

October 18, 1996

Mr. Joseph J. Hagan
Vice President, Operations GGNS
Entergy Operations, Inc.
P. O. Box 756
Port Gibson, MS 39150

SUBJECT: ISSUANCE OF AMENDMENT NO.128 TO FACILITY OPERATING LICENSE
NO. NPF-29 - GRAND GULF NUCLEAR STATION, UNIT 1 (TAC NO. M95338)

Dear Mr. Hagan:

The Nuclear Regulatory Commission has issued the enclosed Amendment No.128 to Facility Operating License No. NPF-29 for the Grand Gulf Nuclear Station, Unit 1. This amendment revises the Technical Specifications (TSs) in response to your application dated May 8, 1996, as supplemented by the letters dated July 18 and September 19, 1996.

The amendment modifies the frequency requirements in Surveillance Requirement 3.6.1.3.5, on the leakage rate testing for each containment purge isolation valve with resilient seals. The amendment permits these purge valves to be leakage rate tested on performance basis. No other commitments were made in your applications for this amendment.

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,



Jack N. Donohew, Senior Project Manager
Project Directorate IV-1
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Docket No. 50-416

Enclosures: 1. Amendment No. 128 to NPF-29
2. Safety Evaluation

cc w/encs: See next page

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Document Name: GG95338.AMD

with notice change on pg 10

OFC	PM/PD4-1	LA/PD4-1	SCSB/NRR	OGC
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JND signed 10/18/96

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

October 18, 1996

Mr. Joseph J. Hagan
Vice President, Operations GGNS
Entergy Operations, Inc.
P. O. Box 756
Port Gibson, MS 39150

SUBJECT: ISSUANCE OF AMENDMENT NO.128 TO FACILITY OPERATING LICENSE
NO. NPF-29 - GRAND GULF NUCLEAR STATION, UNIT 1 (TAC NO. M95333)

Dear Mr. Hagan:

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 128 to Facility Operating License No. NPF-29 for the Grand Gulf Nuclear Station, Unit 1. This amendment revises the Technical Specifications (TSs) in response to your application dated May 8, 1996, as supplemented by the letters dated July 18 and September 19, 1996.

The amendment modifies the frequency requirements in Surveillance Requirement 3.6.1.3.5, on the leakage rate testing for each containment purge isolation valve with resilient seals. The amendment permits these purge valves to be leakage rate tested on performance basis. No other commitments were made in your applications for this amendment.

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,

A handwritten signature in black ink that reads "Jack N. Donohew".

Jack N. Donohew, Senior Project Manager
Project Directorate IV-1
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Docket No. 50-416

Enclosures: 1. Amendment No.128 to NPF-29
2. Safety Evaluation

cc w/encls: See next page

Mr. Joseph J. Hagan
Entergy Operations, Inc.

Grand Gulf Nuclear Station

cc:

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

ENERGY OPERATIONS, INC.

SYSTEM ENERGY RESOURCES, INC.

SOUTH MISSISSIPPI ELECTRIC POWER ASSOCIATION

ENERGY MISSISSIPPI, INC.

DOCKET NO. 50-416

GRAND GULF NUCLEAR STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 128
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 May 8, 1996, as supplemented by letters dated July 18 and September 19, 1996, 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. 128, 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



Jack N. Donohew, Senior Project Director
Project Directorate IV-1
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical
Specifications

Date of Issuance: October 18, 1996

ATTACHMENT TO LICENSE AMENDMENT NO. 128

FACILITY OPERATING LICENSE NO. NPF-29

DOCKET NO. 50-416

Replace the following page of the Appendix A Technical Specifications with the attached page. The revised page is identified by amendment number and contains a vertical line indicating the area of change.

<u>REMOVE PAGE</u>	<u>INSERT PAGE</u>
3.6-15	3.6-15
3.6-16	3.6-16
3.6-17	3.6-17

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.6.1.3.3</p> <p style="text-align: center;">-----NOTES-----</p> <ol style="list-style-type: none"> 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. <p style="text-align: center;">-----</p> <p>Verify each primary containment isolation manual valve and blind flange that is located inside primary containment, drywell, or steam tunnel and is required to be closed during accident conditions is closed.</p>	<p>Prior to entering MODE 2 or 3 from MODE 4, if not performed within the previous 92 days</p>
<p>SR 3.6.1.3.4</p> <p>Verify the isolation time of each power operated and each automatic PCIV, except MSIVs, is within limits.</p>	<p>In accordance with the Inservice Testing Program</p>

