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

50-424/425

January 29, 1999

Mr. J. B. Beasley, Jr.
Vice President
Southern Nuclear Operating
Company, Inc.
Post Office Box 1295
Birmingham, Alabama 35201-1295

SUBJECT: ISSUANCE OF AMENDMENTS - VOGTLE NUCLEAR PLANT, UNITS 1 AND 2 (TAC NOS. MA2196 AND MA2197)

Dear Mr. Beasley:

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 105 to Facility Operating License NPF-68 and Amendment No. 83 to Facility Operating License NPF-81 for the Vogtle Nuclear Plant, Units 1 and 2. The amendments consist of changes to the Technical Specifications (TS) in partial response to your application dated June 26, 1998, as supplemented by letters dated September 18 and November 30, 1998.

The amendments (1) revise the Applicability of Limiting Condition for Operation (LCO) 3.3.6, "Containment Ventilation Isolation Instrumentation," to refer to TS Table 3.3.6-1; the TS table is revised to add a column entitled "Applicable Modes or Other Specified Conditions." Then, the applicable modes for Manual Initiation, Automatic Actuation Logic and Actuation Relays, and Safety Injection are revised to include only Modes 1, 2, 3, and 4. Consistent with this TS change, LCO 3.3.6, Condition C and Required Action C.2 are revised to reflect that system level manual initiation and automatic actuation are not required during core alterations and/or during movement of irradiated fuel assemblies within the containment. Appropriate Bases changes are included to reflect the proposed changes; (2) LCO 3.7.6 is revised to delete the words "Redundant CSTs" from the title and LCO 3.7.6a is deleted. Appropriate Bases changes are included to reflect the TS changes; and (3) LCO 3.9.4 is revised to allow the emergency air lock to be open during core alterations and/or during movement of irradiated fuel assemblies within the containment. In addition, the LCO statement is revised to reflect that containment ventilation isolation (CVI) would be accomplished by manually closing the individual containment purge and supply isolation valves as opposed to a system level manual or automatic initiation, consistent with the change to LCO 3.3.6. Surveillance Requirement (SR) 3.9.4.2 is revised to reflect the proposed change to CVI. Appropriate Bases changes are included to reflect the TS changes.

DF01

In your application dated June 16, 1998, a proposal was made for an additional change to LCO 3.9.4, and an associated SR, to allow the equipment hatch to be open during core alterations and/or movement of irradiated fuel inside the containment. These proposed changes to the TS are not acceptable to the NRC staff and are addressed in the enclosed Safety Evaluation and Notice of Partial Denial of Amendments to Facility Operating Licenses, which has been sent to the Office of the Federal Register for publication.

CP-1

A Notice of Issuance, for those changes to the TS, which the NRC staff have found acceptable, will be included in the Commission's biweekly Federal Register notice.

Sincerely,

ORIGINAL SIGNED BY:

David H. Jaffe, Senior Project Manager
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket Nos. 50-424 and 50-425

Enclosures:
1. Amendment No. 105 to NPF-68
2. Amendment No. 83 to NPF-81
3. Safety Evaluation
4. Notice of Partial Denial

cc w/encls: See next page

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NAME	C Marco	H.BERKOW			
DATE	1/26/99	1/29/99	/98	/98	/98

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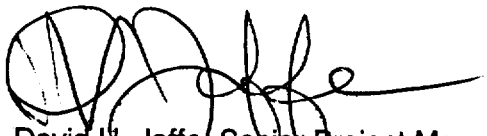
A Notice of Issuance, for those changes to the TS, which the NRC staff have found acceptable, will be included in the Commission's biweekly Federal Register notice.

Sincerely,



David H. Jaffe, Senior Project Manager
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket Nos. 50-424 and 50-425

Enclosures:
1. Amendment No. 105 to NPF-68
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3. Safety Evaluation
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cc w/encls: See next page

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

SOUTHERN NUCLEAR OPERATING COMPANY, INC.

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. 105
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 Southern Nuclear Operating Company, Inc. (Southern Nuclear), acting for itself, Georgia Power Company, OGLETHORPE Power Corporation, Municipal Electric Authority of Georgia, and City of Dalton, Georgia (the licensees), dated June 26, 1998, as supplemented by letters dated September 18 and November 30, 1998, 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. 105 , and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this license. Southern Nuclear shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

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

FOR THE NUCLEAR REGULATORY COMMISSION

for

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

Attachment:
Technical Specification
Changes

Date of Issuance: January 29, 1999

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

SOUTHERN NUCLEAR OPERATING COMPANY, INC.

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. 83
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 Southern Nuclear Operating Company, Inc. (Southern Nuclear), acting for itself, Georgia Power OGLETHORPE Power Corporation, Municipal Electric Authority of Georgia, and City of Dalton, Georgia (the licensees), dated June 26, 1998, as supplemented by letters dated September 18 and November 30, 1998, 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. 83 , and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this license. Southern Nuclear shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

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

FOR THE NUCLEAR REGULATORY COMMISSION

FOR

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

Attachment:
Technical Specification
Changes

Date of Issuance: January 29, 1999

ATTACHMENT TO LICENSE AMENDMENT NO. 105

FACILITY OPERATING LICENSE NO. NPF-68

DOCKET NO. 50-424

AND

TO LICENSE AMENDMENT NO. 83

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	Insert
3.3-49	3.3-49
3.3-51	3.3-51
3.3-53	3.3-53
B 3.3-146	B 3.3-146
B 3.3-147	B 3.3-147
-----	B 3.3-147a*
-----	B 3.3-147b*
B 3.3-148	B 3.3-148
B 3.3-149	B 3.3-149
B 3.3-150	B 3.3-150
B 3.3-152	B 3.3-152
3.7-15	3.7-15
3.7-16	3.7-16*
B 3.7-37	B 3.7-37
3.9-6	3.9-6
3.9-7	3.9-7
B 3.9-14	B 3.9-14
B 3.9-15	B 3.9-15
B 3.9-16	B 3.9-16
B 3.9-17	B 3.9-17
B 3.9-18	B 3.9-18
B 3.9-19	B 3.9-19

*no change - overflow or blank page

3.3 INSTRUMENTATION

3.3.6 Containment Ventilation Isolation Instrumentation

LCO 3.3.6 The Containment Ventilation Isolation instrumentation for each Function in Table 3.3.6-1 shall be OPERABLE.

APPLICABILITY: According to Table 3.3.6-1.

