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

June 30, 2000

Mr. William A. Eaton
Vice President, Operations GGNS
Entergy Operations, Inc.
P. O. Box 756
Port Gibson, MS 39150

SUBJECT: GRAND GULF NUCLEAR STATION, UNIT 1 - ISSUANCE OF AMENDMENT RE: GENERIC CHANGES TO IMPROVED STANDARD TECHNICAL SPECIFICATIONS (TAC NO. MA6765)

Dear Mr. Eaton:

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 142 to Facility Operating License No. NPF-29 for the Grand Gulf Nuclear Station, Unit 1 (GGNS). This amendment revises the Technical Specifications (TSs) in response to your application dated August 20, 1999 (GNRO-99/00060).

The amendment incorporates 16 improvements (identified by Technical Specifications Task Force (TSTF) numbers) to the Improved Standard Technical Specifications, NUREG-1434 (for General Electric model Boiling Water Reactor/6 (BWR/6) plants such as GGNS), that was part of the basis for the current improved TSs for GGNS that were issued in Amendment 120 dated February 21, 1995. The 16 improvements are the following approved TSTFs: 2, 5, 17, 18, 32, 33, 38, 45, 60, 104, 118, 153, 163, 166, 278, and 279. The latest revision of each TSTF was used.

You also proposed relocating values of the shutdown margin to the core operating limits report of Section 5.6.5 of the TSs, which is the improvement in TSTF-9. During discussions with your staff about the application of TSTF-9 to the TSs in a conference call on May 18, 2000, they withdrew the request to incorporate TSTF-9 in the TSs. Therefore, with all of the proposed TSTFs being addressed, this amendment closes out the staff review of your application.

In the application of TSTF 2 to the TSs, it was stated that the requirements of SR 3.8.3.6 on cleaning of the emergency diesel generator fuel oil storage tank will be relocated to the GGNS updated final safety analysis report (UFSAR). We are relying on that in approving the application of TSTF-2 to the TSs. You are requested to include this relocation in the next update to the UFSAR in accordance with 10 CFR 50.71(e) and to state in the letter submitting this update to the Commission that the update includes this relocation.

The details on the specific changes related to these TSTFs are in the enclosed Safety Evaluation. The Notice of Issuance will be included in the Commission's next biweekly *Federal Register* notice.

Sincerely,

/RA/

S. Patrick Sekerak, Project Manager, Section 1
Project Directorate IV & Decommissioning
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-416

Enclosures:
1. Amendment No. to NPF-29
2. Safety Evaluation

cc w/encls: See next page

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The details on the specific changes related to these TSTFs are in the enclosed Safety Evaluation. The Notice of Issuance will be included in the Commission's next biweekly *Federal Register* notice.

Sincerely,

S. Patrick Sekerak

S. Patrick Sekerak, Project Manager, Section 1
Project Directorate IV & Decommissioning
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-416

Enclosures: 1. Amendment No. 142 to NPF-29
2. Safety Evaluation

cc w/encls: See next page

Grand Gulf Nuclear Station

cc:

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

ENTERGY OPERATIONS, INC.

SYSTEM ENERGY RESOURCES, INC.

SOUTH MISSISSIPPI ELECTRIC POWER ASSOCIATION

ENTERGY MISSISSIPPI, INC.

DOCKET NO. 50-416

GRAND GULF NUCLEAR STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 142
License No. NPF-29

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Entergy Operations, Inc. (the licensee) dated August 20, 1999, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   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 amended by 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-29 is hereby amended to read as follows:

   (2) Technical Specifications

   The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 142 , are hereby incorporated into this license. Entergy Operations, Inc. 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

Robert A Gramm

Robert A. Gramm, Chief, Section 1
Project Directorate IV & Decommissioning
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: June 30, 2000

ATTACHMENT TO LICENSE AMENDMENT NO. 142

FACILITY OPERATING LICENSE NO. NPF-29

DOCKET NO. 50-416

Replace the following pages of the Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove	Insert
2.0-1	2.0-1
2.0-2	2.0-2
3.0-2	3.0-2
3.1-7	3.1-7
3.1-8	3.1-8
3.1-12	3.1-12
3.4-16	3.4-16
3.4-17	3.4-17
3.4-21	3.4-21
3.4-24	3.4-24
3.6-8	3.6-8
3.6-14	3.6-14
3.6-15	3.6-15
3.6-43	3.6-43
3.8-5	3.8-5
3.8-10	3.8-10
3.8-13	3.8-13
	3.8-13a
3.8-16	3.8-16
3.8-25	3.8-25
3.8-28	3.8-28
3.8-34	3.8-34
3.8-35	3.8-35
3.9-10	3.9-10
3.9-12	3.9-12
5.0-11	5.0-11
5.0-14	5.0-14
	5.0-14a
B2.0-5	B2.0-5
B2.0-6	B2.0-6
B2.0-8	B2.0-8
B2.0-9	B2.0-9
B2.0-10	B2.0-10

ATTACHMENT TO LICENSE AMENDMENT NO. 142 (continued)

Remove	Insert
B3.0-6	B3.0-6
	B3.0-6a
B3.1-14	B3.1-14
	B3.1-14a
B3.1-15	B3.1-15
	B3.1-15a
B3.1-23	B3.1-23
B3.4-34	B3.4-34
B3.4-35	B3.4-35
B3.4-36	B3.4-36
B3.4-43	B3.4-43
B3.4-48	B3.4-48
B3.6-12	B3.6-12
B3.6-13	B3.6-13
B3.6-22	B3.6-22
	B3.6-22a
B3.6-86	B3.6-86
	B3.6-86a
B3.8-15	B3.8-15
B3.8-15a	B3.8-15a
B3.8-49	B3.8-49
B3.8-50	B3.8-50
B3.8-56	B3.8-56
	B3.8-56a
B3.9-26	B3.9-26
B3.9-30	B3.9-30

2.0 SAFETY LIMITS (SLs)

2.1 SLs

2.1.1 Reactor Core SLs

2.1.1.1 With the reactor steam dome pressure < 785 psig or core flow < 10% rated core flow:

THERMAL POWER shall be ≤ 25% RTP.

2.1.1.2 With the reactor steam dome pressure ≥ 785 psig and core flow ≥ 10% rated core flow:

MCPR shall be ≥ 1.09 for two recirculation loop operation or ≥ 1.10 for single recirculation loop operation.

2.1.1.3 Reactor vessel water level shall be greater than the top of active irradiated fuel.

2.1.2 Reactor Coolant System Pressure SL

Reactor steam dome pressure shall be ≤ 1325 psig.

2.2 SL Violations

With any SL violation, the following actions shall be completed within 2 hours:

2.2.1 Restore compliance with all SLs; and

2.2.2 Insert all insertable control rods.

(continued)

TEXT DELETED

3.0 LCO APPLICABILITY

LCO 3.0.4 (continued)	specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit. Exceptions to this Specification are stated in the individual Specifications. LCO 3.0.4 is only applicable for entry into a MODE or other specified condition in the Applicability in MODES 1, 2, and 3.
LCO 3.0.5	Equipment removed from service or declared inoperable to comply with ACTIONS may be returned to service under administrative control solely to perform testing required to demonstrate its OPERABILITY or the OPERABILITY of other equipment. This is an exception to LCO 3.0.2 for the system returned to service under administrative control to perform the testing required to demonstrate OPERABILITY.
LCO 3.0.6	When a supported system LCO is not met solely due to a support system LCO not being met, the Conditions and Required Actions associated with this supported system are not required to be entered. Only the support system LCO ACTIONS are required to be entered. This is an exception to LCO 3.0.2 for the supported system. In this event, an evaluation shall be performed in accordance with Specification 5.5.10, "Safety Function Determination Program (SFDP)." If a loss of safety function is determined to exist by this program, the appropriate Conditions and Required Actions of the LCO in which the loss of safety function exists are required to be entered. When a support system's Required Action directs a supported system to be declared inoperable or directs entry into Conditions and Required Actions for a supported system, the applicable Conditions and Required Actions shall be entered in accordance with LCO 3.0.2.

(continued)

3.1 REACTIVITY CONTROL SYSTEMS

3.1.3 Control Rod OPERABILITY

LCO 3.1.3 Each control rod shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTIONS

----------NOTE----------
Separate Condition entry is allowed for each control rod.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One withdrawn control rod stuck.	----------NOTE---------- A stuck rod may be bypassed in the Rod Action Control System (RACS) in accordance with SR 3.3.2.1.9 if required to allow continued operation. ----------	
	A.1 Verify stuck control rod separation criteria are met.	Immediately
	AND	
	A.2 Disarm the associated control rod drive (CRD).	2 hours
	AND	
		(continued)

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. (continued)	A.3	Perform SR 3.1.3.2 and SR 3.1.3.3 for each withdrawn OPERABLE control rod.	24 hours from discovery of Condition A concurrent with THERMAL POWER greater than the low power setpoint (LPSP) of the Rod Pattern Control System (RPCS)
	AND		
	A.4	Perform SR 3.1.1.1.	72 hours
B. Two or more withdrawn control rods stuck.	B.1	Be in MODE 3.	12 hours
C. One or more control rods inoperable for reasons other than Condition A or B.		--------NOTE--------- Inoperable control rods may be bypassed in RACS in accordance with SR 3.3.2.1.9, if required, to allow insertion of inoperable control rod and continued operation. ----------	
	C.1	Fully insert inoperable control rod.	3 hours
	AND		
	C.2	Disarm the associated CRD.	4 hours

(continued)

3.1 REACTIVITY CONTROL SYSTEMS

3.1.4 Control Rod Scram Times

LCO 3.1.4

a. No more than 14 OPERABLE control rods shall be "slow," in accordance with Table 3.1.4-1; and

b. No OPERABLE control rod that is "slow" shall occupy a location adjacent to another OPERABLE control rod that is "slow."

APPLICABILITY: MODES 1 and 2.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Requirements of the LCO not met.	A.1 Be in MODE 3.	12 hours

3.4 REACTOR COOLANT SYSTEM (RCS)

3.4.7 RCS Leakage Detection Instrumentation

LCO 3.4.7 The following RCS leakage detection instrumentation shall be OPERABLE:

a. Drywell floor drain sump monitoring system;

b. One channel of either drywell atmospheric particulate or atmospheric gaseous monitoring system; and

c. Drywell air cooler condensate flow rate monitoring system.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

----------NOTE----------
LCO 3.0.4 is not applicable.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Drywell floor drain sump monitoring system inoperable.	A.1 Restore drywell floor drain sump monitoring system to OPERABLE status.	30 days
B. Required drywell atmospheric monitoring system inoperable.	B.1 Analyze grab samples of drywell atmosphere.	Once per 12 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. Drywell air cooler condensate flow rate monitoring system inoperable.	----------NOTE---------- Not applicable when the required drywell atmospheric monitoring system is inoperable. ----------	
	C.1 Perform SR 3.4.7.1.	Once per 8 hours
D. Required drywell atmospheric monitoring system inoperable.	D.1 Restore required drywell atmospheric monitoring system to OPERABLE status.	30 days
AND	OR	
Drywell air cooler condensate flow rate monitoring system inoperable.	D.2 Restore drywell air cooler condensate flow rate monitoring system to OPERABLE status.	30 days
E. Required Action and associated Completion Time of Condition A, B, C, or D not met.	E.1 Be in MODE 3.	12 hours
	AND	
	E.2 Be in MODE 4.	36 hours
F. All required leakage detection systems inoperable.	F.1 Enter LCO 3.0.3.	Immediately

3.4 REACTOR COOLANT SYSTEM (RCS)

3.4.9 Residual Heat Removal (RHR) Shutdown Cooling System—Hot Shutdown

LCO 3.4.9 Two RHR shutdown cooling subsystems shall be OPERABLE, and, with no recirculation pump in operation, at least one RHR shutdown cooling subsystem shall be in operation.

----------NOTES----------

1. Both RHR shutdown cooling subsystems and recirculation pumps may not be in operation for up to 2 hours per 8 hour period.

2. One RHR shutdown cooling subsystem may be inoperable for up to 2 hours for performance of Surveillances.

APPLICABILITY: MODE 3 with reactor steam dome pressure less than the RHR cut in permissive pressure.

