



Entergy Operations

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August 22, 1990

W. T. Cottle

Vice President

Operations

Grand Gulf Nuclear Station

U.S. Nuclear Regulatory Commission
Mail Station P1-137
Washington, D.C. 20555

Attention: Document Control Desk

Gentlemen:

SUBJECT: Grand Gulf Nuclear Station
Unit 1
Docket No. 50-416
License No. NPF-29
Implementation of Generic Letters
86-10 and 88-12 Proposed Amendment
to the Operating License
(PCOL-90/10)
AECM-90/0134

Entergy Operations - Grand Gulf Nuclear Station (GGNS) is submitting by this letter a proposed amendment to the GGNS Operating License which would revise the operating license and technical specifications related to fire protection. The proposed changes are consistent with Generic Letter (GL) 86-10 which encouraged licensees to incorporate the NRC approved Fire Protection Program into their Final Safety Analysis Reports. GL 86-10 encouraged licensees, upon completion of this program, to apply for an amendment to their operating licenses: (1) to replace current license conditions regarding fire protection with a new standard condition and (2) to remove unnecessary fire protection technical specifications. Entergy Operations- GGNS initially submitted such an application in letter AECM-87/0046 dated May 19, 1987.

Subsequently, the Staff gained experience with implementation of GL 86-10. Based upon that experience, guidance for the preparation of a license amendment request to implement GL 86-10 was issued in GL 88-12, dated August 2, 1988.

Representatives of Entergy Operations - GGNS met with the NRC Staff on December 6, 1989 to discuss various issues related to implementation of GLs 86-10 and 88-12. Entergy Operations - GGNS agreed to amend the initial application and to provide responses to several Staff recommendations related to implementation.

The revised application is provided as Attachment 2 to this letter and supercedes the amendment request in AECM-87/0046.

The response to the Staff recommendations is provided as Attachments 3 and 4.

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Attachment 5 contains the proposed changes to the Updated Final Safety Analysis Report (UFSAR) associated with the removal of the fire protection technical specifications as well as minor revisions needed to clarify the Fire Protection Program. The UFSAR changes will be incorporated into the UFSAR in Revision 5.

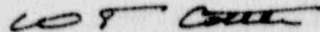
In accordance with the provisions of 10CFR50.4, the signed original of the requested amendment is enclosed. This amendment has been reviewed and accepted by the Plant Safety Review Committee. The Safety Review Committee reviewed and approved the initial application.

Based on the guidelines presented in 10CFR50.92, Entergy Operations - GGNS has concluded that this proposed amendment involves no significant hazards considerations.

Entergy Operations - GGNS requests that the present technical specification numbering not be revised to reflect the deletion of the fire protection related technical specifications in order to avoid affecting numerous station procedures.

Entergy Operations - GGNS requests issuance of the requested amendment by December 1, 1990 to coincide with the implementation of UFSAR Revision 5.

Yours truly,



WTC:mtc

- Attachments:
1. Affirmation per 10CFR50.30
 2. GGNS PCOL-90/10
 3. Response to Staff Recommendations
 4. Description of Administrative Controls for the Review of Design Changes
 5. Proposed UFSAR Changes

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BEFORE THE
UNITED STATES NUCLEAR REGULATORY COMMISSION

LICENSE NO. NPF-29

DOCKET NO. 50-416

IN THE MATTER OF
MISSISSIPPI POWER & LIGHT COMPANY
and
SYSTEM ENERGY RESOURCES, INC.
and
SOUTH MISSISSIPPI ELECTRIC POWER ASSOCIATION
and
ENTERGY OPERATIONS, INC.

AFFIRMATION

I, W. T. Cottle, being duly sworn, state that I am Vice President, Operations GGNS of Entergy Operations, Inc.; that on behalf of Entergy Operations, Inc., System Energy Resources, Inc., and South Mississippi Electric Power Association I am authorized by Entergy Operations, Inc. to sign and file with the Nuclear Regulatory Commission, this application for amendment of the Operating License of the Grand Gulf Nuclear Station; that I signed this application as Vice President, Operations GGNS of Entergy Operations, Inc.; and that the statements made and the matters set forth therein are true and correct to the best of my knowledge, information and belief.