ACTIONS

----------NOTE----------
Separate Condition entry is allowed for each Function.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Only one radiation monitoring channel OPERABLE.	A.1 Restore at least two channels to OPERABLE status.	4 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. ---------NOTE--------- Only applicable during CORE ALTERATIONS or movement of irradiated fuel assemblies within containment. ----------	C.1 Place and maintain containment purge and exhaust valves in closed position.	Immediately
	OR	
No radiation monitoring channels OPERABLE.	C.2 Enter applicable Conditions and Required Actions of LCO 3.9.4, "Containment Penetrations," for containment purge supply and exhaust isolation penetrations not in required status.	Immediately
OR		
Required Action and associated Completion Time for Condition A not met.		

Table 3.3.6-1 (page 1 of 1)
Containment Ventilation Isolation Instrumentation

	FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	SURVEILLANCE REQUIREMENTS	TRIP SETPOINT
1.	Manual Initiation	1,2,3,4	2	SR 3.3.6.6	NA
2.	Automatic Actuation Logic and Actuation Relays	1,2,3,4	2	SR 3.3.6.2 SR 3.3.6.3 SR 3.3.6.5	NA
3.	Containment Radiation	1,2,3,4,6[c]	2[a]	SR 3.3.6.1 SR 3.3.6.4 SR 3.3.6.7 SR 3.3.6.8	
	a. Gaseous (RE-2565C)				(b)
	b. Particulate (RE-2565A)				(b)
	c. Iodine (RE-2565B)				(b)
	d. Area Low Range (RE-0002, RE-0003)				≤ 15 mr/h[c] ≤ 50x background[d]
4.	Safety Injection	1,2,3,4	Refer to LCO 3.3.2, "ESFAS Instrumentation," Function 1, for all initiation functions and requirements.		

(a) Containment ventilation radiation (RE-2565) is treated as one channel and is considered OPERABLE if the particulate (RE-2565A) and iodine monitors (RE-2565B) are OPERABLE or the noble gas monitor (RE-2565C) is OPERABLE.

(b) Setpoints will not exceed the limits of Specifications 5.5.4.h and 5.5.4.i of the Radioactive Effluent Controls Program.

(c) During CORE ALTERATIONS and movement of irradiated fuel assemblies within containment.

(d) During MODES 1, 2, 3, and 4.

BASES (continued)

APPLICABLE SAFETY ANALYSES

The safety analyses assume that the containment remains intact with penetrations unnecessary for core cooling isolated early in the event, within approximately 60 seconds. The isolation of the purge supply and exhaust valves has not been analyzed mechanistically in the dose calculations, although its rapid isolation is assumed. The containment purge supply and exhaust isolation radiation monitors act as backup to the SI signal to ensure closing of the purge supply and exhaust valves for events occurring in MODES 1 through 4. Manual isolation (using individual valve handswitches) following a radiation alarm is the assumed means for isolating containment in the event of a fuel handling accident during shutdown. Containment isolation in turn ensures meeting the containment leakage rate assumptions of the safety analyses, and ensures that the calculated accidental offsite radiological doses are below 10 CFR 100 (Ref. 1) limits.

The containment ventilation isolation instrumentation satisfies Criterion 3 of the NRC Policy Statement.

LCO

The LCO requirements ensure that the instrumentation necessary to initiate Containment Ventilation Isolation, listed in Table 3.3.6-1, is OPERABLE.

1. Manual Initiation

The LCO requires two channels OPERABLE. The operator can initiate Containment ventilation isolation at any time by using either of two switches in the control room (containment isolation Phase A switches). Either switch actuates both trains. This action will cause actuation of all components in the same manner as any of the automatic actuation signals.

The LCO for Manual Initiation ensures the proper amount of redundancy is maintained in the manual actuation circuitry to ensure the operator has manual initiation capability.

Each channel consists of one CIA handswitch and the interconnecting wiring to the actuation logic cabinet.

(continued)

BASES

LCO (continued)

2. Automatic Actuation Logic and Actuation Relays

The LCO requires two channels of Automatic Actuation Logic and Actuation Relays OPERABLE to ensure that no single random failure can prevent automatic actuation.

Automatic Actuation Logic and Actuation Relays consist of the same features and operate in the same manner as described for ESFAS Function 1.b, SI. The applicable MODES and specified conditions for the Containment ventilation isolation portion of these Functions are different and less restrictive than those for their SI roles. If one or more of the SI Functions becomes inoperable in such a manner that only the Containment Ventilation Isolation Function is affected, the Conditions applicable to their SI Functions need not be entered. The less restrictive Actions specified for inoperability of the Containment Ventilation Isolation Functions specify sufficient compensatory measures for this case.

3. Containment Radiation

The LCO specifies two required channels of radiation monitors to ensure that the radiation monitoring instrumentation necessary to initiate Containment ventilation isolation remains OPERABLE. During CORE ALTERATIONS or movement of irradiated fuel assemblies in containment, the required channels provide input to control room alarms to ensure prompt operator action to manually close the containment purge and exhaust valves. It is also acceptable during CORE ALTERATIONS or movement of irradiated fuel to meet the requirements of this LCO by maintaining the radiation monitoring instrumentation necessary to initiate containment ventilation isolation OPERABLE, in accordance with the requirements stated for MODES 1, 2, 3, and 4 operability. The purge exhaust radiation detectors (RE-2565A, B&C) are treated as one channel which is considered OPERABLE if the particulate (RE-2565A) and iodine (RE-2565B) monitors are OPERABLE or the noble gas monitor (RE-2565C) is OPERABLE. In addition, two individual channels of containment area low range gamma monitors (RE-0002 & RE-0003) are provided. The two required radiation monitoring channels may be made up of any combination of the above described channels.

(continued)

BASES

LCO

3. Containment Radiation (continued)

For sampling systems, channel OPERABILITY involves more than OPERABILITY of the channel electronics. OPERABILITY may also require correct valve lineups, sample pump operation, and filter motor operation, as well as detector OPERABILITY, if these supporting features are necessary for trip to occur under the conditions assumed by the safety analyses.

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(continued)

BASES

LCO (continued)

4. Safety Injection

Refer to LCO 3.3.2, Function 1, for all initiating Functions and requirements. The safety injection initiation function is applicable in MODES 1, 2, 3, and 4 only.

APPLICABILITY

The Manual Initiation, Automatic Actuation Logic and Actuation Relays, Containment Radiation, and Safety Injection Functions are required OPERABLE in MODES 1, 2, 3, and 4. Under these conditions, the potential exists for an accident that could release fission product radioactivity into containment. Therefore, the Containment ventilation isolation instrumentation must be OPERABLE in these MODES.