ACTIONS

----------NOTES----------

1. LCO 3.0.4 is not applicable.

2. Separate Condition entry is allowed for each RHR shutdown cooling subsystem.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or two RHR shutdown cooling subsystems inoperable.	A.1 Initiate action to restore RHR shutdown cooling subsystem(s) to OPERABLE status. AND	Immediately (continued)

3.4 REACTOR COOLANT SYSTEM (RCS)

3.4.10 Residual Heat Removal (RHR) Shutdown Cooling System—Cold Shutdown

LCO 3.4.10 Two RHR shutdown cooling subsystems shall be OPERABLE, and, with no recirculation pump in operation, at least one RHR shutdown cooling subsystem shall be in operation.

----------NOTES----------

1. Both RHR shutdown cooling subsystems and recirculation pumps may not be in operation for up to 2 hours per 8 hour.

2. One RHR shutdown cooling subsystem may be inoperable for up to 2 hours for the performance of Surveillances.

3. Both RHR shutdown cooling subsystems and recirculation pumps may not be in operation during RCS inservice leak and hydrostatic testing.

APPLICABILITY: MODE 4.

ACTIONS

----------NOTE----------

Separate Condition entry is allowed for each RHR shutdown cooling subsystem.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or two RHR shutdown cooling subsystems inoperable.	A.1 Verify an alternate method of decay heat removal is available for each inoperable RHR shutdown cooling subsystem.	1 hour AND Once per 24 hours thereafter

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.6.1.2.3	Verify only one door in the primary containment air lock can be opened at a time.	24 months
SR 3.6.1.2.4	Verify, from an initial pressure of 90 psig, the primary containment air lock seal pneumatic system pressure does not decay at a rate equivalent to > 2 psig for a period of 48 hours.	18 months

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.1.3.1	----------NOTES---------- 1. Only required to be met in MODES 1, 2, and 3. 2. Not required to be met when the 20 inch primary containment purge valves are open for pressure control, ALARA, or air quality considerations for personnel entry. Also, not required to be met during Surveillances or special testing on the purge system that requires the valves to be open. The 20 inch primary containment purge valves shall not be open with the 6 inch primary containment purge or the drywell vent and purge supply and exhaust lines open. ---------- Verify each 20 inch primary containment purge valve is closed.	31 days
SR 3.6.1.3.2	----------NOTES---------- 1. Valves and blind flanges in high radiation areas may be verified by use of administrative means. 2. Not required to be met for PCIVs that are open under administrative controls. ---------- Verify each primary containment isolation manual valve and blind flange that is located outside primary containment, drywell, and steam tunnel and not locked, sealed, or otherwise secured and is required to be closed during accident conditions is closed.	31 days

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.6.1.3.3	----------NOTES---------- 1. Valves and blind flanges in high radiation areas may be verified by use of administrative means. 2. Not required to be met for PCIVs that are open under administrative controls. ---------- Verify each primary containment isolation manual valve and blind flange that is located inside primary containment, drywell, or steam tunnel and not locked, sealed, or otherwise secured and is required to be closed during accident conditions is closed.	Prior to entering MODE 2 or 3 from MODE 4, if not performed within the previous 92 days
SR 3.6.1.3.4	Verify the isolation time of each power operated and each automatic PCIV, except MSIVs, is within limits.	In accordance with the Inservice Testing Program

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. Secondary containment inoperable during movement of recently irradiated fuel assemblies in the primary or secondary containment or during OPDRVs.	C.1 --------NOTE--------- LCO 3.0.3 is not applicable. ---------- Suspend movement of recently irradiated fuel assemblies in the primary and secondary containment.	Immediately
	AND	
	C.2 Initiate action to suspend OPDRVs.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.4.1.1	Verify all auxiliary building and enclosure building equipment hatches and blowout panels are closed and sealed.	31 days
SR 3.6.4.1.2	Verify one auxiliary building and enclosure building access door in each access opening is closed, except when the access opening is being used for entry and exit.	31 days

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
H. Three or more required AC sources inoperable.	H.1 Enter LCO 3.0.3.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.1.1	Verify correct breaker alignment and indicated power availability for each required offsite circuit.	7 days
SR 3.8.1.2	----------NOTE---------- All DG starts may be preceded by an engine prelube period and followed by a warmup period prior to loading. ---------- Verify each DG starts from standby conditions and achieves: a. in ≤ 10 seconds, voltage ≥ 3744 V and frequency ≥ 58.8 Hz; and b. steady state voltage ≥ 3744 V and ≤ 4576 V and frequency ≥ 58.8 Hz and ≤ 61.2 Hz.	31 days

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.8.1.12	----------NOTES---------- 1. All DG starts may be preceded by an engine prelube period. 2. This Surveillance shall not be performed in MODE 1 or 2. However, credit may be taken for unplanned events that satisfy this SR. ---------- Verify on an actual or simulated Emergency Core Cooling System (ECCS) initiation signal each DG auto-starts from standby condition and: a. In ≤ 10 seconds after auto-start and during tests, achieves voltage ≥ 3744 V and frequency ≥ 58.8 Hz; b. Achieves steady state voltage ≥ 3744 V and ≤ 4576 V and frequency ≥ 58.8 Hz and ≤ 61.2 Hz; c. Operates for ≥ 5 minutes; and d. Emergency loads are auto-connected to the offsite power system.	18 months

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.8.1.15	----------NOTES---------- 1. This Surveillance shall be performed within 5 minutes of shutting down the DG after the DG has operated ≥ 1 hour or until operating temperatures stabilized loaded ≥ 5450 kW and ≤ 5740 kW for DG 11 and DG 12, and ≥ 3300 kW for DG 13. Momentary transients outside of the load range do not invalidate this test. 2. All DG starts may be preceded by an engine prelube period. ---------- Verify each DG starts and achieves: a. in ≤ 10 seconds, voltage ≥ 3744 V and frequency ≥ 58.8 Hz; and b. steady state voltage ≥ 3744 V and ≤ 4576 V and frequency ≥ 58.8 Hz and ≤ 61.2 Hz.	18 months

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.8.1.16	----------NOTE---------- This Surveillance shall not be performed in MODE 1, 2, or 3. However, credit may be taken for unplanned events that satisfy this SR. ---------- Verify each DG: a. Synchronizes with offsite power source while loaded with emergency loads upon a simulated restoration of offsite power; b. Transfers loads to offsite power source; and c. Returns to ready-to-load operation.	18 months

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.8.1.20	----------NOTE---------- All DG starts may be preceded by an engine prelube period. ---------- Verify, when started simultaneously from standby condition, each DG achieves: a. in ≤ 10 seconds, voltage ≥ 3744 V and frequency ≥ 58.8 Hz; and b. steady state voltage ≥ 3744 V and ≤ 4576 V and frequency ≥ 58.8 Hz and ≤ 61.2 Hz.	10 years

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SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.8.4.3	Verify battery cells, cell plates, and racks show no visual indication of physical damage or abnormal deterioration that could degrade battery performance.	18 months
SR 3.8.4.4	Remove visible corrosion and verify battery cell to cell and terminal connections are coated with anti-corrosion material.	18 months
SR 3.8.4.5	Verify battery connection resistance is ≤ 1.5 E-4 ohm for inter-cell connections, ≤ 1.5 E-4 ohm for inter-rack connections, ≤ 1.5 E-4 ohm for inter-tier connections, and ≤ 1.5 E-4 ohm for terminal connections.	18 months
SR 3.8.4.6	Verify each Division 1 and 2 required battery charger supplies ≥ 400 amps at ≥ 125 V for ≥ 10 hours; and the Division 3 battery charger supplies ≥ 50 amps at ≥ 125 V for ≥ 4 hours.	18 months

(continued)

3.8 ELECTRICAL POWER SYSTEMS

3.8.6 Battery Cell Parameters

LCO 3.8.6 Battery cell parameters for the Division 1, 2, and 3 batteries shall be within limits.

APPLICABILITY: When associated DC electrical power subsystems are required to be OPERABLE.

ACTIONS

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

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. One or more batteries with one or more battery cell parameters not within Table 3.8.6-1 Category A or B limits.	A.1	Verify pilot cell's electrolyte level and float voltage meet Table 3.8.6-1 Category C limits.	1 hour
	AND		
	A.2	Verify battery cell parameters meet Table 3.8.6-1 Category C limits.	24 hours AND Once per 7 days thereafter
	AND		
	A.3	Restore battery cell parameters to Table 3.8.6-1 Category A and B limits.	31 days

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. Required Action and associated Completion Time of Condition A not met. OR One or more batteries with average electrolyte temperature of the representative cells < 60°F. OR One or more batteries with one or more battery cell parameters not within Table 3.8.6-1 Category C limits.	B.1 Declare associated battery inoperable.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.6.1	Verify battery cell parameters meet Table 3.8.6-1 Category A limits.	7 days

(continued)

3.9 REFUELING OPERATIONS

3.9.8 Residual Heat Removal (RHR) – High Water Level

LCO 3.9.8 One RHR shutdown cooling subsystem shall be OPERABLE and one decay heat removal subsystem shall be in operation.

----------NOTE----------
The required decay heat removal subsystem may not be in operation for up to 2 hours per 8 hour period.

APPLICABILITY: MODE 5 with irradiated fuel in the reactor pressure vessel (RPV) and the water level ≥ 22 ft 8 inches above the top of the RPV flange.

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. Required RHR shutdown cooling subsystem inoperable.	A.1	Verify an alternate method of decay heat removal is available.	1 hour AND Once per 24 hours thereafter
B. Required Action and associated Completion Time of Condition A not met.	B.1	Suspend loading irradiated fuel assemblies into the RPV.	Immediately
	AND		
	B.2	Initiate action to restore secondary containment to OPERABLE status.	Immediately
	AND		
			(continued)

3.9 REFUELING OPERATIONS

3.9.9 Residual Heat Removal (RHR) – Low Water Level

LCO 3.9.9 Two decay heat removal subsystems shall be OPERABLE, and one decay heat removal subsystem shall be in operation.

----------NOTE----------
The required operating decay heat removal subsystem may not be in operation for up to 2 hours per 8 hour period.

APPLICABILITY: MODE 5 with irradiated fuel in the reactor pressure vessel (RPV) and the water level < 22 ft 8 inches above the top of the RPV flange.

ACTIONS

----------NOTE----------
Separate Condition entry is allowed for each decay heat removal subsystem.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or two required decay heat removal subsystems inoperable.	A.1 Verify an alternate method of decay heat removal is available for each inoperable required decay heat removal subsystem.	1 hour AND Once per 24 hours thereafter

(continued)

5.5 Programs and Manuals (continued)

5.5.5 Component Cyclic or Transient Limit

This program provides controls to track the cyclic and transient occurrences identified on UFSAR Table 3.9-35 to ensure that the reactor vessel is maintained within the design limits.

5.5.6 Inservice Testing Program

This program provides controls for inservice testing of ASME Code Class 1, 2, and 3 components. The program shall include the following:

a. Testing frequencies specified in Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as follows:

ASME Boiler and Pressure Vessel Code and applicable Addenda terminology for inservice testing activities	Required Frequencies for performing inservice testing activities
Weekly	At least once per 7 days
Monthly	At least once per 31 days
Quarterly or every 3 months	At least once per 92 days
Semiannually or every 6 months	At least once per 184 days
Every 9 months	At least once per 276 days
Yearly or annually	At least once per 366 days
Biennially or every 2 years	At least once per 731 days

b. The provisions of SR 3.0.2 are applicable to the above required frequencies for performing inservice testing activities;

c. The provisions of SR 3.0.3 are applicable to inservice testing activities; and

d. Nothing in the ASME Boiler and Pressure Vessel Code shall be construed to supersede the requirements of any TS.

(continued)

5.5 Programs and Manuals

5.5.8 Explosive Gas and Storage Tank Radioactivity Monitoring Program (continued)

b. A surveillance program to ensure that the quantity of radioactive material contained in any outside temporary tank not including liners or shipping radwaste is ≤ 10 curies, excluding tritium and dissolved or entrained noble gases.

The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the Explosive Gas and Storage Tank Radioactivity Monitoring Program surveillance frequencies.

5.5.9 Diesel Fuel Oil Testing Program

A diesel fuel oil testing program to implement required testing of both new fuel oil and stored fuel oil shall be established. The program shall include sampling and testing requirements, and acceptance criteria, all in accordance with applicable ASTM Standards. The purpose of the program is to establish the following:

a. Acceptability of new fuel oil for use prior to addition to storage tanks, and acceptability of stored fuel oil every 92 days, by determining that the fuel oil has:

   1. a water and sediment contents within limits, and

   2. a kinematic viscosity within limits for ASTM 2D fuel oil;

b. Total particulate concentration of the new fuel is ≤ 2 mg/100 ml when tested in accordance with ASTM D-2274-70 within 7 days after addition of the new fuel to the storage tank; and

c. Total particulate concentration of the fuel oil in the storage tanks is ≤ 2 mg/100 ml when tested every 92 days in accordance with ASTM D-2274-70.

