Docket No. 50-416 May 17, 1993

Mr. C. Randy Hutchinson
Vice President, Operations GGNS
Entergy Operations, Inc.
Post Office Box 756
Port Gibson, Mississippi 39150

Dear Mr. Hutchinson:

SUBJECT: ISSUANCE OF AMENDMENT NO. 107 TO FACILITY OPERATING LICENSE NO. NPF-29 - GRAND GULF NUCLEAR STATION, UNIT 1 (TAC NO. 85938)

The Nuclear Regulatory Commission has issued the enclosed Amendment No.107 to Facility Operating License No. NPF-29 for the Grand Gulf Nuclear Station, Unit 1. This amendment revises the Technical Specifications (TS) in response to your application dated February 26, 1993.

The amendment provides additional action statements consistent with the current design of the leakage detection systems and supports increased operational flexibility while presenting adequate monitoring of the reactor coolant pressure boundary.

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

Sincerely,

ORIGINAL SIGNED BY:
Paul W. O'Connor, Senior Project Manager
Project Directorate IV-1
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Enclosures:
1. Amendment No. 107 to NPF-29
2. Safety Evaluation

cc w/enclosures:
See next page

DISTRIBUTION:

Docket File	NRC & LPDRs	PD4-1 r/f	P. Noonan
M. Virgilio	OPA(2G5)	TChan	T. Gody, Jr. (13E21)
P. O'Connor(2)	OGC (15B18)	D. Hagan (3206)	D. Pickett (13H15)
G. Hill(4)	Wanda Jones (7103)	C. Grimes (11E22)	ACRS(10)
OC/LFMB (4503)	J. Roe (13A2)	D. Verrelli, RII	R. Hall (13E21)
C. McCraken			

OFC	LA/PD4-1	I/PD4-1	PM/PD4-1	EMCB	OTSB	OGC	D/PD4-1
NAME	Noonan	Gadey	O'Connor	ST@ Observer ~~McCracken~~	Grimes	EHoller	TChan
DATE	4/20/93	4/20/93	4/20/93	4/28/93	/ /93	5/5/93	5/17/93

OFFICIAL RECORD COPY Document Name: GG85938.AMD

200044

9305210216 930517
PDR ADOCK 05000416
P PDR

NRC FILE CENTER COPY

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

May 17, 1993

Docket No. 50-416

Mr. C. Randy Hutchinson
Vice President, Operations GGNS
Entergy Operations, Inc.
Post Office Box 756
Port Gibson, Mississippi 39150

Dear Mr. Hutchinson:

SUBJECT: ISSUANCE OF AMENDMENT NO. 107 TO FACILITY OPERATING LICENSE NO. NPF-29 - GRAND GULF NUCLEAR STATION, UNIT 1 (TAC NO. 85938)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 107 to Facility Operating License No. NPF-29 for the Grand Gulf Nuclear Station, Unit 1. This amendment revises the Technical Specifications (TS) in response to your application dated February 26, 1993.

The amendment provides additional action statements consistent with the current design of the leakage detection systems and supports increased operational flexibility while presenting adequate monitoring of the reactor coolant pressure boundary.

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

Sincerely,

Paul W. O'Connor

Paul W. O'Connor, Senior Project Manager
Project Directorate IV-1
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Enclosures:
1. Amendment No. 107 to NPF-29
2. Safety Evaluation

cc w/enclosures:
See next page

Mr. C. Randy Hutchinson
Entergy Operations, Inc.

