

March 22, 1993

Docket Nos. 50-424  
and 50-425

Mr. W. G. Hairston, III  
Executive Vice President -  
Nuclear Operations  
Georgia Power Company  
P. O. Box 1295  
Birmingham, Alabama 35201

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Dear Mr. Hairston:

SUBJECT: ISSUANCE OF AMENDMENTS - VOGTLE NUCLEAR GENERATING PLANT,  
UNITS 1 AND 2 (TAC NOS. M83701 AND M83702)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 59 to Facility Operating License NPF-68 and Amendment No. 38 to Facility Operating License NPF-81 for the Vogtle Electric Generating Plant, Units 1 and 2. The amendments consist of changes to the Technical Specifications (TS) in response to Georgia Power Company's application dated May 27, 1992, as supplemented December 7, 1992.

The amendments would revise Sections 3.0 and 4.0 of the TS to incorporate the changes recommended in Generic Letter 87-09.

Certain changes that were requested involving deletion of exceptions to TS 3.0.4 are no longer needed because the affected pages had been deleted by previous Amendments 55 (Unit 1) and 34 (Unit 2) dated January 5, 1993. The appropriate omissions, as reflected in the current amendments, have been discussed with Mr. Jack Stringfellow of Georgia Power Company.

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

Sincerely,  
*/s/*

Darl S. Hood, Project Manager  
Project Directorate II-3  
Division of Reactor Projects I/II  
Office of Nuclear Reactor Regulation

Enclosures:

- 1. Amendment No. 59 to NPF-68
- 2. Amendment No. 38 to NPF-81
- 3. Safety Evaluation

cc w/enclosures:  
See next page

OFC PDII-3/LA  
NAME L Berry  
DATE 2/3/93

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DHood/cw  
2/3/93

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

March 22, 1993

Docket Nos. 50-424  
and 50-425

Mr. W. G. Hariston, III  
Executive Vice President -  
Nuclear Operations  
Georgia Power Company  
P. O. Box 1295  
Birmingham, Alabama 35201

Dear Mr. Hariston:

SUBJECT: ISSUANCE OF AMENDMENTS - VOGTLE ELECTRIC GENERATING PLANT,  
UNITS 1 AND 2 (TAC NOS. M83701 AND M83702)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. **59** to Facility Operating License NPF-68 and Amendment No. **38** to Facility Operating License NPF-81 for the Vogtle Electric Generating Plant, Units 1 and 2. The amendments consist of changes to the Technical Specifications (TS) in response to Georgia Power Company's application dated May 27, 1992, as supplemented December 7, 1992.

The amendments would revise Sections 3.0 and 4.0 of the TS to incorporate the changes recommended in Generic Letter 87-09.

Certain changes that were requested involving deletion of exceptions to TS 3.0.4 are no longer needed because the affected pages had been deleted by previous Amendments 55 (Unit 1) and 34 (Unit 2) dated January 5, 1993. The appropriate omissions, as reflected in the current amendments, have been discussed with Mr. Jack Stringfellow of Georgia Power Company.

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

Sincerely,

A handwritten signature in black ink that reads "Darl Hood".

Darl S. Hood, Project Manager  
Project Directorate II-3  
Division of Reactor Projects I/II  
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. **59** to NPF-68
2. Amendment No. **38** to NPF-81
3. Safety Evaluation

Mr. W. G. Hairston, III  
Georgia Power Company

Vogtle Electric Generating Plant

cc:

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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 1  
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 59  
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 May 27, 1992, as supplemented December 7, 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-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. 59 , 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: **March 22, 1993**



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. 38  
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 May 27, 1992, as supplemented December 7, 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. 38 , 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: **March 22, 1993**

ATTACHMENT TO LICENSE AMENDMENT NO. 59

FACILITY OPERATING LICENSE NO. NPF-68

DOCKET NO. 50-424

AND

TO LICENSE AMENDMENT NO. 38

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

3/4 0-1

3/4 0-1

3/4 0-2

3/4 0-2

3/4 1-17

3/4 1-17

3/4 2-12

3/4 2-12

3/4 3-2

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3/4 3-27a

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Remove Pages

3/4 6-16

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3/4 9-7  
3/4 9-10  
3/4 9-13  
3/4 9-14

3/4 11-4  
3/4 11-9  
3/4 11-10

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

Insert Pages

3/4 6-16

3/4 7-4  
3/4 7-9  
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3/4 7-27

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B 3/4 0-3  
B 3/4 0-4  
B 3/4 0-5  
B 3/4 0-6

## 3/4 LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS\*

### 3/4.0 APPLICABILITY

#### LIMITING CONDITION FOR OPERATION

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3.0.1 Compliance with the Limiting Conditions for Operation contained in the succeeding specifications is required during the OPERATIONAL MODES or other conditions specified therein; except that upon failure to meet the Limiting Conditions for Operation, the associated ACTION requirements shall be met.

3.0.2 Noncompliance with a specification shall exist when the requirements of the Limiting Condition for Operation and associated ACTION requirements are not met within the specified time intervals. If the Limiting Condition for Operation is restored prior to expiration of the specified time intervals, completion of the ACTION requirements is not required.

3.0.3 When a Limiting Condition for Operation is not met, except as provided in the associated ACTION requirements, within 1 hour action shall be initiated to place the unit in a MODE in which the specification does not apply by placing it, as applicable, in:

- a. At least HOT STANDBY within the next 6 hours,
- b. At least HOT SHUTDOWN within the following 6 hours, and
- c. At least COLD SHUTDOWN within the subsequent 24 hours.

Where corrective measures are completed that permit operation under the ACTION requirements, the action may be taken in accordance with the specified time limits as measured from the time of failure to meet the Limiting Condition for Operation. Exceptions to these requirements are stated in the individual specifications.

This specification is not applicable in MODE 5 or 6.

3.0.4 Entry into an OPERATIONAL MODE or other specified condition shall not be made when the conditions for the Limiting Condition for Operation are not met and the associated ACTION requires a shutdown if they are not met within a specified time interval. Entry into an OPERATIONAL MODE or specified condition may be made in accordance with ACTION requirements when conformance to them permits continued operation of the facility for an unlimited period of time. This provision shall not prevent passage through or to OPERATIONAL MODES as required to comply with ACTION requirements. Exceptions to these requirements are stated in the individual specifications.

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\*Where specific instrument numbers are provided in parentheses they are for information only, and apply to each unit unless specifically noted (to assist in identifying associated instrument channels or loops) and are not intended to limit the requirements to the specific instruments associated with the number.

## APPLICABILITY

### LIMITING CONDITION FOR OPERATION (Continued)

3.0.5 Unless specifically noted, all the information provided in the Limiting Condition for Operation including the associated ACTION requirements shall apply to each unit individually. In those cases where a specification makes reference to systems or components which are shared by both units, the affected systems or components will be clearly identified in parentheses or footnotes declaring the reference to be "common". Whenever the Limiting Condition for Operation refers to systems or components which are common, the ACTION requirements will apply to both units simultaneously. (This will be indicated in the ACTION section.) Whenever certain portions of a specification refer to systems, components, operating parameters, setpoints, etc., which are different for each unit, this will be identified in parentheses or footnotes or in the APPLICABILITY section as appropriate.

### SURVEILLANCE REQUIREMENTS

4.0.1 Surveillance Requirements shall be met during the OPERATIONAL MODES or other conditions specified for individual Limiting Conditions for Operation unless otherwise stated in an individual Surveillance Requirement.

4.0.2 Each Surveillance Requirement shall be performed within the specified time interval with a maximum allowable extension not to exceed 25% of the surveillance interval.

4.0.3 Failure to perform a Surveillance Requirement within the allowed surveillance interval, defined by Specification 4.0.2 shall constitute non-compliance with the OPERABILITY requirements for a Limiting Condition for Operation. The time limits of the ACTION requirements are applicable at the time it is identified that a Surveillance Requirement has not been performed. The ACTION requirements may be delayed for up to 24 hours to permit the completion of the surveillance when the allowable outage time limits of the ACTION requirements are less than 24 hours. Surveillance Requirements do not have to be performed on inoperable equipment.

4.0.4 Entry into an OPERATIONAL MODE or other specified condition shall not be made unless the Surveillance Requirement(s) associated with the Limiting Condition for Operation has been performed within the stated surveillance interval or as otherwise specified. This provision shall not prevent passage through or to OPERATIONAL MODES as required to comply with ACTION requirements.

## REACTIVITY CONTROL SYSTEMS

### POSITION INDICATION SYSTEMS - OPERATING

#### LIMITING CONDITION FOR OPERATION

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3.1.3.2 The Digital Rod Position Indication System and the Demand Position Indication System shall be OPERABLE and capable of determining the control and shutdown rod positions within  $\pm 12$  steps.

APPLICABILITY: MODES 1 and 2.

ACTION:

- a. With a maximum of one digital rod position indicator per bank inoperable either:
  1. Determine the position of the nonindicating rod(s) indirectly by the movable incore detectors at least once per 8 hours and immediately after any motion of the nonindicating rod which exceeds 24 steps in one direction since the last determination of the rod's position, or
  2. Reduce THERMAL POWER to less than 50% of RATED THERMAL POWER within 8 hours.
  
- b. With a maximum of one demand position indicator per bank inoperable either:
  1. Verify that all digital rod position indicators for the affected bank are OPERABLE and that the most withdrawn rod and the least withdrawn rod of the bank are within a maximum of 12 steps of each other at least once per 8 hours, or
  2. Reduce THERMAL POWER to less than 50% of RATED THERMAL POWER within 8 hours.

#### SURVEILLANCE REQUIREMENTS

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4.1.3.2 Each digital rod position indicator shall be determined to be OPERABLE by verifying that the Demand Position Indication System and the Digital Rod Position Indication System agree within 12 steps at least once per 12 hours except during time intervals when the rod position deviation monitor is inoperable, then compare the Demand Position Indication System and the Digital Rod Position Indication System at least once per 4 hours.