The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the Diesel Fuel Oil Testing Program testing frequencies.

(continued)

5.5 Programs and Manuals (continued)

5.5.10 Safety Function Determination Program (SFDP)

This program ensures loss of safety function is detected and appropriate actions taken. Upon entry into LCO 3.0.6, an evaluation shall be made to determine if loss of safety function exists. Additionally, other appropriate limitations and remedial

(continued)

BASES (continued)

SAFETY LIMIT VIOLATIONS

Exceeding an SL may cause fuel damage and create a potential for radioactive releases in excess of 10 CFR 100, "Reactor Site Criteria," limits (Ref. 4). Therefore, it is required to insert all insertable control rods and restore compliance with the SL within 2 hours. (The required actions for a violation of the reactor water level SL include manually initiating ECCS to restore water level and depressurizing the reactor vessel, if necessary, for ECCS operation.) The 2 hour Completion Time ensures that the operators take prompt remedial action and also ensures that the probability of an accident occurring during this period is minimal.

(continued)

BASES (continued)

REFERENCES

1. 10 CFR 50, Appendix A, GDC 10.
2. XN-NF524(A), Revision 2, April 1989.
3. Not used.
4. 10 CFR 100.
5. Not used.
6. NEDE-24011-P-A, GESTAR-II.

BASES

APPLICABLE SAFETY ANALYSES (continued)

The RCS pressure SL has been selected such that it is at a pressure below which it can be shown that the integrity of the system is not endangered. The reactor pressure vessel is designed to ASME, Boiler and Pressure Vessel Code, Section III, 1971 Edition, including Addenda through the winter of 1972 (Ref. 5), which permits a maximum pressure transient of 110%, 1375 psig, of design pressure 1250 psig. The SL of 1325 psig, as measured in the reactor steam dome, is equivalent to 1375 psig at the lowest elevation of the RCS. The RCS is designed to ASME Code, Section III, 1974 Edition (Ref. 6), for the reactor recirculation piping, which permits a maximum pressure transient of 110% of design pressures of 1250 psig for suction piping, 1650 psig for discharge piping between the pump and the discharge valve, and 1550 psig beyond the discharge valve. The RCS pressure SL is selected to be the lowest transient overpressure allowed by the applicable codes.

SAFETY LIMITS

The maximum transient pressure allowable in the RCS pressure vessel under the ASME Code, Section III, is 110% of design pressure. The maximum transient pressure allowable in the RCS piping, valves, and fittings is 110% of design pressures of 1250 psig for suction piping, 1650 psig for discharge piping between the pump and the discharge valve, and 1550 psig beyond the discharge valve. The most limiting of these allowances is the 110% of the suction piping design pressure; therefore, the SL on maximum allowable RCS pressure is established at 1325 psig as measured at the reactor steam dome.

APPLICABILITY

SL 2.1.2 applies in all MODES.

SAFETY LIMIT VIOLATIONS

Exceeding the RCS pressure SL may cause immediate RCS failure and create a potential for radioactive releases in

(continued)

BASES

SAFETY LIMIT VIOLATIONS (continued)

excess of 10 CFR 100, "Reactor Site Criteria," limits (Ref. 4). Therefore, it is required to insert all insertable control rods and restore compliance with the SL within 2 hours. The 2 hour Completion Time ensures that the operators take prompt remedial action and also ensures that the probability of an accident occurring during this period is minimal.

(continued)

BASES (continued)

REFERENCES

1. 10 CFR 50, Appendix A, GDC 14, GDC 15, and GDC 28.

2. ASME, Boiler and Pressure Vessel Code, Section III.

3. ASME, Boiler and Pressure Vessel Code, Section XI, Article IWA-5000.

4. 10 CFR 100.

5. ASME, Boiler and Pressure Vessel Code, 1971 Edition, Addenda, winter of 1972.

6. ASME, Boiler and Pressure Vessel Code, 1974 Edition.

BASES

LCO 3.0.4 (continued)

provisions of LCO 3.0.4 shall not prevent changes in MODES or other specified conditions in the Applicability that result from any unit shutdown.

Exceptions to LCO 3.0.4 are stated in the individual Specifications. These exceptions allow entry into MODES or other specified conditions in the Applicability when the associated ACTIONS to be entered do not provide for continued operation for an unlimited period of time. Exceptions may apply to all the ACTIONS or to a specific Required Action of a Specification.

LCO 3.0.4 is only applicable when entering MODE 3 from MODE 4, MODE 2 from MODE 3 or 4, or MODE 1 from MODE 2. Furthermore, LCO 3.0.4 is applicable when entering any other specified condition in the Applicability only while operating in MODE 1, 2, or 3. The requirements of LCO 3.0.4 do not apply in MODES 4 and 5, or other specified conditions of the Applicability (unless in MODE 1, 2, or 3) because the ACTIONS of individual Specifications sufficiently define the remedial measure to be taken.

The ACTIONS for an inoperable required battery charger in LCO 3.8.4, "DC Sources - Operating," and LCO 3.8.5, "DC Sources - Shutdown," include a Note explicitly precluding entry into specific MODEs or other specified conditions of the Applicability while relying on the ACTIONS. With an inoperable required battery charger this Note in LCO 3.8.4 prohibits entry in MODE 1, 2, or 3, except during power decrease and in LCO 3.8.5 prohibits starting movement of irradiated fuel, entering MODE 4 from MODE 5, or loading fuel into the vessel if the vessel is defueled.

Surveillances do not have to be performed on the associated inoperable equipment (or on variables outside the specified limits), as permitted by SR 3.0.1. Therefore, changing MODES or other specified conditions while in an ACTIONS Condition, either in compliance with LCO 3.0.4, or where an exception to LCO 3.0.4 is stated, is not a violation of SR 3.0.1 or SR 3.0.4 for those Surveillances that do not have to be performed due to the associated inoperable equipment. However, SRs must be met to ensure OPERABILITY prior to declaring the associated equipment OPERABLE (or variable within limits) and restoring compliance with the affected LCO.

(continued)

BASES (continued)

LCO 3.0.5

LCO 3.0.5 establishes the allowance for restoring equipment to service under administrative controls when it has been removed from service or declared inoperable to comply with ACTIONS. The sole purpose of this Specification is to

(continued)

BASES

LCO (continued)

satisfy the intended reactivity control requirements, strict control over the number and distribution of inoperable control rods is required to satisfy the assumptions of the DBA and transient analyses.

APPLICABILITY

In MODES 1 and 2, the control rods are assumed to function during a DBA or transient and are therefore required to be OPERABLE in these MODES. In MODES 3 and 4, control rods are not able to be withdrawn since the reactor mode switch is in Shutdown and a control rod block is applied. This provides adequate requirements for control rod OPERABILITY during these conditions. Control rod requirements in MODE 5 are located in LCO 3.9.5, "Control Rod OPERABILITY—Refueling."

ACTIONS

The ACTIONS table is modified by a Note indicating that a separate Condition entry is allowed for each control rod. This is acceptable, since the Required Actions for each Condition provide appropriate compensatory actions for each inoperable control rod. Complying with the Required Actions may allow for continued operation, and subsequent inoperable control rods are governed by subsequent Condition entry and application of associated Required Actions.

A.1, A.2, A.3, and A.4

A control rod is considered stuck if it will not insert by either CRD drive water or scram pressure. With a fully inserted control rod stuck, no actions are required as long as the control rod remains fully inserted. The Required Actions are modified by a Note that allows a stuck control rod to be bypassed in the Rod Action Control System (RACS) to allow continued operation. SR 3.3.2.1.9 provides additional requirements when control rods are bypassed in RACS to ensure compliance with the CRDA analysis. With one withdrawn control rod stuck, the local scram reactivity rate assumptions may not be met if the stuck control rod separation criteria are not met. Therefore, a verification that the separation criteria are met must be performed immediately. The separation criteria are not met if the

(continued)

BASES

ACTIONS

A.1, A.2, A.3, and A.4 (continued)

stuck control rod occupies a location adjacent to a "slow" control rod. The description of "slow" control rods is provided in LCO 3.1.4, "Control Rod Scram Times." In addition, the control rod must be disarmed within 2 hours. The allowed Completion Time of 2 hours is acceptable, considering the reactor can still be shut down, assuming no additional control rods fail to insert, and provides a reasonable amount of time to perform the Required Action in an orderly manner. Isolating the control rod from scram prevents damage to the CRDM. The

(continued)

BASES

ACTIONS

A.1, A.2, A.3, and A.4 (continued)

control rod can be isolated from scram by isolating the hydraulic control unit from scram and normal drive and withdraw pressure, yet still maintain cooling water to the CRD.

Monitoring of the insertion capability for each withdrawn control rod must also be performed within 24 hours from discovery of Condition A concurrent with THERMAL POWER greater than the low power setpoint (LPSP) of the rod pattern controller (RPC). SR 3.1.3.2 and SR 3.1.3.3 perform periodic tests of the control rod insertion capability of withdrawn control rods. Testing each withdrawn control rod ensures that a generic problem does not exist. This Completion Time allows for an exception to the normal "time zero" for beginning the allowed outage time "clock." The Required Action A.2 Completion Time only begins upon discovery of Condition A concurrent with THERMAL POWER greater than the actual LPSP of the RPC, since the notch insertions may not be compatible with the requirements of rod pattern control (LCO 3.1.6) and the RPC (LCO 3.3.2.1, "Control Rod Block Instrumentation"). The allowed Completion Time of 24 hours from discovery of Condition A concurrent with THERMAL POWER greater than the LPSP of the RPC provides a reasonable time to test the control rods, considering the potential for a need to reduce power to perform the tests.

To allow continued operation with a withdrawn control rod stuck, an evaluation of adequate SDM is also required within 72 hours. Should a DBA or transient require a shutdown, to preserve the single failure criterion an additional control rod would have to be assumed to have failed to insert when required. Therefore, the original SDM demonstration may not be valid. The SDM must therefore be evaluated (by measurement or analysis) with the stuck control rod at its stuck position and the highest worth OPERABLE control rod assumed to be fully withdrawn.

The allowed Completion Time of 72 hours to verify SDM is adequate, considering that with a single control rod stuck in a withdrawn position, the remaining OPERABLE control rods

(continued)

BASES

ACTIONS

A.1, A.2, A.3, and A.4 (continued)

are capable of providing the required scram and shutdown reactivity. Failure to reach MODE 4 is only likely if an additional control rod adjacent to the stuck control rod also fails to insert during a required scram. Even with the postulated additional single failure of an adjacent control rod to insert, sufficient reactivity control remains to reach and maintain MODE 3 conditions (Ref. 7).

(continued)

BASES

LCO (continued)

To ensure that local scram reactivity rates are maintained within acceptable limits, no "slow" control rod may occupy a location adjacent to another "slow" control rod.

Table 3.1.4-1 is modified by two Notes, which state control rods with scram times not within the limits of the Table are considered "slow" and that control rods with scram times > 7 seconds are considered inoperable as required by SR 3.1.3.4.

This LCO applies only to OPERABLE control rods since inoperable control rods will be inserted and disarmed (LCO 3.1.3). Slow scramming control rods may be conservatively declared inoperable and not accounted for as "slow" control rods.

APPLICABILITY

In MODES 1 and 2, a scram is assumed to function during transients and accidents analyzed for these plant conditions. These events are assumed to occur during startup and power operation; therefore, the scram function of the control rods is required during these MODES. In MODES 3 and 4, the control rods are not able to be withdrawn since the reactor mode switch is in shutdown and a control rod block is applied. This provides adequate requirements for control rod scram capability during these conditions. Scram requirements in MODE 5 are contained in LCO 3.9.5, "Control Rod OPERABILITY—Refueling."

ACTIONS

A.1

When the requirements of this LCO are not met, the rate of negative reactivity insertion during a scram may not be within the assumptions of the safety analyses. Therefore, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to MODE 3 within 12 hours. The allowed Completion Time of 12 hours is reasonable, based on operating experience, to reach MODE 3 from full power conditions in an orderly manner and without challenging plant systems.