During CORE ALTERATIONS or movement of irradiated fuel assemblies in containment, the air locks may be open provided they are isolable per LCO 3.9.4. Since the air locks can only be closed manually, it is assumed that containment ventilation isolation is accomplished by manually closing the purge and exhaust ventilation valves. Therefore, only OPERABLE radiation monitors are required to alert the operators of the need for containment ventilation isolation.

While in MODES 5 and 6 without fuel handling in progress, the containment ventilation isolation instrumentation need not be OPERABLE since the potential for radioactive releases is minimized and operator action is sufficient to ensure post accident offsite doses are maintained within the limits of Reference 1.

ACTIONS

The most common cause of channel inoperability is outright failure or drift of the bistable or process module sufficient to exceed the tolerance allowed by unit specific calibration procedures. Typically, the drift is found to be small and results in a delay of actuation rather than a total loss of function. This determination is generally made during the performance of a COT, when the process instrumentation is set up for adjustment to bring it within specification. If the Trip Setpoint is less conservative than the tolerance specified by the calibration procedure, the channel must be declared inoperable immediately and the appropriate Condition entered.

A Note has been added to the ACTIONS to clarify the application of Completion Time rules. The Conditions of this Specification may be entered independently for each Function listed in Table 3.3.6-1. The Completion Time(s) of

(continued)

BASES

ACTIONS (continued)

the inoperable channel(s) of a Function will be tracked separately for each Function starting from the time the Condition was entered for that Function.

A.1

Condition A applies to the failure of one required containment ventilation isolation radiation monitor channel. The failed channel must be restored to OPERABLE status. Four hours are allowed to restore the affected channel based on the low likelihood of events occurring during this interval, and recognition that one or more of the remaining channels will respond to most events.

B.1

Condition B applies to all Containment Ventilation Isolation Functions and addresses the train orientation of the Solid State Protection System (SSPS) and the master and slave relays for these Functions. It also addresses the failure of multiple radiation monitoring channels, or the inability to restore a single failed channel to OPERABLE status in the time allowed for Required Action A.1.

If a manual or automatic actuation channel is inoperable, no radiation monitoring channels operable, or the Required Action and associated Completion Time of Condition A are not met, operation may continue as long as the Required Action for the applicable Conditions of LCO 3.6.3 is met for each valve made inoperable by failure of isolation instrumentation.

A Note is added stating that Condition B is only applicable in MODE 1, 2, 3, or 4.

C.1 and C.2

Condition C addresses the failure of multiple radiation monitoring channels, or the inability to restore a single failed channel to OPERABLE status in the time allowed for

(continued)

BASES

ACTIONS

C.1 and C.2 (continued)

Required Action A.1. If no radiation monitoring channels are operable or the Required Action and associated Completion Time of Condition A are not met, operation may continue as long as the Required Action to place and maintain containment purge supply and exhaust isolation valves in their closed position is met or the applicable Conditions of LCO 3.9.4, "Containment Penetrations," are met for each penetration not in the required status. The Completion Time for these Required Actions is Immediately.

A Note states that Condition C is applicable during CORE ALTERATIONS and during movement of irradiated fuel assemblies within containment.

SURVEILLANCE REQUIREMENTS

A Note has been added to the SR Table to clarify that Table 3.3.6-1 determines which SRs apply to which Containment Ventilation Isolation Functions.

SR 3.3.6.1

Performance of the CHANNEL CHECK once every 12 hours ensures that a gross failure of instrumentation has not occurred. A CHANNEL CHECK is normally a comparison of the parameter indicated on one channel to a similar parameter on other channels. It is based on the assumption that instrument channels monitoring the same parameter should read approximately the same value. Significant deviations between the two instrument channels could be an indication of excessive instrument drift in one of the channels or of something even more serious. A CHANNEL CHECK will detect gross channel failure; thus, it is key to verifying the instrumentation continues to operate properly between each CHANNEL CALIBRATION.

Agreement criteria are determined by the unit staff, based on a combination of the channel instrument uncertainties, including indication and readability. If a channel is

(continued)

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.3.6.4

A COT is performed every 92 days on each required channel to ensure the entire channel will perform the intended Function. The Frequency is based on the staff recommendation for increasing the availability of radiation monitors according to NUREG-1366 (Ref. 2). For MODES 1, 2, 3, and 4, this test verifies the capability of the instrumentation to provide the containment purge and exhaust system isolation. During CORE ALTERATIONS and movement of irradiated fuel in containment, this test verifies the capability of the required channels to generate the signals required for input to the control room alarm. The setpoint shall be left consistent with the current unit specific calibration procedure tolerance.

SR 3.3.6.5

SR 3.3.6.5 is the performance of a SLAVE RELAY TEST. The SLAVE RELAY TEST is the energizing of the slave relays. Contact operation is verified in one of two ways. Actuation equipment that may be operated in the design mitigation mode is either allowed to function or is placed in a condition where the relay contact operation can be verified without operation of the equipment. Actuation equipment that may not be operated in the design mitigation mode is prevented from operation by the SLAVE RELAY TEST circuit. For this latter case, contact operation is verified by a continuity check of the circuit containing the slave relay. This test is performed every 92 days. The Frequency is acceptable based on instrument reliability and industry operating experience.

SR 3.3.6.6

SR 3.3.6.6 is the performance of a TADOT. This test is a check of the Manual Actuation Functions and is performed every 18 months. Each Manual Actuation Function is tested up to, and including, the master relay coils. In some instances, the test includes actuation of the end device (i.e., pump starts, valve cycles, etc.).

The test also includes trip devices that provide actuation signals directly to the SSPS, bypassing the analog process control equipment. The SR is modified by a Note that excludes verification of setpoints during the TADOT. The

(continued)

3.7 PLANT SYSTEMS

3.7.6 Condensate Storage Tank (CST)

LCO 3.7.6 One CST shall be OPERABLE with a safety-related volume ≥ 340,000 gallons.

APPLICABILITY: MODES 1, 2, and 3,

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. CST volume not within limit.	A.1	Align Auxiliary Feedwater pumps to OPERABLE CST.	2 hours
B. Required Action and associated Completion Time not met.	B.1	Be in MODE 3.	6 hours
	AND		
	B.2	Be in MODE 4	12 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.6.1	Verify the CST volume is within limit.	12 hours

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BASES

LCO (continued)

established in Reference 4 and exceeds the volume required by the accident analysis.