Grand Gulf Nuclear Station

cc:

Mr. Donald C. Hintz, President
and Chief Executive Officer
Entergy Operations, Inc.
P. O. Box 31995
Jackson, Mississippi 39286-1995

Robert B. McGehee, Esquire
Wise, Carter, Child & Caraway
P. O. Box 651
Jackson, Mississippi 39205

Nicholas S. Reynolds, Esquire
Winston & Strawn
1400 L Street, N.W. - 12th Floor
Washington, D.C. 20005-3502

Mr. Sam Mabry, Director
Division of Solid Waste Management
Mississippi Department of Natural
Resources
P. O. Box 10385
Jackson, Mississippi 39209

President,
Claiborne County Board of Supervisors
Port Gibson, Mississippi 39150

Regional Administrator, Region II
U.S. Nuclear Regulatory Commission
101 Marietta St., Suite 2900
Atlanta, Georgia 30323

Mr. Michael J. Meisner
Director, Nuclear Licensing
Entergy Operations, Inc.
P. O. Box 756
Port Gibson, Mississippi 39150

Mr. K. G. Hess
Bechtel Power Corporation
P. O. Box 2166
Houston, Texas 77252-2166

Mr. Rudolph H. Bernhard
Senior Resident Inspector
U.S. Nuclear Regulatory Commission
Route 2, Box 399
Port Gibson, Mississippi 39150

GGNS General Manager
Entergy Operations, Inc.
P. O. Box 756
Port Gibson, Mississippi 39150

The Honorable William J. Guste, Jr.
Attorney General
Department of Justice
State of Louisiana
P. O. Box 94005
Baton Rouge, Louisiana 70804-9005

Alton B. Cobb, M.D.
State Health Officer
State Board of Health
P. O. Box 1700
Jackson, Mississippi 39205

Office of the Governor
State of Mississippi
Jackson, Mississippi 39201

Mike Morre, Attorney General
Frank Spencer, Asst. Attorney General
State of Mississippi
Post Office Box 22947
Jackson, Mississippi 39225

Mr. John P. McGaha
Vice President, Operations Support
Entergy Operations, Inc.
P.O. Box 31995
Jackson, Mississippi 39286-1995

Mr. S. S. Chan
Project Engineer
Bechtel Power, Corporation
P.O. Box 2166
Houston, Texas 77252-2166

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

ENTERGY OPERATIONS, INC.

SYSTEM ENERGY RESOURCES, INC.

SOUTH MISSISSIPPI ELECTRIC POWER ASSOCIATION

MISSISSIPPI POWER AND LIGHT COMPANY

DOCKET NO. 50-416

GRAND GULF NUCLEAR STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 107
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 February 26, 1993, 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.

9305210221 930517
PDR ADOCK 05000416
P PDR

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. 107 , 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.

FOR THE NUCLEAR REGULATORY COMMISSION

Terence L. Chan, Acting Director
Project Directorate IV-1
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the
Technical Specifications

Date of Issuance: May 17, 1993

ATTACHMENT TO LICENSE AMENDMENT NO. 107

FACILITY OPERATING LICENSE NO. NPF-29

DOCKET NO. 50-416

Replace the following pages of the Appendix A Technical Specifications with the attached pages. The revised pages are identified by amendment number and contain vertical lines indicating the area of change. The corresponding overleaf pages are also provided to maintain document completeness.

REMOVE PAGES	INSERT PAGES
3/4 4-8	3/4 4-8
-	3/4 4-8a
3/4 4-10	3/4 4-10
B 3/4 4-2	B 3/4 4-2
B 3/4 4-2a	B 3/4/4-2a
-	B 3/4 4-2b

SAFETY/RELIEF VALVES LOW-LOW SET FUNCTION

LIMITING CONDITION FOR OPERATION

3.4.2.2 The relief valve function and the low-low set function of the following reactor coolant system safety/relief valves shall be operable with the following low-low set function lift settings.

	Setpoint* (psig) ± 15 psi	
Valve No.	Open	Close
F051D	1033	926
F051B	1073	936
F047D	1113	946
F047G	1113	946
F051A	1113	946
F051F	1113	946

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2 AND 3.

ACTION:

a. With the relief valve function and/or the low-low set function of one of the above required reactor coolant system safety/relief valves inoperable, restore the inoperable relief valve function and the low-low set function to OPERABLE status within 14 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
b. With the relief valve function and/or the low-low set function of more than one of the above required reactor coolant system safety/relief valves inoperable, be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the nest 24 hours.
c. With either relief valve/low-low set function pressure actuation trip system "A" or "B" inoperable, restore the inoperable trip system to OPERABLE status within 7 days; otherwise, be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the following 24 hours.