(continued)

BASES

APPLICABLE SAFETY ANALYSES (continued)	RCS leakage detection instrumentation satisfies Criterion 1 of the NRC Policy Statement.
LCO	The drywell floor drain sump monitoring system is required to quantify the unidentified LEAKAGE from the RCS. Thus, for the system to be considered OPERABLE, the sump level monitoring portion of the system must be OPERABLE. The other monitoring systems provide qualitative indication to the operators so closer examination of other detection systems will be made to determine the extent of any corrective action that may be required. With the leakage detection systems inoperable, monitoring for LEAKAGE in the RCPB is degraded.
APPLICABILITY	In MODES 1, 2, and 3, leakage detection systems are required to be OPERABLE to support LCO 3.4.5. This Applicability is consistent with that for LCO 3.4.5.
ACTIONS	The Actions are modified by a Note that states that the provisions of LCO 3.0.4 are not applicable. As a result, a MODE change is allowed when the drywell floor drain sump monitoring system and required radiation monitors are inoperable. This allowance is provided because other instrumentation is available to monitor RCS leakage. <u>A.1</u> With the drywell floor drain sump monitoring system inoperable, no other form of sampling can provide the equivalent information to quantify leakage. However, the drywell atmospheric activity monitor and the drywell air cooler condensate flow rate monitor will provide indications of changes in leakage. With the drywell floor drain sump monitoring system inoperable, but with RCS unidentified and total LEAKAGE being determined every 12 hours (SR 3.4.5.1), operation may continue for 30 days. The 30 day Completion Time of Required Action A.1 is acceptable, based on operating experience, considering the multiple forms of leakage detection that are still available.

(continued)

BASES

ACTIONS (continued)

B.1

With both gaseous and particulate drywell atmospheric monitoring channels inoperable, grab samples of the drywell atmosphere shall be taken and analyzed to provide periodic leakage information. Provided a sample is obtained and analyzed every 12 hours, the plant may continue operation since at least one other form of drywell leakage detection (i.e., air cooler condensate flow rate monitor) is available. The 12 hour interval provides periodic information that is adequate to detect LEAKAGE.

C.1

With the required drywell air cooler condensate flow rate monitoring system inoperable, SR 3.4.7.1 is performed every 8 hours to provide periodic information of activity in the drywell at a more frequent interval than the routine Frequency of SR 3.4.7.1. The 8 hour interval provides periodic information that is adequate to detect LEAKAGE and recognizes that other forms of leakage detection are available. However, this Required Action is modified by a Note that allows this action to be not applicable if the required drywell atmospheric monitoring system is inoperable. Consistent with SR 3.0.1, Surveillances are not required to be performed on inoperable equipment.

D.1 and D.2

With both the gaseous and particulate drywell atmospheric monitor channels and the drywell air cooler condensate flow rate monitor inoperable, the only means of detecting LEAKAGE is the drywell floor drain sump monitoring system. This Condition does not provide the required diverse means of leakage detection. The Required Action is to restore either of the inoperable monitoring systems to OPERABLE status within 30 days to regain the intended leakage detection diversity. The 30 day Completion Time ensures that the plant will not be operated in a degraded configuration for a lengthy time period.

(continued)

BASES

ACTIONS (continued)

E.1 and E.2

If any Required Action of Condition A, B, C, or D cannot be met within the associated Completion Time, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 12 hours and to MODE 4 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required plant conditions in an orderly manner and without challenging plant systems.

F.1

With all required monitors inoperable, no required automatic means of monitoring LEAKAGE are available, and immediate plant shutdown in accordance with LCO 3.0.3 is required.

SURVEILLANCE REQUIREMENTS

SR 3.4.7.1

This SR requires the performance of a CHANNEL CHECK of the required drywell atmospheric monitoring system. The check gives reasonable confidence that the channel is operating properly. The Frequency of 12 hours is based on instrument reliability and is reasonable for detecting off normal conditions.

SR 3.4.7.2

This SR requires the performance of a CHANNEL FUNCTIONAL TEST of the required RCS leakage detection instrumentation. The test ensures that the monitors can perform their function in the desired manner. The test also verifies the relative accuracy of the instrumentation. The Frequency of 31 days considers instrument reliability, and operating experience has shown it proper for detecting degradation.

(continued)

BASES

LCO (continued)

OPERABLE RHR pump, two heat exchangers in series, and the associated piping and valves. Each shutdown cooling subsystem is considered OPERABLE if it can be manually aligned (remote or local) in the shutdown cooling mode for removal of decay heat. In MODE 3, one RHR shutdown cooling subsystem can provide the required cooling, but two subsystems are required to be OPERABLE to provide redundancy. Operation of one subsystem can maintain or reduce the reactor coolant temperature as required. However, to ensure adequate core flow to allow for accurate average reactor coolant temperature monitoring, nearly continuous operation is required.

Note 1 permits both RHR shutdown cooling subsystems and recirculation pumps to not be in operation for a period of 2 hours in an 8 hour period. Note 2 allows one RHR shutdown cooling subsystem to be inoperable for up to 2 hours for performance of surveillance tests. These tests may be on the affected RHR System or on some other plant system or component that necessitates placing the RHR System in an inoperable status during the performance. This is permitted because the core heat generation can be low enough and the heatup rate slow enough to allow some changes to the RHR subsystems or other operations requiring RHR flow interruption and loss of redundancy.

APPLICABILITY

In MODES 1 and 2, and in MODE 3 with reactor steam dome pressure greater than or equal to the RHR cut in permissive pressure, this LCO is not applicable. Operation of the RHR System in the shutdown cooling mode is not allowed above this pressure because the RCS pressure may exceed the design pressure of the shutdown cooling piping. Decay heat removal at reactor pressures greater than or equal to the RHR cut in permissive pressure is typically accomplished by condensing the steam in the main condenser. Additionally, in MODE 2 below this pressure, the OPERABILITY requirements for the Emergency Core Cooling Systems (ECCS) (LCO 3.5.1, "ECCS—Operating") do not allow placing the RHR shutdown cooling subsystem into operation.

In MODE 3 with reactor steam dome pressure below the RHR cut in permissive pressure (i.e., the actual pressure at which the interlock resets) the RHR System may be operated in the

(continued)

BASES

LCO (continued)

aligned (remote or local) in the shutdown cooling mode for removal of decay heat. In MODE 4, one RHR shutdown cooling subsystem can provide the required cooling, but two subsystems are required to be OPERABLE to provide redundancy. Operation of one subsystem can maintain and reduce the reactor coolant temperature as required. However, to ensure adequate core flow to allow for accurate average reactor coolant temperature monitoring, nearly continuous operation is required.

Note 1 permits both RHR shutdown cooling subsystems and recirculation pumps to not be in operation for a period of 2 hours in an 8 hour period. Note 2 allows one RHR shutdown cooling subsystem to be inoperable for up to 2 hours for performance of surveillance tests. These tests may be on the affected RHR System or on some other plant system or component that necessitates placing the RHR System in an inoperable status during the performance. This is permitted because the core heat generation can be low enough and the heatup rate slow enough to allow some changes to the RHR subsystems or other operations requiring RHR flow interruption and loss of redundancy.

Note 3 permits both RHR shutdown cooling subsystems and recirculation pumps to not be in operation during performance of inservice leak testing and during hydrostatic testing. This is permitted because RCS pressures and temperatures are being closely monitored as required by LCO 3.4.11.

APPLICABILITY

In MODES 1 and 2, and in MODE 3 with reactor steam dome pressure greater than or equal to the RHR cut in permissive pressure, this LCO is not applicable. Operation of the RHR System in the shutdown cooling mode is not allowed above this pressure because the RCS pressure may exceed the design pressure of the shutdown cooling piping. Decay heat removal at reactor pressures greater than or equal to the RHR cut in permissive pressure is typically accomplished by condensing the steam in the main condenser. Additionally, in MODE 2 below this pressure, the OPERABILITY requirements for the Emergency Core Cooling Systems (ECCS) (LCO 3.5.1, "ECCS—Operating") do not allow placing the RHR shutdown cooling subsystem into operation.

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.6.1.2.2 (continued)

following access through the air lock, which occurs regularly. The 7 day Frequency has been shown to be acceptable through operating experience and is considered adequate in view of the other indications available to operations personnel that the seal air flask pressure is low.

SR 3.6.1.2.3

The air lock interlock mechanism is designed to prevent simultaneous opening of both doors in the air lock. Since both the inner and outer doors of an air lock are designed to withstand the maximum expected post accident primary containment pressure (Ref. 3), closure of either door will support primary containment OPERABILITY. Thus, the interlock feature supports primary containment OPERABILITY while the air lock is being used for personnel transit in and out of the containment. Periodic testing of this interlock demonstrates that the interlock will function as designed and that simultaneous inner and outer door opening will not inadvertently occur. Due to the nature of this interlock, and given that the interlock mechanism is not normally challenged when the primary containment air lock door is used for entry and exit (procedures require strict adherence to single door opening), this test is only required to be performed every 24 months. The 24 month Frequency is based on the need to perform this Surveillance under conditions that apply during a plant outage, and the potential for loss of primary containment OPERABILITY if the Surveillance was performed with the reactor at power. The 24 month Frequency for the interlock is justified based on generic operating experience. The 24 month Frequency is based on engineering judgment and is considered adequate given that the interlock is not challenged during the use of the airlock.

(continued)

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.6.1.2.4

A seal pneumatic system test to ensure that pressure does not decay at a rate equivalent to > 2 psig for a period of 48 hours from an initial pressure of 90 psig is an effective leakage rate test to verify system performance. The 18 month Frequency is based on the fact that operating experience has shown these components usually pass the Surveillance when performed at the 18 month Frequency, which is based on the refueling cycle. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

REFERENCES

1. UFSAR, Section 3.8.

2. 10 CFR 50, Appendix J.

3. UFSAR, Table 6.2-13.

BASES

SURVEILLANCE REQUIREMENTS

SR 3.6.1.3.1 (continued)

purge valves are capable of closing in the environment following a LOCA. Therefore, these valves are allowed to be open for limited periods of time. The 31 day Frequency is consistent with other PCIV requirements.

SR 3.6.1.3.2

This SR verifies that each primary containment isolation manual valve and blind flange that is located outside primary containment, drywell, and steam tunnel, and not locked, sealed, or otherwise secured and is required to be closed during accident conditions, is closed. The SR helps to ensure that post accident leakage of radioactive fluids or gases outside of the primary containment boundary is within design limits. This SR does not require any testing or valve manipulation. Rather, it involves verification that those devices outside primary containment, drywell, and steam tunnel, and capable of being mispositioned, are in the correct position. Since verification of valve position for devices outside primary containment is relatively easy, the 31 day Frequency was chosen to provide added assurance that the devices are in the correct positions.

Two Notes are added to this SR. The first Note applies to valves and blind flanges located in high radiation areas and allows them to be verified by use of administrative controls. Allowing verification by administrative controls is considered acceptable, since access to these areas is typically restricted during MODES 1, 2, and 3 for ALARA reasons. Therefore, the probability of misalignment of these devices, once they have been verified to be in the proper position, is low. A second Note is included to clarify that PCIVs open under administrative controls are not required to meet the SR during the time the PCIVs are open.

(continued)

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.6.1.3.3

This SR verifies that each primary containment manual isolation valve and blind flange located inside primary containment, drywell, or steam tunnel, and not locked, sealed, or otherwise secured and required to be closed during accident conditions, is closed. The SR helps

(continued)

BASES

ACTIONS (continued)

C.1 and C.2

Movement of recently irradiated fuel assemblies in the primary or secondary containment and OPDRVs can be postulated to cause significant fission product release to the secondary containment. In such cases, the secondary containment is the only barrier to release of fission products to the environment. Therefore, movement of recently irradiated fuel assemblies must be immediately suspended if the secondary containment is inoperable.

Suspension of these activities shall not preclude completing an action that involves moving a component to a safe position. Also, action must be immediately initiated to suspend OPDRVs to minimize the probability of a vessel draindown and subsequent potential for fission product release. Actions must continue until OPDRVs are suspended.

Required Action C.1 has been modified by a Note stating that LCO 3.0.3 is not applicable. If moving recently irradiated fuel assemblies while in MODE 4 or 5, LCO 3.0.3 would not specify any action. If moving recently irradiated fuel assemblies while in MODE 1, 2, or 3, the fuel movement is independent of reactor operations. Therefore, in either case, inability to suspend movement of recently irradiated fuel assemblies would not be a sufficient reason to require a reactor shutdown.