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.6.1.3.5</p> <p>-----NOTE----- Only required to be met in MODES 1, 2, and 3. -----</p> <p>Perform leakage rate testing for each primary containment purge valve with resilient seals.</p>	<p>36 months with at least 2 pairs of valves tested every 18 months</p> <p><u>AND</u></p> <p>-----Note----- SR 3.0.2 is not applicable -----</p> <p>In accordance with 10 CFR 50, Appendix J, as modified by approved exemptions</p> <p><u>AND</u></p> <p>-----Note----- Not applicable to valves tested within 92 days prior to any purge valve failing to meet its acceptance criteria -----</p> <p>Once within 92 days, test all remaining purge valves, if any purge valve fails to meet its acceptance criteria</p>

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.6.1.3.6 Verify the isolation time of each MSIV is ≥ 3 seconds and ≤ 5 seconds.</p>	<p>In accordance with the Inservice Testing Program</p>
<p>SR 3.6.1.3.7 Verify each automatic PCIV actuates to the isolation position on an actual or simulated isolation signal.</p>	<p>18 months</p>
<p>SR 3.6.1.3.8 -----NOTE----- Only required to be met in MODES 1, 2, and 3. ----- Verify leakage rate through all four main steam lines is ≤ 100 scfh when tested at $\geq P_a$.</p>	<p>-----NOTE----- SR 3.0.2 is not applicable ----- In accordance with 10 CFR 50, Appendix J, as modified by approved exemptions</p>
<p>SR 3.6.1.3.9 -----NOTE----- Only required to be met in MODES 1, 2, and 3. ----- Verify combined leakage rate of 1 gpm times the total number of PCIVs through hydrostatically tested lines that penetrate the primary containment is not exceeded when these isolation valves are tested at $\geq 1.1 P_a$.</p>	<p>-----NOTE----- SR 3.0.2 is not applicable ----- In accordance with 10 CFR 50, Appendix J, as modified by approved exemptions</p>



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 128 TO FACILITY OPERATING LICENSE NO. NPF-29

ENERGY OPERATIONS, INC., ET AL.

GRAND GULF NUCLEAR STATION, UNIT 1

DOCKET NO. 50-416

1.0 INTRODUCTION

By letter dated May 8, 1996, as supplemented by letters dated July 18 and September 19, 1996, Entergy Operations, Inc. (the licensee) submitted a request for changes to the Technical Specifications (TSs) for Grand Gulf Nuclear Station, Unit 1 (GGNS). The amendment request would change the current frequency of leakage rate testing for each primary containment purge valve with resilient seals in Surveillance Requirement (SR) 3.6.1.3.5. The proposed change would permit these purge valves to be leakage rate tested on a performance basis in accordance with Appendix J of 10 CFR Part 50, as modified by approved exemptions, instead of the current requirement in SR 3.6.1.3.5 to leakage rate test each valve once every 184 days (i.e., half a year). In addition, the purge valves would be required to be leakage rate tested every 36 months with at least two pairs tested every 18 months and, if any purge valve fails to meet the leakage rate acceptance criterion, all remaining valves must be tested within 92 days (i.e., a quarter of a year) if not successfully tested within the previous 92 days.

The licensee also submitted changes to the Bases of the TSs. The Bases of the TSs are not part of the license and the corrected Bases pages are not included in the amendment to the license.

The letters of July 18 and September 19, 1996, provided supplemental information on the proposed amendment. The additional restrictions on the surveillance frequency requirements submitted in the letter of September 19, 1996, did not change the no significant hazards consideration determination provided by the licensee in the original application and published by the staff in the Federal Register (61 FR 28614).

2.0 BACKGROUND

The licensee described the containment purge system (CPS) in its application. The CPS has a high volume purge (HVP) with 20-inch supply and exhaust valves and a low volume purge (LVP) with 6-inch supply and exhaust valves. Each of these purge lines penetrates primary containment and has two valves in series, for supply and exhaust, to provide the redundancy necessary for containment

isolation. The safety function of the CPS is the ability to close the four pairs of valves so that the containment penetrations are essentially leak tight for containment isolation. The CPS is described in Section 9.4.7 of the Updated Final Safety Analysis Report (UFSAR) for GGNS.

The proposed change to SR 3.6.1.3.5 applies to all four pairs of primary containment isolation valves in the CPS because all of these valves have resilient seals.