The OPERABILITY of the CST is determined by maintaining the tank level at or above the minimum required level. Either CST V4001 or CST V4002 may be used to satisfy the LCO requirement.

APPLICABILITY

In MODES 1, 2, and 3, the CST is required to be OPERABLE.

Due to the reduced heat removal requirements and short period of time in MODE 4 and the availability of RHR in MODE 4, the LCO does not require a CST to be OPERABLE in this MODE.

In MODE 5 or 6, the CST is not required because the AFW System is not required.

(continued)

3.9 REFUELING OPERATIONS

3.9.4 Containment Penetrations

LCO 3.9.4 The containment penetrations shall be in the following status:

a. The equipment hatch closed and held in place by four bolts;

b. The emergency and personnel air locks are isolated by at least one air lock door, or if open, the emergency and personnel air locks are isolable by at least one air lock door with a designated individual available to close the open air lock door(s); and

c. Each penetration providing direct access from the containment atmosphere to the outside atmosphere either:

1. closed by a manual or automatic isolation valve, blind flange, or equivalent, or

2. capable of being closed by at least two OPERABLE Containment Ventilation Isolation valves.

APPLICABILITY: During CORE ALTERATIONS,
During movement of irradiated fuel assemblies within containment.

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. One or more containment penetrations not in required status.	A.1	Suspend CORE ALTERATIONS.	Immediately
	AND		
	A.2	Suspend movement of irradiated fuel assemblies within containment.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.9.4.1	Verify each required containment penetration is in the required status.	7 days
SR 3.9.4.2	----------NOTE---------- Only required for unisolated penetrations. ---------- Verify at least two containment ventilation valves in each open containment ventilation penetration providing direct access from the containment atmosphere to the outside atmosphere are capable of being closed from the control room.	18 months

BASES

BACKGROUND (continued)

required. During periods of unit shutdown when containment closure is not required, the door interlock mechanism may be disabled, allowing both doors of an air lock to remain open for extended periods when frequent containment entry is necessary. During CORE ALTERATIONS or movement of irradiated fuel assemblies within containment, the door interlock mechanism may remain disabled, but one air lock door must always must be isolable by at least one air lock door with a designated individual available to close the air lock door, or at least one air lock door must be closed.

The requirements for containment penetration closure are sufficient to ensure fission product radioactivity release from containment due to a fuel handling accident during refueling is maintained to within the acceptance criteria of Standard Review Plan Section 15.7.4 and General Design Criteria 19.

The Containment Ventilation System consists of two 24 inch penetrations for purge and exhaust of the containment atmosphere. Each main or shutdown purge and exhaust system contains one motor operated 24 inch valve inside containment and one motor operated 24 inch valve outside containment (HV-2626A, HV-2627A, HV-2628A, and HV-2629A). A second 14 inch mini-purge and exhaust system shares each 24 inch penetration and consists of one 14 inch pneumatically operated valve inside containment and one outside of containment (HV-2626B, HV-2627B, HV-2628B, and HV-2629B). A 14 inch mini-purge line is connected to each 24 inch line between the 24 inch isolation valve and the penetration both inside and outside containment.

In MODES 1, 2, 3 and 4 the 24 inch main or shutdown purge and exhaust valves are secured in the closed position. The 14 inch mini-purge and exhaust valves may be opened in these MODES in accordance with LCO 3.6.3, Containment Isolation Valves, and are automatically closed by a Containment Ventilation Isolation signal. The instrumentation that provides the automatic isolation function for these valves is listed in LCO 3.3.6, Containment Ventilation Isolation Instrumentation.

(continued)

BASES

BACKGROUND (continued)

In MODE 6, the 24 inch main or shutdown purge and exhaust valves are used to exchange large volumes of containment air to support refueling operations or other maintenance activities. During CORE ALTERATIONS or movement of irradiated fuel assemblies within containment any open 24 inch valves are capable of being closed (LCO 3.3.6). The 14 inch mini-purge and exhaust valves, though typically not opened during CORE ALTERATIONS or movement of irradiated fuel assemblies within containment, if opened are also capable of being closed (LCO 3.3.6).

The other containment penetrations that provide direct access from containment atmosphere to outside atmosphere must be isolated on at least one side. Isolation may be achieved by a closed automatic isolation valve, a manual isolation valve, blind flange, or equivalent. Equivalent isolation methods allowed under the provisions of 10 CFR 50.59 may include use of a material that can provide a temporary, atmospheric pressure, ventilation barrier for the other containment penetrations during CORE ALTERATIONS or movement of irradiated fuel assemblies within containment (Ref. 1).

APPLICABLE SAFETY ANALYSES

During CORE ALTERATIONS or movement of irradiated fuel assemblies within containment, the most severe radiological consequences result from a fuel handling accident. The fuel handling accident is a postulated event that involves damage to irradiated fuel (Ref. 2). Fuel handling accidents, analyzed in Reference 3, include dropping a single irradiated fuel assembly onto another irradiated fuel assembly.

To support the plant configuration of both air lock doors open (personnel and/or emergency air locks), it was assumed in FSAR calculations for dose analysis that the designated individual for closure of the air lock would have the air lock closed within 15 minutes of the fuel handling accident. The 15 minute duration was chosen as the limit for the response capability for the person who is designated for closing the air lock door. The NRC

(continued)

BASES

APPLICABLE SAFETY ANALYSES (continued)

acceptance of this specification was based on doses for a 2 hour release as well as a licensee commitment for a person designated to close the door quickly.

Also, the requirements of LCO 3.9.7, "Refueling Cavity Water Level," and the minimum decay time of 100 hours prior to CORE ALTERATIONS ensure that the release of fission product radioactivity, subsequent to a fuel handling accident, results in doses that are well within the guideline values specified in 10 CFR 100. Standard Review Plan, Section 15.7.4, Rev. 1 (Ref. 3), defines "well within" 10 CFR 100 to be 25% or less of the 10 CFR 100 values. The acceptance limits for offsite radiation exposure will be 25% of 10 CFR 100 values or the NRC staff approved licensing basis (e.g., a specified fraction of 10 CFR 100 limits). The radiological consequences of a fuel handling accident in containment have been evaluated assuming that the containment is open to the outside atmosphere. All airborne activity reaching the containment atmosphere is assumed to be exhausted to the environment within 2 hours of the accident. The calculated offsite and control room operator doses are within the acceptance criteria of Standard Review Plan 15.7.4 and GDC 19. Therefore, although the containment penetrations do not satisfy any of the NRC Policy Statement criteria, LCO 3.9.4 provides containment closure capability to minimize potential offsite doses.