SURVEILLANCE REQUIREMENTS

SR 3.6.4.1.1 and SR 3.6.4.1.2

Verifying that Auxiliary Building and Enclosure Building equipment hatches, blowout panels, and one access door in each access opening are closed ensures that the infiltration of outside air of such a magnitude as to prevent maintaining the desired negative pressure does not occur. Verifying that all such openings are closed provides adequate assurance that exfiltration from the secondary containment will not occur. In this application the term "sealed" has no connotation of leak tightness. Maintaining secondary containment OPERABILITY requires verifying one door in the access opening is closed, except when the access opening is being used for entry and exit or when maintenance is being performed on an access opening. The 31 day Frequency for

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.6.4.1.1 and SR 3.6.4.1.2 (continued)

these SRs has been shown to be adequate based on operating experience, and is considered adequate in view of the other controls on secondary containment access openings.

(continued)

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.8.1.2

This SR helps to ensure the availability of the standby electrical power supply to mitigate DBAs and transients and maintain the unit in a safe shutdown condition.

To minimize the wear on moving parts that do not get lubricated when the engine is not running, this SR is modified by a Note to indicate that all DG starts for this Surveillance may be preceded by an engine prelube period and followed by a warmup period prior to loading.

For the purposes of this testing, the DGs are started from standby conditions. Standby conditions for a DG mean that the diesel engine coolant and oil are being continuously circulated and temperature is being maintained consistent with manufacturer recommendations for DG 11 and DG 12. For DG 13, standby conditions mean that the lube oil is heated by the jacket water and continuously circulated through a portion of the system as recommended by the vendor. Engine jacket water is heated by an immersion heater and circulates through the system by natural circulation.

SR 3.8.1.2 requires that the DG starts from standby conditions and achieves required voltage and frequency within 10 seconds. The DG's ability to maintain the required voltage and frequency is tested by those SRs which require DG loading. The 10 second start requirement supports the assumptions in the design basis LOCA analysis (Ref. 5). In addition to the SR requirements, the time for the DG to reach steady state operation is periodically monitored (data is taken at least once per 6 months during the performance of SR 3.8.1.2) and the trend evaluated to identify degradation of governor and voltage regulator performance.

The DGs are started for this test by using one of the following signals: manual, simulated loss of offsite power by itself, simulated loss of offsite power in conjunction with an ESF actuation test signal, or an ESF actuation test signal by itself.

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.8.1.2 (continued)

The 31 day Frequency for SR 3.8.1.2 is consistent with the industry guidelines for assessment of diesel generator performance (Ref. 14). This Frequency provides adequate assurance of DG OPERABILITY, while minimizing degradation resulting from testing.

SR 3.8.1.3

This Surveillance demonstrates that the DGs are capable of synchronizing and accepting greater than or equal to the equivalent of the maximum expected accident loads. A minimum run time of 60 minutes is required to stabilize engine temperatures, while minimizing the time that the DG is connected to the offsite source.

(continued)

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.8.3.5

Microbiological fouling is a major cause of fuel oil degradation. There are numerous bacteria that can grow in fuel oil and cause fouling, but all must have a water environment in order to survive. Removal of water from the storage tanks once every 92 days eliminates the necessary environment for bacterial survival. This is the most effective means of controlling microbiological fouling. In addition, it eliminates the potential for water entrainment in the fuel oil during DG operation. Water may come from any of several sources, including condensation, ground water, rain water, contaminated fuel oil, and from breakdown of the fuel oil by bacteria. Frequent checking for and removal of accumulated water minimizes fouling and provides data regarding the watertight integrity of the fuel oil system. The Surveillance Frequencies are established by Regulatory Guide 1.137 (Ref. 2). This SR is for preventive maintenance. The presence of water does not necessarily represent a failure of this SR provided that accumulated water is removed during performance of the Surveillance.

REFERENCES

1. UFSAR, Section 9.5.4.

2. Regulatory Guide 1.137.

3. ANSI N195, Appendix B, 1976.

(continued)

BASES

REFERENCES (continued)

4. UFSAR, Chapter 6.

5. UFSAR, Chapter 15.

6. ASTM Standards: D4057-88; D975-92a; D2274-70.

BASES (continued)

SURVEILLANCE REQUIREMENTS

SR 3.8.4.1

Verifying battery terminal voltage while on float charge helps to ensure the effectiveness of the charging system and the ability of the batteries to perform their intended function. Float charge is the condition in which the charger is supplying the continuous charge required to overcome the internal losses of a battery (or battery cell) and maintain the battery (or battery cell) in a fully charged state. The voltage requirements are based on the nominal design voltage of the battery and are consistent with the initial voltages assumed in the battery sizing calculations. The 7 day Frequency is consistent with manufacturer's recommendations and IEEE-450 (Ref. 8).

SR 3.8.4.2

Visual inspection to detect corrosion of the battery cells and connections, or measurement of the resistance of each inter-cell, inter-rack, inter-tier, and terminal connection, provides an indication of physical damage or abnormal deterioration that could potentially degrade battery performance.

The Surveillance Frequency for these inspections, which can detect conditions that can cause power losses due to resistance heating, is 92 days. This Frequency is considered acceptable based on operating experience related to detecting corrosion trends.

SR 3.8.4.3

Visual inspection of the battery cells, cell plates, and battery racks provides an indication of physical damage or abnormal deterioration that could potentially degrade battery performance. The presence of physical damage or deterioration does not necessarily represent a failure of this SR, provided an evaluation determines that the physical damage or deterioration does not affect the OPERABILITY of the battery (its ability to perform its design function).

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.8.4.3 (continued)

The 18 month Frequency of the Surveillance is based on engineering judgement, taking into consideration the desired unit conditions to perform the Surveillance. Operating experience has shown that these components usually pass the SR when performed at the 18 month Frequency. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

(continued)

BASES

APPLICABLE SAFETY ANALYSES (continued)

Although the RHR System does not meet a specific criterion of the NRC Policy Statement, it was identified in the NRC Policy Statement as an important contributor to risk reduction. Therefore, the RHR System is retained as a Specification. The ADHRS is included in the Specification to provide requirements for decay heat removal capability during an outage while the RHR System is out of service.

LCO

Only one RHR shutdown cooling subsystem is required to be OPERABLE in MODE 5 with irradiated fuel in the RPV and the water level ≥ 22 ft 8 inches above the RPV flange. Only one subsystem is required because the volume of water above the RPV flange provides backup decay heat removal capability.

An OPERABLE RHR shutdown cooling subsystem consists of an RHR pump, two heat exchangers, valves, piping, instruments, and controls to ensure an OPERABLE flow path. The required RHR shutdown cooling subsystem must have a OPERABLE diesel generator capable of supplying electrical power.

Additionally, each RHR shutdown cooling subsystem is considered OPERABLE if it can be manually aligned (remote or local) in the shutdown cooling mode for removal of decay heat. Operation (either continuous or intermittent) of one decay heat removal subsystem (either RHR or ADHRS) can maintain and reduce the reactor coolant temperature as required. However, to ensure adequate core flow to allow for accurate average reactor coolant temperature monitoring, nearly continuous operation is required. A Note is provided to allow a 2 hour exception for the operating subsystem to not be in operation every 8 hours.

APPLICABILITY

One RHR shutdown cooling subsystem must be OPERABLE in MODE 5, with irradiated fuel in the RPV and the water level ≥ 22 ft 8 inches above the top of the RPV flange, to provide decay heat removal. RHR System requirements in other MODES are covered by LCOs in Section 3.4, Reactor Coolant System (RCS); Section 3.5, Emergency Core Cooling Systems (ECCS) and Reactor Core Isolation Cooling (RCIC) System; and Section 3.6, Containment Systems. RHR Shutdown Cooling System requirements in MODE 5, with the water level < 22 ft 8 inches above the RPV flange, are given in LCO 3.9.9, "Residual Heat Removal (RHR) – Low Water Level."

(continued)

BASES

APPLICABLE SAFETY ANALYSES (continued)	Specification. The ADHRS is included in the Specification to provide requirements for decay heat removal capability during an outage while the RHR System is out of service.
LCO	In MODE 5 with irradiated fuel in the reactor pressure vessel (RPV) and the water level < 22 ft 8 inches above the RPV flange both RHR shutdown cooling subsystems must be OPERABLE, or the ADHRS may be substituted for one of the RHR subsystems. An OPERABLE RHR shutdown cooling subsystem consists of an RHR pump, two heat exchangers, valves, piping, instruments, and controls to ensure an OPERABLE flow path. An OPERABLE ADHRS consists of two pumps, two heat exchangers, valves, piping, instruments and controls to ensure an OPERABLE flow path. At least one of the required RHR shutdown cooling subsystems must have a OPERABLE diesel generator capable of supplying electrical power. Additionally, each RHR shutdown cooling subsystem is considered OPERABLE if it can be manually aligned (remote or local) in the shutdown cooling mode for removal of decay heat. Operation (either continuous or intermittent) of one decay heat removal subsystem (either RHR or ADHRS) can maintain and reduce the reactor coolant temperature as required. However, to ensure adequate core flow to allow for accurate average reactor coolant temperature monitoring, nearly continuous operation is required. A Note is provided to allow a 2 hour exception for the operating subsystem to not be in operation every 8 hours.
APPLICABILITY	Two decay heat removal subsystems are required to be OPERABLE in MODE 5, with irradiated fuel in the RPV and the water level < 22 ft 8 inches above the top of the RPV flange, to provide decay heat removal. RHR System requirements in other MODES are covered by LCOs in Section 3.4, Reactor Coolant System (RCS); Section 3.5, Emergency Core Cooling Systems (ECCS) and Reactor Core Isolation Cooling (RCIC) System; and Section 3.6, Containment Systems. RHR Shutdown Cooling System requirements in MODE 5, with the water level ≥ 22 ft 8 inches above the RPV flange, are given in LCO 3.9.8, "Residual Heat Removal (RHR) – High Water Level."

(continued)

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 142 TO FACILITY OPERATING LICENSE NO. NPF-29

ENTERGY OPERATIONS, INC., ET AL.

GRAND GULF NUCLEAR STATION, UNIT 1

DOCKET NO. 50-416

1.0 INTRODUCTION

By letter dated August 20, 1999, Entergy Operations, Inc., et al. (the licensee) submitted a request for changes to the Grand Gulf Nuclear Station, Unit 1, (GGNS) Technical Specifications (TSs). The changes would revise the TSs by incorporating 17 improvements (identified by Technical Specifications Task Force (TSTF) numbers) to the TSs.

These changes to the improved TSs for General Electric Company model Boiling Water Reactor/6 (BWR/6) plants such as GGNS are identified by TSTF numbers and are the following:

- TSTF-2, relocate the 10-year sediment cleaning of the emergency diesel generator (EDG) fuel storage tank in Surveillance Requirement (SR) 3.8.3.6 to the GGNS Updated Final Safety Analysis Report (UFSAR),

- TSTF-5, delete notification, reporting, and restart requirements if a safety limit (SL) is violated in TS 2.2,

- TSTF-9, relocate the shutdown margin (SDM) values in Limiting Condition for Operation (LCO) 3.1.1 and SR 3.1.1.1 to the core operating limits report (COLR),

- TSTF 17, extension of the testing frequency for the primary containment airlock interlock mechanism from 184 days to 24 months in SR 3.6.1.2.3 and deletion of the SR note,

- TSTF-18, reword SR 3.6.4.1.2 to require only one secondary containment access door per access opening to be closed,

- TSTF-32, move the requirement to ensure that "slow" and withdrawn stuck control rods are appropriately separated from LCO 3.1.4 to the LCO 3.1.3 Condition A required actions,

- TSTF-33, administrative change to clarify the completion time for LCO 3.1.3 Required Action A.2,

- TSTF-38, revise and clarify the visual surveillance in SR 3.8.4.3 for batteries to specify the inspection is for performance degradation,

- TSTF-45, revise SRs 3.6.1.3.2 and 3.6.1.3.3 to specify that the only primary containment pressure isolation valves to be verified closed are those valves that are not locked, sealed, or otherwise secured,

- TSTF-60, exempt LCO 3.4.7 on reactor coolant system (RCS) leakage detection instrumentation from LCO 3.0.4 which restricts entry into modes, or specified conditions with required equipment inoperable,

- TSTF-104, relocate the discussion of exceptions in LCO 3.0.4 to the Bases of the TSs,

- TSTF-118, add a sentence to the administrative controls program in TS Administrative Section 5.5.9 that the provisions of SRs 3.0.2 and 3.0.3 applies to the specified testing frequencies of the diesel fuel oil testing program,

- TSTF-153, clarify the exception notes for LCOs 3.4.9, 3.4.10, 3.9.8, and 3.9.9 to be consistent with the requirement being excepted,

- TSTF-163, modify SRs 3.8.1.2, 3.8.1.12, 3.8.1.15, and 3.8.1.20 for diesel generators to provide minimum voltage/Hz limits for the 10-second acceptance and detail the current volt/Hz range as "steady state" acceptance criteria,

- TSTF-166, revise LCO 3.0.6 to explicitly require an evaluation per the safety function determination program and delete the statement that "additional limitations may be required,"

- TSTF-278, LCO 3.8.6 is revised to require that battery cell parameters be "within limits" and delete the reference to Table 3.8.6-1, and a reference to the table is added to the actions for LCO 3.8.6, and

- TSTF-279, delete the reference to the "applicable supports" from the description of the inservice testing program in TS Administrative Section 5.5.6.