The licensee stated that CPS operation had been analyzed for power operation and the valves are qualified for use in all operational conditions. The valves are normally maintained closed during Modes 1, 2, and 3, when containment integrity is required, to ensure leak tightness. During power operation, the HVP is restricted to containment pressure control; as low as is reasonably achievable (ALARA) for airborne radioactivity and air quality considerations for personnel entry due to high explosive gas concentration, low oxygen concentration, high airborne particulate activity, high gaseous radioactivity, smoke or fumes; or for surveillance or special testing on the purge system that requires an isolation valve to be open. In cold shutdown or refueling operating modes, there is no restriction on the continuous use of the HVP. The use of LVP is unrestricted in all modes of operation.

The four pairs of CPS isolation valves would close on a containment isolation signal.

As a result of reports of unsatisfactory performance of resilient seals in butterfly-type isolation valves due to seal deterioration, the Nuclear Regulatory Commission (NRC) established Generic Issue B-20, "Containment Leakage Due to Seal Deterioration" to study this issue and propose a regulatory resolution of the problem. NRC Circular 77-11 "Leakage of Containment Isolation Valves With Resilient Seals" was issued and the final resolution imposed augmented leakage testing requirements which were beyond the minimum leak rate requirements in Appendix J, "Primary Reactor Containment Leakage Testing For Water-Cooled Power Plants," for containment purge and vent line isolation valves that used resilient seal materials. Appendix J provides leakage test requirements for the primary containment isolation valves of light water reactors such as GGNS. These additional requirements were typically imposed as surveillance requirements in the plant TSS, as is the case for GGNS in SR 3.6.1.3.5.

The licensee stated in its application that it is reasonable to return to the Appendix J testing requirements for isolation valves with resilient seals because it has been demonstrated at GGNS that seal degradation does not occur at an accelerated rate. The data for GGNS are presented in Section 3.0 below.

The NRC has recently approved changes in testing frequencies for containment purge valves with resilient seals at the Vogtle Electric Generating Plant (Docket Nos. 50-424 and 50-425). In its evaluation for Vogtle, the NRC staff stated the "[o]perating experience has shown that for well maintained butterfly valves with resilient seals, used at suitable environmental and operating conditions, the 24-month Appendix J leakage rate test interval is

sufficiently frequent. Accordingly, the Staff will approve a reduced leakage testing frequency if supported by plant-specific data (i.e., history of test results)." Therefore, the augmented testing program would determine if the performance of these valves degraded over time and any changes in the augmented testing requirements would be based on this performance.

By letter dated April 26, 1995, the staff issued an exemption to GGNS from the requirements of Appendix J. The part of this exemption that affects this amendment request is the exemption to the frequency of Type B and C tests in Sections III.D.2 and III.D.3 of Appendix J. The frequency of Type B and C tests is at least once every 2 years. The exemption allows the licensee to conduct the Type B and C tests at intervals based on the performance of the component. The test intervals are established for each component by evaluating the testing history and adjusting the interval based on defined criteria and engineering judgment. The approved GGNS algorithm for determining the test interval is the following:

- Every 2 years for components which have passed only one test or have failed the previous test, and
- Every 5 years for components which have passed the last two consecutive tests.

This exemption is in effect until the restart of GGNS from Refueling Outage 9. Refueling Outage 8 is scheduled to begin in October 1996. The exemption did not affect the test methods, acceptance criteria, or allowable leakage limits for the Appendix J tests. The proposed amendment also does not affect the test methods, acceptance criteria, or allowable leakage limits for the CPS isolation valves.

Subsequent to the granting of the aforementioned exemption from the requirements of 10 CFR Part 50, Appendix J for GGNS, the Commission amended the requirements of Appendix J, (57 FR 49495, September 26, 1995). The amended Appendix J, which became effective on October 26, 1996, added Option B to the regulation which allows licensees to voluntarily replace the prescriptive testing requirements of Appendix J (now designated as Option A) with testing requirements based on both overall and individual component leakage rate performance. The licensee has not elected yet to adopt Option B for GGNS. Thus, the 10 CFR Part 50, Appendix J testing requirements to which GGNS is subject are those contained in the exemption discussed above, to what is now designated as Option A in the amended regulation.

3.0 EVALUATION

The SR 3.6.1.3.5 currently specifies a leakage testing frequency for the CPS isolation valves with resilient seals of once every 184 days and within 92 days after opening the valves. These requirements apply to both sizes of primary containment purge valves with resilient seals.