LCO

This LCO limits the consequences of a fuel handling accident in containment by limiting the potential escape paths for fission product radioactivity released within containment. The LCO requires the equipment hatch and any penetration providing direct access from the containment atmosphere to the outside atmosphere to be closed. Personnel air lock closure capability is provided by the availability of at least one door and a designated individual to close it. Emergency air lock closure capability is provided by the availability of at least one door and a designated individual to close it. For the OPERABLE containment ventilation penetrations, this LCO ensures that each penetration is isolable by the Containment Ventilation Isolation valves. The OPERABILITY requirements for LCO 3.3.6, Containment Ventilation Isolation Instrumentation ensure that radiation monitor inputs to the control room alarm exist so that operators can take timely

(continued)

BASES

LCO (continued)

action to close containment penetrations to minimize potential offsite doses. The LCO requirements for penetration closure may also be met by the automatic isolation capability of the CVI system.

Item b of this LCO includes requirements for both the emergency air lock and the personnel air lock. The personnel and emergency air locks are required by Item b of this LCO to be isolable by at least one air lock door in each air lock. Both containment personnel and emergency air lock doors may be open during movement of irradiated fuel in the containment and during CORE ALTERATIONS provided at least one air lock door is isolable in each air lock. An air lock is isolable when the following criteria are satisfied:

1. one air lock door is OPERABLE,

2. at least 23 feet of water shall be maintained over the top of the reactor vessel flange in accordance with Specification 3.9.7,

3. a designated individual is available to close the door.

OPERABILITY of a containment air lock door requires that the door seal protectors are easily removed, that no cables or hoses are being run through the air lock, and that the air lock door is capable of being quickly closed.

(continued)

BASES (continued)

APPLICABILITY

The containment penetration requirements are applicable during CORE ALTERATIONS or movement of irradiated fuel assemblies within containment because this is when there is a potential for a fuel handling accident. In MODES 1, 2, 3, and 4, containment penetration requirements are addressed by LCO 3.6.1, "Containment." In MODES 5 and 6, when CORE ALTERATIONS or movement of irradiated fuel assemblies within containment are not being conducted, the potential for a fuel handling accident does not exist. Therefore, under these conditions no requirements are placed on containment penetration status.

ACTIONS

A.1 and A.2

If the containment equipment hatch, air locks, or any containment penetration that provides direct access from the containment atmosphere to the outside atmosphere is not in the required status, the unit must be placed in a condition where the isolation function is not needed. This is accomplished by immediately suspending CORE ALTERATIONS and movement of irradiated fuel assemblies within containment. Performance of these actions shall not preclude completion of movement of a component to a safe position.

SURVEILLANCE REQUIREMENTS

SR 3.9.4.1

This Surveillance demonstrates that each of the containment penetrations required to be in its closed position is in that position. The Surveillance on the required open containment ventilation isolation valves will demonstrate that the valves are not blocked from closing. Also the Surveillance will demonstrate that each required valve operator has motive power, which will ensure that each valve is capable of being closed.

The Surveillance is performed every 7 days during CORE ALTERATIONS or movement of irradiated fuel assemblies within containment. The Surveillance interval is selected to be commensurate with the normal duration of time to complete fuel handling operations. Including a surveillance before the start of refueling operations will provide two or three surveillance verifications during the applicable period for this LCO. As such, this Surveillance ensures that a postulated fuel handling accident that releases fission

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.9.4.1 (continued)

product radioactivity within the containment will not result in a release of fission product radioactivity to the environment.

SR 3.9.4.2

This Surveillance demonstrates that each containment ventilation isolation valve in each open containment ventilation penetration actuates to its isolation position. The 18 month Frequency maintains consistency with other similar testing requirements. Also, SR 3.6.3.5 demonstrates that the isolation time of each valve is in accordance with the Inservice Testing Program requirements. These Surveillances Performed during MODE 6 will ensure that the valves are capable of closing after a postulated fuel handling accident to limit a release of fission product radioactivity from the containment.

REFERENCES

1. GPU Nuclear Safety Evaluation SE-0002000-001, Rev. 0, May 20, 1988.

2. FSAR, Subsection 15.7.4.

3. NUREG-0800, Section 15.7.4, Rev. 1, July 1981.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 105 TO FACILITY OPERATING LICENSE NPF-68

AND AMENDMENT NO. 83 TO FACILITY OPERATING LICENSE NPF-81

SOUTHERN NUCLEAR OPERATING COMPANY, INC., ET AL.

VOGTLE ELECTRIC GENERATING PLANT, UNITS 1 AND 2

DOCKET NOS. 50-424 AND 50-425

1.0 INTRODUCTION

By application dated June 26, 1998, as supplemented by letters dated September 18 and November 30, 1998, Southern Nuclear Operating Company, Inc., et al. (the licensee) proposed license amendments to change the Technical Specifications (TS) for Vogtle Electric Generating Plant (VEGP), Units 1 and 2. The proposed changes would (1) revise the Applicability of Limiting Condition for Operation (LCO) 3.3.6, "Containment Ventilation Isolation Instrumentation," to refer to TS Table 3.3.6-1; the TS table would be revised to add a column entitled "Applicable Modes or Other Specified Conditions." Then, the applicable modes for Manual Initiation, Automatic Actuation Logic and Actuation Relays, and Safety Injection would be revised to include only Modes 1, 2, 3, and 4. Consistent with this proposed change, LCO 3.3.6, Condition C and Required Action C.2 would be revised to reflect that system level manual initiation and automatic actuation would not be required during core alterations and/or during movement of irradiated fuel assemblies within the containment. Appropriate Bases changes would be included to reflect the proposed changes; (2) LCO 3.7.6 would be revised to delete the words "Redundant CSTs" from the title and LCO 3.7.6a would be deleted. Appropriate Bases changes would be included to reflect the proposed changes; and (3) LCO 3.9.4 would be revised to allow the emergency air lock and equipment hatch to be open during core alterations and/or during movement of irradiated fuel assemblies within the containment. In addition, the LCO statement would be revised to reflect that containment ventilation isolation (CVI) would be accomplished by manually closing the individual containment purge supply and exhaust isolation valves as opposed to a system level manual or automatic initiation, consistent with the proposed change to LCO 3.3.6. Surveillance Requirement (SR) 3.9.4.2 would be revised to reflect the proposed change to CVI and a new SR would be applicable to an open equipment hatch. Appropriate Bases changes are included to reflect the proposed changes. The supplement dated November 30, 1998, provided clarifying information that did not change the scope of the application and the initial proposed no significant hazards consideration determination. As will be discussed herein, those changes to the TS associated with the equipment hatch are not acceptable and are denied.