## POWER DISTRIBUTION LIMITS

### LIMITING CONDITION FOR OPERATION

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#### ACTION (Continued)

2. Reduce THERMAL POWER to less than 50% of RATED THERMAL POWER within 2 hours and reduce the Power Range Neutron Flux-High Trip Setpoints to less than or equal to 55% of RATED THERMAL POWER within the next 4 hours; and
3. Identify and correct the cause of the out-of-limit condition prior to increasing THERMAL POWER; subsequent POWER OPERATION above 50% of RATED THERMAL POWER may proceed provided that the QUADRANT POWER TILT RATIO is verified within its limit at least once per hour for 12 hours or until verified at 95% or greater RATED THERMAL POWER.

#### SURVEILLANCE REQUIREMENTS

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4.2.4.1 The QUADRANT POWER TILT RATIO shall be determined to be within the limit above 50% of RATED THERMAL POWER by:

- a. Calculating the ratio at least once per 7 days when the alarm is OPERABLE, and
- b. Calculating the ratio at least once per 12 hours during steady-state operation when the alarm is inoperable.

4.2.4.2 The QUADRANT POWER TILT RATIO shall be determined to be within the limit when above 75% of RATED THERMAL POWER with one Power Range channel inoperable by using the movable incore detectors to confirm that the normalized symmetric power distribution, obtained from two sets of four symmetric thimble locations or full-core flux map, is consistent with the indicated QUADRANT POWER TILT RATIO at least once per 12 hours.

TABLE 3.3-1

REACTOR TRIP SYSTEM INSTRUMENTATION

VOGTLE UNITS - 1 & 2	<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>	
	3/4 3-2	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 <sup>a</sup> , 4 <sup>a</sup> , 5 <sup>a</sup>	11	
Amendment No. 59 (Unit 1) Amendment No. 38 (Unit 2)	a. High Setpoint	4	2	3	1, 2	2	
	b. Low Setpoint	4	2	3	1 <sup>d</sup> , 2	2	
	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	
	4. (Deleted)						
	5. Intermediate Range, Neutron Flux (NI-0035B,D&E NI-0036B,D&G)	2	1	2	1 <sup>d</sup>	3	
	a. Power Operation	2	1	2	2	3	
6. Source Range, Neutron Flux (NI-0031B,D&E, NI-0032B,D&G)							
a. Startup	2	1	2	2 <sup>c</sup>	4		
b. Shutdown	2	1	2	3 <sup>i</sup> , 4, 5	5		

TABLE 3.3-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
7. Overtemperature $\Delta T$ (TDI-0411C, TDI-0421C, TDI-0431C, TDI-0441C)	4	2	3	1, 2	6
8. Overpower $\Delta T$ (TDI-0411B, TDI-0421B, TDI-0431B, TDI-0441B)	4	2	3	1, 2	6
9. Pressurizer Pressure--Low (PI-0455A,B&C, PI-0456 & PI-0456A, PI-0457 & PI-0457A, PI-0458 & PI-0458A)	4	2	3	1 <sup>f</sup>	6
10. Pressurizer Pressure--High (PI-0455A,B&C, PI-0456 & PI-0456A, PI-0457 & PI-0457A, PI-0458 & PI-0458A)	4	2	3	1, 2	6
11. Pressurizer Water Level--High* (LI-0459A, LI-0460A, LI-0461A)	3	2	2	1 <sup>f</sup>	6
12. Reactor Coolant Flow--Low a. Single Loop (Above P-8)	3/loop	2/loop in any operating loop	2/loop in each operating loop	1 <sup>h</sup>	6
(LOOP 1 FI-0414 FI-0415 FI-0416	LOOP 2 FI-0424 FI-0425 FI-0426	LOOP 3 FI-0434 FI-0435 FI-0436	LOOP 4 FI-0444 FI-0445 FI-0446)		

\*See Specification 3.3.3.6

VOGTLE UNITS - 1 & 2

3/4 3-3

Amendment No. 59 (Unit 1)  
Amendment No. 38 (Unit 2)

TABLE 3.3-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
b. Two Loops (Above P-7 and below P-8)	3/loop	2/loop in two operating loops	2/loop each operating loop	1 <sup>f</sup>	6
(LOOP1 LOOP2 LOOP3 LOOP4 FI-0414 FI-0424 FI-0434 FI-0444 FI-0415 FI-0425 FI-0435 FI-0445 FI-0416 FI-0426 FI-0436 FI-0446)					
13. Steam Generator Water Level--Low-Low*	4/stm. gen.	2/stm. gen. in any operating stm. gen.	3/stm. gen. each operating stm. gen.	1, 2	6 <sup>a</sup>
(LOOP1 LOOP2 LOOP3 LOOP4 FI-0517 FI-0527 FI-0537 FI-0547 FI-0518 FI-0528 FI-0539 FI-0549 FI-0551 FI-0552 FI-0553 FI-0554)					
14. Undervoltage--Reactor Coolant Pumps	4-2/bus	2 <sup>i</sup>	3	1 <sup>f</sup>	6
15. Underfrequency--Reactor Coolant Pumps	4-2/bus	2 <sup>i</sup>	3	1 <sup>f</sup>	6
16. Turbine Trip					
a. Low Fluid Oil Pressure (PT-6161, PT-6162, PT-6163)	3	2	2	1 <sup>e</sup>	6
b. Turbine Stop Valve Closure	4	4	1	1 <sup>e</sup>	12
17. Safety Injection Input from ESF	2	1	2	1, 2	10

\*See Specification 3.3.3.6

VOGTLE UNITS - 1 & 2

3/4 3-4

Amendment No. 59 (Unit 1)  
Amendment No. 38 (Unit 2)

TABLE 3.3-1 (Continued)  
TABLE NOTATIONS

- a When the Reactor Trip System breakers are in the closed position and the Control Rod Drive System is capable of rod withdrawal.
- b (Deleted)
- c Below the P-6 (Intermediate Range Neutron Flux Interlock) Setpoint.
- d Below the P-10 (Low Setpoint Power Range Neutron Flux Interlock) Setpoint.
- e Above the P-9 (Reactor Trip on Turbine Trip Interlock) Setpoint.
- f Above the P-7 (Low Power Reactor Trip Block) Setpoint.
- g The applicable Modes and Action Statement for these channels noted in Table 3.3-3 are more restrictive and, therefore, applicable.
- h Above the P-8 (Single Loop Loss of Flow) Setpoint.
- i Trip logic consists of undervoltage/underfrequency for Reactor Coolant Pumps 1 or 2 and 3 or 4.
- j The Source Range High Flux at Shutdown Alarm may be blocked during reactor startup in accordance with approved procedures.

ACTION STATEMENTS

ACTION 1 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or be in HOT STANDBY within the next 6 hours.

ACTION 2 - With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:

- a. The inoperable channel is placed in the tripped condition within 6 hours,
- b. The Minimum Channels OPERABLE requirement is met; however, the inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels per Specification 4.3.1.1, and
- c. Either, THERMAL POWER is restricted to less than or equal to 75% of RATED THERMAL POWER and the Power Range Neutron Flux Trip Setpoint is reduced to less than or equal to 85% of RATED THERMAL POWER within 4 hours; or, the QUADRANT POWER TILT RATIO is monitored at least once per 12 hours per Specification 4.2.4.2.

TABLE 3.3-2

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
1. Safety Injection (Reactor Trip, Feedwater Isolation, Component Cooling Water, Control Room Emergency Filtration System Actuation, Start Diesel Generators, Containment Cooling Fans, Nuclear Service Cooling Water, Containment Isolation, Containment Ventilation Isolation, and Auxiliary Feedwater Motor-Driven Pumps).					
a. Manual Initiation	2	1	2	1, 2, 3, 4	19
b. Automatic Actuation Logic and Actuation Relays	2	1	2	1, 2, 3, 4	14
c. Containment Pressure--High-1* (PI-0934, PI-0935, PI-0936)	3	2	2	1, 2, 3, 4	15 <sup>d</sup>
d. Pressurizer Pressure--Low (PI-0455A,B&C, PI-0456 & PI-0456A, PI-0457 & PI-0457A, PI-0458 & PI-0458A)	4	2	3	1, 2, 3 <sup>a</sup>	20
e. Steam Line Pressure--Low*	3/steam line	2/steam line any steam line	2/steam line	1, 2, 3 <sup>a</sup>	15 <sup>d</sup>
(LOOP1 PI-0514A,B&C PI-0515A PI-0516A	LOOP2 PI-0524A&B PI-0525A PI-0526A	LOOP3 PI-0534A&B PI-0535A PI-0536A	LOOP4 PI-0544A,B&C PI-0545A PI-0546A)		

\*See Specification 3.3.3.6

VOGTLE UNITS - 1 & 2

3/4 3-17

Amendment No. 59 (Unit 1)  
Amendment No. 38 (Unit 2)

TABLE 3.3-2 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
4. Steam Line Isolation (Continued)					
c. Containment Pressure--High-2* (PI-0934, PI-0935, PI-0936)	3	2	2	1, 2 <sup>f</sup> , 3 <sup>f</sup>	15 <sup>d</sup>
d. Steam Line Pressure--Low*	3/steam line	2/steam line any steam line	2/steam line	1, 2 <sup>f</sup> , 3 <sup>a,f</sup>	15 <sup>d</sup>
(LOOP1            LOOP2            LOOP3            LOOP4 PI-0514A,B&C    PI0524A&B    PI-0534A&B    PI-0544A,B&C, PI-0515A            PI-0525A            PI-0535A            PI-0545A, PI-0516A            PI-0526A            PI-0536A            PI-0546A)					
e. Steam Line Pressure - Negative Rate--High*	3/steam line	2/steam line any steam line	2/steam line	3 <sup>b,f</sup>	15 <sup>d</sup>
(LOOP1            LOOP2            LOOP3            LOOP4 PI-0514A,B&C    PI-0524A&B    PI-0534A&B    PI-0544A,B&C PI-0515A            PI-0525A            PI-0535A            PI-0545A PI-0516A            PI-0526A            PI-0536A            PI-0546A)					
5. Turbine Trip and Feedwater Isolation					
a. Automatic Actuation Logic and Actuation Relays	2	1	2	1,2	25
b. Low RCS T <sub>avg</sub> Coincident with Reactor Trip**					
1. Low RCS T <sub>avg</sub>	4	2	3	1,2	20
2. Reactor Trip, P-4	See Functional Unit 9.b. for P-4 requirements.				