As discussed above, the frequency of testing specified in SR 3.6.1.3.5 for the containment isolation valves in the CPS is more frequent than required by Appendix J to 10 CFR Part 50. The higher frequency of testing was required

because of unsatisfactory performance of isolation valves with resilient seals due to seal deterioration.

The licensee stated that plant specific data (i.e., histories of test results) are available for the purge valves at GGNS to demonstrate that these valves are not subject to excess degradation. The licensee provided 15 years of historical leakage rate data on the CPS supply or exhaust isolation purge valves in Attachment 3 of the application. The licensee stated that these data show that there has never been a problem with leakage through these valves and concluded that these data indicate that it is appropriate to have the testing frequencies in SR 3.6.1.3.5 revert to those stated in Appendix J.

The licensee further stated that Option B of the new Appendix J rule (60 FR 49495) presents a methodology for determining testing frequencies that is based not only on performance, but also on other relevant factors, such as operating conditions, component application, system function, and risk insights. Under the new rule, the licensee would determine what a safe interval is, within the limitations specified by the NRC. The licensee explained that allowing these CPS isolation valves to be controlled by the rules of Appendix J (together with the licensee's exemption to Appendix J that permits performance based testing) is consistent with the philosophies developed by NRC as a result of the effort to develop a performance-based testing program and that there is no substantiated basis for the continuation of the augmented testing requirements. Therefore, the licensee concluded that using the data for the GGNS isolation valves to allow the testing frequencies in SR 3.6.1.3.5 to revert to those stated in Appendix J as modified by the licensee's exemption is consistent with current NRC policy.

The staff has reviewed the licensee's request to have the frequency of leakage rate testing the primary containment purge valves with resilient seals determined by the Type C testing requirements of Appendix J as modified by any exemption to Appendix J for GGNS. This would allow the purge valves to be tested in accordance with the algorithm approved for GGNS in the exemption issued April 26, 1995, and discussed in Section 2.0 above.

The testing data presented by the licensee in Attachment 3 to its application are shown in Table 1, on the following 5 pages. The data are the result of testing the four pairs of isolation valves from June 5, 1981, through May 15, 1996. The additional data for the last quarterly test were provided by telephone on June 13, 1996.

The number of times each pair of isolation valves was tested during this 15-year period ranged from 48 times to 64 times. The leakage rate ranged from zero up to 400 sccm (standard cubic centimeters per minute). The average leakage rate for the valves ranged from 11 to 37 sccm. The leakage measurements are for each pair of isolation valves because the space between the pair of valves is pressurized and the measured leakage rate is the combined leakage rate for the valves.

The leakage rate limit in the table is the administrative limit assigned by the licensee to each pair of valves and the licensee is required by its

administrative procedures to reduce the leakage rate to within the administrative limit. This limit is a percentage of the design-basis allowable leakage for the primary containment (i.e., a percentage of La in Appendix J). The licensee found a conservative error of 45% in the administrative limit and, in 1993, increased the limit to 2116 sccm. The 2116 sccm is about 2 percent of La, as defined in Table 6.2-1 of the UFSAR for the containment design parameters (i.e., 96,300 sccm).

Date	E61F009 & 10	E61F056 & 57	M41F011 & 12	M41F034 & 35	leakage limit
6/05/81			40		1435
6/23/81				12	1435
11/06/81	350				1435
12/01/81			110	60	1435
12/14/81		30			1435
9/01/82			165	50	1435
11/01/82	70	20			1435
12/06/82			140	40	1435
3/21/83			100		1435
3/23/83				150	1435
6/07/83				300	1435
6/09/83		0	100		1435
9/06/83				200	1435
12/06/83			0	76	1435
12/07/83		40			1435
2/27/84			400	200	1435
2/28/84		130			1435
5/21/84		100	300	200	1435
5/22/84	100				1435
8/18/84		10	50	0	1435
10/11/84	140				1435
11/05/84			250	300	1435
11/08/84		150			1435
1/24/85			0		1435
1/25/85		0		0	1435
2/15/85		60			1435
4/22/85				33.37	1435
4/23/85			146.68		1435
4/26/85		48.98			1435
7/15/85			0		1435
7/16/85				48.9	1435
7/17/85		0			1435
10/10/85		0	98.15	49.08	1435
1/10/86	199	0	99		1435
1/13/86				49	1435
4/02/86			0		1435
4/03/86	68.32			0	1435
4/04/86		0			1435

