SYSTEM INSTRUMENTATION TRIP SETPOINTS

FUNCTIONAL UNIT	TOTAL ALLOWANCE (TA)	Z	SENSOR ERROR (S)	TRIP SETPOINT	ALLOWABLE VALUE
1. Manual Reactor Trip	N.A.	N.A.	N.A.	N.A.	N.A.
2. Power Range, Neutron Flux (NI-0041B&C, NI-0042B&C, NI-0043B&C, NI-0044B&C)					
a. High Setpoint	7.5	4.56	0	<109% of RTP#	<111.3% of RTP#
b. Low Setpoint	8.3	4.56	0	<25% of RTP#	<27.7% of RTP#
3. Power Range, Neutron Flux, High Positive Rate (NI-0041B&C, NI-0042B&C, NI-0043B&C, NI-0044B&C)	1.6	0.50	0	<5% of RTP# with a time constant >2 seconds	<6.3% of RTP# with a time constant >2 seconds
4. DELETED					
5. Intermediate Range, Neutron Flux (NI-0035B, NI-0036B)	17.0	8.41	0	<25% of RTP#	<31.1% of RTP#
6. Source Range, Neutron Flux (NI-0031B, NI-0032B)	17.0	10.01	0	<10 ⁵ cps	<1.4 x 10 ⁵ cps
7. Overtemperature ΔT (TDI-411C, TDI-421C, TDI-431C, TDI-441C)	10.7	7.04	1.96 + 1.17	See Note 1	See Note 2
8. Overpower ΔT (TDI-411B, TDI-421B, TDI-431B, TDI-441B)	4.3	1.54	1.96	See Note 3	See Note 4

#RTP = RATED THERMAL POWER

TABLE 4.3-1

REACTOR TRIP SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

VOGTLE UNITS - 1 & 2	FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	ANALOG CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
3-9 Amendment No. 49 (Unit 1) Amendment No. 28 (Unit 2)	1. Manual Reactor Trip	N.A.	N.A.	N.A.	R(14)	N.A.	1, 2, 3 ^a , 4 ^a , 5 ^a
	2. Power Range, Neutron Flux (NI-0041B&C, NI-0042B&C, NI-0043B&C, NI-0044B&C)						
	a. High Setpoint	S	D(2, 4), M(3, 4), Q(4, 6), R(4, 5)	Q(17)	N.A.	N.A.	1, 2
	b. Low Setpoint	S	R(4)	S/U(1)	N.A.	N.A.	1 ^d , 2
	3. Power Range, Neutron Flux, High Positive Rate (NI-0041B&C, NI-0042B&C, NI-0043B&C, NI-0044B&C)	N.A.	R(4)	Q(17)	N.A.	N.A.	1, 2
	4. Deleted						
	5. Intermediate Range, Neutron Flux (NI-0035B, D&E, NI-0036B, D&G)	S	R(4, 5)	S/U(1)	N.A.	N.A.	1 ^d , 2
6. Source Range, Neutron Flux (NI-0031B, D&E, NI-0032B, D&G)	S	R(4, 5)	S/U(1), Q(9, 17)	N.A.	N.A.	2 ^c , 3, 4, 5	
7. Overtemperature ΔT (TDI-0411C, TDI-0421C, TDI-0431C, TDI-0441C)	S	R	Q(17)	N.A.	N.A.	1, 2	