\*See Specification 3.3.3.6

\*\*Feedwater isolation only. Turbine trip occurs on reactor trip.

VOGTLE UNITS - 1 & 2

3/4 3-20

Amendment No. 59 (Unit 1)  
Amendment No. 38 (Unit 2)

VOGTLE UNITS - 1 & 2

3/4 3-21

Amendment No. 59 (Unit 1)  
Amendment No. 38 (Unit 2)

TABLE 3.3-2 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
5. Turbine Trip and Feedwater Isolation (Continued)					
c. Steam Generator Water Level--High-High (P-14)*	4/stm. gen.	2/stm. gen. in any operating stm. gen.	3/stm.gen. in each operating stm. gen.	1, 2	20
(LOOP1    LOOP2    LOOP3    LOOP4)					
LI0517    LI0527    LI0537    LI0547					
LI0518    LI0528    LI0538    LI0548					
LI0519    LI0529    LI0539    LI0549					
LI0551    LI0552    LI0553    LI0554)					
d. Safety Injection	See Functional Unit 1. above for all Safety Injection initiating functions and requirements.				
6. Auxiliary Feedwater					
a. Automatic Actuation Logic and Actuation Relays	2	1	2	1, 2, 3	22

\*See Specification 3.3.3.6

VOGTLE UNITS - 1 &amp; 2

3/4 3-22

Amendment No. 59 (Unit 1)  
Amendment No. 38 (Unit 2)

TABLE 3.3-2 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABL MODES</u>	<u>ACTION</u>
6. Auxiliary Feedwater (Continued)					
b. Stm. Gen. Water Level-- Low-Low*					
(LOOP1    LOOP2    LOOP3    LOOP4					
LI0517    LI0527    LI0537    LI0547					
LI0518    LI0528    LI0538    LI0548					
LI0519    LI0529    LI0539    LI0549					
LI0551    LI0552    LI0553    LI0554)					
1) Start Motor-Driven Pumps	4/stm. gen.	2/stm. gen. in any oper- ating stm.gen	3/stm. gen. in each operating stm. gen.	1, 2, 3	20
2) Start Turbine-Driven Pump	4/stm. gen.	2/stm. gen. in any 2 operating stm. gen.	3/stm. gen. in each operating stm. gen.	1, 2, 3	20
c. Safety Injection Start Motor-Driven Pumps	See Functional Unit 1. above for all Safety Injection initiating functions and requirements.				
d. Loss of or Degraded 4.16 kV ESF Bus Voltage					
i Start Motor-Driven Pumps	4/train	2/train	3/train	1, 2, 3	23
ii Start Turbine-Driven Pump	4/train	2 from either train	3/train	1, 2, 3	23

\*See Specification 3.3.3.6

TABLE 3.3-2 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

VOGTLE UNITS - 1 & 2	FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
	e. Trip of All Main Feedwater Pumps, Start Motor-Driven Pumps	2	2	2	1, 2	23
	f. Manual Initiation	3 <sup>h</sup>	1/pump	1/pump	1, 2, 3	23
	7. Semi-Automatic Switchover to Containment Emergency Sump					
	a. Automatic Actuation Logic and Actuation Relays	2	1	2	1, 2, 3, 4	14
3/4 3-23	b. RWST Level--Low-Low Coincident with Safety Injection* (LI-0990A&B, LI-0991A&B, LI-0992A, LI-0993A)	4	2	3	1, 2, 3, 4	17
	See Functional Unit 1. above for all Safety Injection initiating functions and requirements.					
	8. Loss of Power to 4.16 kV ESF Bus					
	a. 4.16 kV ESF Bus Undervoltage--Loss of Voltage	4/bus	2/bus	3/bus	1, 2, 3, 4	20
	b. 4.16 kV ESF Bus Undervoltage--Degraded Voltage	4/bus	2/bus	3/bus	1, 2, 3, 4	20
	9. Engineered Safety Features Actuation System Interlocks					
Amendment No. 59 (Unit 1) Amendment No. 38 (Unit 2)	a. Pressurizer Pressure, P-11 (PI-0455A,B&C, PI-0456 & PI-0456A, PI-0457 & PI-0457A)	3	2	2	1, 2, 3	21
	b. Reactor Trip, P-4	2	1	2	1, 2, 3	23

\*See Specification 3.3.3.6

TABLE 3.3-2 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>MINIMUM CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
10. Control Room Emergency Filtration System Actuation					
a. Manual Initiation	2	1	1 in either Unit	Either Unit in 1, 2, 3, 4, 5 <sup>e</sup> , 6 <sup>e</sup>	26
b. Automatic Actuation Logic and Actuation Relays	2	1	2	Either Unit in 1, 2, 3, 4, 5 <sup>e</sup> , 6 <sup>e</sup>	27
c. Safety Injection	See Functional Unit 1. above for all Safety Injection initiating functions and requirements.				
d. Intake Radiogas Monitor (RE-12116, RE-12117)	2	1	2	Either Unit in 1, 2, 3, 4, 5 <sup>e</sup> , 6 <sup>e</sup>	28
11. Fuel Handling Building Post Accident Ventilation Actuation (Common System)					
a. Manual Initiation	2	1	1	i	j
b. Fuel Handling Building Exhaust Duct Radiation Signal (ARE-2532 A&B ARE-2533 A&B)	4	1	1	i	j
c. Automatic Actuation Logic and Actuation Relays	4	1	1	i	j

VOGTLE UNITS - 1 & 2

3/4 3-24

Amendment No. 59 (Unit 1)  
Amendment No. 38 (Unit 2)

TABLE 3.3-2 (Continued)

ACTION STATEMENTS (Continued)

- ACTION 24 - With the number of OPERABLE channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 48 hours or declare the associated valve inoperable and take the ACTION required by Specification 3.7.1.5.
- ACTION 25 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, be in at least HOT STANDBY within 6 hours; however, one channel may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.2.1 provided the other channel is OPERABLE.
- ACTION 26 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore at least one channel to OPERABLE status within 7 days or within the next 6 hours initiate and maintain operation of the Control Room Emergency Filtration System in the Emergency mode#.
- ACTION 27 - a) With one channel inoperable in a unit, restore the inoperable channel to OPERABLE status within 7 days OR within the next 6 hours initiate and maintain operation of one Control Room Emergency Filtration System (CREFS) in the unaffected unit in the emergency mode#.
- b) With one channel inoperable in each unit, restore each inoperable channel to OPERABLE status within 7 days OR within the next 6 hours initiate and maintain operation of one CREFS in each unit in the emergency mode#.
- c) With two channels inoperable in a unit, within 1 hour either 1) initiate and maintain operation of the two CREFS in the unaffected unit OR 2) initiate and maintain operation of one CREFS in each unit in the emergency mode#.
- d) With three channels inoperable, within 1 hour initiate and maintain operation of the two CREFS in the emergency mode in the unit with only one channel inoperable.
- e) With four channels inoperable, within 1 hour initiate and maintain operation of two CREFS in the emergency mode.
- ACTION 28 - a) With one channel inoperable in a unit, restore the inoperable channel to OPERABLE status within 7 days, OR within the next 6 hours either 1) lock closed the affected and lock open the unaffected OSA intake dampers OR 2) initiate and maintain operation of one CREFS in the emergency mode#.

---

#The initiated CREFS shall be Train B unless Train B is inoperable.

TABLE 3.3-2 (Continued)

ACTION STATEMENTS (Continued)

- b) With one channel inoperable in each unit, restore each inoperable channel to OPERABLE status within 7 days OR within the next 6 hours initiate and maintain operation of one CREFS in the emergency mode#.
- c) With two channels inoperable in a unit, within 1 hour either 1) lock closed the affected and lock open the unaffected OSA intake dampers OR 2) initiate and maintain operation of one CREFS in each unit in the emergency mode#.
- d) With three channels inoperable, within 1 hour either 1) lock closed the OSA intake dampers of the unit with two inoperable channels and lock open the other OSA intake dampers and either restore the remaining affected channel to OPERABLE status within 7 days OR initiate and maintain operation of one CREFS in the emergency mode# in the following 6 hours OR 2) initiate and maintain operation of one CREFS in each unit in the emergency mode#.
- e) With four channels inoperable, within 1 hour initiate and maintain operation of one CREFS in each unit in the emergency mode#.

---

#The initiated CREFS shall be Train B unless Train B is inoperable.

## INSTRUMENTATION

### 3/4.3.3 MONITORING INSTRUMENTATION

#### RADIATION MONITORING FOR PLANT OPERATIONS

#### LIMITING CONDITION FOR OPERATION

---

3.3.3.1 The radiation monitoring instrumentation channels for plant operations shown in Table 3.3-4 shall be OPERABLE with their Alarm/Trip Setpoints within the specified limits.

APPLICABILITY: As shown in Table 3.3-4.

ACTION:

- a. With a radiation monitoring channel Alarm/Trip Setpoint for plant operations exceeding the value shown in Table 3.3-4, adjust the Setpoint to within the limit within 4 hours or declare the channel inoperable.
- b. With one or more radiation monitoring channels for plant operations inoperable, take the ACTION shown in Table 3.3-4.
- c. The provisions of Specification 3.0.3 are not applicable.

#### SURVEILLANCE REQUIREMENTS

---

4.3.3.1 Each radiation monitoring instrumentation channel for plant operations shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL CALIBRATION and ANALOG CHANNEL OPERATIONAL TEST for the MODES and at the frequencies shown in Table 4.3-3.

