

December 9, 1992

Mr. William T. Cottle  
Vice President, Operations GGNS  
Entergy Operations, Inc.  
Post Office Box 756  
Port Gibson, Mississippi 39150

Dear Mr. Cottle:

SUBJECT: ISSUANCE OF AMENDMENT NO. 103 TO FACILITY OPERATING LICENSE  
NO. NPF-29 - GRAND GULF NUCLEAR STATION, UNIT 1 (TAC NO. M80589)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 103 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 May 30, 1991.

The amendment requests 1) an increase in the allowed outage time for the drywell and containment hydrogen concentration analyzers and monitors, 2) an increase in the time limit for reporting certain inoperable accident radiation monitors, and 3) a revision in the technical specification action for accident monitoring instrumentation in Table 3.3.7.5-1 to achieve consistency with the guidance provided in NRC Generic Letter 83-36.

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

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P PDR

Enclosures:

1. Amendment No. 103 to NPF-29
2. Safety Evaluation

cc w/enclosures:

See next page

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\* See previous concurrence

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

December 9, 1992

Docket No. 50-416

Mr. William T. Cottle  
Vice President, Operations GGNS  
Entergy Operations, Inc.  
Post Office Box 756  
Port Gibson, Mississippi 39150

Dear Mr. Cottle:

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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 cursive script that reads "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. 103 to NPF-29
2. Safety Evaluation

cc w/enclosures:  
See next page

Mr. W. T. Cottle  
Entergy Operations, Inc.

Grand Gulf Nuclear Station

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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. 103  
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 30, 1991, 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. 103, 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



John T. Larkins, 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: December 9, 1992

ATTACHMENT TO LICENSE AMENDMENT NO. 103

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

3/4 3-74

3/4 3-75

-

INSERT PAGES

3/4 3-74

3/4 3-75

3/4 3-75a

## INSTRUMENTATION

### ACCIDENT MONITORING INSTRUMENTATION

#### LIMITING CONDITION FOR OPERATION

---

3.3.7.5 The accident monitoring instrumentation channels shown in Table 3.3.7.5-1 shall be OPERABLE.

APPLICABILITY: As shown in Table 3.3.7.5-1.

#### ACTION:

With one or more accident monitoring instrumentation channels inoperable, take the ACTION required by Table 3.3.7.5-1.

#### SURVEILLANCE REQUIREMENTS

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4.3.7.5 Each of the above required accident monitoring instrumentation channels shall be demonstrated OPERABLE by performance of the CHANNEL CHECK and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3.7.5-1.

TABLE 3.3.7.5-1  
ACCIDENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>APPLICABLE OPERATIONAL CONDITIONS</u>	<u>REQUIRED NUMBER OF CHANNELS</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>ACTION</u>
1. Reactor Vessel Pressure	1, 2, 3	2	1	80
2. Reactor Vessel Water Level	1, 2, 3, 4, 5	2	1	82
3. Suppression Pool Water Level	1, 2, 3	2	1	80
4. Suppression Pool Water Temperature	1, 2, 3	6, 1/sector	6, 1/sector	80
5. Drywell/Containment Differential Pressure	1, 2, 3	2	1	80
6. Drywell Pressure	1, 2, 3	2	1	80
7. Drywell and Control Rod Drive Cavity Temperature	1, 2, 3	2 (each)	1 (each)	80
8. Containment Hydrogen Concentration Analyzer and Monitor	1, 2, 3	2	1	83
9. Drywell Hydrogen Concentration Analyzer and Monitor	1, 2, 3	2	1	83
10. Containment Pressure (wide and narrow range)	1, 2, 3	2 (each)	1 (each)	80
11. Containment Air Temperature	1, 2, 3	2	1	80
12. Safety/Relief Valve Tail Pipe Pressure Switch Position Indicators	1, 2, 3	1/valve	1/valve	80
13. Containment/Drywell Area Radiation Monitors	1, 2, 3, 4, 5	2 <sup>#</sup>	2 <sup>#</sup>	81
14. Containment Ventilation Exhaust Radiation Monitor	1, 2, 3, 4, 5	1	1	81
15. Off-gas and Radwaste Bldg. Ventilation Exhaust Radiation Monitor	1, 2, 3, 4, 5	1	1	81
16. Fuel Handling Area Ventilation Exhaust Radiation Monitor	1, 2, 3, 4, 5	1	1	81
17. Turbine Bldg. Ventilation Exhaust Radiation Monitor	1, 2, 3	1	1	81
18. Standby Gas Treatment System A & B Exhaust Radiation Monitors	*	1/each	1/each	81

#Each for containment and drywell.