Table 1: Leak Rate Data for Containment Purge Isolation Valves (continued)					
(all test leakage rates are in standard cubic centimeters per minute)					
Date	E61F009 & 10	E61F056 & 57	M41F011 & 12	M41F034 & 35	leakage limit
5/01/86		0			1435
6/23/86				0	1435
6/24/86	28.856		0		1435
6/25/86		0			1435
9/11/86	19.8	0	148.9		1435
9/12/86				39.7	1435
11/12/86			0	0	1435
11/13/86	0	0			1435
12/06/86	39.924				1435
2/03/87			0	0	1435
2/05/87	39.478584	0			1435
4/23/87			0	0	1435
4/24/87	0	0			1435
7/14/87			0	0	1435
7/16/87	0	0			1435
10/06/87			0	0	1435
10/08/87	0	0			1435
12/16/87	0	0	0		1435
12/16/87				60.2	1435
3/12/88	0	0			1435
3/13/88			0	0	1435
6/08/88			0	0	1435
6/09/88	0	0			1435
9/16/88		0			1435
9/27/88			0	0	1435
12/13/88		0			1435
12/21/88			0	0	1435
3/13/89	0	0			1435
3/14/89			0	0	1435
3/23/89			0		1435
3/26/89		0		30	1435
6/13/89	0	0			1435
6/14/89			0	0	1435
6/28/89			0		1435
6/30/89				0	1435
9/11/89	0				1435
9/12/89		0			1435
9/29/89			0	0	1435

Table 1: Leak Rate Data for Containment Purge Isolation Valves (continued)					
(all test leakage rates are in standard cubic centimeters per minute)					
Date	E61F009 & 10	E61F056 & 57	M41F011 & 12	M41F034 & 35	leakage limit
12/08/89	44				1435
12/12/89		0			1435
1/08/90			60	0	1435
1/16/90			0		1435
3/08/90	0				1435
3/09/90		0			1435
4/04/90				0	1435
4/05/90			0		1435
6/05/90	0				1435
6/06/90		0			1435
6/26/90			0		1435
6/27/90				0	1435
9/04/90	0				1435
9/11/90		0			1435
9/20/90			0	0	1435
2/26/91	0				1435
2/27/91		0			1435
3/05/91				0	1435
3/06/91			0		1435
5/28/91	0				1435
5/29/91		0			1435
6/04/91				0	1435
6/05/91			0		1435
7/23/91	0				1435
8/22/91		0			1435
8/23/91	0				1435
8/29/91			0		1435
8/30/91				0	1435
11/25/91	0	0			1435
11/26/91			0	0	1435
2/19/92	0				1435
2/20/92		0			1435
2/26/92			0		1435
2/27/92				56	1435
4/01/92		40			1435
4/02/92	0				1435
4/07/92			0	7	1435
7/01/92		0			1435

Table 1: Leak Rate Data for Containment Purge Isolation Valves (continued)					
(all test leakage rates are in standard cubic centimeters per minute)					
Date	E61F009 & 10	E61F056 & 57	M41F011 & 12	M41F034 & 35	leakage limit
7/02/92	0				1435
7/07/92			0	0	1435
9/29/92		0			1435
10/06/92			0	0	1435
10/19/92	0				1435
12/29/92		0			1435
1/05/93			0	0	1435
1/18/93	0				1435
3/30/93		0			1435
4/05/93			16		1435
4/06/93				39.627	1435
4/15/93	0				1435
6/29/93		0			1435
7/01/93			0		1435
7/06/93				0	1435
7/12/93	0				1435
10/01/93			0	0	2116
10/12/93	0	0			2116
11/08/93			0		2116
11/15/93			0		2116
12/27/93				37	2116
1/10/94	10	20			2116
2/07/94			0	0	2116
4/05/94				0	2116
4/12/94		0			2116
4/13/94	0				2116
5/11/94			0		2116
7/12/94	0				2116
7/13/94		0			2116
7/23/94				0	2116
8/04/94			0		2116
10/03/94				0	2116
10/11/94	0	0			2116
11/08/94			2.5		2116
1/04/95				32.5	2116
1/10/95	0				2116
1/11/95		0			2116
3/21/95	0				2116