## INSTRUMENTATION

### MOVABLE INCORE DETECTORS

#### LIMITING CONDITION FOR OPERATION

---

3.3.3.2 The Movable Incore Detection System shall be OPERABLE with:

- a. At least 75% of the detector thimbles,
- b. A minimum of two detector thimbles per core quadrant, and
- c. Sufficient movable detectors, drive, and readout equipment to map these thimbles.

APPLICABILITY: When the Movable Incore Detection System is used for:

- a. Recalibration of the Excore Neutron Flux Detection System, or
- b. Monitoring the QUADRANT POWER TILT RATIO, or
- c. Measurement of  $F_{\Delta H}^N$ ,  $F_Q(Z)$  and  $F_{xy}$ .

#### ACTION:

With the Movable Incore Detection System inoperable, do not use the system for the above applicable monitoring or calibration functions. The provisions of Specification 3.0.3 are not applicable.

#### SURVEILLANCE REQUIREMENTS

---

4.3.3.2 The Movable Incore Detection System shall be demonstrated OPERABLE within 24 hours prior to use by irradiating each detector used and determining the acceptability of its voltage curve when required for:

- a. Recalibration of the Excore Neutron Flux Detection System, or
- b. Monitoring the QUADRANT POWER TILT RATIO, or
- c. Measurement of  $F_{\Delta H}^N$ ,  $F_Q(Z)$  and  $F_{xy}$ .

## INSTRUMENTATION

### SEISMIC INSTRUMENTATION (Common System)

#### LIMITING CONDITION FOR OPERATION

---

3.3.3.3 The seismic monitoring instrumentation shown in Table 3.3-5 shall be OPERABLE.

APPLICABILITY: At all times.

ACTION:

- a. With one or more of the above required seismic monitoring instruments inoperable for more than 30 days, prepare and submit a Special Report to the Commission pursuant to Specification 6.8.2 within the next 10 days outlining the cause of the malfunction and the plans for restoring the instrument(s) to OPERABLE status.
- b. The provisions of Specification 3.0.3 are not applicable.

#### SURVEILLANCE REQUIREMENTS

---

4.3.3.3.1 Each of the above required seismic monitoring instruments shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL CALIBRATION, and ANALOG CHANNEL OPERATIONAL TEST at the frequencies shown in Table 4.3-4.

4.3.3.3.2 Each of the above required seismic monitoring instruments which is accessible during power operations and which is actuated during a seismic event greater than or equal to 0.01 g shall be restored to OPERABLE status within 24 hours and a CHANNEL CALIBRATION performed within 15 days following the seismic event. Data shall be retrieved from actuated instruments and analyzed to determine the magnitude of the vibratory ground motion. A Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.8.2 within 14 days describing the magnitude, frequency spectrum, and resultant effect upon facility features important to safety.

Each of the above seismic monitoring instruments which is actuated during a seismic event greater than or equal to 0.01 g but is not accessible during power operation shall be restored to OPERABLE status and a CHANNEL CALIBRATION performed the next time Unit 1 enters MODE 5 or below. A supplemental report shall then be prepared and submitted to the Commission with 14 days pursuant to Specification 6.8.2 describing the additional data from these instruments.

## INSTRUMENTATION

### METEOROLOGICAL INSTRUMENTATION (Common System)

#### LIMITING CONDITION FOR OPERATION

---

3.3.3.4 The meteorological monitoring instrumentation channels shown in Table 3.3-6 shall be OPERABLE.

APPLICABILITY: At all times.

ACTION:

- a. With one or more required meteorological monitoring channels inoperable for more than 7 days, prepare and submit a Special Report to the Commission pursuant to Specification 6.8.2 within the next 10 days outlining the cause of the malfunction and the plans for restoring the channel(s) to OPERABLE status.
- b. The provisions of Specification 3.0.3 are not applicable.

#### SURVEILLANCE REQUIREMENTS

---

4.3.3.4 Each of the meteorological monitoring instrumentation channels shown in Table 3.3-6 shall be demonstrated OPERABLE by the performance of:

- a. A Daily CHANNEL CHECK, and
- b. A Semiannual CHANNEL CALIBRATION.

TABLE 3.3-8 (Continued)

ACTION STATEMENTS

- ACTION 30 - a. With the number of OPERABLE channels one less than the Total Number of Channels requirement, restore the inoperable channel to OPERABLE status within 31 days, or be in at least HOT SHUTDOWN within the next 12 hours.
- b. With the number of OPERABLE channels two less than the Total Number of Channels requirement, restore at least one inoperable channel to OPERABLE status within 7 days, or be in at least HOT SHUTDOWN within the next 12 hours.
- c. With the number of OPERABLE channels less than the Minimum Channels OPERABLE requirement, restore at least one inoperable channel to OPERABLE status within 48 hours or be in HOT SHUTDOWN within the next 12 hours.
- d. The provisions of Specification 3.0.4 are not applicable.
- ACTION 31a - a. With the number of OPERABLE channels one less than the Total Number of Channels requirement, restore one inoperable channel to OPERABLE status within 7 days, or be in at least HOT SHUTDOWN within the next 12 hours.
- b. With the number of OPERABLE channels less than the Minimum Channels OPERABLE requirement, restore at least one inoperable channel to OPERABLE status within 48 hours, or be in HOT SHUTDOWN within the next 12 hours.
- c. The provisions of Specification 3.0.4 are not applicable.
- ACTION 31b - a. With the number of OPERABLE channels less than the Total Number of Channels requirement, comply with the provisions of Specification 3.6.4.1.
- b. The provisions of Specification 3.0.4 are not applicable.
- ACTION 32 - With the number of OPERABLE channels less than the Minimum Channels OPERABLE requirement, restore at least one inoperable channel to OPERABLE status within 48 hours, or be in HOT SHUTDOWN within the next 12 hours. The provisions of Specification 3.0.4 are not applicable.
- ACTION 33 - With the number of OPERABLE channels less than the Minimum Channels OPERABLE requirement, initiate the alternate method of monitoring the parameter within 72 hours and either restore the inoperable channel(s) to OPERABLE status within 7 days or prepare and submit a Special Report to the Commission, pursuant to Specification 6.8.2, within 14 days that provides actions taken, cause of the inoperability, and the plans and schedule for restoring the channels to OPERABLE status.

## INSTRUMENTATION

### EXPLOSIVE GAS MONITORING INSTRUMENTATION

#### LIMITING CONDITION FOR OPERATION

---

3.3.3.10 The explosive gas monitoring instrumentation channels shown in Table 3.3-10 shall be OPERABLE with their Alarm/Trip Setpoints set to ensure that the limits of Specification 3.11.2.5 are not exceeded.

APPLICABILITY: As shown in Table 3.3-10

ACTION:

- a. With an explosive gas monitoring instrumentation channel Alarm/Trip Setpoint less conservative than required by the above specification, declare the channel inoperable and take the ACTION shown in Table 3.3-10.
- b. With less than the minimum number of explosive gas monitoring instrumentation channels OPERABLE, take the ACTION shown in Table 3.3-10. Restore the inoperable instrumentation to OPERABLE status within 30 days and, if unsuccessful, prepare and submit a Special Report to the Commission pursuant to Specification 6.8.2 to explain why this inoperability was not corrected in a timely manner.
- c. The provisions of Specification 3.0.3 are not applicable.

#### SURVEILLANCE REQUIREMENTS

---

4.3.3.10 Each explosive gas monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK, CHANNEL CALIBRATION and ANALOG CHANNEL OPERATIONAL TEST at the frequencies shown in Table 4.3-6.

## INSTRUMENTATION

### HIGH-ENERGY LINE BREAK ISOLATION SENSORS

#### LIMITING CONDITION FOR OPERATION

---

3.3.3.11 The high energy line break instrumentation listed in Table 3.3-11 shall be OPERABLE.

APPLICABILITY: As noted in Table 3.3-11.

#### ACTION:

- a. With the number of OPERABLE electric steam boiler isolation instruments less than the Minimum Channels OPERABLE as required by Table 3.3-11, restore the inoperable instruments to OPERABLE status within 7 days or suspend operation of the electric steam boiler until the inoperable sensors are restored to OPERABLE status.
- b. With the number of OPERABLE steam generator blowdown line isolation instruments or letdown line isolation instruments less than the Minimum Channels OPERABLE as required by Table 3.3.11, restore the inoperable instruments to OPERABLE status within 7 days or be in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

#### SURVEILLANCE REQUIREMENTS

---

4.3.3.11 Each of the above high energy line break isolation instruments shall be demonstrated OPERABLE by the performance of an ANALOG CHANNEL OPERATIONAL TEST at least once per 18 months.

## REACTOR COOLANT SYSTEM

### 3/4.4.10 STRUCTURAL INTEGRITY

#### LIMITING CONDITION FOR OPERATION

---

3.4.10 The structural integrity of ASME Code Class 1, 2, and 3 components shall be maintained in accordance with Specification 4.4.10.

APPLICABILITY: All MODES.

ACTION:

- a. With the structural integrity of any ASME Code Class 1 component(s) not conforming to the above requirements, restore the structural integrity of the affected component(s) to within its limit or isolate the affected component(s) prior to increasing the Reactor Coolant System temperature more than 50°F above the minimum temperature required by NDT considerations.
- b. With the structural integrity of any ASME Code Class 2 component(s) not conforming to the above requirements, restore the structural integrity of the affected component(s) to within its limit or isolate the affected component(s) prior to increasing the Reactor Coolant System temperature above 200°F.
- c. With the structural integrity of any ASME Code Class 3 component(s) not conforming to the above requirements, restore the structural integrity of the affected component(s) to within its limit or isolate the affected component(s) from service.

#### SURVEILLANCE REQUIREMENTS

---

4.4.10.1 Not Used

4.4.10.2 In addition to the requirements of Specification 4.0.5, each reactor coolant pump flywheel shall be inspected per the recommendations of Regulatory Position C.4.b of Regulatory Guide 1.14, Revision 1, August 1975.