2.0 DISCUSSION AND EVALUATION

The NRC staff has evaluated the licensee's proposed changes to the TS in the following areas: (1) eliminate the requirement for operability of system level manual initiation, and automatic initiation, for closure of the containment purge supply and exhaust isolation valves during core

alteration and/or movement or irradiated fuel assemblies within containment; (2) allow the equipment hatch and emergency air lock to be open during core alterations, and/or movement of irradiated fuel assemblies inside containment; and (3) eliminate the requirements associated with nonredundant condensate storage tanks (CSTs). These evaluations are contained in the following sections.

2.1 Elimination of System Level Manual and Automatic Isolation of Containment Ventilation During Refueling and Movement of Irradiated Fuel Inside Containment

The VEGP containments are equipped with containment purge supply and exhaust isolation valves to control normal pressure buildup during power ascension and eliminate airborne radiation prior to containment entry. The purge and mini-purge valves are automatically isolated by the containment ventilation isolation function (via the automatic actuation logic and actuation relays) upon high radiation in the containment or a safety injection signal. A manual system level actuation is available in the control room such that the all containment purge supply and exhaust isolation valves can be closed by using either of two switches. Alternately, each containment purge supply and exhaust isolation valve can be individually isolated by a hand switch inside the control room. The licensee described the purge and mini-purge valves in its November 30, 1998, submittal, as follows:

> The containment ventilation isolation function isolates the containment purge supply and exhaust penetrations. These penetrations are equipped with four valves each (for a total of eight valves between the two penetrations). Each penetration is equipped with two valves in parallel inside containment and two valves in parallel outside containment. The parallel flowpath arrangement provides each penetration with both a 24-inch flowpath that can be used in Modes 5 and 6 in parallel with a 14-inch flowpath that can be used for containment purge during Modes 1 through 4 as well as Modes 5 and 6. The 24-inch purge supply valves are HV-2626A (inside containment) and HV-2627A (outside containment), and the 14-inch purge supply valves are HV-2626B (inside containment) and HV-2627B (outside containment). The 24-inch purge exhaust valves are HV-2628A (inside containment) and HV-2629A (outside containment), and the 14-inch purge exhaust valves are HV-2628B (inside containment) and HV-2629B (outside containment). Each valve is equipped with its own hand switch located in the control room on Section 2 of the QHVC [safety-related heating, ventilation and air conditioning] panels, and the hand switches are grouped together. FSAR Figure 18.1-1 shows the location of the QHVC panels in relation to the main control boards. The panels are easily accessible for an operator at the main control boards.

At the present time, TS 3.3.6, "Containment Ventilation Isolation Instrumentation," requires the following containment ventilation isolation instrumentation, specified in TS Table 3.3.6-1, to be operable in MODES 1, 2, 3, and 4, and during core alterations and/or movement of irradiated fuel inside the containment:

1. Manual (system level) initiation
2. Automatic actuation logic and actuation relays
3. Containment radiation
4. Safety injection

The licensee is proposing that the above instrumentation, with the exception of containment radiation, be required to be operable only in Modes 1 through 4. The effect of the licensee's proposal would be to substitute manual, individual closure of the containment purge supply and exhaust isolation valves, for automatic closure, should a high radiation condition occur in the containment during core alteration and/or movement of irradiated fuel inside the containment.

On October 23, 1997, the NRC issued Information Notice (IN) 97-78, "Crediting of Operator Actions in Place of Automatic Actions and Modifications of Operator Actions, Including Response Times." The purpose of IN 97-78 is to provide guidance for use by licensees in cases where an automatic safety function (e.g., automatic isolation of the containment purge supply and exhaust isolation valves) would be replaced with manual operator action (e.g., manual, individual, closure of the containment purge supply and exhaust isolation valves). The IN proposes that licensees who desire to substitute manual operator action for an automatic safety function address, but not necessarily be limited to, the following considerations: (1) the specific operator actions required; (2) the potentially harsh or inhospitable environmental conditions expected; (3) a general discussion of the ingress/egress paths taken by the operators to accomplish functions; (4) the procedural guidance for required actions; (5) the specific operator training necessary to carry out actions, including any operator qualifications required to carry out actions; (6) any additional support and/or equipment required by the operator to carry out actions; (7) a description of information required by the control room staff to determine whether such operator action is required, including qualified instrumentation used to diagnose the situation and to verify that the required actions have successfully been taken; (8) the ability to recover from credible errors in performance of manual actions; and (9) consideration of the risk significance of the proposed operator actions. In the licensee's November 30, 1998, submittal, the licensee addressed the preceding factors as follows:

(1) The specific operator actions required are to first recognize the need for containment ventilation isolation, and then to walk to the QHVC panels and manipulate the handswitches for the purge and exhaust isolation valves that may be open. As stated above, the control room personnel will be in direct communication with personnel inside containment at the refueling station. In addition, the containment radiation monitor alarms (gaseous, particulate, iodine, and area low range) will be available per TS 3.3.6 to alert the operators as well. In the event of a fuel handling accident, the control room will be immediately aware of the condition, and will be able to effect containment ventilation isolation within the time committed for closing the airlock doors, i.e., 15 minutes.

(2) All of the required operator actions take place in the control room. There will be no harsh or inhospitable conditions encountered.

(3) Referring to FSAR [Final Safety Analysis Report] figure 18.1-1, it can be seen that the ingress/egress paths to accomplish the manual containment ventilation isolation are simple. Depending on where the operator is at the time that he is notified of the event, the operator simply has to walk a few feet to the QHVC panel to manipulate the hand switches.

(4) Procedural guidance for required actions is discussed above with respect to the annunciator response procedures.

(5) Operator training is discussed above. No special operator qualifications are required to close the purge and exhaust isolation valves.

(6) No additional support and/or equipment are required. If there is only one operator "at the controls", then another operator will be dispatched to manipulate the handswitches. However, this will not result in a delay beyond the 15 minutes allotted for closing the airlock(s).

(7) The information required by the control room staff is, (1) communication with personnel at the refueling station; (2) radiation alarms; and (3) the knowledge obtained from training that containment ventilation isolation may have to be accomplished by manually closing the open purge and exhaust isolation valves. Position indication for each valve is displayed on the Main Control Board, hand switches, and plant computer.