\*When its associated train of the standby gas treatment system is required operable (Ref. 3.6.6.3).



TABLE 3.3.7.5-1 (Continued)  
ACCIDENT MONITORING INSTRUMENTATION

ACTION STATEMENTS

- ACTION 80 -
- a. With the number of OPERABLE accident monitoring instrumentation channels less than the Required Number of Channels shown in Table 3.3.7.5-1, restore the inoperable channel(s) to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours and be in COLD SHUTDOWN within the next 24 hours.
  - b. With the number of OPERABLE accident monitoring instrumentation channels less than the Minimum Channels OPERABLE requirements of Table 3.3.7.5-1, restore the inoperable channel(s) to OPERABLE status within 48 hours or be in at least HOT SHUTDOWN within the next 12 hours and be in COLD SHUTDOWN within the next 24 hours.
- ACTION 81 -
- With the number of OPERABLE channels less than required by the minimum channels OPERABLE requirements, initiate the preplanned alternate method of monitoring the appropriate parameter(s) within 72 hours, and:
- a. either restore the inoperable channel(s) to OPERABLE status within 7 days of the event, or
  - b. prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 14 days following the event outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.
- ACTION 82 -
- For OPERATIONAL CONDITIONS 1, 2, 3
- a. With the number of OPERABLE accident monitoring instrumentation channels less than the Required Number of Channels shown in Table 3.3.7.5-1, restore the inoperable channel(s) to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours and be in COLD SHUTDOWN within the next 24 hours.
  - b. With the number of OPERABLE accident monitoring instrumentation channels less than the Minimum Channels OPERABLE requirements of Table 3.3.7.5-1, restore the inoperable channel(s) to OPERABLE status within 48 hours or be in at least HOT SHUTDOWN within the next 12 hours and be in COLD SHUTDOWN within the next 24 hours.
- For OPERATIONAL CONDITIONS 4, 5
- With the number of OPERABLE accident monitoring instrumentation channels less than required by the Minimum Channels OPERABLE requirement, either restore the inoperable channel(s) to

TABLE 3.3.7.5-1 (Continued)  
ACCIDENT MONITORING INSTRUMENTATION

ACTION STATEMENTS

- ACTION 82 - OPERABLE status within 72 hours, or initiate the preplanned alternate method of monitoring the appropriate parameter(s).
- ACTION 83 -
- a. With the number of OPERABLE channels less than the required number of channels shown in Table 3.3.7.5-1, restore the inoperable channel to OPERABLE status within 30 days or be in at least HOT SHUTDOWN within the next 12 hours and be in COLD SHUTDOWN within the next 24 hours.
  - b. With the number of OPERABLE channels less than the minimum channels OPERABLE requirements of Table 3.3.7.5-1, restore at least one channel to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours and be in COLD SHUTDOWN within the next 24 hours.

TABLE 4.3.7.5-1

ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>
1. Reactor Vessel Pressure	M	R
2. Reactor Vessel Water Level	M	R
3. Suppression Pool Water Level	M	R
4. Suppression Pool Water Temperature	M	R
5. Drywell/Containment Differential Pressure	M	R
6. Drywell Pressure	M	R
7. Drywell and Control Rod Cavity Temperature	M	R
8. Containment Hydrogen Concentration Analyzer and Monitor	NA	M*
9. Drywell Hydrogen Concentration Analyzer and Monitor	NA	M*
10. Containment Pressure	M	R
11. Containment Air Temperature	M	R
12. Safety/Relief Valve Tail Pipe Pressure Switch Position Indicators	M	R
13. Containment/Drywell Area Radiation Monitors	M	R**
14. Containment Ventilation Exhaust Radiation Monitor	M	A
15. Off-gas and Radwaste Bldg. Ventilation Exhaust Radiation Monitor	M	A
16. Fuel Handling Area Ventilation Exhaust Radiation Monitor	M	A
17. Turbine Bldg. Ventilation Exhaust Radiation Monitor	M	A
18. Standby Gas Treatment System A & B Exhaust Radiation Monitors	M	A

\*Using sample gas containing:

- One volume percent hydrogen, remainder nitrogen.
- Four volume percent hydrogen, remainder nitrogen.