SURVEILLANCE REQUIREMENTS

4.4.2.2.1 The relief valve function and the low-low set function pressure actuation instrumentation shall be demonstrated OPERABLE** by performance of a:

a. CHANNEL FUNCTIONAL TEST, including calibration of the trip unit, at least once per 92 days.

b. CHANNEL CALIBRATION, LOGIC SYSTEM FUNCTIONAL TEST and simulated automatic operation of the entire system at least once per 18 months.

---

*The lift setting pressure shall correspond to ambient conditions of the valves at nominal operating temperatures and pressure.

**A channel may be placed in an inoperable status for up to 6 hours for required surveillance without placing the trip system in the tripped condition.

3/4.4.3 REACTOR COOLANT SYSTEM LEAKAGE

LEAKAGE DETECTION SYSTEMS

LIMITING CONDITION FOR OPERATION

3.4.3.1 The following reactor coolant system leakage detection systems shall be OPERABLE:

a. The drywell floor drain sump monitoring system,

b. One channel of either the drywell atmosphere particulate or gaseous radioactivity monitoring system, and

c. The drywell air coolers condensate flow rate monitoring system.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2 AND 3.

ACTION:

Enter all applicable ACTIONs.

a. With the drywell floor drain sump monitoring system inoperable, operation may continue for up to 30 days. Note: The provisions of Specification 3.0.4 are not applicable.

b. With both the drywell atmosphere particulate and gaseous radioactivity monitoring systems inoperable, operation may continue provided grab samples of the drywell atmosphere are obtained and analyzed at least once per 12 hours.

c. With the drywell air coolers condensate flow rate monitoring system inoperable, perform a CHANNEL CHECK of the required drywell atmospheric monitoring systems once per 8 hours. Note: Not applicable when the required drywell atmospheric monitoring system is inoperable.

d. With the drywell atmosphere particulate and gaseous radioactivity monitoring systems and the drywell air cooler condensate flow rate monitoring system inoperable, operation may continue for up to 30 days. Note: The provisions of Specification 3.0.4 are not applicable.

e. With the required action and associated completion time of Action a, b, c or d not met, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

f. With all the required leakage detection systems inoperable, enter LCO 3.0.3.

3/4.4.3 REACTOR COOLANT SYSTEM LEAKAGE

LEAKAGE DETECTION SYSTEMS

SURVEILLANCE REQUIREMENTS

4.4.3.1 The reactor coolant system leakage detection systems shall be demonstrated OPERABLE by:

a. Drywell atmosphere particulate and gaseous monitoring systems-performance of a CHANNEL CHECK at least once per 12 hours, a CHANNEL FUNCTIONAL TEST at least once per 31 days and a CHANNEL CALIBRATION at least once per 18 months.

b. Drywell floor drain sump level and flow monitoring system-performance of a CHANNEL FUNCTIONAL TEST at least once per 31 days and a CHANNEL CALIBRATION TEST at least once per 18 months.

c. Drywell air coolers condensate flow rate monitoring system-performance of CHANNEL FUNCTIONAL TEST at least once per 31 days and a CHANNEL CALIBRATION at least once per 18 months.

SURVEILLANCE REQUIREMENTS

4.4.3.2.1 The reactor coolant system leakage shall be demonstrated to be within each of the above limits once per 12 hours.

4.4.3.2.2 Each reactor coolant system pressure isolation valve specified in Table 3.4.3.2-1 shall be demonstrated OPERABLE by leak testing pursuant to Specification 4.0.5 and verifying the leakage of each valve to be within the specified limit:

a. At least once per 18 months, and

b. Prior to returning the valve to service following maintenance, repair or replacement work on the valve which could affect its leakage rate.

The provisions of Specification 4.0.4 are not applicable for entry into OPERATIONAL CONDITION 3.