2.0 BACKGROUND

The proposed 17 changes listed above are changes to the Improved Standard Technical Specifications (ISTS), NUREG-1434 (for BWR/6 plants such as GGNS), that the Nuclear Regulatory Commission (NRC) has approved, except for TSTF-9. Because NUREG-1434 is part of the basis for the current improved TSs for GGNS that were issued in Amendment 120 dated February 21, 1995, the above TSTF changes except TSTF-9 can be considered applicable to the TSs for GGNS. The latest revision of the above TSTFs was used and is listed in the evaluation for each TSTF in Section 3.0 below.

NUREG-1434, Revision 0, published September 1992 was the standard that the GGNS improved TSs were based upon and, since the GGNS improved TSs were issued, the later NUREG-1434, Revision 1, published April 1995 has been issued, which incorporated TSTFs approved up to then.

3.0 EVALUATION

3.1 TSTF-2, Revision 1

The change in TSTF-2 for NUREG-1434 is to relocate the 10-year sediment cleaning of the fuel oil storage tank for the EDGs from the TSs to a licensee-controlled document.

The justification given in the NRC-approved TSTF is that SR 3.8.3.6 for the 10-year cleaning of each fuel oil storage tank is a preventative type of SR because failure to perform this SR does not necessarily result in an inoperable storage tank as stated in the Bases for SR 3.8.3.6 in the ISTS. Preventative maintenance SRs generally have been relocated from the TSs and allowed to be under licensee control. Being under licensee control means that the SR would be in a licensee-controlled document where the regulations (e.g., 10 CFR 50.59 for the final safety analysis report) govern how changes can be made to the document and whether NRC review of the changes is required.

The staff further stated that this SR is similar to the EDG inspection SR, which was approved to be relocated to licensee-controlled documents. Both SRs are preventative maintenance requirements. Performance of SR 3.8.3.3 (fuel oil testing) and the limits of the Diesel Fuel Oil Testing Program in the ISTS help ensure tank sediment is minimized. Performance of SR 3.8.3.1 (fuel oil volume verification) once per 31 days ensures that any degradation of the tank wall surface that results in a fuel oil volume reduction is detected and corrected in a timely manner. In addition, another government agency has regulations governing the maintenance of below-ground fuel oil storage tanks. As a result, adequate controls exist to allow relocation of SR 3.8.3.6 to licensee-controlled documents.

In its application, the licensee stated the same justification for GGNS that is provided by the staff for approving the TSTF, and is given above. The TSTF is applicable to the ISTS that was part of the basis for the TSs and, therefore, is applicable to GGNS. The licensee proposed the same changes to the TSs that are given in the TSTF and stated that the requirement in SR 3.8.3.6 would be relocated to the UFSAR for GGNS. Changes to the UFSAR are controlled by 10 CFR 50.59. Based on this, the staff concludes that the proposed change to SR 3.8.3.6 of the TSs to incorporate TSTF-2 is acceptable. The licensee also provided the changes to the Bases for SR 3.8.3.6 in Bases Section 3.8.3, and these changes are the same as those given in TSTF-2, with the added deletion of the reference to the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code) Section XI at the end of the Bases section. The Bases for SR 3.8.3.6 is being deleted because SR 3.8.3.6 is being deleted from the TSs. Because the only reference to the ASME Code Section XI within Bases Section 3.8.3 is in SR 3.8.3.6, the reference to ASME Code Section XI should also be deleted. Therefore, the staff does not have any disagreement with the changes to the Bases for SR 3.8.3.6.

3.2 TSTF-5, Revision 1

The change in TSTF-5 to NUREG-1434 is to delete the notification, reporting, and restart requirements if a SL is violated.

The justification given in the NRC-approved TSTF is that the change deletes requirements in the ISTS that are duplicative, contained in other regulations, or required to comply with regulations (10 CFR 50.36 on technical specifications).

In its application, the licensee provided the following to show that the SLs proposed to be deleted from the TSs duplicate other regulations:

- SL 2.2.1 is addressed by 10 CFR 50.36(c)(1)(i)(A) and 10 CFR 72,
- SL 2.2.3 is addressed by 10 CFR 50.36(c)(1)(i)(A) and by the inclusion in the Quality Assurance Program Manual of the requirements for on-site and off-site safety review committee reviews of reportable events.
- SL 2.2.4 is addressed by 10 CFR 50.36(c)(1)(i)(A) and 10 CFR 50.73, and
- SL 2.2.5 is addressed by 10 CFR 50.36(c)(1)(i)(A).

The TSTF is applicable to the ISTS that was part of the basis for the TSs and, therefore, is applicable to GGNS. The licensee proposed the same changes to the TSs that are given in the TSTF. Based on this, the staff concludes that the proposed change to SLs 2.2.1 through 2.2.5 of the TSs to incorporate TSTF-5 is acceptable. The licensee also provided the changes to the Bases for SLs 2.2.1 through 2.2.5, and these changes are the same as those given in TSTF-5. The staff does not have any disagreement with the changes to the Bases for the SLs.

3.3 TSTF-9, Revision 1

The change in TSTF-9 is to relocate values for the SDM to the COLR in TS 5.6.5 of the administrative section.

TSTF-9 has been approved for the Westinghouse, Combustion-Engineering, and Babcock and Wilcox ISTSs (NUREGs-1430, -1431, and -1432). The TSTF replaces statements of required SDM in TSs by references to the acceptable SDM values that are in the COLR. The staff approved the TSTF because the SDM is a cycle-specific variable similar to moderator temperature coefficient, rod insertion limits, axial flux difference, heat flux hot channel factor, nuclear enthalpy rise hot channel factor, average planar linear heat generation rate (APLHGR), minimum critical power ratio (MCPR), and linear heat generation rate (LHGR), which are currently contained in COLRs for plants. TSTF-9 has not been approved for the General Electric ISTSs (NUREG-1434).

During discussions with the licensee on the application of TSTF-9 to the TSs in a conference call on May 18, 2000, the licensee withdrew its request to incorporate TSTF-9 in the TSs.

3.4 TSTF-17, Revision 2

The change in TSTF-17 to the ISTS is to extend the surveillance frequency in SR 3.6.1.2.3 for the containment airlock interlock mechanism from 184 days to 24 months. The containment airlock is two doors covering an opening through containment to maintain containment integrity. The interlock mechanism prevents both doors of the containment airlock being open to any extent at the same time. The interlock would physically require one door to be closed and the seals pressurized before the other door could be opened.

The justification for the NRC-approved TSTF is that typically the interlock is installed after each refueling outage, verified operable with the SR, and not disturbed until the next refueling

outage. If the need for maintenance arises when the interlock is required, the performance of the interlock surveillance would be required following the maintenance to declare the interlock operable. In addition, when an airlock is opened during times the interlock is required, the operator first will verify that one door is completely shut and the door seals are pressurized before attempting to open the other door. Therefore, the interlock is not challenged except during the actual testing of the interlock. Consequently, it should be sufficient to ensure proper operation of the interlock by testing the interlock every refueling outage, which currently may be as long as 24 months.

Testing of the airlock interlock mechanism is accomplished through having one door not completely engaged in the closed position, while attempting to open the second door. Failure of the SR effectively results in a loss of containment integrity. Procedures and training do not allow this interlock to be challenged for containment ingress and egress. One door is opened, all personnel and equipment, as necessary, are placed in the interlock (the space between the two doors), and then the door is completely closed prior to attempting to open the second door. This surveillance is contrary to processes and training of conservative operation when the interlock function is required. The surveillance is attempting to defeat the plant design. The door interlock mechanism cannot be readily bypassed in that linkages must be removed which are under the control of station processes, such as temporary modifications, containment closure procedures, and out-of-service practices. Failure rate of this device is very low based on the design of the interlock.

Historically, this interlock verification has had its frequency chosen to coincide with frequency of the overall airlock leakage test. Option B of Appendix J, 10 CFR Part 50, allows for the overall airlock leakage test frequency to be up to a maximum of 30 months. With SR 3.0.2, which allows a surveillance interval be extended by 1.25, the 24-month interval could be extended to 30 months. This will ensure that the interlock mechanism is tested in a reactor mode where the interlock is not required. With the extension of the surveillance interval to 24 months, the testing would be done during a plant shutdown and not be required until the following plant shutdown; therefore, the note in the SR would not be needed and would be deleted.

In its application, the licensee stated the same justification for GGNS that is provided by the staff for approving the TSTF, and is given above. The TSTF is applicable to the ISTS that was part of the basis for the TSs and, therefore, is applicable to GGNS. The licensee proposed the same changes to the TSs that are given in the TSTF. Based on this, the staff concludes that the proposed change to SR 3.6.1.2.3 of the TSs to incorporate TSTF-17 is acceptable. The licensee also provided the changes to the Bases for SR 3.6.1.2.3 and these changes are the same as those given in TSTF-17. The staff does not have any disagreement with the changes to the Bases for SR 3.6.1.2.3

3.5 TSTF-18, Revision 1

The change in TSTF-18 to the ISTS is to require only one secondary containment access door per access opening in containment to be closed.

The justification for the NRC-approved TSTF is that the BWR/6 secondary containment design only includes one door per access opening. Verifying that this door is closed ensures that the infiltration of outside air of such a magnitude as to prevent maintaining the desired negative

pressure in secondary containment does not occur. The TSTF was to have the same wording in the SR for the different vendor ISTSs (i.e., NUREGs-1430, -1431, -1432, and -1434).

In its application, the licensee stated the same justification for GGNS that is provided by the staff for approving the TSTF, and is given above. The TSTF is applicable to the ISTS that was part of the basis for the TSs and, therefore, is applicable to GGNS. The licensee proposed the same changes to the TSs that are given in the TSTF. Based on this, the staff concludes that the proposed change to SR 3.6.4.1.2 of the TSs to incorporate TSTF-18 is acceptable. The licensee also provided the changes to the Bases for SR 3.6.4.1.2 and these changes are consistent with those given in TSTF-18. The staff does not have any disagreement with the changes to the Bases for SR 3.6.4.1.2

3.6 TSTF-32

The change in TSTF-32 to the ISTS is to add a required action to LCO 3.1.3 on control rod operability to confirm that a control rod found to be stuck is properly separated from "slow" control rods.

The justification for the NRC-approved TSTF to the ISTS is that the scram reactivity analysis assumes, among other things, that there are two "slow" control rods adjacent to one another, a third rod is stuck in the withdrawn position, and a fourth rod fails to scram during the transient/accident analysis (the single failure). However, the analysis does not assume that the original stuck control rod is adjacent to the two "slow" rods or to another "slow" rod. If this occurs, the local scram reactivity rate assumed in the analysis might not be met. Therefore, LCO 3.1.3, Required Action A.1 has been added to confirm that when a control rod is found to be stuck, it is properly separated from "slow" rods.

Although TSTF-32 only incorporated changes to LCO 3.1.3, the licensee has also proposed changes to LCO 3.1.4 on control rod scram times because LCO 3.1.4 is specifically directed at "slow" control rods, the subject of TSTF-32. The proposed changes to LCO 3.1.4 are to have the wording in LCO 3.1.4 similar to that given in NUREG-1434, Revision 1, published April 1995. Because the licensee based its improved TSs on NUREG-1434, Revision 0, published September 1992, LCO 3.1.4 is not similar to the later revision of NUREG-1434 and the licensee has proposed new wording to LCO 3.1.4 to be consistent with NUREG-1434, revision 1, published April 1995.