W. T. Cottle
W. T. Cottle

STATE OF MISSISSIPPI
COUNTY OF CLAIBORNE

SUBSCRIBED AND SWORN TO before me, a Notary Public, in and for the County and State above named, this 22 day of August, 1990.

(SEAL)

Patricia Macpherson
Notary Public

My commission expires:
~~My Commission Expires July 1, 2000~~

A. SUBJECT

1. NL 88/13 Implementation of Generic Letter 88-12
2. Revised Operating License Condition:
 - a. Fire Protection Program - License Condition 2.C.(23)
3. Revised Technical Specifications:
 - a. Index - Pages v, viii, ix, xiii and xv.
 - b. Fire Detection Instrumentation, 3/4.3.7.9 - Page 3/4 3-80.
 - c. Fire Detection Instrumentation, Table 3.3.7.9-1 - Pages 3/4 3-81 through 3/4 3-89.
 - d. Fire Suppression Water System 3/4.7.6.1 - Pages 3/4 7-17, 3/4 7-18, and 3/4 7-19.
 - e. Spray and/or Sprinkler Systems, 3/4.7.6.2 - Pages 3/4 7-20 and 3/4 7-21.
 - f. CO₂ Systems, 3/4.7.6.3 - Pages 3/4 7-22 and 3/4 7-23.
 - g. Halon System, 3/4.7.6.4 - Page 3/4 7-24.
 - h. Fire Hose Stations, 3/4.7.6.5 - Page 3/4 7-25.
 - i. Fire Hose Stations, Table 3.7.6.5-1 - Pages 3/4 7-26 and 3/4 7-27.
 - j. Yard Fire Hydrants and Hydrant Hose Houses, 3/4.7.6.6 - Page 3/4 7-28.
 - k. Yard Fire Hydrants and Associated Hydrant Hose Houses, Table 3.7.6.6-1 - Page 3/4 7-29.
 - l. Fire Rated Assemblies, 3/4.7.7 - Pages 3/4 7-30 and 3/4 7-31.
 - m. Fire Detection Instrumentation Bases, 3/4.3.7.9 - Page B 3/4 3-5.
 - n. Fire Suppression Systems Bases, 3/4.7.6 - Page B 3/4 7-4.
 - o. Fire Rated Assemblies Bases, 3/4.7.7 - Page B 3/4 7-4.
 - p. Unit Staff, 6.2.2.e and * footnote - Page 6-2.
 - q. Plant Safety Review Committee, 6.5.1.6 - Page 6-8.

B. DISCUSSION

1. Generic Letter 86-10

- a. The proposed amendment revises the Operating License and Technical Specifications (TS) in order to remove certain fire protection requirements from the TS and place them in the Updated Final Safety Analysis Report (UFSAR).
- b. In Generic Letter (GL) 86-10 dated April 24, 1986, the NRC described the diversity of fire protection license conditions which had been adopted as of that time. Included with that discussion was a summary of the difficulties experienced by NRC inspectors in enforcing these conditions as well as problems experienced by licensees in maintaining a viable fire protection program subject to the limitations of these conditions. These license conditions also create difficulties because they do not specify when a licensee may make changes to the approved program without requesting a license amendment. Thus licensees may be required to submit amendment requests even for relatively minor changes to the fire protection program. The NRC decided the above problems exist because of the many submittals that constitute the fire protection program for each plant.
- c. The NRC concluded the best way to resolve these problems was to incorporate the fire protection program and major commitments, including the fire hazards analysis, by reference into the FSAR for the facility. In this manner, the fire protection program, including the systems, the administrative and technical controls, the organization, and other plant features associated with fire protection would be on a consistent status with other plant features described in the FSAR. Also, the provisions of 10CFR50.59 would then apply directly for changes the licensee desires to make in the fire protection program that would not adversely affect the ability to achieve and maintain safe shutdown. In this context, the determination of the involvement of an unreviewed safety question defined in 50.59(a)(2) would be made based on the "accident.... previously evaluated" being the postulated fire in the fire hazards analysis for the fire area affected by the change. The NRC also believed that a standard license condition, requiring licensees to comply with the provisions of the fire protection program as described in the FSAR, should be used to ensure uniform enforcement of fire protection requirements. The standard license condition was included with the guidance provided in GL 86-10. The NRC also concluded that licenses may then request an amendment to delete the fire protection related technical specifications that would then become unnecessary.
- d. Subsequently, a number of near term operating license plants were licensed under this guidance (Perry Nuclear Power Plant being the lead); however, the implementation of the guidance was inconsistent. In addition, most plants did not have the approved fire protection program in the FSAR and could not therefore follow the Perry lead.