4.4.3.2.3 The high/low pressure interface valves leakage pressure monitors shall be demonstrated OPERABLE with alarm and interlock setpoints per Table 3.4.3.2-2 and Table 3.4.3.2-3 by performance of a:

a. CHANNEL FUNCTIONAL TEST at least once per 31 days, and

b. CHANNEL CALIBRATION at least once per 18 months.

3/4.4.2 SAFETY/RELIEF VALVES

The safety valve function of the safety/relief valves (SRV) operate to prevent the reactor coolant system from being pressurized above the Safety Limit of 1325 psig in accordance with the ASME Code. A total of 13 OPERABLE safety/relief valves is required to limit reactor pressure to within ASME III allowable values for the worst case upset transient. Any combination of 6 SRVs operating in the relief mode and 7 SRVs operating in the safety mode is acceptable.

Demonstration of the safety/relief valve lift settings will occur only during shutdown and will be performed in accordance with the provisions of Specification 4.0.5.

The low-low set system ensures that safety/relief valve discharges are minimized for a second opening of these valves, following any overpressure transient. This is achieved by automatically lowering the closing setpoint of 6 valves and lowering the opening setpoint of 2 valves following the initial opening. In this way, the frequency and magnitude of the containment blowdown duty cycle is substantially reduced. Sufficient redundancy is provided for the low-low set system such that failure of any one valve to open or close at its reduced setpoint does not violate the design basis.

Specified surveillance intervals and surveillance outage times have been determined in accordance with General Electric Report GENE-770-06-1, "Bases for Changes to Surveillance Test Intervals and Allowed Out-of-Service Times for Selected Instrumentation Technical Specifications", February 1991.

3/4.4.3 REACTOR COOLANT SYSTEM LEAKAGE

3/4.4.3.1 LEAKAGE DETECTION SYSTEMS

The RCS leakage detection systems required by this specification are provided to monitor and detect leakage from the reactor coolant pressure boundary. These systems provide the ability to measure leakage from fluid systems in the drywell.

GDC 30 of 10 CFR 50, Appendix A (Ref. 1), requires means for detecting and, to the extent practical, identifying the location of the source of Reactor Coolant System (RCS) leakage. Regulatory Guide 1.45 (Ref. 2) describes acceptable methods for selecting leakage detection systems.

Leakage detection systems for the RCS are provided to alert the operators when leakage rates above normal background levels are detected and also to supply quantitative measurement of leakage rates. Systems for separating the leakage of an identified source from an unidentified source are necessary to provide prompt and quantitative information to the operators to permit them to take immediate corrective action. Each of the leakage detection systems inside the drywell is designed with the capability of detecting leakage less than the established leakage rate limits and providing an appropriate alarm of excess leakage in the control room.

A control room alarm allows the operators to evaluate the significance of the indicated leakage and, if necessary, shut down the reactor for further

3/4.4.3.1 LEAKAGE DETECTION SYSTEMS (Continued)

investigation and corrective action. The allowed leakage rates are well below the rates predicted for critical crack sizes. Therefore, these actions provide adequate response before a significant break in the reactor coolant pressure boundary can occur.

The drywell floor drain sump monitoring system is required to quantify UNIDENTIFIED LEAKAGE from the RCS. With this system inoperable, RCS UNIDENTIFIED and total leakage must continue to be determined every 12 hours per TS 3/4.4.3.1 to ensure adequate monitoring of the reactor coolant pressure boundary. Manual leak rate measurements are acceptable (e.g. measuring the differences in sump level or manually pumping the sump) while the floor drain sump is being restored, provided the accuracy and inspectability of these alternatives are demonstrated to be suitable. The other monitoring systems provide early alarms 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. The drywell atmospheric activity monitor and the drywell air cooler condensate flow rate monitor will provide indications of changes in leakage. The 30 day completion time of required ACTION "a" is based on other leakage detection systems that are still available. ACTION "a" is modified by a Note that states the provisions of 3.0.4 are not applicable. As a result, a MODE change is allowed when the drywell floor drain sump monitoring system is inoperable. This allowance is provided because other instrumentation is available to monitor RCS leakage.

With both gaseous and particulate drywell atmospheric monitoring channels inoperable, periodic leakage information is provided by taking and analyzing grab samples of the containment atmosphere every 12 hours. 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.