In its application, the licensee stated that its proposed changes to LCO 3.1.3 and LCO 3.1.4 on control rod scram times does not change any technical requirements for the plant. The proposed changes are to meet the intent of the TSTF to ensure that a control rod found to be stuck is properly separated from "slow" control rods. The proposed changes move the requirements to separate "slow" and stuck rods from the current position in LCO 3.1.4 to the actions of LCO 3.1.3 where the TSTF places the requirements for separation in the TSTF. During the improved TS conversion for GGNS, these requirements were placed in LCO 3.1.4, even though the ISTS did not have such requirements in LCO 3.1.4. Therefore, the changes proposed by the licensee are consistent with the TSTF and, because the TSTF changes the ISTS that was part of the basis for the TSs, the TSTF is applicable to GGNS. Based on this, the staff concludes that the proposed changes to LCO 3.1.3 and 3.1.4 of the TSs to incorporate TSTF-32 are acceptable. The licensee also provided the changes to the Bases for LCO 3.1.3 and these changes are the consistent with those given in TSTF-32 and in NUREG-1434

published April 1995, except that the new words for the Bases in the TSTF list three examples where the separation criteria is not met and the licensee's proposed wording lists only one. The licensee's example envelopes the three examples given in the TSTF and is more conservative than that given in the TSTF. The staff does not have any disagreement with the changes to the Bases.

3.7 TSTF-33

The change in TSTF-33 to the ISTS is to reword and clarify the completion time for LCO 3.1.3, Required Action A.2, for control rod operability with one withdrawn control rod stuck.

The justification for the NRC-approved TSTF to the ISTS is that the note for LCO 3.1.3, Required Action A.2 to insert each fully withdrawn and partially withdrawn control rod one notch, has been incorporated into the completion time for the required action to preclude not meeting the completion time if thermal power is increased above the low power setpoint (LPSP) of the rod worth minimizer (RWM) less than 24 hours after the action Condition A (one withdrawn control rod stuck) is entered. The note states that the required action does not have to be performed if power is less than or equal to the LPSP. Thus, if this condition is entered during a startup while below LPSP, the required action does not have to be performed. However, according to Section 1.3, Completion Times, of the ISTS, the 24-hour clock of Required Action A.2 does start. If power is then increased above LPSP, the required action now becomes required, in agreement with the note, and if the 24-hour clock has expired (it started when Required Action was entered by Section 1.3), the Required Action A.2 must be considered not met within the 24-hour completion time. This would require entry into Action E, required action and completion time of Condition A not met, which requires a plant shutdown. The intent of Required Action A.2 was to provide 24 hours to perform the two SRs specified after the capability to perform the SRs exists (the two conditions of discovery of Condition A and the thermal power being greater than the LPSP of the RWM). Therefore, the note is incorporated within the completion to ensure that the 24-hour interval begins when the conditions exist.

The licensee's TSs already incorporate the note into the completion time for Required Action A.2; however, the completion time only includes the second condition that the thermal power be greater than LPSP. The first condition for the completion time that action Condition A exists is not included in the completion. The licensee has proposed to add the words to make the completion time for Required Action A.2 to be the same as TSTF-33 in that both conditions are listed. The rod pattern control system (RPCS) is specified by the licensee instead of the RWM given in the TSTF. The RPCS is described in the UFSAR Section 7.6.1.7. It preforms the same function as the RWM and, in its application, the licensee stated that RPCS was used in place of RWM to conform with plant nomenclature. In the telephone conference call of January 20, 2000, the licensee verified that the plant-specific RWM for GGNS is the RPCS. Also, the use of RPCS in the completion time is in the TSs, and is not part of the proposed change to the completion time.

The TSTF is applicable to the ISTS that was part of the basis for the TSs and, therefore, is applicable to GGNS. The licensee's proposed change is consistent with the words in the TSTF. Based on this, the staff concludes that the proposed change to Required Action A.2 of LCO 3.1.3 of the TSs to incorporate TSTF-33 is acceptable. The licensee also provided the changes to the Bases for the required action and these changes are the consistent with those

given in TSTF-33. The staff does not have any disagreement with the changes to the Bases for the required action.

3.8 TSTF-38

The change in TSTF-38 is to clarify the requirements in SR 3.8.4.3 on the battery visual inspection to be consistent with the intent and the present wording of the Bases for the SR. The battery visual inspection is only for items which could potentially degrade battery performance.

The justification for the NRC-approved TSTF to the ISTS is that the Bases for the battery visual inspection (SR 3.8.4.3) is to provide an indication of physical damage or abnormal deterioration that could potentially degrade battery performance. As a result, it is interpreted that physical damage or abnormal deterioration has to be of a type that could degrade battery performance before the SR would fail to be met. The presence of physical damage or deterioration does not necessarily represent a failure of the SR, provided an evaluation determines that the physical damage or deterioration does not effect the operability of the battery (its ability to perform its design function). Therefore, for consistency with the Bases for SR 3.8.4.3, the statement in the SR would include the phrase "that could degrade battery performance" for clarity. The Bases for the SR would also be revised to clarify the measures to be taken in the event physical damage or deterioration are discovered.

In its application, the licensee stated the same justification for GGNS that is provided by the staff for approving the TSTF, and is given above. The TSTF is applicable to the ISTS that was part of the basis for the TSs and, therefore, is applicable to GGNS. The licensee proposed the same changes to the TSs that are given in the TSTF. Based on this, the staff concludes that the proposed change to SR 3.8.4.3 of the TSs to incorporate TSTF-38 is acceptable. The licensee also provided the changes to the Bases for SR 3.8.4.3 and these changes are the same as those given in TSTF-38. The staff does not have any disagreement with the changes to the Bases for the SR.

3.9 TSTF-45, Revision 2

The change in TSTF-45 is to exempt verification of being closed containment isolation valves (CIVs) that are locked, sealed, or otherwise secured. Therefore, only CIVs that are not locked, sealed, or otherwise secured are required to be verified closed.

The justification for the NRC-approved TSTF to the ISTS is that SRs 3.6.1.3.3 and 3.6.1.3.4 to verify CIVs are closed does not apply to such valves that are locked, sealed, or otherwise secured in the closed position because these valves were verified to be in the closed position when they were locked, sealed, or secured in that position. This relaxation of verification is consistent with other valves that are required to be in the correct position prior to an accident in other system specifications.

In its application, the licensee stated the same justification for GGNS that is provided by the staff for approving the TSTF, and is given above. The TSTF is applicable to the ISTS that was part of the basis for the TSs and, therefore, is applicable to GGNS. The licensee proposed the same changes to the TSs that are given in the TSTF. Based on this, the staff concludes that the proposed change to SRs 3.6.1.3.2 and 3.6.1.3.3 (on the primary containment isolation

valves) of the TSs to incorporate TSTF-45 is acceptable. Although the TSTF also had the same change for SRs 3.6.4.2.1 and 3.6.5.3.2 on the secondary containment and drywell isolation manual valves, the licensee did not propose these changes to its TSs.

The licensee also provided the changes to the Bases for SRs 3.6.1.3.2 and 3.6.1.3.3, and these changes are the same as those given in TSTF-45 except that the licensee did not add the sentence to the Bases for each SR that states the following: "This SR does not apply to valves that are locked, sealed, or otherwise secured in the closed position, since these [valves] were verified to be in the correct position upon locking, sealing, or securing." This missing sentence from the Bases was discussed with the licensee in a conference call on May 8, 2000, and the licensee stated that it would add the missing sentence to the Bases for the two SRs. The staff does not have any disagreement with the changes to the Bases for the actions.

3.10 TSTF-60

The change in TSTF-60 is to make LCO 3.0.4 not applicable to the actions of LCO 3.4.7 on RCS leakage detection instrumentation. LCO 3.0.4 does not allow entry into a reactor mode until the LCOs for that mode are met, except where an exception is stated in the specific LCO that LCO 3.0.4 is not applicable.

The justification for the NRC-approved TSTF to the ISTS is that the requirement in LCO 3.0.4 about entry into a reactor mode and the LCO being met is not applicable to the Action D (required containment atmosphere radiation and condensate flow rate monitors inoperable) of LCO 3.4.7 because other mechanisms (i.e., grab samples, RCS inventory balance, containment sump monitor, etc.) exist which are capable of adequately detecting RCS leakage, and because a 30-day allowed outage time is usually accompanied by an LCO 3.0.4 exception (e.g., post accident monitors and remote shutdown technical specifications). With the LCO 3.0.4 exception added to Condition D, and there is already such an exception for Conditions A and B, and the exception applies to Condition C because it allows indefinite plant operation in the condition, the LCO exception was moved to apply to all actions for LCO 3.4.7 and the individual condition exceptions were deleted.

In its application, the licensee stated the same justification for GGNS that is provided by the staff for approving the TSTF, and is given above. The TSTF is applicable to the ISTS that was part of the basis for the TSs and, therefore, is applicable to GGNS. The TSs already have the LCO 3.0.4 exception in Condition D, and the licensee is only proposing to move the exception to apply to all actions for LCO 3.4.7, including Condition B, which also allows indefinite plant operation in the condition. The TSTF is applicable to the ISTS that was part of the basis for the TSs and, therefore, is applicable to GGNS. The licensee proposed the same changes to the TSs that are given in the TSTF. Based on this, the staff concludes that the proposed change to the actions for LCO 3.4.7 of the TSs to incorporate TSTF-60 is acceptable. The licensee also provided the changes to the Bases for the actions and SRs, and these Bases changes are the same as those given in TSTF-60. The staff does not have any disagreement with the changes to the Bases for the actions.

3.11 TSTF-104

The change in TSTF-104 is to relocate the additional discussion in LCO 3.0.4, with respect to the use of exceptions, from LCO 3.0.4 to the Bases of the TSs. The exceptions to LCO 3.0.4

allow entry into modes or other specified conditions in the applicability of the LCO when the associated actions for the LCO to be entered do not provide for continued operation for an indefinite or unlimited period of time.

The justification for the NRC-approved TSTF to the ISTS is to provide consistency with LCO 3.0.3 by moving the discussion on the use of the LCO 3.0.4 exceptions from the TSs to the Bases. In addition, the revision of the discussion will reduce potential confusion by eliminating the repeated use of the phrase "Modes or other specified conditions in the Applicability" to increase clarity. Also, the TSs list the plant operational requirements and the relocated discussion is a clarification of LCO 3.0.4. Placing this discussion in the Bases of the TSs will have the changes to this discussion controlled by the Bases control program in the administrative section of the TSs.

In its application, the licensee stated the same justification for GGNS that is provided by the staff for approving the TSTF, and is given above. The TSTF is applicable to the ISTS that was part of the basis for the TSs and, therefore, is applicable to GGNS. The licensee proposed the same changes to the TSs that are given in the TSTF. Based on this, the staff concludes that the proposed change to LCO 3.0.4 of the TSs to incorporate TSTF-104 is acceptable. The licensee also provided the changes to the Bases for the LCO and these changes are the same as those given in TSTF-104. The staff does not have any disagreement with the changes to the Bases for the LCO.

3.12 <u>TSTF-118</u>

The change in TSTF-118 is to add a sentence to (1) TS 5.5.9 in the administrative section of the TSs on the steam generator tube surveillance program that the provisions of SR 3.0.3 are applicable to the program test frequencies and (2) TS 5.5.13 in the administrative section of the TSs on the diesel fuel oil testing program that the provisions of SRs 3.0.2 and 3.0.3 are applicable to the program testing frequencies. SR 3.0.2 allows the surveillance interval for the specified frequency of an SR be increased by 1.25 and the SR is still met, and SR 3.0.3 allows an SR to be performed within up to 24 hours without declaring the LCO is not met, if it is discovered that the SR was not performed within the required frequency.

The part of TSTF-118 regarding the steam generator tube surveillance program does not apply to GGNS because the plant is a boiling water reactor and does not have steam generators.

The justification for the NRC-approved TSTF to the ISTS on the diesel fuel oil testing program is that the addition of the sentence about SRs 3.0.2 and 3.0.3 not being applicable to the program test frequencies will provide consistency with the application of these requirements in TSs 5.5.7, "Ventilation Filter Testing Program," and 5.5.8, "Explosive Gas and Storage Tank Radioactivity Monitoring Program," of the administrative section of the TSs. SRs 3.0.2 and 3.0.3 are already applicable to the surveillances which reference the diesel fuel oil testing program and, therefore, the lack of applicability of these SRs to the program introduces confusion. Further, the applicability of SRs 3.0.2 and 3.0.3 to the program surveillances is consistent with the current licensing basis for plants and the TSs previous to the current improved TSs.

