



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

September 2, 2009

Vice President, Operations
Entergy Operations, Inc.
Grand Gulf Nuclear Station
P.O. Box 756
Port Gibson, MS 39150

SUBJECT: GRAND GULF NUCLEAR STATION, UNIT 1 – EMERGENCY PLAN CHANGE,
TABLE 5-1 STAFFING (TAC NO. MD8669)

Dear Sir or Madam:

By letter dated April 28, 2008, as supplemented by letter dated April 3, 2009, Entergy Operations, Inc., requested prior U.S. Nuclear Regulatory Commission (NRC) approval for changes to the Emergency Plan for Grand Gulf Nuclear Station, Unit 1. Your request was made pursuant to Section 50.54(q) of Title 10 of the *Code of Federal Regulations* (10 CFR). The proposed change is to Emergency Plan Table 5-1, "Shift Staffing and Augmentation Capabilities."

The proposed change would allow the Repair and Corrective Action on-shift Mechanical Maintenance function to be performed by shift personnel assigned other duties, in order to allow additional Mechanical Maintenance resources to focus on plant support and demands for maintaining the reactor and supporting systems.

As discussed in the enclosed safety evaluation, the NRC staff concludes that incorporation of the proposed change would not decrease the effectiveness of the Emergency Plan, and the Emergency Plan would continue to meet the standards in 10 CFR 50.47(b) and the requirements of Appendix E to 10 CFR Part 50. Therefore, NRC approval of the proposed change is not required.

If you have any questions regarding this matter, please contact me at 301-415-2296 or via e-mail at fred.lyon@nrc.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "CF Lyon".

Carl F. Lyon, Project Manager
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-416

Enclosure: As stated

cc w/encl: Distribution via Listserv



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

SAFETY EVALUATION BY THE
OFFICE OF NUCLEAR SAFETY AND INCIDENT RESPONSE
RELATED TO PROPOSED EMERGENCY PLAN CHANGES
ENTERGY OPERATIONS, INC.
GRAND GULF NUCLEAR STATION, UNIT 1
DOCKET NO. 50-416

1.0 INTRODUCTION

By application dated April 28, 2008 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML081190326), as supplemented by letter dated April 3, 2009 (ADAMS Accession No. ML090930525), Entergy Operations, Inc. (Entergy), submitted proposed changes to the Grand Gulf Nuclear Station, Unit 1 (GGNS) Emergency Plan. The application was made in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.54(q) for U.S. Nuclear Regulatory Commission (NRC) review and approval.

The proposed Emergency Plan changes would allow the Repair and Corrective Action on-shift Electrical, Mechanical, and Instrument and Controls (I&C) functions to be performed by shift personnel assigned other duties. This proposed change would effectively remove three maintenance personnel from the on-shift complement and reassign them as 90-minute responders.

In its letter dated April 3, 2009, Entergy revised the original submittal and proposed Emergency Plan changes to allow the Repair and Corrective Action on-shift Mechanical Maintenance function to be performed by shift personnel assigned other duties and increase the 90-minute Mechanical Maintenance position Capability for Additions from one to two Mechanical Maintenance personnel. To offset the removal of the on-shift Mechanical Maintenance person to a 90-minute responder, Entergy proposed to increase the operations on-shift staffing from two to three Auxiliary Operators.

Additionally, Entergy proposed to remove the line separating Electrical Maintenance and I&C Maintenance in Table 5-1 of the GGNS Emergency Plan to allow the totals for these positions to be changed from individually one each to a combined two. This would allow having at least two technicians on shift, either two I&C, or two Electrical Maintenance, or a combination of one I&C and one Electrical Maintenance technicians.

Enclosure

2.0 REGULATORY EVALUATION

The regulatory requirements and guidance on which the NRC staff based its acceptance are as follows:

2.1 Regulatory Requirements

The regulations at 10 CFR 50.47(b)(1) require, in part, that: "...each principal response organization has staff to respond and to augment its initial response on a continuous basis."

The regulations at 10 CFR 50.47(b)(2) require, in part, that: "...adequate staffing to provide initial facility accident response in key functional areas is maintained at all times, timely augmentation of response capabilities is available...."

Section IV, Part A, "Organization," of Appendix E of 10 CFR Part 50 requires, in part, that: "The organization for coping with radiological emergencies shall be described, including definition of authorities, responsibilities, and duties of individuals assigned to the licensee's emergency organization...."

2.2 Regulatory Guidance

Revision 1 to NUREG-0654/FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," Section II.B.5, states, in part, that:

Each licensee shall specify the positions or title and major tasks to be performed by the persons to be assigned to the functional areas of emergency activity. For emergency situations, specific assignments shall be made for all shifts and for plant staff members, both onsite and away from the site. These assignments shall cover the emergency functions in Table B-1 entitled, "Minimum Staffing Requirements for Nuclear Power Plant Emergencies." The minimum on-shift staffing levels shall be as indicated in Table B-1. The licensee must be able to augment on-shift capabilities within a short period after declaration of an emergency. This capability shall be as indicated in Table B-1.