With the required drywell air cooler condensate flow rate monitoring system inoperable, a CHANNEL CHECK is performed on the required drywell atmospheric monitoring system at a more frequent interval than the routine surveillance. The 8 hour interval provides periodic information of activity in the drywell that is adequate to detect leakage and recognizes that other forms of leakage detection are available. However, ACTION "c" is modified by a Note that allows this action to be not applicable if the required drywell atmospheric monitoring system is inoperable. This is consistent with TS 4.0.3 - Surveillances are not required to be performed on inoperable equipment.

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 UNIDENTIFIED LEAKAGE is the drywell floor drain sump monitoring system. This condition does not provide the required diverse means of leakage detection. ACTION "d" requires restoring either of the inoperable monitors to OPERABLE status in 30 days to regain the intended leakage detection diversity. The 30 day completion time ensures the plant will not be operated in a degraded configuration for a lengthy time period. The required action

3/4.4.3.1 LEAKAGE DETECTION SYSTEMS (Continued)

is modified by a Note that states the provisions of 3.0.4 are not applicable. As a result, a MODE change is allowed when both the gaseous and particulate drywell monitoring channels and air cooler condensate flow rate monitor are inoperable.

If any required ACTION(s) 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 times are reasonable, based on operating experience, to reach the required plant conditions in an orderly manner and without challenging plant systems.

With all required monitoring systems INOPERABLE, no required automatic means of monitoring leakage are available, and immediate plant shutdown in accordance with LCO 3.0.3 is required.

REFERENCES

1. 10 CFR 50, Appendix A, GDC 30.
2. Regulatory Guide 1.45, May 1973.
3. GGNS UFSAR, Sections 5.2.5 and 7.6.2.4.2.1.

3/4.4.3.2 OPERATIONAL LEAKAGE

The allowable leakage rates from the reactor coolant system have been based on the predicted and experimentally observed behavior of cracks in pipes. The normally expected background leakage due to equipment design and the detection capability of the instrumentation for determining system leakage was also considered. The evidence obtained from experiments suggests that for leakage somewhat greater than that specified for UNIDENTIFIED LEAKAGE the probability is small that the imperfection or crack associated with such leakage would grow rapidly. However, in all cases, if the leakage rates exceed the values specified or the leakage is located and known to be PRESSURE BOUNDARY LEAKAGE, the reactor will be shut down to allow further investigation and corrective action. Service sensitive reactor coolant system Type 304 and 316 austenitic stainless steel piping, i.e., those that are subject to high stress or that contain relatively stagnant, intermittent, or low flow fluids, requires additional surveillance and leakage limits.

The Surveillance requirements for RCS leakage typically utilize sump level and flow rate instrumentation to quantify actual leakage rates. However, any method may be used to quantify leakage within the guidelines of Regulatory Guide 1.45.

The Surveillance Requirements for RCS pressure isolation valves provide added assurance of valve integrity, thereby reducing the probability of gross valve failure and consequent intersystem LOCA. Leakage from the RCS pressure isolation valves is IDENTIFIED LEAKAGE and will be considered as a portion of the allowed limit.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 107 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 February 26, 1993, Entergy Operations, Inc., (the licensee) submitted a request for revision of the Grand Gulf Nuclear Station Unit 1 (Grand Gulf) Technical Specifications (TS). The revision would revise TS 3/4.4.3, Leak Detection Systems, Surveillance Requirements 4.4.3.2.1 and the bases for each. The amendment would modify the TS consistent with the Improved Standard Technical Specifications as presented in NUREG-1434, Rev. 0 in that the NUREG-1434 requirements are incorporated consistent with the existing TS format and conventions. Specifically, the amendment provides additional action statements consistent with the current design of the leakage detection systems and supports increased operational flexibility while preserving adequate monitoring of the reactor coolant pressure boundary.