In its application, the licensee stated the same justification for GGNS that is provided by the staff for approving the TSTF, and is given above. The TSTF is applicable to the ISTS that was

part of the basis for the TSs and, therefore, is applicable to GGNS. The licensee proposed the same changes to the TSs that are given in the TSTF. Based on this, the staff concludes that the proposed change to LCO 3.0.4 of the TSs to incorporate TSTF-118 is acceptable. There were no changes to Bases in the TSTF and the licensee did not submit any to the Bases for this TSTF.

3.13 TSTF-153

The change in TSTF-153 is to revise notes on exceptions to the four LCOs for the residual heat removal (RHR) shutdown cooling system at hot shutdown, cold shutdown, high water level, and low water level. The revision to the notes is to provide consistent wording with the requirements being excepted. In addition, two notes are being relocated to be consistent with the format of the ISTS.

The justification for the NRC-approved TSTF to the ISTS is that several of the RCS, RHR, and emergency core cooling system specifications require two pumps to be operable and one to be in operation. Some of these LCOs contain LCO notes which exempt this pump requirement for a period of time. However, these notes are incorrectly worded. Many different phrases are used to describe this allowance, such as "shut down," "removed from operation," "incapable of injecting," "removed from service," and "de-energized." The differences between the LCO requirement and the notes is not only confusing, but in some cases implies that additional actions must be taken. For example, if a pump that is normally "in operation" must be "de-energized," is it necessary to open or pull the breaker providing power to the pump; must the hand switch be put in a locked position; or may the pump just be stopped? This ambiguity can lead to errors or improper enforcement, and should be corrected. The TSTF corrects the wording in the notes.

In its application, the licensee stated the same justification for GGNS that is provided by the staff for approving the TSTF, and is given above. The TSTF is applicable to the ISTS that was part of the basis for the TSs and, therefore, is applicable to GGNS. The licensee proposed the same changes to the TSs that are given in the TSTF; however, the licensee applied the TSTF to two notes in LCO 3.4.10, where the TSTF showed the changed wording in only one note. The TSTF does not show a third note for LCO 3.4.10; however, the licensee is not proposing this note. The third note to LCO 3.4.10 exists in the TSs and the wording concerns the same subject of the first note (i.e., both RHR shutdown cooling subsystems and recirculation pumps may be removed from service), and the correction in the TSTF, as discussed above, should also apply to the third note. The phrase "be removed from" in the third note has the same ambiguity as the phrase has for the first note for LCO 3.4.10. Therefore, for the same justification given above, the phrase "not be in" should be used instead of "be removed from" for the third note.

Based on this, the staff concludes that the proposed change to LCOs 3.4.9, 3.4.10, 3.9.8, and 3.9.9 of the TSs to incorporate TSTF-153 is acceptable. The licensee also provided the changes to the Bases for the LCO and these changes are the same as those given in TSTF-153. The staff does not have any disagreement with the changes to the Bases for the LCO.

3.14 TSTF-163, Revision 2

The change in TSTF-163 is to modify all of the 10-second diesel generator start tests in SRs 3.8.1.7, 3.8.1.12, 3.8.1.15, and 3.8.1.20 of the ISTS, to provide minimum volt/frequency (Hz) limits for the 10-second acceptance, and then detail the volt/Hz as steady state acceptance criteria.

The justification of the NRC-approved TSTF to the ISTS is that the intent of the 10-second start tests of the diesel generator is to confirm the ability of the diesel generator to reach the minimum conditions to accept load. This is consistent with the revised minimum volt/Hz limits. A new range of acceptable voltage and frequency are also provided which are applicable only to steady state operation.

In its application, the licensee stated the proposed changes to SRs 3.8.1.2, 3.8.1.12, 3.8.1.15, and 3.8.1.20 of the TSs were consistent with the TSTF with the following clarifications:

- SR 3.8.1.7 of the ISTS is SR 3.8.1.2 of the GGNS TSs because the diesel generators at GGNS do not have the ability to perform the modified diesel generator start method.

- Because the diesel generators at GGNS do not have the ability to perform the modified diesel generator start method, discussions of this start method are not in the Bases.

- Plants with diesel generators capable of the modified start method are allowed to only take the data once per six months when the diesel generator is fast started. The licensee fast starts the diesel generators for every monthly SR because the generators do not have the ability to perform the modified start method. The licensee stated that to ensure the commitment in the Bases to periodically take the start data is not misunderstood, given previous discussion on fast starts and not using the modified start method, an additional Bases statement is added that states data is taken once per six months during the performance of SR 3.8.1.2. The licensee further stated that it was not committing to take the data for every monthly test because taking the data requires connecting recorders inside the diesel generator control cabinets which increases the chance of adverse interactions. Taking the data every six months, which is the same as that required in SR 3.8.1.7 of the ISTS, is considered sufficient.

In its application, the licensee also stated the same justification for GGNS that is provided by the staff for approving the TSTF, and is given above. The TSTF is applicable to the ISTS that was part of the basis for the TSs and, therefore, is applicable to GGNS. The licensee proposed the same changes to the TSs that are given in the TSTF with the exception that the steady state condition in SRs 3.8.1.15 and 3.8.1.20 is also specified with the acceptable volt/Hz limits because the diesel generators at GGNS are fast started. The proposed voltage/Hz values are the same values in the current TSs. Based on this, the staff concludes that the proposed change to SRs 3.8.1.2, 3.8.1.12, 3.8.1.15, and 3.8.1.20 of the TSs to incorporate TSTF-163 is acceptable. Because the diesel generators at GGNS are not capable of the modified start method, the 31 days for SR 3.8.1.2 is correct because the diesel generators have monthly fast starts. The fact that the licensee collects the data every six months is acceptable because it is at the same frequency as the six-month frequency of ISTS SR 3.8.1.7, which requires the same collection of data.

The licensee also provided the changes to the Bases for the LCO and these changes are the same as those given in TSTF-163, except that the reference to modified start method is deleted and a reference is made to the six months for periodically monitoring the time for the diesel generator to reach steady state from the fast starts. The reference to modified start method in the TSTF Bases is not included in the TS Bases because the diesel generators at GGNS do not have the ability to perform the modified diesel generator start method, and the reference to the six months clarifies the periodic monitoring. Therefore, the staff does not have any disagreement with the changes to the Bases for the LCO.

3.15 TSTF-166

The change in TSTF-166 is to correct inconsistencies among LCO 3.0.6, the Bases for LCO 3.0.6, and the safety functional determination program (SFDP) in the administrative section of the ISTS regarding the performance of an evaluation. LCO 3.0.6 states that additional evaluations may be required, but does not explicitly require an evaluation.

The justification for the NRC-approved TSTF to the ISTS is that there is an inconsistency between LCO 3.0.6, that addresses when a supported system LCO is not met solely due to a support system LCO not being met, the Bases for the LCO, and the SFDP. As currently written, LCO 3.0.6 does not explicitly require an evaluation in accordance with the SFDP, rather the LCO states that additional evaluations may be required. Both the SFDP and the LCO 3.0.6 Bases state that upon entry into LCO 3.0.6, an evaluation shall be made to determine if a loss of safety function exists. In addition, because LCO 3.0.6 states that the evaluation shall be done in accordance with the SFDP, and the SFDP states that other appropriate actions may be taken, there is no need for the statement in the LCO that "additional ... limitations may be required."

In its application, the licensee stated the same justification for GGNS that is provided by the staff for approving the TSTF, and is given above. The TSTF is applicable to the ISTS that was part of the basis for the TSs and, therefore, is applicable to GGNS. The licensee proposed the same changes to the TSs that are given in the TSTF. Based on this, the staff concludes that the proposed change to LCO 3.0.6 of the TSs to incorporate TSTF-166 is acceptable. There were no changes to Bases in the TSTF and the licensee did not submit any changes to the Bases for this TSTF.

3.16 TSTF-278

The change in TSTF-278 is to revise LCO 3.8.6 to require that the battery cell parameters be within limits, the reference to Table 3.8.6-1 is deleted from the LCO, and changes are made to the actions for the LCO to reference the table.

The justification for the NRC-approved TSTF to the ISTS is that LCO 3.8.6 requires the cell parameters for the DC batteries to be within the limits specified in Table 3.8.6-1 which lists the battery cell parameter requirements on the electrolyte level, float voltage, and specific gravity. This requirement in the LCO is not inclusive of the limits specified in the applicable SRs. In addition to the limits specified in the table, there is a limit regarding average electrolyte temperature contained within a SR. Therefore, the LCO is in conflict with the other SR requirements if it references only Table 3.8.6-1, which does not contain all the requirements on the battery cells. LCO 3.8.6 was revised to simply require the battery cell parameters to be

within limits, thus deleting the reference to the table in the LCO. A reference to the table was made in the actions for LCO 3.8.6, where the conditions refer to Category A, B, and C of the table.

In its application, the licensee stated the same justification for GGNS that is provided by the staff for approving the TSTF, and is given above. The TSTF is applicable to the ISTS that was part of the basis for the TSs and, therefore, is applicable to GGNS. The licensee proposed the same changes to the TSs that are given in the TSTF, although some of the TSTF change had already been incorporated into the TSs. Based on this, the staff concludes that the proposed change to LCO 3.8.6 and its associated actions of the TSs to incorporate TSTF-278 is acceptable. There were no changes to Bases in the TSTF and the licensee did not submit any changes to the Bases for this TSTF.

3.17 TSTF-279

The change in TSTF-279 is to delete the reference to the "applicable supports" from the description of the inservice testing (IST) program in TS 5.5.6 on the program.

The justification for the NRC-approved TSTF to the ISTS is that the IST program provides controls for testing American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code) Class 1, 2, and 3 components. The discussion of the IST program in Section 5.5.6 of the ISTS was revised to include the "applicable supports" due to concerns related to the location of the snubber LCO from the ISTS NUREGs; however, this is inappropriate because supports are addressed in the inservice inspection program description, not the IST program description. Thus, the reference to the applicable supports in the IST program description in the ISTS section was deleted. Additionally, in the past seven years, plants have implemented the improved TSs with no known issues related to testing of snubbers or supports. Also, ASME has developed OM-5 and other guidance to provide appropriate testing requirements for supports and snubbers.

In its application, the licensee stated the same justification for GGNS that is provided by the staff for approving the TSTF, and is given above. The TSTF is applicable to the ISTS that was part of the basis for the TSs and, therefore, is applicable to GGNS. The licensee proposed the same changes to the TSs that are given in the TSTF, although some of the TSTF change had already been incorporated into the TSs. Based on this, the staff concludes that the proposed change to TS 5.5.6 in the administrative section of the TSs to incorporate TSTF-279 is acceptable. There were no changes to Bases in the TSTF and the licensee did not submit any changes to the Bases for this TSTF.

3.18 Conclusions

Each of the separate TSTF changes proposed by the licensee has been addressed above. TSTF-9 was withdrawn by the licensee. In each case except for TSTF-9, the staff concluded that the proposed amendment to incorporate the TSTFs into the TSs was acceptable because the justifications for the changes were acceptable, the proposed changes agree with the NRC-approved TSTFs, and the TSTFs apply to GGNS. For the licensee's changes to the Bases that are associated with the TSTFs in the amendment, the staff has no disagreement with the Bases changes.

3.19 Commitments

In its review of the licensee's application, the staff is relying on statements that the licensee has made about relocations of requirements from the TSs to licensee-controlled documents. The relocations are addressed in the reviews for TSTFs 2 and 104. In its application of TSTF-2 to the TSs, the licensee stated that it will relocate the requirements of SR 3.8.3.6 on cleaning of the EDG fuel oil storage tank to the GGNS UFSAR. For TSTF-104, the licensee stated that the additional discussion in LCO 3.0.4 will be relocated to the TS Bases and provided the pages showing the relocation. The revised Bases pages for LCO 3.0.4 are being issued with the change to LCO 3.0.4. Because the revised UFSAR pages for the relocation of SR 3.8.3.6 in accordance with TSTF-2 will not be issued with the amendment, the licensee will be requested to include this relocation in the next update to the UFSAR in accordance with 10 CFR 50.71(e) and to state in the letter submitting this update to the Commission that the update includes this relocation. TSTF-9 was withdrawn by the licensee.

4.0 STATE CONSULTATION

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

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment involves 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 amendment involves no significant hazards consideration, and there has been no public comment on such finding (64 FR 73089, dated December 29, 1999). Accordingly, the amendment meets 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 amendment.

6.0 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 amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: Jack Donohew

Date: June 30, 2000