4.4.10.3 In addition to the requirements of Specification 4.0.5, the four main steam lines and feedwater lines from the containment penetration flued head outboard welds, up to the first five-way restraint, shall be inspected. The extent of the inservice examinations completed during each inspection interval (ASME Code Section XI) shall provide 100 percent volumetric examination of circumferential and longitudinal welds to the extent practical.

## CONTAINMENT SYSTEMS

### 3/4.6.3 CONTAINMENT ISOLATION VALVES

#### LIMITING CONDITION FOR OPERATION

---

3.6.3 The containment isolation valves shall be OPERABLE.

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

ACTION:

With one or more of the containment isolation valve(s) inoperable, maintain at least one isolation valve OPERABLE in each affected penetration that is open and:

- a. Restore the inoperable valve(s) to OPERABLE status within 4 hours, or
- b. Isolate each affected penetration within 4 hours by use of at least one deactivated automatic valve secured in the isolation position, or
- c. Isolate each affected penetration within 4 hours by use of at least one closed manual valve or blind flange, or
- d. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

#### SURVEILLANCE REQUIREMENTS

---

4.6.3.1 The containment isolation valves shall be demonstrated OPERABLE prior to returning the valve to service after maintenance, repair or replacement work is performed on the valve or its associated actuator, control or power circuit by performance of a cycling test, and verification of isolation time.

## PLANT SYSTEMS

### AUXILIARY FEEDWATER SYSTEM

#### LIMITING CONDITION FOR OPERATION

---

3.7.1.2 At least three independent steam generator auxiliary feedwater pumps and associated flow paths shall be OPERABLE with:

- a. Two motor-driven auxiliary feedwater pumps, each capable of being powered from separate emergency busses, and
- b. One steam turbine-driven auxiliary feedwater pump capable of being powered from an OPERABLE steam supply system.

APPLICABILITY: MODES 1, 2, and 3.

#### ACTION:

- a. With one auxiliary feedwater pump inoperable, restore the required auxiliary feedwater pumps to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.
- b. With two auxiliary feedwater pumps inoperable, be in at least HOT STANDBY within 6 hours and in HOT SHUTDOWN within the following 6 hours.
- c. With three auxiliary feedwater pumps inoperable, immediately initiate corrective action to restore at least one auxiliary feedwater pump to OPERABLE status as soon as possible. Entry into an OPERATIONAL MODE or other specified condition under the provisions of Specification 3.0.4 shall not be made with three auxiliary feedwater pumps inoperable.

#### SURVEILLANCE REQUIREMENTS

---

4.7.1.2.1 Each auxiliary feedwater pump shall be demonstrated OPERABLE:

- a. At least once per 31 days on a STAGGERED TEST BASIS by:
  - 1) Verifying that each motor-driven pump develops a discharge pressure of greater than or equal to 1605 psig at a flow of greater than or equal to 150 gpm (FI-15101, FI-15102);
  - 2) Verifying that the steam turbine-driven pump develops a discharge pressure of greater than or equal to 1675 psig at a flow of greater than or equal to 145 gpm (FI-15100) when the secondary steam supply pressure (PI-5105A, PI-5105B) is greater than 900 psig. The provisions of Specification 4.0.4 are not applicable for entry into MODE 3.

## PLANT SYSTEMS

### MAIN STEAM LINE ISOLATION VALVES

#### LIMITING CONDITION FOR OPERATION

---

3.7.1.5 Two main steam line isolation systems (each system consisting of a main steam isolation valve (MSIV) and its associated bypass valve (MSIBV)) per steam line shall be OPERABLE.\*

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

MODE 1:

- a. With two main steam line isolation systems in any one steam line inoperable; POWER OPERATION may continue provided each MSIV in the affected steam line is open and at least one main steam line isolation system in the affected steam line is restored to OPERABLE status within 4 hours; otherwise reduce power to less than or equal to 5% of RATED THERMAL POWER within 2 hours.
- b. With one main steam line isolation system inoperable, power operation may continue provided the MSIV in the affected isolation system is open and the inoperable system is restored to OPERABLE status within 3 days. Otherwise, reduce power to less than or equal to 5% of RATED THERMAL POWER within 2 hours.

MODES 2 and 3:

- a. With two main steam line isolation systems in any one steam line inoperable, subsequent operation in MODES 2 or 3 may proceed provided at least one main steam line isolation system in the affected steam line is maintained closed. Otherwise, be in HOT STANDBY within the next 6 hours and HOT SHUTDOWN within the following 6 hours.
- b. With one main steam line isolation system inoperable but closed, subsequent operation in MODES 2 or 3 may proceed provided that the isolation system in the affected steam line is maintained closed.
- c. With one main steam line isolation system inoperable but open, either close the OPERABLE isolation system or restore the inoperable system to OPERABLE status within 7 days. Otherwise be in HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

#### SURVEILLANCE REQUIREMENTS

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4.7.1.5 Each MSIV and MSIBV shall be demonstrated OPERABLE by verifying full closure within 5 seconds when tested pursuant to Specification 4.0.5. The provisions of Specification 4.0.4 are not applicable for entry into MODE 3.

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\*An OPERABLE main steam line isolation system can consist of an OPERABLE MSIV and an inoperable associated MSIBV provided the inoperable MSIBV is maintained closed.

## PLANT SYSTEMS

### 3/4.7.9 SEALED SOURCE CONTAMINATION

#### LIMITING CONDITION FOR OPERATION

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3.7.9 Each sealed source containing radioactive material either in excess of 100 microCuries of beta and/or gamma emitting material or 5 microCuries of alpha emitting material shall be free of greater than or equal to 0.005 microCurie of removable contamination.

APPLICABILITY: At all times.

#### ACTION:

- a. With a sealed source having removable contamination in excess of the above limits, immediately withdraw the sealed source from use and either:
  1. Decontaminate and repair the sealed source, or
  2. Dispose of the sealed source in accordance with Commission Regulations.
- b. The provisions of Specification 3.0.3 are not applicable.

#### SURVEILLANCE REQUIREMENTS

---

4.7.9.1 Test Requirements - Each sealed source shall be tested for leakage and/or contamination by:

- a. The licensee, or
- b. Other persons specifically authorized by the Commission or an Agreement State.

The test method shall have a detection sensitivity of at least 0.005 microCurie per test sample.

4.7.9.2 Test Frequencies - Each category of sealed sources (excluding startup sources and fission detectors previously subjected to core flux) shall be tested at the frequency described below.

- a. Sources in use - At least once per 6 months for all sealed sources containing radioactive materials:
  - 1) With a half-life greater than 30 days (excluding Hydrogen 3), and
  - 2) In any form other than gas.

## PLANT SYSTEMS

### 3/4.7.10 AREA TEMPERATURE MONITORING

#### LIMITING CONDITION FOR OPERATION

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3.7.10 The Maximum Normal Temperature of each area shown in Table 3.7-3 shall not be exceeded for more than 8 hours and the Maximum Abnormal Temperature of Table 3.7-3 shall not be exceeded.

APPLICABILITY: Whenever the equipment in an affected area is required to be OPERABLE.

#### ACTION:

- a. With one or more areas exceeding the Maximum Normal Temperature limit(s) shown in Table 3.7-3 for more than 8 hours, prepare and submit to the Commission within 30 days, pursuant to Specification 6.8.2, a Special Report that provides a record of the cumulative time and the amount by which the temperature in the affected area(s) exceeded the limit(s) and an analysis to demonstrate the continued OPERABILITY of the affected equipment. The provisions of Specification 3.0.3 are not applicable.
- b. With one or more areas exceeding the Maximum Abnormal Temperature limit(s) shown in Table 3.7-3 prepare and submit a Special Report as required by ACTION a. above and within 4 hours either restore the area(s) to within the temperature limit(s) or declare the equipment in the affected area(s) inoperable.

#### SURVEILLANCE REQUIREMENTS

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4.7.10 The temperature in each of the areas shown in Table 3.7-3 shall be determined to be within its limit at least once per 12 hours.

### 3/4.8.4 ELECTRICAL EQUIPMENT PROTECTIVE DEVICES

#### CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES AND FEEDER BREAKERS TO ISOLATION TRANSFORMERS BETWEEN 480 V CLASS 1E BUSES AND NON-CLASS 1E EQUIPMENT

#### LIMITING CONDITION FOR OPERATION

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3.8.4.1 All containment penetration conductor overcurrent protective devices and feeder breakers to isolation transformers between 480 V Class 1E buses and non Class 1E equipment shall be OPERABLE.

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

ACTION:

With one or more of the containment penetration conductor overcurrent protective device(s) or feeder breakers to isolation transformers between 480 V Class 1E buses and non Class 1E equipment inoperable:

- a. Restore the protective device or feeder breaker to OPERABLE status or deenergize the circuit(s) by racking out, locking open, or removing the inoperable circuit breaker or protective device and tripping the associated backup circuit breaker within 72 hours, declare the affected system or component inoperable, and verify the inoperable circuit breaker or protective device racked out, locked open or removed at least once per 31 days thereafter; or
- b. Deenergize the circuits by racking out, locking open, or removing the inoperable circuit breaker or protective device within 72 hours, declare the affected system or component inoperable, and verify the inoperable circuit breaker or protective device racked out, locked open or removed at least once per 7 days thereafter; or
- c. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

#### SURVEILLANCE REQUIREMENTS

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4.8.4.1 All containment penetration conductor overcurrent protective devices and feeder breakers to isolation transformers between 480 V Class 1E buses and non Class 1E equipment shall be demonstrated OPERABLE:

- a. At least once per 18 months:
  - 1) By verifying that the 13.8 kV circuit breakers are OPERABLE by selecting, on a rotating basis, at least one of the circuit breakers, and performing the following:

REFUELING OPERATIONS

3/4.9.7 CRANE TRAVEL - SPENT FUEL STORAGE AREAS

LIMITING CONDITION FOR OPERATION

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3.9.7 Loads in excess of 2300 pounds shall be prohibited from travel over fuel assemblies in the storage pool.