\*\*The CHANNEL CALIBRATION shall consist of an electronic calibration of the channel, not including the detector, for range decades above 10R/hr and a one point calibration check of the detector below 10R/hr with an installed or portable gamma source.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 103 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 May 30, 1991, Entergy Operations, Inc., the licensee for Grand Gulf Nuclear Station (GGNS), Unit 1, proposed to amend the Technical Specifications (TS) Table 3.3.7.5-1 to increase the allowed outage times for the containment hydrogen analyzers and monitors. The proposed amendment also changes the time limit at which an inoperable radiation monitor becomes reportable per TS 6.9.2. The proposed changes are consistent with the guidance of Generic Letter (GL) 83-36.

Specifically, for the hydrogen analyzers and monitors, the licensee has proposed to increase the restoration times for operable channels one less than the minimum from 24 hours to 7 days and for the operable channels one less than the required numbers from 7 to 30 days.

For the radiation monitor, a special report to the Commission is required pursuant to TS 6.9.2 within 14 days of the event if the number of operable channels for the monitor is one less than the minimum and if one channel is not restored within 72 hours. The licensee proposed to increase this time limit for restoration from 72 hours to 7 days. No change is proposed to the preplanned alternate method of monitoring the appropriate parameters within 72 hours if the operable channel is one less than the minimum.

2.0 EVALUATION

The licensee indicated that the existing TS associated with accident monitoring are consistent with the original recommendations of NUREG-0578, "TMI-2 Lessons Learned Task Force Status Report and Short-Term Recommendations." However, the TS do not reflect the more recent guidance contained in GL 83-36. The proposed TS changes are consistent with GL 83-36, which identified several TS requirements, including the requirements affected by this amendment request, that could be relaxed. The relaxed requirements would still provide sufficient time to perform required maintenance and surveillance testing without increasing the consequences of an accident.

The licensee stated that the instrumentation associated with the proposed changes serves no automatic accident mitigation function, but provides operator information following a postulated accident. Approved Emergency Operating Procedures currently in use give specific guidance to the operator in the event the hydrogen monitors are not available. Compliance with the proposed ACTIONS of the TS provides adequate compensatory measures such as POST ACCIDENT Sampling System (PASS) samples and grab samples for obtaining an adequate atmospheric sample of the drywell and containment to mitigate degradation of containment from potential hydrogen combustion.

The proposed changes would not affect the ability to obtain an indication of hydrogen concentration, only the response time for obtaining this information. Therefore, the proposed change would not significantly increase the probability or consequences of an accident previously evaluated. Nor would the proposed change create the possibility of a new or different kind of accident from any previously analyzed as no new modes of plant operations are introduced.

The licensee also indicated that the time limit for writing a Special Report on inoperable radiation monitors does not aid in restoring the instrument to OPERABILITY, but only imposes an additional administrative task with no commensurate improvement in safety. The proposed change is also supported by GL 83-36.

The staff has reviewed the licensee submittal as discussed above and finds that increasing the allowed outage times for the containment analyzers and monitors and extending the time limit for reporting inoperable radiation monitors are consistent with the guidance of GL 83-36 and do not involve a reduction in the margin of safety and, therefore, are acceptable.

Therefore, the staff concludes that the proposed TS changes to Table 3.3.7.5-1 are acceptable.

### 3.0 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.

### 4.0 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

consideration, and there has been no public comment on such finding (56 FR 43808). 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.

#### 5.0 CONCLUSION

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

Principal Contributor: R. Goel

Date: December 9, 1992