Regulatory Issue Summary 2005-02, "Clarifying the Process for Making Emergency Plan Changes," was issued by the NRC to clarify the meaning of "decrease in effectiveness," as stated in 10 CFR 50.54(q), to clarify the process for making changes to emergency plans, and to provide some examples of changes that are, and some that are not, considered to be a decrease in effectiveness.

3.0 TECHNICAL EVALUATION

The NRC staff has reviewed the licensee's regulatory and technical analyses in support of its proposed Emergency Plan changes, as described in Entergy's application dated April 28, 2008, as supplemented by letter dated April 3, 2009. The staff's technical evaluation is detailed below.

3.1 Designate Repair and Corrective Actions function currently performed by Mechanical Maintenance personnel to be performed by on-shift personnel and increase the 90-minute Mechanical Maintenance position Capability for Additions from one to two.

The licensee states that the on-shift Mechanical Maintenance personnel perform the functions of Rescue, or Repair and Corrective actions for the first 90 minutes of an event. These duties are further described in the licensee's Administrative Procedure, Emergency Response Organization 01-S-10-6. The Mechanical Maintenance position also performs Repair and Corrective Actions by implementing attachments specified in Emergency Procedure 05-S-01-EP-1, "Emergency/Severe Accident Procedure Support Document." These attachments can also be performed by Operations personnel specifically trained to perform these functions. GLP-OPS-EP07, "Operator Training – ONEP/EP Attachments," provides the training necessary to execute certain steps in the Emergency Plan or the Severe Accident Plan. GQC-NLO-AON01, "Auxiliary Operator – Nuclear (ANO) Qualification Card," demonstrates the abilities to perform operations and tasks as appropriate to complete the Emergency Procedure attachments. The Repair and Corrective Action functions that will be performed during the initial stages of an emergency will be limited to only those specifically necessary to implement Emergency Operating Procedures. These tasks will be performed by task-trained non-licensed or licensed operators. These Repair and Corrective Action Functions, as defined in Emergency Procedure 05-S-01-EP-1, include items such as:

- Electrical relay manipulations
- Installation of electrical jumpers
- Tubing connections
- Valve and switch manipulations
- Breaker manipulation

The licensee further states that the rescue function assigned to the Mechanical Maintenance personnel can be performed by the on-shift Operations firefighting personnel. All on-shift firefighters are rescue-trained as part of the Fire Brigade training. The addition of the rescue function to Operations will have no impact on Operations personnel since the rescue function is an integral function of designated fire fighting personnel. The rescue function is not a full-time function and would only be performed on an as-needed basis.

Additionally, the licensee proposes that to ensure the Mechanical Maintenance functions are performed, Operations on-shift staffing will be increased from two to three Auxiliary Operators. This commitment ensures adequate staffing at all times, by having shift personnel assigned to other functions trained to perform the Mechanical Maintenance function of Rescue, or Repair and Corrective actions.

Based on the above, the NRC staff concludes that the compensation described above to designate the Repair and Corrective Actions function performed by Mechanical Maintenance personnel to on-shift personnel assigned duties and to increase the 90-minute Mechanical Maintenance position Capabilities for Addition from one to two personnel is acceptable. Therefore, the proposed changes to the on-shift and 90-minute augmented Mechanical Maintenance staffing continue to meet the intent of the NRC-approved Emergency Plan, do not decrease the effectiveness of the plan, and continue to meet the standards of 10 CFR 50.47(b) and the requirements of Appendix E to 10 CFR Part 50.

3.2 Remove the line separating Electrical Maintenance and I&C Maintenance positions on the Table 5-1 of the GGNS Emergency Plan and increase the I&C Maintenance Capability for Additions from zero to one.

The licensee states that the removal of the line separating the Electrical Maintenance and I&C Maintenance positions will change the totals for these positions from individually one each to a combined two. This would provide for having at least two technicians, either two I&C or two Electrical Maintenance or a combination of one I&C and one Electrical Maintenance personnel on-shift.

This proposed change to the GGNS Emergency Plan Table 5-1 is consistent with NUREG-0654 Table B-1. The licensee concluded that the positions of I&C Maintenance or Electrical Maintenance are interchangeable and each position can perform the functions listed in Emergency Procedure 05-S-01-EP-1. These Repair and Corrective Action functions, as defined in Emergency Procedure 05-S-01-EP-1, include items such as:

- Electrical relay manipulations
- Installation of electrical jumpers
- Tubing connections
- Valve and switch manipulations
- Breaker manipulation

The licensee further provides that the Electrical Maintenance personnel perform the first aid function on shift, but the proposed Emergency Plan change could result in no Electrical Maintenance being on shift if two I&C Technicians were on shift. Currently, the Health Physicist (HP) Technicians are responsible for all first aid responsibilities during non-emergency normal working hours and, if an event is declared, one on-shift HP person responds to the Control Room. If first aid was needed during an emergency, the HP or Operations personnel would be dispatched and provide first aid on an as-needed basis only. Therefore, the first aid function will be performed by the on-shift HP or selected Operations personnel. All on-shift HP personnel and selected Operations personnel are currently either qualified Emergency Medical Technicians or qualified to perform first aid. Assignment of the first aid function to HP or selected Operations personnel is acceptable, since these personnel already currently respond during an emergency.