2.0 BACKGROUND

Currently, Specification 3.4.3.1. requires that the following Reactor Coolant System (RCS) leakage detection systems be operable:

a. The drywell atmosphere particulate radioactivity monitoring system,
b. The drywell floor and equipment drain sump level and flow monitoring systems, and
c. Either the drywell air coolers condensate flow rate monitoring system or the drywell Atmosphere gaseous radioactivity monitoring system.

The action statement for this limiting condition for operation (LCO) states, in part, that with only two of the three RCS leakage detection systems operable, operation may continue for up to 30 days provided grab samples of the drywell atmosphere are taken and analyzed at least once per 24 hours when the required gaseous and/or particulate radiation monitoring system is inoperable; otherwise, be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the following 24 hours.

The proposed amendment to the TS requests changes to TS 3/4.4.3.1, the surveillance and the TS bases for each. The proposed specification conforms to NUREG-1434 and provides for a 30-day period of continued operation with

9305210228 930517
PDR ADOCK 05000416
P PDR

two of the three required RCS leakage detection systems inoperable provided that the Drywell Floor Drain Sump Monitoring System is operable.

3.0 EVALUATION

The Nuclear Regulatory Commission (NRC) staff review of the proposed amendment included assessments of the LCO for TS 3.4.3.1, Leak Detection Systems, Surveillance Requirements 4.4.3.2.1 and their bases.

3.1 LCO for TS 3.4.3.1

The licensee proposes that the required leakage detection systems of this LCO be rearranged to provide for a 30-day out of service period to restore from a condition involving inoperability of both the drywell atmospheric monitor and the drywell condensate flow monitoring system. The arrangement and restatement of the LCO would provide consistency with the Improved Standard Technical Specifications as presented in NUREG-1434, Rev. 0.

The rearrangement would group the drywell atmospheric monitoring systems since they perform the similar function of providing continual monitoring of the drywell atmosphere for radioactivity indicative of an RCS leak. Currently, TS 3.4.3.1 and 4.4.3.1.b require that both the drywell floor and equipment drain sump level and flow monitoring systems be operable. The licensee is proposing to eliminate the requirement to include the equipment drain monitoring system. The equipment drain monitoring system monitors identified leakage from specifically identified leakage sources within the drywell and is subject to its own LCO of 30 gpm in T.S. 3/4.4.3.2.

The remaining system in the proposed TS, the drywell floor drain sump monitoring system, is used to quantify and/or recognize unidentified leakage in the drywell.

The revised TS will not result in a reduction in the margin of safety and the staff finds the changes acceptable.

3.2 Action Statements for TS 3.4.3.1

The licensee proposes additional action statements consistent with the design of the current leakage detection system and support increased operational flexibility while preserving adequate monitoring of the reactor coolant pressure boundary.

Action A

The drywell floor drain sump monitoring system is used to quantify unidentified leakage in conjunction with Specification 3/4.4.3.2. With the system inoperable, RCS unidentified and total leakage are determined every 12 hours per TS 4.4.3.2.1 to ensure adequate monitoring of the reactor coolant pressure boundary. This meets the requirements of Generic Letter (GL) 88-01,

Supplement 1, "NRC Position on Intergranular Stress Corrosion Cracking (IGSCC) In BWR Austenitic Stainless Steel Piping." The GL acknowledges that leakage can be quantitatively measured by alternative methods such as manually pumping the sump or measuring the differences in sump level during the period (30 days) that the drain sump monitoring system is being restored, provided the licensee demonstrates their suitability with regard to accuracy and inspectability. The 30-day completion time is based on other leakage detection systems being operable.

TS 3.0.4, which prevents mode changes unless the conditions of the LCO are met without reliance on provisions contained in the action statement, is not applicable since other methods are available to monitor RCS leakage.

The revised TS assures that unidentified leakage within the drywell is promptly identified and is acceptable to the staff.

Action B

The drywell atmospheric monitoring system provides continuous monitoring of the drywell gaseous and drywell particulate atmosphere. With the drywell atmosphere monitoring system inoperable, grab samples of the drywell atmosphere are taken and analyzed at least once per 12 hours. Grand Gulf's proposed action statement conforms to the standard TS action statement for BWR-6 plants that require the drywell air cooler condensate flow monitor to be operable.