APPLICABILITY: With irradiated fuel assemblies in the storage pool.

ACTION:

- a. With the requirements of the above specification not satisfied, place the crane load in a safe condition.
- b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

---

4.9.7 Crane interlocks and physical stops which prevent crane travel with loads in excess of 2300 pounds over fuel assemblies shall be demonstrated OPERABLE within 7 days prior to crane use and at least once per 7 days thereafter during crane operation.

## REFUELING OPERATIONS

### 3/4.9.9 CONTAINMENT VENTILATION ISOLATION SYSTEM

#### LIMITING CONDITION FOR OPERATION

---

3.9.9 The Containment Ventilation Isolation System shall be OPERABLE.

APPLICABILITY: During CORE ALTERATIONS or movement of irradiated fuel within the containment.

ACTION:

- a. With the Containment Ventilation Isolation System inoperable, close each of the Ventilation penetrations providing direct access from the containment atmosphere to the outside atmosphere.
- b. The provisions of Specification 3.0.3 are not applicable.

#### SURVEILLANCE REQUIREMENTS

---

4.9.9 The Containment Ventilation Isolation System shall be demonstrated OPERABLE within 100 hours prior to the start of and at least once per 7 days during CORE ALTERATIONS by verifying that containment ventilation isolation occurs on a High Radiation test signal from each of the containment radiation monitoring instrumentation channels (RE-0002, RE-0003, RE-2565).

## REFUELING OPERATIONS

### 3/4.9.11 WATER LEVEL - STORAGE POOL

#### LIMITING CONDITION FOR OPERATION

---

3.9.11 At least 23 feet of water shall be maintained over the top of irradiated fuel assemblies seated in the storage racks.

APPLICABILITY: Whenever irradiated fuel assemblies are in the storage pool.

ACTION:

- a. With the requirements of the above specification not satisfied, suspend all movement of fuel assemblies and crane operations over the spent fuel pool and restore the water level to within its limit within 4 hours.
- b. The provisions of Specification 3.0.3 are not applicable.

#### SURVEILLANCE REQUIREMENTS

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4.9.11 The water level in the storage pool shall be determined to be at least its minimum required depth at least once per 7 days when irradiated fuel assemblies are in the fuel storage pool.

## REFUELING OPERATIONS

### 3/4.9.12 FUEL HANDLING BUILDING POST ACCIDENT VENTILATION SYSTEM (COMMON SYSTEM)

#### LIMITING CONDITION FOR OPERATION

---

3.9.12 Two independent Fuel Handling Building Post Accident Ventilation Systems shall be OPERABLE.

APPLICABILITY: Whenever irradiated fuel is in either storage pool.

ACTION:

- a. With one Fuel Handling Building Post Accident Ventilation System inoperable, fuel movement within either storage pool or crane operation with loads over either storage pool may proceed provided the OPERABLE Fuel Handling Building Post Accident Ventilation System is capable of being powered from an OPERABLE emergency power source and is in operation and discharging through at least one train of HEPA filters and charcoal adsorbers.
- b. With no Fuel Handling Building Post Accident Ventilation System OPERABLE, suspend all operations involving movement of fuel within either storage pool or crane operation with loads over either storage pool until at least one Fuel Handling Building Post Accident Ventilation System is restored to OPERABLE status.
- c. The provisions of Specification 3.0.3 are not applicable.

#### SURVEILLANCE REQUIREMENTS

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4.9.12 The above required Fuel Handling Building Post Accident Ventilation Systems shall be demonstrated OPERABLE:

- a. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, flow 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;
- b. 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:

## RADIOACTIVE EFFLUENTS

### LIQUID HOLDUP TANKS

#### LIMITING CONDITION FOR OPERATION

---

3.11.1.4 The quantity of radioactive material contained in each outside temporary tank shall be limited to less than or equal to 10 curies, excluding tritium and dissolved or entrained noble gases.

APPLICABILITY: At all times.

ACTION:

- a. With the quantity of radioactive material in any of the outside temporary tanks exceeding the above limit, immediately suspend all additions of radioactive material to the tank, within 48 hours reduce the tank contents to within the limit, and describe the events leading to this condition in the next Semiannual Radioactive Effluent Release Report, pursuant to Specification 6.8.1.4.
- b. The provisions of Specification 3.0.3 are not applicable.

#### SURVEILLANCE REQUIREMENTS

---

4.11.1.4 The quantity of radioactive material contained in each of the above listed tanks shall be determined to be within the above limit by analyzing a representative sample of either the tank's contents at least once per 7 days when radioactive materials are being added to the tank or each batch of radioactive material prior to its addition to the tank.

RADIOACTIVE EFFLUENTS

EXPLOSIVE GAS MIXTURE

LIMITING CONDITION FOR OPERATION

---

3.11.2.5 The concentration of oxygen in the GASEOUS WASTE PROCESSING SYSTEM shall be limited to less than or equal to 2% by volume whenever the hydrogen concentration exceeds 4% by volume.

APPLICABILITY: At all times.

ACTION:

- a. With the concentration of oxygen in the GASEOUS WASTE PROCESSING SYSTEM greater than 2% by volume but less than or equal to 4% by volume, reduce the oxygen concentration to the above limits within 48 hours.
- b. With the concentration of oxygen in the GASEOUS WASTE PROCESSING SYSTEM greater than 4% by volume and the hydrogen concentration greater than 4% by volume, immediately suspend oxygen addition and all additions of waste gases to the system and reduce the concentration of oxygen to less than or equal to 4% by volume, then take ACTION a., above.
- c. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

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4.11.2.5 The concentrations of hydrogen and oxygen in the GASEOUS WASTE PROCESSING SYSTEM shall be determined to be within the above limits by continuously monitoring the waste gases in the GASEOUS WASTE PROCESSING SYSTEM with the hydrogen and oxygen monitors required OPERABLE by Table 3.3-10 of Specification 3.3.3.10.

## RADIOACTIVE EFFLUENTS

### GAS DECAY TANKS

#### LIMITING CONDITION FOR OPERATION

---

3.11.2.6 The quantity of radioactivity contained in each gas decay tank shall be limited to less than or equal to  $2.0 \times 10^5$  curies of noble gases (considered as Xe-133 equivalent).

APPLICABILITY: At all times.

ACTION:

- a. With the quantity of radioactive material in any gas decay tank exceeding the above limit, immediately suspend all additions of radioactive material to the tank, within 48 hours reduce the tank contents to within the limit, and describe the events leading to this condition in the next Semiannual Radioactive Effluent Release Report, pursuant to Specification 6.8.1.4.
- b. The provisions of Specification 3.0.3 are not applicable.

#### SURVEILLANCE REQUIREMENTS

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4.11.2.6 The quantity of radioactive material contained in each gas decay tank shall be determined to be within the above limit at least once per 24 hours when radioactive materials have been added to the tank during the previous 24 hours.

## 3/4 LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

### 3/4.0 APPLICABILITY

#### BASES

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Specifications 3.0.1 through 3.0.4 establish the general requirements applicable to Limiting Conditions for Operation. These requirements are based on the requirements for Limiting Conditions for Operation stated in the Code of Federal Regulations, 10 CFR 50.36(c) (2):

"Limiting conditions for operation are the lowest functional capability or performance levels of equipment required for safe operation of the facility. When a limiting condition for operation for a nuclear reactor is not met, the licensee shall shut down the reactor or follow any remedial action permitted by the technical specification until the condition can be met."

Specification 3.0.1 establishes the Applicability statement within each individual specification as the requirement for when (i.e., in which OPERATIONAL MODES or other specified conditions) conformance to the Limiting Conditions for Operation is required for safe operation of the facility. The ACTION requirements establish those remedial measures that must be taken within specified time limits when the requirements of a Limiting Condition for Operation are not met.

These are two basic types of ACTION requirements. The first specifies the remedial measures that permit continued operation of the facility which is not further restricted by the time limits of the ACTION requirements. In this case, conformance to the ACTION requirements provides an acceptable level of safety for unlimited continued operation as long as the ACTION requirements continue to be met. The second type of ACTION requirement specifies a time limit in which conformance to the conditions of the Limiting Condition for Operation must be met. This time limit is the allowable outage time to restore an inoperable system or component to OPERABLE status or for restoring parameters within specified limits. If these actions are not completed within the allowable outage time limits, a shutdown is required to place the facility in a MODE or condition in which the specification no longer applies. It is not intended that the shutdown ACTION requirements be used as an operational convenience which permits (routine) voluntary removal of a system(s) or component(s) from service in lieu of other alternatives that would not result in redundant systems or components being inoperable.

The specified time limits of the ACTION requirements are applicable from the point in time it is identified that a Limiting Condition for Operation is not met. The time limits of the ACTION requirements are also applicable when a system or component is removed from service for surveillance testing or investigation of operational problems. Individual specifications may include a specified time limit for the completion of a Surveillance Requirement when equipment is removed from service. In this case, the allowable outage time limits of the ACTION requirements are applicable when this limit expires if the surveillance has not been completed. When a shutdown is required to comply with ACTION requirements, the plant may have entered a MODE in which a new specification becomes applicable. In this case, the time limits of the ACTION

### 3/4.0 APPLICABILITY

#### BASES

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requirements would apply from the point in time that the new specification becomes applicable if the requirements of the Limiting Condition for Operation are not met.

Specification 3.0.2 establishes that noncompliance with a specification exists when the requirements of the Limiting Condition for Operation are not met and the associated ACTION requirements have not been implemented within the specified time interval. The purpose of this specification is to clarify that (1) implementation of the ACTION requirements within the specified time interval constitutes compliance with a specification and (2) completion of the remedial measures of the ACTION requirements is not required when compliance with a Limiting Condition of Operation is restored within the time interval specified in the associated ACTION requirements.