(8) The only credible operator error to be considered would be the failure to close one or more of the open purge and exhaust isolation valves. It is expected that the operator will take action to recover from such an error, but such action would not be required because the dose analysis supporting the proposed change already assumes the release of all activity from a fuel handling accident (LCV-1149, June 26, 1998).

(9) Since the containment ventilation isolation can be accomplished within the same time allotted for closing the personnel airlock, there is no additional risk significance associated with the operator actions.

The NRC staff has reviewed the licensee's evaluation for the substitution of manual operator action for the automatic closure of the containment purge supply and exhaust isolation valves during core alteration and/or movement of irradiated fuel inside the containment. The NRC staff concludes that the substitution of manual operator action for the automatic closure of the containment purge supply and exhaust isolation valves during core alteration and/or movement of irradiated fuel inside the containment is acceptable in that it will not result in an increase in offsite dose as a result of a fuel handling accident. Moreover, as stated in the licensee's November 30, 1998, submittal, the containment purge supply and exhaust isolation valves discharge locations are no closer to the control room ventilation intake than the personnel airlock (permitted to be open during core alterations and/or movement of irradiated fuel inside containment) and, thus, will not increase the dose to control room operators.

Consistent with crediting operator action for automatic or system level isolation of the containment purge supply and exhaust isolation valves, the licensee has proposed the following changes to the TS:

(1) In TS 3.3.6, the "Applicability" statement is currently Modes 1 through 4 and during core alterations and movement of irradiated fuel inside containment. The applicability statement would be relocated to TS Table 3.3.6-1, and identified in a table column entitled, "Applicable Modes or Other Specified Conditions." In this regard, the licensee has proposed that the

"Applicable Modes or Other Specified Conditions" for the manual (system level) initiation, automatic actuation logic and actuation relays, and safety injection would be Modes 1 through 4 and for containment radiation, Modes 1 through 4 and Mode 6 (during core alterations and movement of irradiated fuel inside containment). This proposed change to the TS is acceptable in that only individual, manual, closure of the containment purge supply and exhaust isolation valves need be credited during core alteration and/or movement of irradiated fuel inside containment. A manual valve closure capability is demonstrated in Surveillance Requirement (SR) 3.9.4.2, which replaces the demonstration of automatic closure capability. The change to SR 3.9.4.2 is consistent with the change to TS 3.3.6 and is acceptable.

(2) In Condition "C" of TS 3.3.6, applicable only during core alterations and/or movement of irradiated fuel inside the containment, remedial action would be taken with "one or more Functions with one or more manual or automatic actuation channels inoperable;" this requirement is deleted since only individual, manual closure of the containment purge supply and exhaust isolation valves need be credited during core alteration and/or movement of irradiated fuel inside the containment. Required Action C.2, associated with "valves made inoperable by isolation instrumentation" is changed to "penetrations not in required status." Since the automatic isolation function of the containment purge supply and exhaust isolation valves may be inoperable during core alteration and/or movement of irradiated fuel inside the containment, the lack of at least one operable radiation monitoring channel might prevent timely closure of the containment purge supply and exhaust isolation valves in the event of a high radiation condition inside containment. For this reason, core alterations or movement of irradiated fuel inside containment must be immediately suspended according to TS 3.9.4, Required Actions A.1 and A.2. Alternately, the containment purge supply and exhaust isolation valves may be closed per TS 3.3.6, Required Action C.1. Accordingly, the proposed change to TS 3.3.6, Condition C and Required Action C.2 are acceptable.

(3) In TS 3.9.4, "Containment Penetrations," Item C.2 requires an operable containment ventilation isolation system, for each containment purge supply and exhaust isolation valve containment penetration, during core alterations or movement of irradiated fuel inside containment. The requirement for an operable "system" is replaced with the requirement for at least two operable valves in each containment purge supply and exhaust isolation valve containment penetration. This change to the TS is consistent with crediting individual valve closure in place of automatic isolation, and is acceptable.

2.2 Allowing the Equipment Hatch and Emergency Air Lock to be Open During Core Alterations, and/or Movement of Irradiated Fuel Assemblies inside Containment

At the present time, TS 3.9.4a requires the equipment hatch to be closed and held in place by four bolts during core alterations or movement of irradiated fuel inside containment. The licensee has proposed to allow the equipment hatch to be open during core alterations or movement of irradiated fuel inside containment. In addition, at the present time, TS 3.9.4b allows the doors of the personnel air lock to be open during core alterations or movement of irradiated fuel inside containment provided that a "designated individual" is available to close the door in the event that a radiological emergency occurs. The licensee has proposed extending this requirement to include the emergency air lock.

The proposed TS revision regarding containment boundary openings during core alterations and/or irradiated fuel movements is presented by the licensee from the perspective of incremental changes to the existing TS 3.9.4. Specifically, the licensee points out that the current TS 3.9.4 allows both personnel air lock doors to be open during core alterations or movement of irradiated fuel inside containment. Furthermore, it is indicated by the licensee that the basis for this is the acceptable fuel handling accident dose consequences (i.e., within 25 percent of the 10 CFR Part 100 limits and bounded by current fuel handling accident analysis for the spent fuel pool).

The proposed change is the additional allowance for open emergency air lock doors and an open equipment hatch. The bases for the proposed open emergency airlock doors is stated to be the same as for the previously approved personnel air lock doors. Considering the functional similarity of the two types of doors, and assuming the same TS conditions (a designated individual available to close the door in the event of a radiological emergency), the proposal to include open emergency airlock doors appears to be reasonable. It should be noted that, as set forth in the licensee's November 30, 1998, submittal, the "designated individual" to be available to close the emergency air lock doors is in addition to the "designated individual" to be available to close the personnel air lock doors. Accordingly, the proposed change to TS 3.9.4b is acceptable.

With respect to the equipment hatch, the bases described by the licensee include dependence on the availability and presence of trained hatch closure crews and necessary hardware, tools, and equipment for moving the hatch. With these provisions, the closure time is estimated to be 1 hour. The licensee indicates that the additional openings do not change the dose consequences of a fuel handling accident. A review of the proposed changes does not lead to a conclusion that the direct dose consequences are increased beyond the current acceptance criteria found in Standard Review Plan 15.7.4 and General Design Criterion 19.