The proposed changes meet the staff's requirements stated in GL 88-01 and is acceptable to the staff.

Action C

The drywell air cooler condensate flow rate monitoring system serves as an indicator, but not quantifier of RCS unidentified leakage by monitoring the condensate flow from four of the six drywell coolers. If the system is inoperable a Channel Check is performed on the required drywell atmospheric monitoring system once every 8 hours. The 8-hour interval provides periodic information of activity in the drywell. Systems for detecting and quantifying RCS leakage remain operable.

This action statement has been modified by a note that allows this action to not be applicable if the required drywell atmospheric monitoring system is inoperable. This conforms with TS 4.0.3, which states, in part, that surveillance is not required to be performed on inoperable equipment.

The staff has evaluated the condition in which the drywell air cooler condensate flow rate monitoring system is inoperable, and concluded that channel checks once every 8 hours are acceptable in providing information of the activity in the drywell.

Action D

With both the atmospheric radioactivity monitoring system and the drywell air cooler condensate flow monitoring system inoperable, the only means of detecting unidentified leakage is the drywell floor drain sump monitoring system. This condition does not provide diversity in detecting unidentified leakage. Therefore, a 30-day time requirement is imposed to prevent extended operation while in this degraded configuration. The 30-day time limit allows time to restore the atmospheric radioactivity monitoring system or the drywell air cooler condensate flow monitoring system to operability. The required action is modified by a Note that states the provisions of 3.0.4 are not applicable since other instrumentation is available to monitor RCS leakage during mode changes.

To ensure restoration of diversity, operation with both the atmospheric radiation monitoring and the drywell air cooler condensate flow monitoring systems inoperable will be limited to 30 days. The staff has evaluated this condition in which both the atmospheric radioactivity monitoring system and the drywell air cooler condensate monitoring system are inoperable, and determined that the 30-day time requirement to restore either to an operable status is acceptable.

Action E and F

If any of the above required actions cannot be met within the required completion time the plant must be brought to HOT SHUTDOWN within 12 hours and to COLD SHUTDOWN within the following 24 hours.

With all required monitoring systems inoperable, the plant will enter LCO 3.0.3 within one hour. LCO 3.0.3 states that when an LCO is not met, except in the associated action requirement, within one hour action shall be initiated to place the unit in hot standby within the next 6 hours, in HOT SHUTDOWN within the following 6 hours, and in COLD SHUTDOWN within the subsequent 24 hours.

The staff has evaluated the requirement to shutdown if the time requirements are not met or if all RCS leakage detection systems are inoperable. The staff concluded that these are appropriate actions. The staff also finds that these actions acceptable to ensure public health and safety.

3.3 Surveillance 4.4.3.2.1

The current Surveillance 4.4.3.2.1, specifically identifies the systems that are monitored to demonstrate that the Reactor Coolant System Operational Leakage Limits are not exceeded.

This proposed change to Surveillance 4.4.3.2.1 deletes references to these specific systems used to demonstrate that the reactor coolant system leakage is within limits.

RCS leakage is monitored by systems to quantify unidentified and identified leakage. Operability of the equipment necessary to monitor unidentified leakage is governed by LCO 3.4.3.1. The quantification of leakage is performed by the drywell floor sump monitoring system.

The staff evaluated the licensee's proposed change to surveillance 4.4.3.2.1 requirement and concluded that performance of the surveillance is not required to verify that the leakage rate requirements are satisfied. The staff finds the proposed change of omitting references to specific systems used to perform the surveillance is acceptable.

3.4 Bases

The bases for 3/4.4.3.1, Leakage Detection System, and 3/4.4.3.2, Operational Leakage, were expanded to reflect the above changes.

To provide consistency with T.S. 3/4.4.3.1 and 3/4.4.3.2, the staff concluded that expanding the bases to reflect the changes in these specifications is acceptable.

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 and changes surveillance requirements. 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 (58 FR 19477). 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: V. Gaddy

Date: May 17, 1993