Specification 3.0.3 establishes the shutdown ACTION requirements that must be implemented when a Limiting Condition for Operation is not met and the condition is not specifically addressed by the associated ACTION requirements. The purpose of this specification is to delineate the time limits for placing the unit in a safe shutdown MODE when plant operation cannot be maintained within the limits for safe operation defined by the Limiting Conditions for Operation and its ACTION requirements. It is not intended to be used as an operational convenience which permits (routine) voluntary removal of redundant systems or components from service in lieu of other alternatives that would not result in redundant systems or components being inoperable. One hour is allowed to prepare for an orderly shutdown before initiating a change in plant operation. This time permits the operator to coordinate the reduction in electrical generation with the load dispatcher to ensure the stability and availability of the electrical grid. The time limits specified to reach lower MODES of operation permit the shutdown to proceed in a controlled and orderly manner that is well within the specified maximum cooldown rate and within the cooldown capabilities of the facility assuming only the minimum required equipment is OPERABLE. This reduces thermal stresses on components of the primary coolant system and the potential for a plant upset that could challenge safety systems under conditions for which this specification applies.

If remedial measures permitting limited continued operation of the facility under the provisions of the ACTION requirements are completed, the shutdown may be terminated. The time limits of the ACTION requirements are applicable from the point in time there was a failure to meet a Limiting Condition for Operation. Therefore, the shutdown may be terminated if the ACTION requirements have been met or the time limits of the ACTION requirements have not expired, thus providing an allowance for the completion of the required actions.

The time limits of Specification 3.0.3 allow 37 hours for the plant to be in the COLD SHUTDOWN MODE when a shutdown is required during the POWER MODE of operation. If the plant is in a lower MODE of operation when a shutdown is required, the time limit for reaching the next lower MODE of operation applies. However, if a lower MODE of operation is reached in less time than allowed, the total allowable time to reach COLD SHUTDOWN, or other applicable MODE, is not

### 3/4.0 APPLICABILITY

#### BASES

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reduced. For example, if HOT STANDBY is reached in 2 hours, the time allowed to reach HOT SHUTDOWN is the next 11 hours because the total time to reach HOT SHUTDOWN is not reduced from the allowable limit of 13 hours. Therefore, if remedial measures are completed that would permit a return to POWER operation, a penalty is not incurred by having to reach a lower MODE of operation in less than the total time allowed.

The same principle applies with regard to the allowable outage time limits of the ACTIONS requirements, if compliance with the ACTION requirements for one specification results in entry into a MODE or condition of operation for another specification in which the requirements of the Limiting Condition for Operation are not met. If the new specification becomes applicable in less time than specified, the difference may be added to the allowable outage time limits of the second specification. However, the allowable outage time limits of ACTION requirements for a higher MODE of operation may not be used to extend the allowable outage time that is applicable when a Limiting Condition for Operation is not met in a lower MODE of operation. For example if the Containment Spray System was discovered to be inoperable while in STARTUP, the ACTION Statement would allow up to 156 hours to achieve COLD SHUTDOWN. If HOT STANDBY is attained in 16 hours rather than the allowed 78 hours, 140 hours would still be available before the plant would be required to be COLD SHUTDOWN. However, if this system was discovered to be inoperable while in HOT STANDBY, the 6 hours provided to achieve HOT STANDBY would not be additive to the time available to achieve COLD SHUTDOWN so that the total allowable time is reduced from 156 hours to 150 hours.

The shutdown requirements of Specification 3.0.3 do not apply in MODES 5 and 6, because the ACTION requirements of individual specifications define the remedial measures to be taken.

Specification 3.0.4 establishes limitation on MODE changes when a Limiting Condition for Operation is not met. It precludes placing the facility in a higher MODE of operation when the requirements for a Limiting Condition for Operation are not met and continued noncompliance to these conditions would result in a shutdown to comply with the ACTION requirements if a change in MODES were permitted. The purpose of this specification is to ensure that facility operation is not initiated or that higher MODES of operation are not entered when corrective action is being taken to obtain compliance with a specification by restoring equipment to OPERABLE status or parameters to specified limits. Compliance with ACTION requirements that permit continued operation of the facility for an unlimited period of time provides an acceptable level of safety for continued operation without regard to the status of the plant before or after a MODE change. Therefore, in this case, entry into an OPERATIONAL MODE or other specified condition may be made in accordance with the provisions of the ACTION requirements. The provisions of this specification should not, however, be interpreted as endorsing the failure to exercise good practice in restoring systems or components to OPERABLE status before plant startup.

### 3/4.0 APPLICABILITY

#### BASES

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When a shutdown is required to comply with ACTION requirements, the provisions of Specification 3.0.4 do not apply because they would delay placing the facility in a lower MODE of operation.

Specifications 4.0.1 through 4.0.5 establish the general requirements applicable to Surveillance Requirements. These requirements are based on the Surveillance Requirements stated in the Code of Federal Regulations, 10 CFR 50.36(c)(3):

"Surveillance requirements are requirements relating to test, calibration, or inspection to ensure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions of operation will be met."

Specification 4.0.1 establishes the requirement that surveillances must be performed during the OPERATIONAL MODES or other conditions for which the requirements of the Limiting Conditions for Operation apply unless otherwise stated in an individual Surveillance Requirement. The purpose of this specification is to ensure that surveillances are performed to verify the operational status of systems and components and that parameters are within specified limits to ensure safe operation of the facility when the plant is in a MODE or other specified condition for which the associated Limiting Conditions for Operation are applicable. Surveillance Requirements do not have to be performed when the facility is in an OPERATIONAL MODE for which the requirements of the associated Limiting Condition for Operation do not apply unless otherwise specified. The Surveillance Requirements associated with a Special Test Exception are only applicable when the Special Test Exception is used as an allowable exception to the requirements of a specification.

Specification 4.0.2 establishes the limit for which the specified time interval for Surveillance Requirements may be extended. It permits an allowable extension of the normal surveillance interval to facilitate surveillance scheduling and consideration of plant operating conditions that may not be suitable for conducting the surveillance; e.g., transient conditions or other ongoing surveillance or maintenance activities. It also provides flexibility to accommodate the length of a fuel cycle for surveillances that are performed at each refueling outage. It is not intended that this provision be used repeatedly as a convenience to extend surveillance intervals beyond that specified for surveillances that are performed during normal operation. The limitation of Specification 4.0.2 is based on engineering judgement and the recognition that the most probable result of any particular surveillance being performed is the verification of conformance with the Surveillance Requirements. This provision is sufficient to ensure that the reliability ensured through surveillance activities is not significantly degraded beyond that obtained from the specified surveillance interval.

Specification 4.0.3 establishes the failure to perform a Surveillance Requirement within the allowed surveillance interval, defined by the provisions of

### 3/4.0 APPLICABILITY

#### BASES

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Specification 4.0.2, as a condition that constitutes a failure to meet the OPERABILITY requirements for a Limiting Condition for Operation. Under the provisions of this specification, systems and components are assumed to be OPERABLE when Surveillance Requirements have been satisfactorily performed within the specified time interval. However, nothing in this provision is to be construed as implying that systems or components are OPERABLE when they are found or known to be inoperable although still meeting the Surveillance Requirements. This specification also clarifies that the ACTION requirements are applicable when Surveillance Requirements have not been completed within the allowed surveillance interval and that the time limits of the ACTION requirements apply from the point in time it is identified that a surveillance has not been performed and not at the time that the allowed surveillance interval was exceeded. Completion of the Surveillance Requirement within the allowable outage time limits of the ACTION requirements restores compliance with the requirements of Specification 4.0.3. However, this does not negate the fact that the failure to have performed the surveillance within the allowed surveillance interval, defined by the provisions of Specification 4.0.2, was a violation of the OPERABILITY requirements of a Limiting Condition for Operation that is subject to enforcement action. Further, the failure to perform a surveillance within the provisions of Specification 4.0.2 is a violation of a Technical Specification requirement and is, therefore, a reportable event under the requirement of 10 CFR 50.73(a)(2)(i)(B) because it is a condition prohibited by the plant's Technical Specification.

If the allowable outage time limits of the ACTION requirements are less than 24 hours or a shutdown is required to comply with ACTION requirements, e.g., Specification 3.0.3, a 24-hour allowance is provided to permit a delay in implementing the ACTION requirements. This provides an adequate time limit to complete Surveillance Requirements that have not been performed. The purpose of this allowance is to permit the completion of a surveillance before a shutdown is required to comply with ACTION requirements or before other remedial measures would be required that may preclude completion of a surveillance. The basis for this allowance includes consideration for plant conditions, adequate planning, availability of personnel, the time required to performed the surveillance, and the safety significance of the delay in completing the required surveillance. This provision also provides a time limit for the completion of Surveillance Requirements that become applicable as a consequence of MODE changes imposed by ACTION requirements and for completing Surveillance Requirements that are applicable when an exception to the requirements of Specification 4.0.4 is allowed. If a surveillance is not completed within the 24-hour allowance, the time limits of the ACTION requirements are applicable at that time. When a surveillance is performed within the 24-hour allowance and the Surveillance Requirements are not met, the time limits of the ACTION requirements are applicable at the time that the surveillance is terminated.

Surveillance Requirements do not have to be performed on inoperable equipment because the ACTION requirements define the remedial measures that apply. However, the Surveillance Requirements have to be met to demonstrate that inoperable equipment has been restored to OPERABLE status.

### 3/4.0 APPLICABILITY

#### BASES

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Specification 4.0.4 establishes the requirement that all applicable surveillances must be met before entry into an OPERATIONAL MODE or other condition of operation specified in the Applicability statement. The purpose of this specification is to ensure that system and component OPERABILITY requirements or parameter limits are met before entry into a MODE or condition for which these systems and components ensure safe operation of the facility. This provision applies to changes in OPERATIONAL MODES or other specified conditions associated with plant shutdown as well as startup.

Under the provisions of this specification, the applicable Surveillance Requirements must be performed within the specified surveillance interval to ensure that the Limiting Conditions for Operation are met during initial plant startup or following a plant outage.