Table 1: Leak Rate Data for Containment Purge Isolation Valves (continued)					
(all test leakage rates are in standard cubic centimeters per minute)					
Date	E61F009 & 10	E61F056 & 57	M41F011 & 12	M41F034 & 35	leakage limit
3/22/95				0	2116
3/23/95		0			2116
5/09/95	0	0			2116
5/15/95			40		2116
5/22/95				20	2116
6/01/95				0	2116
8/07/95	0				2116
8/08/95		0			2116
8/16/95			0		2116
9/01/95				0	2116
11/07/95	0				2116
11/08/95		0			2116
11/15/95			0		2116
11/30/95				0	2116
2/07/96	0	0			2116
2/14/96			0		2116
2/27/96				0	2116
5/14/96			0	0	2116
5/15/96	0	0			2116

The reported leakage rate measurements for the CPS isolation valve leakage are sufficient in number and have been taken over a sufficient period of time for the staff to draw conclusions on the allowable frequency of testing for these valves. The maximum CPS isolation valve leakage was about 0.4 percent of La for GGNS and the average leakage was at most about 0.04 percent of La. These leakage values demonstrate that these CPS isolation valves have not exhibited excess degradation over the 15 years of operation of GGNS.

In response to a staff question in the licensee's July 18, 1996, submittal, the licensee stated that no service life had been calculated for these valve seats. The licensee calculated a shelf life of 60 years which the licensee reduced this to 40 years for conservatism. The licensee also referenced an Electric Power Research Institute (EPRI) study of a material similar to the seat material used for the purge valves at GGNS which concluded that a service life of greater than 40 years was to be expected given a radiation level of 200 million rads and a temperature of 100 °F. However, the licensee also stated that no maintenance is done to preclude seat leakage.

The staff has evaluated the information provided by the licensee and has concluded that it would be prudent to limit the leakage rate test frequency to less than the maximum of 5 years which would be permitted by testing in accordance with the licensee's exemption to Appendix J, or Appendix J Option B. This is primarily due to a concern with aging failures which may be due to service or environmental factors. In addition, since aging is a common mode effect, it would be prudent to provide for additional testing of the other purge valves with resilient seals if a valve, or valves, in a given penetration failed a leakage rate test.

After a discussion on September 11, 1996, between the staff and the licensee, the licensee revised its proposal. In a letter dated September 19, 1996, the licensee proposed the following test frequency and conditions.

Leakage rate testing of primary containment purge valves with resilient seals will be required every 36 months, with at least two pairs of valves tested every 18 months. Thus, a staggered testing schedule is established so that even though the test interval is extended, at least two pairs of valves will be tested every 18 months. SR 3.0.2 is applicable to these intervals so that a 25% increase is permissible under certain conditions (see GGNS TS Bases discussion of SR 3.0.2). In addition, if any purge valve fails to meet its acceptance criteria, all remaining purge valves must be tested within 92 days (unless previously tested within 92 days of the failure) as a check on possible common mode effects. SR 3.0.2 is not applicable to the 92 days.

The licensee also included a requirement to test in accordance with 10 CFR Part 50, Appendix J, as modified by approved exemptions. The licensee has an exemption to Option A of Appendix J, as discussed above, which allows the Type C test interval to be extended up to 5 years. Thus, the proposed TS test interval is more conservative than that allowed by the exemption. After the current exemption expires (following restart from Refueling Outage 9) Option A of Appendix J will be in effect and the licensee will be required to test all

primary containment purge valves with resilient seals more frequently (every shutdown for refueling, not to exceed 2 years) than required by the proposed TS.

If the licensee decides to perform containment leakage rate testing under Option B to 10 CFR Part 50, Appendix J, the proposed technical specification will limit the interval to a more conservative 36 months, as it does under the present exemption to Option A.

The licensee's proposed changes satisfy the staff's concern about aging and service defects and the possibility of common mode failures. The staff therefore finds the licensee's proposal in the September 19, 1996, letter to be acceptable.

Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program", which the staff recently issued (September 1995) to provide guidance on an acceptable method of implementing 10 CFR Part 50, Appendix J, Option B, specifies a maximum test interval of 30 months for purge and vent valves. The interval being approved in this TS change is greater than 30 months. The staff finds this acceptable since this TSs change specifies additional requirements to provide reasonable assurance of protection against undetected common mode failures.

Because the licensee also included changes to the Bases of the TSs in the application, the staff has reviewed the changes to the Bases and concludes that they are correct.

The licensee made no new commitments in its application letters of May 8, July 18 and September 19, 1996, beyond the proposed amendment to the TSs.

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 (61 FR 28614). 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.

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Date: October 18, 1996