2. Generic Letter 88-12

- a. GL 88-12 dated August 2, 1988 provides the specific NRC guidance for the preparation of a license amendment request which would implement the GL 86-10 recommendations. The actual fire protection related TS to be removed and those that will remain are delineated in GL 88-12. GL 88-12 builds upon the precedent established at Perry Nuclear Power Plant and conforms with the approach for TS removal approved for Callaway and Wolf Creek, which were the lead plants for this initiative.
- b. According to GL 88-12, the implementation of GL 86-10 to remove fire protection TS will entail (1) a revision to the FSAR to incorporate the approved Fire Protection Program, (2) incorporation into the Fire Protection Program the operational conditions, remedial actions, tests, and fire brigade staffing requirements for fire protection removed from the TS, and (3) a license amendment. The license amendment will (1) institute the standard fire protection license condition, (2) remove the fire protection systems and fire brigade staffing TS, and (3) add administrative controls to support the Fire Protection Program.
- c. The NRC's purpose for recommending in GL 86-10 and 88-12 that fire protection requirements be removed from the TS was to further the goal of TS improvement as delineated in other NRC policy statements and supported by industry efforts.

In order to implement the NRC recommendations at GGNS, the following changes are proposed:

3. Proposed Operating License Condition

Delete Operating License Condition (OLC) 2.C.(23) and replace it with OLC 2.C.(41) as follows:

Fire Protection Program

Entergy Operations, Inc. shall implement and maintain in effect all provisions of the approved Fire Protection Program as described in Revision 4 to the Updated Final Safety Analysis Report and as approved in the Safety Evaluation Report dated _____, subject to the following provisions:

The licensee may make changes to the approved Fire Protection Program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

The date of the final SERs must be inserted by the Staff upon approval of (1) requested exceptions to the applicable requirements of 10CFR50, Appendix R and (2) the GGNS Revised Safe Shutdown Analysis.

4. Proposed Tech Spec Changes

The following changes are proposed:

- a. Revise the TS Index to reflect the following changes.
- b. Delete the Limiting Conditions for Operation, Surveillance Requirements, associated tables and Bases sections for the following TS:

3/4.3.7.9	Fire Detection Instrumentation
3/4.7.6.1	Fire Suppression Water System
3/4.7.6.2	Spray and/or Sprinkler Systems
3/4.7.6.3	CO ₂ Systems
3/4.7.6.4	Halon Systems
3/4.7.6.5	Fire Hose Stations
3/4.7.6.6	Yard Fire Hydrants and Hydrant Hose Houses
3/4.7.7	Fire Rated Assemblies

The deleted TSs will be transferred, verbatim, to the UFSAR. The proposed UFSAR revision containing the relocated TSs is attached to this letter as Attachment 5.

- c. Delete the requirements for the Site Fire Brigade from TS 6.2.2.e and the * footnote. These requirements are duplicated in GGNS UFSAR Section 9B.7.
- d. A new TS requirement will be added to Administrative Controls Section 6.5.1.6. This addition will require that the Plant Safety Review Committee (PSRC) review the Fire Protection Program. Existing TS 6.5.1.6.a and b require that PSRC review administrative procedures implementing the Fire Protection Programs and safety evaluations of proposed changes to the Fire Protection Program described in the UFSAR. Safety evaluations of changes to the Fire Protection Program must be provided to the Safety Review Committee (SRC). The reviews will be accomplished as follows:
 - i. Upon approval of this application, the PSRC will review the Fire Protection Program as described in the UFSAR.
 - ii. Future changes to the Fire Protection Program which require revision to the UFSAR will be evaluated in accordance with 10CFR50.59. A 10CFR50.59 Safety Evaluation will be written in accordance with GGNS commitments concerning revisions to the UFSAR.
 - iii. The 10CFR50.59 Safety Evaluation describing those changes will be reviewed by the PSRC in accordance with TS 6.5.1.6.b and that review will be recorded in the PSRC meeting minutes.

- iv. The meeting minutes from the PSRC meetings including the 10CFR50.59 Safety Evaluation will be forwarded to the SRC in accordance with TS 6.5.1.8. These meeting minutes, and the associated 10CFR50.59 Safety Evaluations along with the annual, biennial and triennial Fire Protection Program audit responsibilities of the SRC will assure that the SRC remains cognizant of changes to the Fire Protection Program.

The following related TS will remain:

3/4.3.7.4	Remote Shutdown Instrumentation and Controls
6.5.2.8.h, i and j	Audits
6.8.1.f	Procedures and Programs

C. JUSTIFICATION

1. Proposed Operating License Condition

- a. OLC 2.C.(23) dealing with the Fire Protection Program will be deleted and replaced by OLC 2.C.(41) which is the standard fire protection license condition contained in GL 86-10. The proposed standard operating license condition will require that the approved Fire Protection Program be maintained as described in the UFSAR. In GL 86-10, the NRC encouraged all licensees to request this new license condition, as appropriate. GL 88-12 stated all current fire protection license conditions shall be removed. The present fire protection operating license condition requires that GGNS maintain the fire protection program to meet the "intent" of Appendix R to 10CFR50. The "intent" is defined in SER Section 9.5.9 to be the implementation of Appendix R Sections III.G, III.J and III.O with exceptions as justified by fire protection evaluations approved by the NRC. GGNS has filed with the NRC certain exceptions to the literal requirements of Appendix R as a result of the Appendix R reevaluation submitted to the NRC on May 7, 1985 in AECM-85/0139. Although final NRC approval of the GGNS Appendix R reevaluation has not been received, it is anticipated that the final approval will be granted and the SER approving those exceptions will be incorporated by reference into the proposed OL conditions.
- b. The addition of OLC 2.C.(41) will make the Operating License and the UFSAR the controlling documents for the GGNS Fire Protection Program. The Fire Protection Program as described in Revision 4 of the UFSAR would become the "Approved Fire Protection Program" and constitute the baseline program with regard to the proposed OLC 2.C.(41). As the NRC provided in GL 86-10, pursuant to the proposed license condition, GGNS could make changes to the Approved Fire Protection Program without NRC approval only if the changes: (1) do not otherwise involve a change to a license condition or a technical specification, (2) do not constitute an unreviewed safety question as defined by 10CFR50.59 where the accident evaluated is the postulated fire in the fire hazards analysis for the fire area affected by the change.

GGNS will utilize the 10CFR50.59 review process on such changes. As with other changes implemented under 10CFR50.59, GGNS will maintain, in auditable form, a current record of all such changes and will make such records available to NRC inspectors upon request. Changes to the approved program will be reported to the NRC in accordance with 10CFR50.59 and changes to the UFSAR will be submitted in accordance with 10CFR 50.71(e).

- c. Further, as provided by the NRC in GL 86-10, temporary changes to specific fire protection features which may be necessary to accomplish maintenance or modifications are acceptable provided interim compensatory measures are implemented where necessary.
- d. Section 2.F of the Operating License currently requires that violations of OLC 2.C.(23) be reported within twenty-four (24) hours in accordance with 10CFR50.72 with written follow-up in accordance with 10CFR50.73. The proposed renumbering of the fire protection license condition would delete an additional reporting requirement for fire protection other than that contained in NRC regulations, e.g., 10CFR50.72 and 73. After the relocation of fire protection system requirements from the TS, potentially reportable events will be evaluated relative to the criteria of 10CFR50.72, 10CFR50.73 and 10CFR21 on an individual basis. A reportability determination will be made based on this evaluation process. Fire protection deficiencies which meet the reporting criteria of 10CFR50.72 and 50.73 would still be reportable.

2. Incorporation of the Fire Protection Program into the UFSAR and Relocation of TS Requirements

- a. In GL 88-12, the NRC stated the licensee must incorporate into the FSAR the NRC approved Fire Protection Program. The FSAR update should include the incorporation of the Fire Protection Program, including the fire hazards analysis and major commitments that form the basis for the NRC approved Fire Protection Program. Further, GL 88-12 states that the NRC approved Fire Protection Program includes the fire protection and post-fire safe shutdown systems necessary to satisfy NRC guidelines and requirements; administrative and technical controls; the fire brigade and fire protection related technical staff; and other related plant features which have been described by the licensee in the FSAR, fire hazards analysis, responses to staff requests for additional information, comparisons of plant designs to applicable NRC fire protection guidelines and requirements, and descriptions of the methodology for assuring safe plant shutdown following a fire.
- b. GGNS has incorporated the Fire Protection Program into its UFSAR. The GGNS Fire Protection Program is described in the following sections of the UFSAR:

	<u>Fire Protection Program</u>
UFSAR	
7.4.1.5	Alternate Shutdown System
9.5.1	Fire Protection Systems
Appendix 9A	Fire Hazards Analysis, Revision 3
Appendix 9B	Fire Protection Program
Appendix 9C	Analysis of Safe Shutdown
Table 9.5-11	Comparison with NRC Branch Technical Position APCS 9.5-1, Appendix A
Table 9.5-12	Comparison with Appendix R to 10CFR Part 50
Figures 9.5-1 to 9.5-8e inclusive	Fire Protection Systems

- c. The GGNS fire protection requirements are currently implemented through the TS. The proposed amendment will relocate from the TS the Limiting Conditions for Operation, Applicability, Actions and Surveillance Requirements associated with fire detection systems, fire suppression systems, fire barriers, and the administrative controls that address fire brigade staffing into the UFSAR. In this manner, the TS requirements will become an integral part of the Fire Protection Program described in the UFSAR.
- d. Included in Attachment 5 of this letter are the proposed UFSAR pages showing how the TS requirements will be incorporated into UFSAR Revision 5. UFSAR Appendix 16A will contain the relocated TS. As directed by GL 88-12, GGNS will not use this UFSAR incorporation as an opportunity to make immediate changes in the approved Fire Protection Program.
- e. The TS changes described in Discussion Section B.4 above are considered administrative because the requirements are being transferred verbatim to Appendix 16A. Future changes to these requirements will be accomplished in accordance with the proposed OLC 2.C.(41).
- f. The existing administrative controls related to fire protection audits in TS 6.5.2.8.h, i and j are unchanged and retained in the TS.
- g. In GL 81-12 dated February 20, 1981, the NRC established that to the extent that post-fire safe shutdown systems were not covered by existing TS, licensees should propose TS for these system. GL 88-12 stated that any TS related to the capability for safe shutdown following a fire be retained in the TS and not relocated. GGNS TS 3.3.7.4 (Remote Shutdown System Instrumentation and Controls) requires that specific remote shutdown monitoring instrumentation and controls be OPERABLE. The operability of this system ensures that sufficient capability is available to permit shutdown and maintenance of HOT SHUTDOWN from locations outside of the control room in the event control room habitability is lost. Since TS 3.3.7.4 covers instrumentation and controls in addition to that required for safe shutdown in the event of a control room fire, no modification has been proposed to TS 3.3.7.4 or its associated Bases.

3. Summary

In summary, compliance with fire protection requirements will not be degraded by maintaining them in the UFSAR. The proposed changes provide additional flexibility for modifying requirements under the provisions of 10CFR50.59 and are consistent with the NRC and industry effort to simplify the TS. The proposed amendment is not intended to reduce the scope of fire protection features to be surveilled, to lessen the compensatory measures stipulated when fire protection features are degraded, or to eliminate the need to report significant fire protection deficiencies in accordance with the criteria stipulated in 10CFR50.72 and 10CFR50.73. The proposed changes to the License and TS are consistent with and conform to the guidance provided in GL 88-12 and GL 86-10.

D. NO SIGNIFICANT HAZARDS CONSIDERATIONS

Entergy Operations - GGNS is proposing with this amendment request a revision to the current operating license condition pertaining to fire protection. The revised operating license condition is in conformance with the NRC Staff's generic guidance (Generic Letter 88-12) and incorporates the approved Fire Protection Program into the operating license while providing a means for making minor revisions to the program without prior NRC approval. Provided certain requirements are met, Entergy Operations -GGNS would also be allowed to relocate the TS requirements pertaining to fire protection to the UFSAR.

The TS requirements for the following TSs will be relocated to the UFSAR:

TS 3/4.3.7.9	Fire Detection Instrumentation
TS 3/4.7.6.1	Fire Suppression Water System
TS 3/4.7.6.2	Spray/Sprinkler Systems
TS 3/4.7.6.3	CO ₂ Systems
TS 3/4.7.6.4	Halon Systems
TS 3/4.7.6.5	Fire Hose Stations
TS 3/4.7.6.6	Yard Fire Hydrants and Hydrant Hose Houses
TS 3/4.7.7	Fire Rated Assemblies
TS 6.2.2.e	Site Fire Brigade

The Commission has provided standards for determining whether a no significant hazards consideration exists as stated in 10CFR50.92(c). A proposed amendment to an operating license involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not: (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

Entergy Operations - GGNS has evaluated the no significant hazards considerations in this request for a license amendment. The analysis of the proposed amendment against the three standards in 10CFR50.92 is as follows:

1. No significant increase in the probability or consequences of an accident previously evaluated results from this change.
 - a. The proposed relocation of the TS requirements to the UFSAR is considered to be administrative in nature because no changes to existing requirements will be made. The Fire Protection Program as approved by the Commission will continue to be enforced through commitments contained in the UFSAR.
 - b. The proposed addition of a new requirement to the Administrative Controls section of the GGNS TS will require that the PSRC review changes to the approved Fire Protection Program allowed by OLC 2.C.(41). This review will be in lieu of formal NRC Staff review of those changes to the Fire Protection Program.

- c. The proposed OLC 2.C.(41) will assure that the Commission approved Fire Protection Program is maintained and that proposed changes are evaluated in accordance with the Code of Federal Regulations 10CFR50.59.
 - d. Therefore, the probability and consequences of previously analyzed accidents are not increased.
2. This change would not create the possibility of a new or different kind of accident from any previously analyzed.
- a. The proposed changes to the TS and OL do not affect the operation or function of any safety related equipment. The Fire Protection Program will continue to be maintained. No new modes of operation are being introduced. The Fire Protection Program will still have adequate control under the proposed operating license condition.
 - b. Therefore this change does not create the possibility of a new or different kind of accident from any previously evaluated.
3. This change would not involve a significant reduction in the margin of safety.
- a. The Fire Protection Program as described in the UFSAR will not be reduced as a result of the relocation of TS requirements or the proposed OL condition. For any future changes to the program, the requirements of the operating license condition and 10CFR50.59 will assure that the margin of safety is maintained.
 - b. Therefore, this change will not involve a significant reduction in the margin of safety.

Entergy Operations - GGNS has concluded that the proposed amendment meets the three standards in 10CFR50.92 and therefore, involves no significant hazards consideration.

PROPOSED
OPERATING LICENSE CONDITION
AND
TECHNICAL SPECIFICATION PAGES
FOR
GENERIC LETTER 88-12 IMPLEMENTATION