Based on the above, the NRC staff concludes that the compensation of removing the line separating Electrical Maintenance and I&C Maintenance positions on the Table 5-1 of the GGNS Emergency Plan and increasing the I&C Maintenance Capability for Additions within 90 minutes from zero to one, is acceptable. Therefore, the proposed changes to the on-shift and 90-minute augmented I&C Maintenance staffing continue to meet the intent of the NRC-approved Emergency Plan, do not decrease the effectiveness of the plan, and continue to meet the standards of 10 CFR 50.47(b) and the requirements of Appendix E to 10 CFR Part 50.

4.0 CONCLUSION

The NRC staff concludes that the proposed change to the GGNS Emergency Plan would not decrease the effectiveness of the plan, and the Emergency Plan continues to meet the

standards in 10 CFR 50.47(b) and the requirements of Appendix E to 10 CFR Part 50. Therefore, NRC approval of the proposed change is not required.

5.0 REFERENCES

1. Letter from Michael J. Larson, Entergy Operations, Inc., to U.S. Nuclear Regulatory Commission, "Proposed Emergency Plan Change – Table 5-1 Staffing Change," dated April 28, 2008 (ADAMS Accession No. ML081190326).
2. Letter from Christina L. Perino, Entergy Operations, Inc., to U.S. Nuclear Regulatory Commission, "Response to Request for Additional Information Related to Proposed Emergency Plan Change and Emergency Plan Revision (TAC NO. 8669)," dated April 3, 2009 (ADAMS Accession No. ML090930525).
3. U.S. Nuclear Regulatory Commission/Federal Emergency Management Agency, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," NUREG-0654/FEMA REP-1, Revision 1, Supplement 1, November 1980 (ADAMS Accession No. ML040420012).
4. U.S. Nuclear Regulatory Commission Regulatory Issue Summary 2005-02, "Clarifying the Process for Making Emergency Plan Changes," dated February 14, 2005 (ADAMS Accession No. ML042580404).

Principal Contributor: M. Norris

Date: September 2, 2009

September 2, 2009

Vice President, Operations
Entergy Operations, Inc.
Grand Gulf Nuclear Station
P.O. Box 756
Port Gibson, MS 39150

SUBJECT: GRAND GULF NUCLEAR STATION, UNIT 1 – EMERGENCY PLAN CHANGE,
TABLE 5-1 STAFFING (TAC NO. MD8669)

Dear Sir or Madam:

By letter dated April 28, 2008, as supplemented by letter dated April 3, 2009, Entergy Operations, Inc., requested prior U.S. Nuclear Regulatory Commission (NRC) approval for changes to the Emergency Plan for Grand Gulf Nuclear Station, Unit 1. Your request was made pursuant to Section 50.54(q) of Title 10 of the *Code of Federal Regulations* (10 CFR). The proposed change is to Emergency Plan Table 5-1, "Shift Staffing and Augmentation Capabilities."

The proposed change would allow the Repair and Corrective Action on-shift Mechanical Maintenance function to be performed by shift personnel assigned other duties, in order to allow additional Mechanical Maintenance resources to focus on plant support and demands for maintaining the reactor and supporting systems.

As discussed in the enclosed safety evaluation, the NRC staff concludes that incorporation of the proposed change would not decrease the effectiveness of the Emergency Plan, and the Emergency Plan would continue to meet the standards in 10 CFR 50.47(b) and the requirements of Appendix E to 10 CFR Part 50. Therefore, NRC approval of the proposed change is not required.

If you have any questions regarding this matter, please contact me at 301-415-2296 or via e-mail at fred.lyon@nrc.gov.

Sincerely,

/RA/

Carl F. Lyon, Project Manager
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-416
Enclosure: As stated
cc w/encl: Distribution via Listserv

DISTRIBUTION:

PUBLIC	RidsNrrPMGrandGulf Resource	RidsNrrDorl Resource
LPLIV r/f	RidsOgcRp Resource	RidsNrrOd Resource
RidsAcrsAcnw_MailCTR Resource	RidsRgn4MailCenter Resource	DJohnson, NSIR
RidsNrrDorlLpl4 Resource	RidsNrrPMREnnis Resource	MNorris, NSIR
RidsNrrLAJBurkhardt Resource	RidsNrrAdro Resource	KWilliams, NSIR

ADAMS Accession No.: ML091110035

*memo dated **previously concurred

OFFICE	NRR/LPL4/PM	NRR/LPL4/LA	NSIR/ONRLB/BC	NRR/LPL4/BC	NRR/LPL4/PM
NAME	FLyon	JBurkhardt**	KWilliams*	MMarkley	FLyon
DATE	9/2/09	4/21/09	4/20/09	9/2/09	9/2/09

OFFICIAL AGENCY RECORD