When a shutdown is required to comply with ACTION requirements, the provisions of Specification 4.0.4 do not apply because this would delay placing the facility in a lower MODE of operation.

Specification 4.0.5 establishes the requirement that inservice inspection of ASME Code Class 1, 2, and 3 components and inservice testing of ASME Code Class 1, 2, and 3 pumps and valves shall be performed in accordance with a periodically updated version of Section XI of the ASME Boiler and Pressure Vessel Code and Addenda as required by 10 CFR 50.55a. These requirements apply except when relief has been provided in writing by the Commission.

This specification includes a clarification of the frequencies for performing the inservice inspection and testing activities required by Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda. This clarification is provided to ensure consistency in surveillance intervals throughout the Technical Specifications and to remove any ambiguities relative to the frequencies for performing the required inservice inspection and testing activities.

Under the terms of this specification, the more restrictive requirements of the Technical Specifications take precedence over the ASME Boiler and Pressure Vessel Code and applicable Addenda. The requirements of Specification 4.0.4 to perform surveillance activities before entry into an OPERATIONAL MODE or other specified condition takes precedence over the ASME Boiler and Pressure Vessel Code provision which allows pumps and valves to be tested up to one week after return to normal operation. The Technical Specification definition of OPERABLE does not allow a grace period before a component, that is not capable of performing its specified function, is declared inoperable and takes precedence over the ASME Boiler and Pressure Vessel Code provision which allows a valve to be incapable of performing its specified function for up to 24 hours before being declared inoperable.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 59 TO FACILITY OPERATING LICENSE NPF-68  
AND AMENDMENT NO. 38 TO FACILITY OPERATING LICENSE NPF-81  
GEORGIA POWER COMPANY, ET AL.  
VOGTLE ELECTRIC GENERATING PLANT, UNITS 1 AND 2  
DOCKET NOS. 50-424 AND 50-425

1.0 INTRODUCTION

By letter dated May 27, 1992, as supplemented December 7, 1992, Georgia Power Company, et al. (the licensee) proposed license amendments to change the Technical Specifications (TS) for Vogtle Electric Generating Plant (Vogtle), Units 1 and 2. The proposed changes would revise Sections 3.0 and 4.0 of the TS to incorporate the changes recommended in NRC's Generic Letter (GL) 87-09, "Sections 3.0 and 4.0 of the Standard Technical Specifications (STS) on the Applicability of Limiting Conditions for Operation and Surveillance Requirements." In this letter the NRC has concluded that certain recommended modifications to TSs 3.0.4, 4.0.3 and 4.0.4 would clarify the intent of these TSs and would resolve three problems associated with the existing requirements, as follows: (1) the revision of TS 3.0.4 would remove unnecessary restrictions on operational mode changes in those cases where conformance with Action Statement requirements provides an acceptable level of safety for continued operation for an unlimited period of time; (2) the revision of TS 4.0.3 would provide a 24-hour delay before implementing TS Action Statement Requirements due to a missed surveillance, in those cases where the required restoration time is less than 24 hours; and (3) the revision of TS 4.0.4 would assure that its Surveillance requirements do not prevent the plant's passage through or to Operational Modes as required to comply with TS Action Statement requirements.

2.0 EVALUATION

Technical Specification 3.0.4

The existing TS 3.0.4 specifies, in part, that "Entry into an Operational Mode or other specified condition shall not be made unless the conditions for the Limiting Condition for Operation (LCO) are met without reliance on provisions contained in the Action requirements." The staff position in GL 87-09 is that this TS, as presently written to exclude reliance on provisions contained in the Action requirements, "unduly restricts facility operation when conformance

to the Action Requirements provides an acceptable level of safety for continued operation. For an LCO that has Action Requirements permitting continued operation for an unlimited period of time, entry into an operational mode or other specified condition of operation should be permitted in accordance with those Action Requirements. This is consistent with NRC's regulatory requirements for an LCO. The restriction on a change in operational modes or other specified conditions should apply only where the Action Requirements establish a specified time interval in which the LCO must be met or a shutdown of the facility would be required. However, nothing in this staff position should be interpreted as endorsing or encouraging a plant startup with inoperable equipment. The staff believes that good practice should dictate that the plant startup should normally be initiated only when all required equipment is operable and that startup with inoperable equipment must be the exception rather than the rule."

In accordance with this position, the staff recommended in GL 87-09 the following change to replace the first sentence of TS 3.0.4:

Entry into an OPERATIONAL MODE or other specified condition shall not be made when the conditions for the Limiting Conditions for Operation are not met and the associated ACTION requires a shutdown if they are not met within a specified time interval. Entry into an OPERATIONAL MODE or specified condition may be made in accordance with ACTION requirements when conformance to them permits continued operation of the facility for an unlimited period of time.

The licensee's proposed changes to TS 3.0.4 conforms to the above staff recommendation and is, therefore, acceptable.

The revised TS 3.0.4 eliminated the need for exceptions to it in TSs for a number of individual systems. For such systems, the exceptions to TS 3.0.4 are deleted in the proposed TS changes. Since these deletions are consistent with the revised form of TS 3.0.4, we find that they are acceptable.

#### Technical Specification 4.0.3

Vogtle TS 4.0.3 presently states that failure to perform a Surveillance Requirement within the specified surveillance interval shall constitute a failure to meet the operability requirements for an LCO. When an LCO is not met, TS 3.0.3 requires that shutdown actions be initiated within 1 hour. In GL 87-09, the staff finds:

It is overly conservative to assume that systems or components are inoperable when a surveillance requirement has not been performed. The opposite is in fact the case; the vast majority of surveillances demonstrate that systems or components in fact are operable. When a surveillance is missed, it is primarily a question of operability that has not been verified by the performance of the required surveillance. Because the allowable outage time limits of some Action Requirements do not provide an appropriate time limit for performing a missed surveillance before shutdown requirements may apply, the Technical

Specifications should include a time limit that would allow a delay of the required actions to permit the performance of the missed surveillance.

The time limit should be based on considerations of plant conditions, adequate planning, availability of personnel, the time required to perform the surveillance, as well as the safety significance of the delay in completion of the surveillance. After reviewing possible limits, the staff has concluded that, based on these considerations, 24-hours would be an acceptable time limit for completing a missed surveillance when the limit or when shutdown Action Requirements apply. The 24-hour time limit would balance the risks associated with an allowance for completing the surveillance within this period against the risks associated with the potential for a plant upset and challenge to safety systems when the alternative is a shutdown to comply with Action Requirements before the surveillance can be completed.

The staff recommended in GL 87-09 the following revised version of TS. 4.0.3:

Failure to perform a Surveillance Requirement within the allowed surveillance interval, defined by Specification 4.0.2, shall constitute noncompliance with the OPERABILITY requirements for a Limiting Condition for Operation. The time limits of the ACTION requirements are applicable at the time it is identified that a Surveillance Requirement has not been performed. The ACTION requirements may be delayed for up to 24 hours to permit the completion of the surveillance when the allowable outage time limits of the ACTION requirements are less than 24 hours.

In GL 87-09, the staff also recommended the deletion of the statement that exceptions to TS 4.0.3 are stated in individual specifications. This statement is deleted because TS 4.0.3 is always applicable and there are no exceptions for individual specifications.

The licensee's proposed change to TS 4.0.3 is identical to the above version recommended by the NRC staff and is, therefore, acceptable.

#### Technical Specification 4.0.4

Vogtle TS 4.0.4 currently requires that before a new Operational Mode is entered, Surveillance Requirements pertaining to the new mode are to be performed within time limits specified by TS 4.0.3. A conflict arises when Action Requirements require a mode change, but the Surveillance Requirements which become applicable in the new mode have not been performed within the specified interval so that TS 4.0.4 does not permit a mode change. If an exception to TS 4.0.4 is allowed (e.g., for cases where the Surveillance

Requirements can only be completed after entry into the mode to which they apply), there may still be a conflict with TS 4.0.3 if the Surveillance Requirements have not been performed within the allowed surveillance interval.

In GL 87-09, the staff took the following position:

The potential for a plant upset and challenge to safety systems is heightened if surveillances are performed during a shutdown to comply with Action Requirements. It is not the intent of Specification 4.0.4 to prevent passage through or to operational modes to comply with Action Requirements and it should not apply when mode changes are imposed by Action Requirements. Accordingly, Specification 4.0.4 should be modified to note that its provisions shall not prevent passage through or to operational modes as required to comply with Action Requirements. A similar provision is included in Specification 3.0.4.

It is not the intent of Specification 4.0.3 that the Action Requirements should preclude the performance of surveillances when an exception to Specification 4.0.4 is allowed. However, since Specification 4.0.3 has been changed to permit a delay of up to 24 hours in the applicability of the Action Requirements, an appropriate time limit now exists for the completion of those Surveillance Requirements that become applicable when an exception to Specification 4.0.4 is allowed.

Based on these considerations, the staff recommended in GL 87-09 that the following sentence be added to TS 4.0.4:

This provision shall not prevent passage through or to OPERATIONAL MODES as required to comply with ACTION Requirements.

The licensee's proposed change to TS 4.0.4 is identical to the NRC staff's recommendation and is, therefore, acceptable.

#### Bases for TSs 3.0 and 4.0

The licensee's proposed revisions to the Bases for TSs 3.0 and 4.0 are identical to those recommended by the staff in GL 87-09, except for three added sentences providing an example intended to clarify the shutdown time requirements of TS 3.0.3. The added example is consistent with the bases of TS 3.0.3 and is, therefore, acceptable. The remaining Bases for TSs 3.0 and 4.0 are identical to those recommended by the staff and are, therefore, acceptable.

#### 3.0 STATE CONSULTATION

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

#### 4.0 ENVIRONMENTAL CONSIDERATION

The amendments change requirements with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and change surveillance requirements. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (58 FR 593 dated January 6, 1993). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

#### 5.0 CONCLUSION

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

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Date: **March 22, 1993**