However, upon careful and conservative consideration of the role of the containment as one of the four principal fission product barriers, the inclusion of an open equipment hatch in the proposed revision runs contrary to the principle of defense in depth. In particular, the potential for relatively quick core uncovery (e.g., in 30 minutes) due to loss of decay heat removal (DHR) relating to cooling may make the timely closure of the equipment hatch unfeasible. Concerns of this type have been discussed in Generic Letter 88-17, "Loss of Decay Heat Removal," dated October 17, 1988. Specifically, the generic letter refers to concerns regarding fast acting accident sequences in Section 2.1, "Phenomena and Impact," as well as in Section 2.2, "Time Available for Mitigation." More detailed delineation of these concerns is presented in Enclosure 2 to Generic Letter 88-17 which reiterates the concerns involving fast acting accident sequences. The above considerations point to the need for quick and reliable containment isolation (e.g., personnel and emergency air locks) to provide the assurance of a viable fission product barrier that can minimize the potential for exposing the public to any releases of radioactivity. The 1-hour closure time of the equipment hatch does not provide for adequate containment restoration time. Hence, the staff believes that an open equipment hatch is not acceptable as proposed. Accordingly, the proposed change to TS 3.9.4a and the associated SR 3.9.4.2 are denied.

With regard to the equipment hatch, it should be noted that alternative approaches have been approved by the NRC staff. Specifically, there have been proposed changes by other licensees, that have been accepted by the NRC staff, involving equivalent closure devices that

satisfied the closure requirements of the containment equipment hatch during core alterations or movement of irradiated fuel in containment. For example, the NRC staff has issued a safety evaluation and a license amendment for Indian Point Unit 3 (Safety Evaluation and License Amendment No. 69 to License No. DPR-64, as enclosures to a letter to the licensee, dated October 7, 1986). The amendment permits a temporary closure plate in place of the equipment hatch during refueling operations. Similarly, the staff has approved the use of a retractable overhead door to satisfy closure requirements for the containment equipment hatch for Ginna (Safety Evaluation and License Amendment No. 62 to License No. DPR-18, as enclosures to a letter to the licensee, dated April 1, 1996). The licensee may find it useful to consider such alternative approaches in lieu of the present proposed changes regarding the equipment hatch.

2.3 Elimination of the Requirements Associated with Nonredundant Condensate Storage Tanks

The original design of the VEGP auxiliary feedwater (AFW) system contained an anomalous design feature in that the AFW pump recirculation lines for the motor driven pumps discharged to the 002 CST while the turbine driven AFW pump discharged to the 001 CST. This resulted in a situation where the flow from the recirculation line might be "lost" in that it might be returned to a CST other than the CST which was being used as the primary water source. The CSTs that do not have the recirculation flow returned to the CST being used as the AFW pump water source is referred in the TS as a "Non-redundant CST." A modification was undertaken to the CSTs to allow the recirculation flow to be returned to the CST being used as the AFW pump water source; the CSTs that receive this modification are referred to in the TS as "Redundant CSTs." At the present time, TS 3.7.6 provides requirements for "Redundant CSTs" while TS 3.7.6a provides requirements for "Non-redundant CSTs." The following note appears in TS 3.7.6a, "This LCO shall be applicable to the Unit(s) which have not completed the design modifications required for redundant CSTs. This alternative Technical Specification is temporary and will no longer be required when both units have completed the modifications required to make the CSTs redundant."

The licensee's June 26, 1998, application informed the NRC staff that all modifications to "Non-redundant CSTs" for VEGP Units 1 and 2 have been completed and that all CSTs are redundant. The application requests that TS 3.7.6a be deleted and the term "Redundant CSTs" be deleted from the title of TS 3.7.6. With completion of all modifications to the CSTs, the NRC staff agrees that TS 3.7.6a should be deleted. In addition, since all VEGP Unit 1 and 2 CSTs are redundant, the term "Redundant CSTs", in the title of TS 3.7.6 is no longer a necessary distinction and should be deleted. Therefore, this change is 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 (63 FR 53955 dated October 7, 1998). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CAR 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.

Principal Contributors: K. Campe
D. Jaffe

Date: January 29, 1999

7590-01-P

UNITED STATES NUCLEAR REGULATORY COMMISSION

SOUTHERN NUCLEAR OPERATING COMPANY, INC., ET AL.

DOCKET NOS. 50-424 AND 50-425

NOTICE OF PARTIAL DENIAL OF AMENDMENTS TO FACILITY OPERATING LICENSES AND OPPORTUNITY FOR HEARING

The U.S. Nuclear Regulatory Commission (the Commission) has denied a request by Southern Nuclear Operating Company, Inc., et al., (the licensee) for amendments to Facility Operating License Nos. NPF-68 and NPF-81 issued to the licensee for operation of the Vogtle Electric Generating Plant, Unit Nos. 1 and 2, located in Burke County, Georgia. Notice of Consideration of Issuance of the amendments was published in the FEDERAL REGISTER on October 7, 1998 (63 FR 53955).

The purpose of the licensee's amendment request was to revise the Technical Specifications (TS) to: (1) eliminate the requirement for operability of system level manual initiation, and automatic initiation, for closure of the containment purge supply and exhaust isolation valves during core alteration and/or movement or irradiated fuel assemblies within containment; (2) allow the equipment hatch and emergency air lock to be open during core alterations, and/or movement of irradiated fuel assemblies inside containment; and (3) eliminate the requirements associated with nonredundant condensate storage tanks.

The NRC staff has concluded that the licensee's request, with regard to those changes to the TS that would allow the equipment hatch to be open during core alterations, and/or movement of irradiated fuel inside containment, cannot be granted. The licensee was notified of the Commission's denial of the proposed change by a letter dated January 29, 1999.

By March 10, 1999 , the licensee may demand a hearing with respect to the denial described above. Any person whose interest may be affected by this proceeding may file a written petition for leave to intervene.

A request for hearing or petition for leave to intervene must be filed with the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001 Attention: Rulemakings and Adjudications Staff, or may be delivered to the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC, by the above date.

A copy of any petitions should also be sent to the Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to Mr. Arthur H. Domby, Troutman Sanders, NationsBank Plaza, Suite 5200, 600 Peachtree Street, NE., Atlanta, Georgia, attorney for the licensee.

For further details with respect to this action, see (1) the application for amendments dated June 26, 1998, as supplemented by letters dated September 18 and November 30, 1998, and (2) the Commission's letter to the licensee dated January 29, 1999 .

These documents are available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC, and at the local public document room located at the Burke County Library, 412 Fourth Street, Waynesboro, Georgia.

Dated at Rockville, Maryland, this 29th day of January, 1999.

FOR THE NUCLEAR REGULATORY COMMISSION

David Jaffe, Senior Project Manager
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation