

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

September 29, 2000



Mr. William A. Eaton
Vice President, Operations GGNS
Entergy Operations, Inc.
P. O. Box 756
Port Gibson, MS 39150

SUBJECT: GRAND GULF NUCLEAR STATION, UNIT 1, PROPOSED EMERGENCY PLAN
TABLE 5-1 CHANGES (TAC NO. MA1130)

Dear Mr. Eaton:

In your application of March 6, 1998 (GNRO-98/00028), in accordance with 10 CFR 50.54(q), you proposed changes to the Emergency Plan (EP) for the Grand Gulf Nuclear Station, Unit 1 (GGNS) for Nuclear Regulatory Commission (NRC) staff review and approval prior to their implementation. The key changes in your request, as supplemented by the letters listed below, are the following: (1) extend the time to augment the on-shift emergency staff in EP Table 5-1 to as soon as possible (without delay) but no later than 75 or 90 minutes (45 minutes if augmenting with onsite personnel), (2) activate the emergency response facilities (ERFs) at the Alert emergency classification, (3) separate ERF augmentation from the ERFs becoming operational, (4) augment the ERFs as soon as possible (without delay) in 75 minutes (45 minutes if augmenting with onsite personnel), (5) extend the time to make the ERFs operational to as soon as possible (without delay) but not later than 90 minutes (45 minutes if augmenting with onsite personnel), and (6) allow selected emergency tasks in EP Table 5-1 to be assigned to emergency response organization (ERO) personnel identified in the table having other assigned duties. The operational time for the ERFs is less than your original proposal of 120 minutes. Most of the EP changes are to EP Table 5-1. The proposed changes include increasing the minimum on-shift staffing from 10 to 15 positions. Enclosure 1 is the approved EP Table 5-1.

As stated in your application, the EP changes (1) were discussed with the staff in the preliminary meeting of January 23, 1998, before the application was submitted, and (2) included the earlier EP Change 28-001-95 that was then (in 1998) in an NRC appeal process. The appeal challenged the staff's determination that EP Change 28-001-95, which had been implemented without staff review, decreased the effectiveness of the GGNS EP and as such, required NRC approval prior to implementation. The summary of the January 23, 1998, meeting was issued on March 5, 1998, and the staff's letter closing out the appeal was issued on November 16, 1998, in which the appeal board concluded that EP Change 28-001-95 decreased the effectiveness of the EP and required staff review and approval before implementation.

To provide additional information needed for the staff review of your proposed EP changes, you submitted four letters dated January 20, 1999 (GNRO-99/00007), July 15, 1999 (GNRO-99/00058), April 6, 2000 (GNRO-2000/00021), and August 29, 2000 (GNRO-2000/00061). These letters provided additional information to justify, modify, and add additional changes to the originally proposed EP changes. There was also the meeting held on November 2, 1999, at the GGNS site to discuss the EP changes, and the meeting summary was issued on

December 15, 1999. Furthermore, you referenced (1) the letters of December 17, 1997 (GNRO-97/00123), and September 5, 1997 (GNRO-97/00086), which provided information on EP Table 5-1 for the EP change appeal, in your letter of March 6, 1998, and (2) the letter of July 21, 1995 (GNRO-95/00083) on population density around the plant, in your letter of April 6, 2000. In the conference call of September 27, 2000, your staff agreed to revise footnote (g) and add a footnote (h) to EP Table 5-1.

Based on the information provided in these documents, as discussed in the enclosed Safety Evaluation (Enclosure 2), we have concluded that the proposed EP changes are acceptable in that the changes meet the planning standards of 10 CFR 50.47(b) and the requirements of Appendix E of 10 CFR Part 50. In your letter of April 6, 2000, you stated that the EP changes would be implemented within 120 days of the receipt of the staff's letter approving the changes. Because the EP changes are extensive, the implementation period is acceptable. You are requested to inform the staff by letter when these changes are implemented. If you have any questions concerning this letter and Safety Evaluation, please contact me at 301-415-2623.

Sincerely,

/RA/

S. Patrick Sekerak, Project Manager, Section 1
Project Directorate IV & Decommissioning
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-416

Enclosure: 1. Approved EP Table 5-1
2. Safety Evaluation

cc w/encl: See next page

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May 1999

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TABLE 5-1

SHIFT STAFFING AND AUGMENTATION CAPABILITIES

Major Functional Area	Emergency Tasks	Position Title Or Expertise	Location	On Shift (e)	Capability for Additions
					90 Min(h)
Plant Operations and Assessment of Operational Aspects	Emergency Direction and Control(f)	Shift Superintendent (SRO)	CR	1	--
		On-Call Manager	CR/TSC	--	1(g)
		Shift Supervisor (SRO)	CR	1	--
		Nuclear Operator A (RO)	CR	2	--
		Auxiliary Operator	CR	2	-
	Firefighting, firefighting communications	Shift Personnel (Operations)	CR	5(a)	Provided by Claiborne County / Port Gibson
	Technical Support and Core/Thermal Hydraulics(d)	Shift Technical Advisor	CR	1(c)	--
Core/Thermal Hydraulics	TSC Coordinator/Operations Coordinator/SRO/STA	TSC/CR	--	1(g)	
Notification/Communication	Offsite Notifications (State, Local, Federal) and maintain communications, Notification of plant On-call emergency personnel	Communicator	CR/TSC/EOF	2	2(g)
Radiological Accident Assessment and Support of Operational Accident Assessment	EOF Direction and Control	Senior Manager	EOF	--	1
	Offsite Dose Assessment	Radiological Assessment	CR/TSC/EOF	1(a)	1(g)
	Chemistry/Radio-Chemistry	Chemist	OSC	1	1
Plant System Engineering	Technical Support	Electrical	TSC/OSC	--	1
		Mechanical	TSC/OSC	--	1
Repair and Corrective Actions		Mechanical Maintenance	OSC	1	1
		Radwaste Operator	OSC	1(a)	1
		Electrical Maintenance	OSC	1	2
		I&C Maintenance	OSC	1	--

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TABLE 5-1

SHIFT STAFFING AND AUGMENTATION CAPABILITIES

Major Functional Area	Emergency Tasks	Position Title or Expertise	Location	On Shift (e)	Capability for Additions
					90 Min(h)
Radiation Protection	-Access Control -HP coverage for repair, corrective actions, search and rescue/first-aid, and firefighting -Personnel monitoring -Dosimetry -Surveys (offsite, onsite, and in-plant surveys on as-needed basis only)	Health Physicist	EOF/OSC	2	11(b)
Rescue / First aid		Rescue and First Aid	OSC	2(a)	Provided by Claiborne County / Port Gibson
Security	Security, personnel accountability	Security Personnel			(See Security Plan)

Notes:

- (a) May be provided by Shift Personnel assigned other duties.
- (b) Must be trained for the Emergency Task being performed.
- (c) STA staffing in accordance with GGNS Technical Specification.
- (d) Core/Thermal Hydraulics is part of normal STA duties as listed in the Updated Final Safety Analysis Report and Technical Specifications.
- (e) These ERO positions may be vacant for not more than 2 hours, in order to provide for unexpected absences, provided action is taken to fill the required position. This allowance is not applicable during declared emergencies.
- (f) Overall direction of facility response is assumed from the Shift Superintendent(SRO) by the On-Call Manager. Upon relief, the Shift Superintendent(SRO) resumes plant operational duties.
- (g) These personnel will report and augment shift personnel as soon as possible without delay but no later than 75 minutes.
- (h) If personnel are onsite they will report and augment the onshift personnel as soon as possible without delay, but no later than 45 minutes.



UNITED STATES
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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO EMERGENCY PREPAREDNESS PLAN CHANGES

ENTERGY OPERATIONS, INC., ET AL.

GRAND GULF NUCLEAR STATION, UNIT 1

DOCKET NO. 50-416

1.0 INTRODUCTION

In the application letter of March 6, 1998, in accordance with 10 CFR 50.54(q), Entergy Operations Inc. (the licensee) requested changes to the Emergency Plan (EP) for the Grand Gulf Nuclear Station, Unit 1 (GGNS). The key changes in the request, as supplemented by the letters listed below, are the following: (1) extend the time to augment the on-shift emergency staff in EP Table 5-1 to as soon as possible (without delay) but no later than 75 or 90 minutes (45 minutes if augmenting with onsite personnel), (2) activate the emergency response facilities (ERFs) at the Alert emergency classification, (3) separate ERF augmentation from the ERFs becoming operational, (4) augment the ERFs as soon as possible (without delay) in 75 minutes (45 minutes if augmenting with onsite personnel), (5) extend the time to make the ERFs operational to as soon as possible (without delay) but not later than 90 minutes (45 minutes if augmenting with onsite personnel), and (6) allow selected emergency tasks in EP Table 5-1 to be assigned to emergency response organization (ERO) personnel identified in the table having other assigned duties. Most of the proposed changes are to EP Table 5-1.

In the requested EP changes, the licensee proposes to increase the number of on-shift personnel for emergencies in EP Table 5-1 from 10 to 15 individuals, and require on-shift personnel to have the capability to perform additional emergency tasks. The personnel increases would be in the emergency tasks of communications, mechanical maintenance, electrical maintenance, instrumentation and control maintenance, and health physics.

As the licensee stated in its application, the EP changes (1) were discussed with the staff in the preliminary meeting of January 23, 1998, before the application was submitted, and (2) included the earlier EP Change 28-001-95 that was then (in 1998) in an NRC appeal process. The licensee's appeal challenged the staff's determination as documented in a Safety Evaluation Report transmitted to the licensee in a letter dated April 24, 1997, that EP Change 28-001-95, which had been implemented without staff approval, decreased the effectiveness of the GGNS EP and, as such, required NRC approval prior to implementation. The issue in that appeal was whether the change met 10 CFR 50.54(q) (i.e., the change did not decrease the effectiveness of the EP) and could be implemented without staff approval, or was the change a decrease in the effectiveness of the EP and, therefore, required prior staff approval before implementation. The summary of the January 23, 1998, meeting was issued on March 5, 1998, and the staff's letter closing out the appeal was issued on November 16, 1998, in which the staff concluded that EP Change 28-001-95 decreased the effectiveness of the EP and, therefore, required staff

review and approval before implementation. The staff's determination was documented in a Safety Evaluation (SE), issued to the licensee by letter dated April 24, 1997, as well as in a letter dated November 16, 1998, denying the licensee's appeal.

In addition, the licensee submitted four letters dated January 20 and July 15, 1999, and April 6 and August 29, 2000, that provided additional information to justify, modify, and add additional changes to the proposed EP changes. There was also the meeting held on November 2, 1999, at the GGNS site to discuss the EP changes, and the meeting summary was issued on December 15, 1999. Also, in its letter of April 6, 2000, the licensee referenced (1) its letters of December 17 and September 5, 1997, which provided information on EP Table 5-1 for the EP change appeal, in its letter of March 6, 1998, and (2) its letter of July 21, 1995, on population density around the plant. In the conference call of September 27, 2000, the licensee agreed to revise footnote (g) and add a footnote (h) to EP Table 5-1.

2.0 REGULATIONS AND GUIDANCE

The applicable regulations and guidance on the requirements that licensees must meet for EPs at their plants are the following:

Regulations:

- 10 CFR 50.47(b)(1) states, in part: "... the emergency responsibilities of the various supporting organizations have been specifically established, and each principal response organization has staff to respond and to augment its initial response on a continuous basis."
- 10 CFR 50.47(b)(2) states, in part: "...adequate staffing to provide initial facility accident response in key functional areas is maintained at all time; timely augmentation of response capabilities is available; and ..."
- 10 CFR 50.47(b)(8), states: "Adequate emergency facilities and equipment to support the emergency response are provided and maintained."

Guidance:

- Regulatory Guide 1.101, "Emergency Planning and Preparedness for Nuclear Power Reactors," Revision 2, states, in part:

"The criteria and recommendations contained in Revision 1 of NUREG-0654 /FEMA-REP-1 are considered by the NRC staff to be acceptable methods for complying with the standards in 10 CFR 50.47 that must be met in on-site and off-site emergency response plans."
- NUREG-0654/FEMA-REP-1, Rev 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," states in part:

H. Emergency Facilities and Equipment

"1. Each licensee shall establish a Technical Support Center ... in accordance with NUREG-0696, Revision 1."

"2. Each licensee shall establish an Emergency Operations Facility ... in accordance with NUREG-0696, Revision 1."

- NUREG-0696, Revision 1, "Functional Criteria for Emergency Response Facilities," states, in part:

2.3. "Upon activation of the TSC, ... achieve full functional operation within 30 minutes."

4.3. "Upon EOF activation, ... achieve full functional operation within 1 hour."

- NUREG-0737, Supplement 1, "Clarification of TMI [Three Mile Island] Action Plan Requirements" states, in part:

8.2.1.j. TSC - "... be fully operational within approximately 1 hour after activation."

8.4.1.j. EOF - "Staffed using Table 2 (previous guidance approved by the Commission) as a goal. Reasonable exceptions to goals for the number of additional staff personnel and response times for their arrival should be justified and will be considered by NRC staff."

In the matter of a licensee making changes to a EP of a nuclear power plant, 10 CFR 50.54(q) states that licensees may change their EPs without Commission approval only if these changes to these plans do not decrease the effectiveness of the plans and the plans, as changed, continue to meet planning standards of Paragraph 50.47 and the requirements of Appendix E to 10 CFR Part 50. The licensee stated in its application of March 6, 1998, that some of the EP changes identified in the letter met 10 CFR 50.54(q) and could be implemented without Commission review and approval; however, these changes were being included with the other changes that do not meet 10 CFR 50.54(q) because the former changes are considered necessary to support the latter changes that do need Commission approval. Therefore, the entirety of the EP changes are being presented by the licensee.

3.0 BACKGROUND

Most of the licensee's proposed EP changes are to EP Table 5-1 which provides the minimum on-shift staffing for emergencies and augmentation of the minimum on-shift staffing for emergencies. The ERO is a larger organization than the individuals identified in EP Table 5-1. The description of the ERO is given in EP Figures 5-3 and 5-4. EP Table 5-1 only identifies the minimum ERO on-shift and augmentation staffing required by the EP. The licensee has ERO staffing above that required by EP Table 5-1.

EP Table 5-1 is divided into major functional areas (e.g., Notification and Communication). For each area, emergency tasks are listed along with the position title or expertise for the personnel

performing that emergency task. The location for the personnel and the required on-shift and augmentation capability is specified. By the current table, 30-minute and 60-minute responders are required. The licensee is proposing changes to all parts of the table including, the major functional areas; emergency tasks; position titles or expertise; extending the 30 and 60 minute capability to augment the on-shift staff; and staffing levels.

In the letter dated March 6, 1998, the licensee grouped the proposed changes into the following categories, and identified each EP change with a change number that included the change category (i.e., Change L8 for the 8th L change):

"L" (Less Restrictive Requirement) - Changes which have been determined to be a decrease in effectiveness of the plan as outlined in 10 CFR 50.54(q) and, therefore, require NRC review and approval.

"M" (More Restrictive Requirements) - Changes which are more restrictive than existing Emergency Plan requirements and result in additional requirements beyond those currently specified in the Emergency Plan.

"A" (Administrative Changes) - Changes which are administrative in nature or involve the reorganization, reformatting, or rewording of requirements without affecting the technical content of the Emergency Plan.

"R" (Relocated Requirements) - Changes which are relocated within the body of the Emergency Plan. No change is being made to the technical content of the words and the existing requirement is preserved.

The "L" or less restrictive changes do not meet the criterion in 10 CFR 50.54(q) that changes to the EP that do not decrease the effectiveness of the plan may be implemented without prior Commission approval. The remaining changes (i.e., the "M", "A", and "R") appear, by the definition above of the type of change, not to reduce the effectiveness of the EP and the licensee could have concluded that these remaining changes could have been implemented without Commission approval because they meet 10 CFR 50.54(q). However, the licensee decided to propose the entirety of the EP changes so that the staff would see all the changes when it reviewed the "L" changes. Therefore, none of the changes were implemented before Commission review and approval.

Because some "M" and "A" changes are associated with the proposed less restrictive changes that extend the augmentation/operational times and increase the number of personnel on-shift in EP Table 5-1 that can be assigned other duties (i.e., sharing emergency tasks), the staff concluded that these "M" and "A" changes could only be implemented if the less restrictive changes were shown to be acceptable. For the "M" and "A" changes that met the 50.54(q) criterion, the staff acknowledged that approval was not required and the licensee could have implemented the change pursuant to 10 CFR 50.54(q). All of the "R" changes met the criterion in 10 CFR 50.54(q).

The licensee's request included five attachments. Attachment 1 included a mark-up of the latest EP illustrating the proposed changes. Attachment 2 provided the licensee's justification for each change identified in Attachment 1 and included change criterion codes similar to those used by the licensee and the NRC staff for the review of Improved Technical Specifications.

Attachment 3 included a "clean" copy of proposed EP Table 5-1 and reflected the Attachment 1 changes. Attachment 4 described actual implementation plans if the proposed Emergency Plan changes are approved. Attachment 5 included a current copy of EP Table 5-1.

The licensee's proposed EP changes are listed in the attached table and addressed in the next section. Each change is identified with a change number that includes the above change category. Most of the changes are to EP Table 5-1 for staffing augmentation of the on-shift staff for emergencies. For the proposed EP changes that were revised during the staff's review of the March 6, 1998, letter, the final revisions will be addressed in the Safety Evaluation. Revised EP changes were submitted in the licensee's letters dated January 20 and July 15, 1999, and April 6 and August 29, 2000. There are two different EP changes labeled Change A18, one was submitted in the March 6, 1998, letter and a different one was submitted in the July 15, 1999, letter.

4.0 EVALUATION

The licensee requested NRC approval for all the changes in the four categories L, M, A and R, identified in its March 6, 1998, letter and defined in the previous section. This evaluation follows the licensee's format for the proposed EP changes and identifies each change by the licensee's change number listed in the attached table. Because the proposed EP changes have been modified during the staff's review of the proposed changes (e.g., the proposed ERF augmentation and operational times have been reduced and the footnote designations for EP Table 5-1 have been altered), the final descriptions of the EP changes are provided below. In the evaluations below, the justification section describes the licensee's justification for the proposed change and the conclusion section describes the staff's evaluation of the change and its conclusion on the change.

The staff reviewed all of the proposed changes identified in the "L" category and in the remaining categories, when applicable, against:

(1) NUREG-0654/FEMA-REP-1, Rev.1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," dated October 1980, which is endorsed by Regulatory Guide 1.101, "Emergency Planning and Preparedness for Nuclear Power Reactors," Rev. 2, dated October 1981, as an acceptable method by which licensees may develop site specific emergency plans; and

(2) Suppl. 1 to NUREG-0737, "Clarification of TMI Action Plan Requirements," dated December 1982, which provided clarification of guidance regarding acceptable means for meeting some of the basic emergency preparedness requirements. Suppl.1 to NUREG-0737 was issued to all reactor licensees by Generic Letter No. 82-33, dated December 17, 1982.

4.1 Category L Changes

- L1 - (a) Combine offsite, onsite and in-plant radiological surveys as "Surveys (offsite, onsite and in-plant surveys on as-needed basis only)" and relocate as tasks under renamed major functional area of "Radiation Protection" in EP Table 5-1; (b) add two extra types of surveys that on-shift health physicists will be capable of performing: onsite and offsite

surveys; and (c) add to this emergency task the words stating that surveys will be performed on an as-needed basis.

JUSTIFICATION: (a). This portion of Change L1 involves combining non-collateral duties under a new major functional area titled "Radiation Protection." Table B-1, NUREG-0654 indicates that "Offsite Surveys, Onsite (outside) Surveys, In-plant Surveys and Chemistry/Radiochemistry" are major tasks, i.e. non-collateral duties, under the major functional area of "Radiation Accident Assessment and Support of Operational Accident Assessment." Although the licensee proposes to combine these non-collateral duties/tasks initially, the licensee would continue to list these tasks as non-collateral duties/tasks under "Emergency Task, Survey" in EP Table 5-1 indicating that the licensee would have the capability to perform these tasks in a non-collateral manner when augmented as soon as possible (without delay) but no later than 75 or 90 minutes. The individuals identified in the proposed EP Table 5-1 to do these tasks are required to be qualified to perform the tasks. See Changes L1(b), L1(c), L3, L4, L6, L8.

CONCLUSION: The proposed extension of time for augmenting the on-shift staff for emergencies is addressed in Section 4.3 and the sharing of non-collateral emergency tasks/positions, initially, is addressed in Section 4.5. In these sections, the staff concluded that both are acceptable. Based on this, the staff concludes that proposed Change L1 (a) is acceptable.

JUSTIFICATION: (b). This portion of Change L1 involves indicating that the two on-shift health physicists (HPs) will be capable of performing: offsite and onsite surveys (which are non-collateral duties). However, in its justification, the licensee indicated that the two on-shift HPs will be expected to perform onsite surveys for the first 90 minutes of an event and that offsite surveys are not expected to be performed by onsite HPs in the first 90 minutes of an event. To support this capability the licensee indicated that the 30-minute onsite (outside of plant) radiological survey position and dedicated responder would be placed on shift (See Change M4).

CONCLUSION: It is acceptable to have personnel cross-trained in order to have the capability of performing offsite and onsite surveys and to move the 30-minute dedicated onsite survey HP responder on shift for emergencies to increase the number of dedicated HPs on-shift for emergencies. EP Table 5-1 requires that personnel assigned a task must be capable of performing the task. However, assigning additional tasks to a person in a dedicated non-collateral position is not consistent with current staff guidance. Table B-1 of NUREG-0654 indicates that licensees should have the capability to add, within 30 minutes, four additional HPs -- two dedicated to perform offsite surveys, one dedicated to perform onsite (outside) surveys, and one dedicated to perform in-plant surveys. (See Changes L4, L6, and L8 regarding the deletion of certain 30-minute, and increasing the number of certain 90-minute HP responders.) However, it is the staff's understanding that this change relates only to these positions having the capability to perform these tasks.

If this change was simply adding two extra types of surveys that on-shift HPs will be capable of performing, onsite and offsite surveys, NRC approval would not be required because the licensee would be able to implement the change pursuant to 10 CFR

50.54(q). However, these responders will also be expected to perform these tasks and other non-collateral duties at the same time until the on-shift emergency staff is augmented. The issue of sharing non-collateral duties is addressed in Section 4.5 of this Safety Evaluation and accepted by the staff. Based on this acceptance, the staff concludes that proposed Change L1(b) is acceptable.

JUSTIFICATION: (c). In this portion of Change L1, the licensee proposed to add the words “..on an as-needed basis only” under “Surveys (offsite, onsite, and in-plant)” for the renamed major functional area of radiation protection of EP Table 5-1. The licensee stated that adding the statement that the surveys are only performed when needed is to clarify that these tasks are not performed on a continuous basis. The licensee stated that this would not be an effective use of the HP on-shift resources during an emergency. For normal operations, performance of surveys when they are needed satisfies 10 CFR 20.1501 and 20.1101, that radiological surveys should be reasonable and only cause occupational exposure that is as low as is reasonably achievable (ALARA). Extending the time for the capability to augment the on-shift staff for emergencies is discussed in Section 4.3 of the Safety Evaluation.

CONCLUSION: The staff concludes that the offsite, onsite, and in-plant surveys should only be performed as they are needed during an emergency to effectively use the HP on-shift resources available. However, restricting the performance of these surveys to when they are needed shall not be construed to mean that the licensee would not have the capability to augment the on-shift staff with personnel to perform the dedicated non-collateral tasks as outlined in EP Table 5-1 for any emergency. The licensee would request additional personnel when needed in accordance with their capability to augment the emergency on-shift staff. The capability to perform these surveys is a required function in EP Table 5-1. Based on this, the staff concludes that proposed Change L1(c) is acceptable.

- L2 - Add a new footnote (e) to EP Table 5-1 to allow certain positions to be vacant for not more than 2 hours due to unexpected absences. This allowance is not applicable during a declared emergency, per the new footnote.

JUSTIFICATION: The licensee justifications for this change are: (1) the EP does not address on-shift ERO members being absent due to an unexpected condition and (2) Section 5.2.2.c of the Technical Specification (TSs) for Grand Gulf allows the licensee to be below minimum staffing as long as immediate actions are taken to fill the position within two hours.

CONCLUSION: Staffing requirements for normal operations are defined in 10 CFR 50.54(m)(2)(i) and the TSs. Staffing requirements for emergencies are in 10 CFR 50.47(b)(1) and (2) and Section IV.A of Appendix E to 10 CFR Part 50. Guidance regarding minimum on-shift staffing for emergencies and the licensee’s capability to augment it is provided in Table B-1 of NUREG-0654/Table 2, Supplement 1 of NUREG-0737. While it is understood that for both normal and emergency operations personnel may be absent due to unexpected conditions, the licensee is to have the capability for addition of staff in emergencies as outlined in Table B-1 of NUREG-0654. Planning standard 10 CFR 50.47(b)(1) requires the licensee to have staff to respond and to

augment its initial response on a continuous basis. In the letter dated July 15, 1999, the licensee modified its proposed change and added the following sentence to the footnote: "...This allowance is not applicable during a declared emergency." With the addition of this sentence, the two-hour vacancy period allowed by the footnote for normal operating conditions would not apply to meeting the minimum on-shift staffing requirements and capability during declared emergencies. Based on this and the fact that the proposed change would not apply during an emergency, the staff concludes that the proposed Change L2 is acceptable. The licensee should refer to NRC Information Notice 91-77 for additional guidance applicable to this change.

- L3 Change the augmentation times of 30 and 60 minutes, in EP Table 5-1 and EP Section 7.3 for the ERFs, to (1) extend the time to augment the on-shift emergency staff in EP Table 5-1 to as soon as possible (without delay) but no later than 75 or 90 minutes (45 minutes if augmenting with onsite personnel), (2) augment the ERFs as soon as possible (without delay) in 75 minutes (45 minutes if augmenting with onsite personnel), and (3) extend the time to make the ERFs operational to as soon as possible (without delay) but not later than 90 minutes (45 minutes if augmenting with onsite personnel). A footnote (h) stating this is added to EP Table 5-1.

JUSTIFICATION: The licensee indicates that by maintaining adequate numbers of qualified personnel on-shift and available to perform emergency duties in the unlikely event of an accident, responder times could be extended. The licensee states that the on-shift staff would be increased from 10 to 15 dedicated persons and positions, which is 50% greater than the guidance of Table B-1 in NUREG-0654. The STA position is included in this number. However, this position is conditioned with EP Table 5-1 footnote (c) which indicates the STA is on-shift in accordance with Section 5.2.2.g or reactor modes of operation that are defined in the TSs. Although Table B-1 does not link staffing for emergencies to modes, footnote (c) to the STA position is acceptable and is counted as a dedicated position.

The licensee indicated the increase in EP Table 5-1 on-shift staffing is accomplished by moving selected dedicated 30 minute non-collateral task positions and responders on-shift (see Changes M1-M6) and consolidating some 30-minute non-collateral positions on shift (see Change L1(b)). The remaining 30-minute non-collateral positions and responders would either be designated as an on-shift position (task) to be performed by on-shift persons assigned other tasks or designated as a 90 minute capability position. In its April 6, 2000, letter this proposed change was modified such that the licensee would be capable of augmenting five of these positions within 75 minutes.

CONCLUSION: The licensee also proposed changes to the ERF augmentation and operational goals. Based on the evaluation on the extended augmentation and operational times in Sections 4.3 and 4.6, respectively, of the Safety Evaluation, the staff concludes that proposed Change L3 is acceptable.

- L4 - In EP Table 5-1, extend the augmentation of two 30- and two 60-minute offsite radiological survey (emergency task) responders to as soon as possible (without delay)

but either not later than 45 minutes if augmentation personnel are onsite or not later than 90 minutes if personnel are offsite.

JUSTIFICATION: The licensee's justification for this change is to combine offsite, onsite, and in-plant radiological surveys, to add two extra types of surveys that the two on-shift HPs would be capable of performing and to indicate that offsite surveys are not expected to be performed by the on-shift HPs in the first 90 minutes of an event. Table B-1 of NUREG-0654 indicates that licensees are to have the capability to add HP staff to conduct offsite surveys within 30 to 60 minutes of an event. In change M4, the licensee added a dedicated HP on-shift to perform Onsite Radiological Surveys (out of plant). In change L1(b), the licensee proposed on-shift HPs would be capable of performing offsite and onsite surveys (non-collateral duties). As a result of these changes, the licensee would have two dedicated HPs on-shift and 13 dedicated HPs by no later than 90 minutes (i.e., adding 11 additional HPs by no later than 90 minutes).

CONCLUSION: Grand Gulf is a ground release plant which would allow time for the on-shift HPs to determine if a release was in progress. This in conjunction with current guidance regarding protective actions, initially, being based on plant conditions along with the low population density surrounding Grand Gulf provides an additional basis to accept extending the time to augment the on-shift staff for emergencies. The staff's evaluation of that information and basis for accepting the extension of the licensee's capability to augment the on-shift staff in 75 and 90 minutes are discussed in Sections 4.3 and 4.6. Because the staff concludes in those sections that the proposed extended times were acceptable, the staff concludes that proposed Change L4 is acceptable.

- L5 - Staff the core/thermal hydraulics (CTH) emergency task in EP Table 5-1 no later than 75 minutes instead of by the current 30 minutes.

JUSTIFICATION: In change M5, the licensee discussed a new commitment for the Shift Technical Advisor (STA) to have the capability to perform CTH tasks on-shift as outlined in the TSs and the Updated Final Safety Analysis Report (USFAR). The UFSAR, EP and TSs provide the overall control room staffing level and distribution of responsibilities. Additionally, a proposed revision to EP Table 5-1 indicates the licensee has the capability to add a CTH responder in 75 minutes. Table B-1, NUREG-0654 indicates licensees are to have this capability such that CTH issues are addressed and resolved early following certain types of accidents - that is within the first 30 minutes. Having the STA assume those duties initially, the first 30 to 75 minutes of an accident, would facilitate mitigation of those events if the STA can perform CTH duties in addition to other emergency duties as demonstrated by the current control room organization and distribution of responsibilities. However, guidance would indicate the licensee is to have the capability to add a CTH responder, within 60 minutes, following an emergency to relieve the STA of these CTH duties. In the April 6, 2000, letter, the licensee annotated Table 5-1 which indicated the CTH position would be augmented in 75 minutes instead of 90 minutes as originally proposed. The licensee stated this person would report to the TSC. The staff's evaluation of that information and basis for accepting the extension of the licensee's capability to augment the on-shift staff, specifically the CTH in 75 versus 60 minutes, and the basis for its acceptance is discussed in Section 4.3.

CONCLUSION: Based on (1) the current functional description of the STA; (2) the qualification of the STA to perform CTH assessments; (3) overall control room staffing and distribution of responsibilities; and (4) the licensee's capability to add a CTH responder in 75 minutes and the staff's acceptance of the proposed extended augmentation times in Section 4.3, the staff concludes that proposed Change L5 is acceptable.

- L6 - Augment the in-plant survey as soon as possible (without delay) but no later than 90 minutes versus the current 30- and 60-minute times.

JUSTIFICATION: The licensee stated that in-plant surveys are performed on an as-needed basis and whenever required the two on-shift health physicists provide such coverage. Health physics coverage for in-plant surveys would be performed only if radiological conditions can not be determined by using in-plant radiation monitoring instrumentation or if the job to be performed requires a survey. By increasing the on-shift HP support, resources are available to perform in plant surveys and would provide part of the basis for delaying the augmentation of the on-shift staff for 90 minutes. The staff's evaluation of other information and basis for accepting the extension of the licensee's capability to augment the on-shift staff in 75 and 90 minutes is discussed in Section 4.3.

CONCLUSION: Based on the the staff's acceptance of the proposed extended augmentation times and the sharing of tasks in Sections 4.3 and 4.5, respectively, the staff concludes that proposed Change L6 is acceptable.

- L7 - Reword footnote (b) in EP Table 5-1 to allow the use of personnel trained to perform specific radiation protection emergency tasks instead of the current prescriptive words.

JUSTIFICATION: The licensee stated that the rewording of this footnote would provide the ability to use personnel trained to perform specific radiation protection emergency tasks instead of the current prescriptive words. The footnote currently indicates "Must be Offsite Monitoring Team Trained." The licensee proposes that it read "Must be trained for the Emergency Task being performed." The licensee indicated that this footnote will be applied to the total staffing number for radiation protection personnel reporting in the 90 minute interval.

EP Section 8.2, "Training," indicates all licensee personnel who are part of the ERO are required to participate in a formal EP Training Program. Plant Operations Manual, Administrative Procedure 01-S-04-21, "Emergency Preparedness Training Program," (Rev. 138), provides a training qualification matrix indicating the qualifications and training for all ERO positions.

CONCLUSION: Because training of emergency responders is required in accordance with 10 CFR 50, Appendix E, Section IV. F., the staff concludes that proposed Change L7 is acceptable.

- L8 - Staff a dedicated Offsite Dose Assessment person as soon as possible (without delay) but no later than 75 minutes versus the current 30-minute allowance.

JUSTIFICATION: To support this change, the licensee proposes to (1) indicate that the capability to perform dose assessments is on-shift (to be performed by a person assigned other duties i.e., not dedicated), delete the 30 minute Health Physics Supervisor position, and (3) indicate a Radiological Assessment responder would respond in 75 minutes. In Change M3, the licensee proposes to relocate the 30-minute Offsite Dose Assessment task to an on-shift capability position and indicate that it has the capability to perform dose assessments on-shift by inserting footnote (a). Consequently, the licensee proposes that the on-shift person, who may be assigned other duties, would be expected to fill this response role until an offsite dose assessor arrives in 75 minutes.

The person selected to occupy the Radiological Assessment position would be expected to provide an assessment of the radiological consequences of an accident to decision makers for event classification and protective action recommendations. That person needs to be knowledgeable of HP practices and theory vis a vis a senior/qualified HP, to appropriately interface with an emergency director. The licensee indicated that although the position of Health Physics Supervisor is designated as Radiological Assessment, they will fill this position with a person qualified to be a health physics supervisor or a senior health physicist.

CONCLUSION: Based on the the staff's acceptance of the proposed extended augmentation times and dose assessment in Sections 4.3 and 4.4, respectively, the staff concludes that proposed Change L8 is acceptable.

- L9 Augment selected positions as soon as possible (without delay) but at no later than 75 minutes. The change is made by the addition of footnote (g) to Table 5-1 which will state that these personnel will report and augment shift personnel as soon as possible, without delay, but no later than 75 minutes.

JUSTIFICATION: The licensee proposed this change in its April 6, 2000, letter in response to staff's concerns involving both the augmentation of the on-shift staff in 90 minutes and fully operational times for both the emergency operations facility (EOF) and the technical support center (TSC) in 90 minutes. The licensee indicated this change would be made by adding footnote "g" to Table 5-1 which would state: "(g) These personnel will report and augment shift personnel in 75 minutes." The five positions which would be affected are On-Call Manager, TSC Coordinator/Operations Coordinator/SRO/STA, Communicators (two), and Radiological Assessment. During the November, 1999, meeting, the staff provided some of the criteria it would rely upon for evaluating proposals to extend a licensee's capability to augment the on-shift staffing. The licensee provided additional information in its April 6, 2000, letter addressing these criteria. The staff's evaluation of that information and basis for accepting the extension of the licensee's capability to augment the on-shift staff in 75 and 90 minutes is discussed in Section 4.3. Extending the times for both the EOF and TSC are discussed in Section 4.6.

CONCLUSION: Based on the staff's acceptance of the proposed extended on-shift emergency staff augmentation and extended ERF operational times in Sections 4.3 and 4.6, respectively, the staff concludes that proposed Change L9 is acceptable.

4.2 Category M, A and R Changes

The licensee indicated that the following changes, as discussed in Section 3.0 above, did not result in a decrease in effectiveness, but were being provided to the NRC for review and approval. The licensee characterized these changes as either (1) more restrictive than the existing EP resulting in additional requirements; or (2) the changes are editorial in nature or involve reorganization, reformatting, or rewording of requirements without affecting technical content of the EP; or (3) the changes were relocated within the body of the EP and there is no change to the technical content of the words.

Because some "M" and "A" changes are associated with the proposed "L" changes that extend the augmentation/operational times and increase the number of personnel on-shift in EP Table 5-1 that can be assigned other duties (i.e., sharing emergency tasks), the staff concluded that these "M" and "A" changes could only be implemented if the "L" changes were shown to be acceptable. For the "M" and "A" changes that met the 50.54(q) criterion, the staff acknowledged that approval was not required and the licensee could have implemented the change pursuant to 10 CFR 50.54(q). All of the "R" changes met the criterion in 10 CFR 50.54(q).

- M1 Increase on-shift communicator staffing number from one to two and eliminate the 30-minute responder.

JUSTIFICATION: The licensee stated that the change increases the on-shift minimum number of communicators for the EP from one to two by placing the 30-minute communicator responder task and position on-shift.

CONCLUSION: The staff concludes that the proposed change would provide a commensurate reduction in the basis for having the capability to add a communicator in 30 minutes or eliminate the 30 minute communicator position. Based on this, the staff also concludes that the proposed change does not decrease the effectiveness of the EP and, therefore, did not require staff approval for implementation.

- M2 Assign a repair and corrective action radwaste operator as an on-shift position and add EP Table 5-1 footnote (a) to allow personnel assigned other duties to perform this task.

JUSTIFICATION: The licensee stated that by placing the current 60 minute Repair and Corrective Action Radwaste Operator on-shift, there is a commensurate reduction in the basis for having the capability to add a Rad Waste Operator in 60 minutes. However, the licensee indicated the position would be annotated such that personnel assigned other duties would perform this task. Consequently, the task is being placed on-shift but not the responder and there is no reduction in the basis for adding the Radwaste Operator in 60 minutes. The licensee provided additional information justifying extending the time for augmenting the on-shift emergency staff.

CONCLUSION: Even though a new position is being identified in EP Table 5-1 to be on-shift, the staff notes that the proposed change is associated with the proposed changes to share non-collateral tasks that is addressed in Section 4.5 and, therefore, should have been submitted for staff approval. Based on the staff's acceptance of the

proposed extended augmentation times and the sharing of tasks in Sections 4.3 and 4.5, respectively, the staff concludes that proposed Change M2 is acceptable.

- M3 Reassign the 30-minute offsite dose assessment emergency task in EP Table 5-1 as an on-shift capability position and EP Table 5-1 footnote (a) is applied to this newly created on-shift position to allow on-shift personnel assigned other duties to perform this task.

JUSTIFICATION: The licensee stated that the change increases the commitment in the EP for the offsite dose assessment task by requiring this capability to be on-shift instead of a 30-minute responder. Adding footnote (a) to this position allows on-shift personnel assigned other tasks to perform the offsite dose assessment task as directed by the emergency director. This is only for the short time before the emergency facilities become operational. The licensee stated that dedicated on-shift personnel are not necessary for this task because offsite dose assessment calculations software and computers allow these calculations to be performed in minutes and on demand to support protective action recommendations. In Change L8, a dedicated dose assessor is added. This change results in improved offsite dose assessment capability by identifying this task will be performed on-shift and is part of increasing the total number of personnel on-shift in EP Table 5-1. The staff has indicated in guidance issued for licensees that the task may be performed by personnel assigned other duties. Allowing the task to be performed by others capable of performing the task provides flexibility to the emergency director in assigning the critical emergency tasks to the available personnel.

CONCLUSION: Having the capability to perform offsite dose assessment on-shift is required by Section IV.B of Appendix E to 10 CFR Part 50. Consequently, the licensee is expected to continue to meet that requirement. The staff has indicated in guidance that the task may be performed by shift personnel assigned other duties and this change clarifies the EP. This is addressed and accepted in Section 4.4 of the Safety Evaluation. Based on this, the staff concludes that proposed Change M3 is acceptable.

- M4 Increase on-shift onsite radiological survey (outside the plant structures but inside the security fence) staffing from zero to one by relocating the 30-minute responder to the on-shift column in EP Table 5-1.

JUSTIFICATION: The licensee stated that the change increases the on-shift minimum number of health physicists from one to two by placing the 30-minute onsite radiological survey position and responder on-shift.

CONCLUSION: The staff concludes that the proposed change would provide a commensurate reduction in the basis for having the capability to add an onsite radiological survey position in 30 minutes or eliminate the 30-minute radiological survey position. Based on this, the staff also concludes that the proposed change does not decrease the effectiveness of the EP and, therefore, did not require staff approval for implementation.

- M5 Add the words "and Core/Thermal Hydraulics" to the emergency task "Technical Support" in EP Table 5-1 to have the on-shift STA provide the on-shift CTH capability.

JUSTIFICATION: The licensee stated that EP Table 5-1 does not require the capability to perform the CTH task on-shift; however, the on-shift STA is assigned and committed to the CTH task, as outlined in the TSs and UFSAR. The licensee further explained that, even though activation of the ERFs does not prevent the STA from doing this task, the current EP Table 5-1 could be viewed as precluding the STA from performing this task. The licensee concluded that the proposed change increases the requirements in the EP by adding the CTH task to the on-shift capability of the STA because the current EP Table 5-1 does not show an on-shift CTH capability. This is one of the shared tasks/positions addressed in Section 4.5 by adding the CTH duties to the STA. The licensee proposed to move the dedicated 30-minute CTH responder to 75 minutes for augmentation in Change L5.

CONCLUSION: The staff notes that this change is associated with the proposed changes to share non-collateral tasks in EP Table 5-1 and extend the on-shift emergency staff augmentation times, and should have been submitted to the staff for approval before implementation. The proposed sharing of tasks is addressed in Section 4.5, and the proposed extension of the augmentation time is addressed in Section 4.3. The staff also concludes that the change will clarify that the STA will be required to perform the CTH task on-shift and adds the capability to EP Table 5-1 as being on-shift instead of a 30-minute responder. Based on this, the staff concludes that the proposed Change M5 is acceptable.

- M6 Delete the current EP Table 5-1 footnote (b) from the on-shift staffing numbers for the mechanical and electrical maintenance positions. Assign the current 30-minute instrumentation and control (I&C) maintenance position responder to on-shift.

JUSTIFICATION: The licensee stated that deleting the footnote would allow non-dedicated on-shift positions (mechanical and electrical maintenance) to be indicated as dedicated on-shift positions. At the same time the 30 minute I&C maintenance position and responder will be placed on-shift.

CONCLUSION: The staff concludes that the changes in proposed Change M6 do not decrease the effectiveness of the EP and, therefore, did not require staff approval for implementation.

- M7 Add a requirement to activate the Emergency Operations Facility (EOF) at an Alert in Section 7.3.3, paragraph 3 of the Emergency Plan.

JUSTIFICATION: The licensee stated that the change will improve the response to an emergency because the EOF will be activated earlier than stated in the current EP. Activation when needed ensures that EP personnel will be more readily available to respond to provide EP support as needed for plant conditions.

CONCLUSION: The staff concludes that the proposed change exceeds the staff's guidance to activate the EOF at a Site Area Emergency. Based on this, the staff also concludes that the proposed change does not decrease the effectiveness of the EP and, therefore, did not require staff approval for implementation.

M8 EP Table 5-1 footnote (c) is deleted.

JUSTIFICATION: The licensee stated that the change increases the staffing requirements in EP Table 5-1 and eliminates confusion because footnote (c) would not require a senior reactor operator (SRO) during reactor operational Modes 4 (Cold Shutdown) and 5 (Refueling). The footnote is for the on-shift staffing of the "Shift Supervisor (SRO)" in the current major functional area of Emergency Direction and Control.

CONCLUSION: The staff notes that Table B-1 of NUREG 0654 does not reflect mode applicability for any of the positions either designated on-shift or in the capability to augment the on-shift staff. The staff concludes that the proposed change makes EP Table 5-1 consistent with Table B-1 and, therefore, is not a decrease in the effectiveness of the EP. Based on this, the staff also concludes that the proposed change did not require staff approval for implementation.

M9 Proposed EP Table 5-1 footnote (e) is modified by the addition of the following note: "This allowance is not applicable during declared emergencies."

JUSTIFICATION: The licensee stated that the change increases the staffing requirements in EP Table 5-1 because, without the additional sentence, footnote (e) would allow emergency response organization positions to be vacant for up to 2 hours at any time. The change would not allow this 2-hour allowance in proposed Change L2 during declared emergencies. Proposed footnote (e) is discussed in Change L2.

CONCLUSION: Based on the staff acceptance of proposed Change L2, the staff concludes that proposed Change M9 is acceptable.

A1 Eliminate EP Table 5-1 footnote (b), that the position may be performed by personnel assigned other duties, from the Shift Superintendent position.

JUSTIFICATION: The licensee stated that Change R4 relocates the Emergency Direction and Control "Shift Superintendent" to the major functional area of Plant Operations and Assessment of Operational Aspects in EP Table 5-1. With this relocation, there would be no need to list footnote (b) with the shift superintendent because, with the relocation in Change R4, the task of Shift Superintendent will not be assigned to personnel assigned other tasks.

CONCLUSION: The staff concludes that the proposed change does not decrease the effectiveness of the EP and, therefore, did not require staff approval for implementation.

A2 Change Position Title or Expertise for Notification/Communication function in EP Table 5-1 from the current words "Operator/Plant System Engineer/Engineering Technician" to "Communicator."

JUSTIFICATION: The licensee stated that the current words in EP Table 5-1 do not reflect either a required title or expertise for this task, and are too prescriptive if the words were interpreted to mean only those positions could perform the

Notification/Communication functional area. The change better describes the minimum qualification needed to perform the function of communicator. Personnel assigned the communicator EP function will be trained to perform the function.

CONCLUSION: The staff concludes that the proposed change clarifies what is required in the EP. Based on this, the staff also concludes that the proposed change does not decrease the effectiveness of the EP and, therefore, did not require staff approval for implementation.

- A3 Change Position Title or Expertise in EP Table 5-1 for Offsite Dose Assessment from "Health Physics Supervisor" to "Radiological Assessment."

JUSTIFICATION: The licensee stated that the current words in EP Table 5-1 do not reflect either a required title or expertise for this task, and are too prescriptive if the words were interpreted to mean only those positions could perform the offsite dose assessment task of the Radiological Accident Assessment functional area. The licensee further explained that the proposed change better describes the minimum qualification needed to perform the function of radiological assessment and that personnel to be assigned to the radiological assessment EP function will be trained to perform the function. The EP would require that individuals assigned this emergency task would be trained to perform this task.

CONCLUSION: In response to staff's concerns and to clarify the licensee's intent with regard to changing the expertise of the dose assessment responder, the licensee provided additional information as discussed in Change L8. Based on the staff's evaluation of the information provided by the licensee as discussed in Section 4.4, the staff concludes that proposed Change A3 is acceptable.

- A4 Delete the words "Other as Designated (d)" from the Position Title or Expertise for Offsite Radiological Surveys in EP Table 5-1.

JUSTIFICATION: The licensee states that the words "Other as Designated (d)" will be deleted from the EP Table 5-1 Position Title or Expertise for the offsite radiological survey task due to Change L7, which addresses the expanded application of footnote (d).

CONCLUSION: The staff notes that the proposed change is associated with Change L7 and, therefore, should have been submitted to the staff for approval before implementation. Based on the acceptability of Change L7 addressed above, the staff concludes that Change A4 is implementing Change L7 and is not changing any other requirement in the EP. Based on this, the staff concludes that proposed Change A4 is acceptable.

- A5 Rename Major Functional Area "Protective Actions (in-plant) Radiation Protection" in EP Table 5-1 as "Radiation Protection."

JUSTIFICATION: The licensee stated that the change to EP Table 5-1 is editorial in nature because it is grouping all the radiation protection tasks (see Change L1) under

one major functional area. The total number of personnel performing these tasks has not been reduced. This change clarifies the EP because it eliminates the confusion by avoiding the use of EP Table 5-1 footnote (b) that identifies tasks which may be assigned personnel with other duties (see Change A6). The change together with Change L1 consolidates all radiation protection tasks in one major functional area.

CONCLUSION: The proposed change is associated with the licensee's proposal to combine the HP tasks into one major functional area and to rely on only two dedicated HP technicians until they are augmented. These are addressed in Section 4.3 on the proposed extension of the on-shift emergency staff augmentation and in Section 4.5 on the sharing of emergency tasks before augmentation. Therefore, the proposed change should have been submitted to the staff for approval before implementation. Based on the staff's acceptance in Sections 4.3 and 4.5, for extending the augmentation/operational times and for sharing emergency tasks, respectively, the staff concludes that proposed Change A5 is acceptable.

- A6 Delete EP Table 5-1 footnote (b) from on-shift staffing number for the newly renamed Major Functional Area of "Radiation Protection."

JUSTIFICATION: The licensee stated that the reorganization of EP Table 5-1 does not require the footnote (b) for on-shift staffing of the HP position in the current major functional area of Protective Actions/Radiation Protection. EP Table 5-1 footnote (b) identifies the task that could be performed by personnel assigned other tasks. The creation of the new major function area of Radiation Protection with one position title or expertise required means the only personnel that could perform the current HP position are those assigned to that position title or expertise. The footnote (b) is no longer needed in this context. See Change L1 which proposed combining of several EP radiation protection tasks.

CONCLUSION: The staff notes that the proposed change is associated with Change L1 and, therefore, should have been submitted to the staff for approval before implementation. This is associated with Change L1 and the proposed sharing of emergency tasks that is addressed in Section 4.5. With the acceptability of Change L1, the staff concludes that Change A6 is implementing Change L1 of combining several EP tasks into one task under the renamed Radiation Protection major functional area. Based on this and the staff's acceptance of sharing emergency tasks in Section 4.5, the staff concludes that proposed Change A6 is acceptable.

- A7 Rename Emergency Task "EOF Director" in EP Table 5-1 as "EOF Direction and Control."

JUSTIFICATION: The licensee stated that the change will clarify the EP because the current words of "EOF Director" are not an emergency task description. The proposed words are to ensure that descriptions of emergency tasks in EP Table 5-1 are consistent.

CONCLUSION: The staff concludes that the change clarifies the EP. Based on this, the staff also concludes that the proposed change does not decrease the effectiveness of the EP and, therefore, did not require staff approval for implementation.

- A8 Add EP Table 5-1 footnote (f) to newly renamed emergency task of "Emergency Direction and Control" to state that the Shift Superintendent (SRO) is relieved of this task at 90 minutes and, upon this relief, the Shift Superintendent (SRO) resumes plant operational duties.

JUSTIFICATION: In EP Table 5-1, there are the position titles of shift superintendent and shift superintendent (SRO), the former in the major functional area of Emergency Direction and Control, and the latter in the area of Plant Operations and Assessment of Operational Aspects. The position title shift superintendent (SRO) means a shift superintendent with an SRO license and not that the acronym SRO means shift superintendent. To avoid confusion in the Safety Evaluation, the position of "Shift Superintendent (SRO)" will be stated with the quotations.

The licensee stated that the current EP Table 5-1 with the shift superintendent being listed twice on onshift staffing under position title or expertise could imply that two persons could be assigned the supervisory tasks in the major functional areas of Plant Operations and Assessment of Operational Aspects, and Emergency Direction and Control. The second listing has the footnote (b) which allows the task of Emergency Direction and Control can be assigned an individual with other assigned duties (i.e., the "Shift Superintendent (SRO)"). During the initial stages of an accident, the "Shift Superintendent (SRO)" is responsible for Emergency Direction and Control. The on-call manager assumes this duty after the TSC is operational, which then allows the "Shift Superintendent (SRO)" to perform other operational EP duties. The addition of the footnote (f) to the newly named task of Emergency Direction and Control (see Change R1) will clarify that the shift superintendent is relieved of the of the Emergency Direction and Control task by the augmenting personnel of EP Table 5-1 and the "Shift Superintendent (SRO)" resumes plant operational duties once relieved of the Emergency Direction and Control duties.

Proposed footnote (f) to EP Table 5-1 states: "Overall direction of facility response is assumed from Shift Superintendent (SRO) by the On-Call Manager. Upon relief, the Shift Superintendent (SRO) resumes plant operational duties." The licensee indicated that the SRO is relieved of this task when the emergency facilities are operational. Part of the augmentation concept is to relieve the Shift Superintendent (SRO) of some duties in order to allow the control room to focus on the mitigation of the accident.

CONCLUSION: Table B-1 of NUREG-0654 indicates licensees are to have the capability to provide an EOF Director in 60 minutes. The licensee proposes to have an on-call manager and a senior manager for EOF direction and control in 90 minutes. During normal plant operation times, the licensee should have managers on site such that the SRO could be relieved earlier than 90 minutes. Because EP Table 5-1 will have the footnotes (g) and (h), as discussed in Section 3.4, the licensee would have the capability to augment the emergency on-shift person who assumes the role of emergency director in 45 minutes. The staff's review and evaluation of information

provided by the licensee to justify extending the augmentation times for additional responders in EP Table 5-1 is discussed in Section 4.3. Therefore, although the proposed change is characterized as not reducing requirements in the plan, it is associated with the proposed changes to extend the on-shift emergency staff augmentation times which do reduce requirements in the EP. Thus, the change should have been submitted to the staff for approval because it would not meet 10 CFR 50.54(q). Based on the staff's acceptance in Section 4.3 for extending the time to augment the on-shift emergency staff, the staff concludes that proposed Change A8 is acceptable.

- A9 Rename the current Position Title or Expertise for the Major Functional Area of Rescue/First Aid in EP Table 5-1 from the current words "Shift Personnel (i.e. Computer Support, Maintenance)" to the new words of "Rescue and First Aid."

JUSTIFICATION: The licensee stated that the current words in EP Table 5-1 are too prescriptive and could be interpreted to limit filling these positions by only those personnel who have the position titles of computer support and maintenance for the major functional area of rescue and first aid. The change better describes the minimum qualification needed to perform the function of rescue and first aid and will clarify the EP. Personnel assigned the EP function would be trained to perform the function.

CONCLUSION: The staff concludes that the proposed change clarifies the EP. Based on this, the staff also concludes that the proposed change does not decrease the effectiveness of the EP and, therefore, did not require staff approval for implementation.

- A10 Add words "Provided by Claiborne County/Port Gibson" to the capability for additions for the Major Functional Area of Rescue/First Aid in EP Table 5-1.

JUSTIFICATION: The licensee stated that the words are currently listed for the major functional areas of Firefighting and Rescue/First Aid in EP Table 5-1 and the relocation of Firefighting in Change R3 necessitates the addition of the proposed words so that the reference to Claiborne/Port Gibson remains with Rescue/First Aid.

CONCLUSION: The staff concludes that the change does not change any requirements in the EP and maintains the description that Claiborne/Port Gibson provides the rescue and first aid function of the EP. Based on this, the staff also concludes that the proposed change does not decrease the effectiveness of the EP and, therefore, did not require staff approval for implementation.

- A11 Rename Position Title or Expertise in EP Table 5-1 from "OEC" to "Senior Manager."

JUSTIFICATION: The licensee stated that the change clarifies the level of expertise needed for the current emergency task of EOF Director. This position has always been a senior manager. This is consistent with NUREG-0654. In the EP definitions, OEC stands for offsite emergency coordinator and is the person with the responsibility for the overall emergency response effort and is the central figure for the emergency organization. The licensee is stating that the person having the position of EOF Director is being changed from the OEC, as currently defined in the EP, to a senior manager.

CONCLUSION: The staff concludes that the change clarifies the EP in that the OEC as defined in the EP is not required for the position. Based on this, the staff also concludes that the proposed change does not decrease the effectiveness of the EP and, therefore, did not require staff approval for implementation.

- A12 Add allowance in EP Table 5-1 for the electrical and mechanical engineers Position Title or Expertise to reside in either the OSC or TSC.

JUSTIFICATION: The licensee stated that the current words are too prescriptive in that the words specify that the plant system engineers for the electrical and mechanical technical support tasks must be in the TSC. EP requirements and guidance do not specify where these functions will reside.

CONCLUSION: The staff concludes that the change clarifies the EP in that these technical support functions can be in either the OSC or TSC. Based on this, the staff also concludes that the proposed change does not decrease the effectiveness of the EP and, therefore, did not require staff approval for implementation.

- A13 Add proposed EP Table 5-1 footnote (d) to newly created emergency task (see Change M5) of "Technical Support and Core/Thermal Hydraulics" which states "Core/Thermal Hydraulics is part of normal STA duties listed in the Updated Final Analysis Report and Technical Specifications."

JUSTIFICATION: The licensee stated that the change reflects the requirements stated in the TSs and UFSAR, and clarifies the EP in that it is stated in the footnote that the STA will perform this task as part of the STA's normal on-shift duties. The change is associated with Changes L5 and M5.

CONCLUSION: The staff notes that the proposed change is associated with Changes L5 and M5, which are associated with the proposed changes to share non-collateral tasks in EP Table 5-1 and extend the on-shift emergency staff augmentation times. Therefore, the change should have been submitted to the staff for approval before implementation. With the acceptability of Changes L5 and M5, the staff concludes that Change A13 is implementing these changes and does not change any other requirement in the EP. Based on this, the staff concludes that proposed Change A13 is acceptable.

- A14 Rename the task words of "Electrical" and "Mechanical" in EP Table 5-1 to "Technical Support." This change involves deletion of the words "Plant Systems" from "Engineer" and the addition of the words "Electrical" and "Mechanical" to "Engineer" under the table heading of "Position Title or Expertise" for the renamed task.

JUSTIFICATION: The licensee stated that the change is editorial in nature because the change will state what the major functional area of plant system engineering will provide the EP. The change provides a better description of the emergency tasks and required expertise than the current wording. The current statement of the emergency tasks is the expertise needed, and the position title merely repeats the description of the major

functional area and not the expertise needed. The word "engineer" is not needed with the words "electrical" and "mechanical" in identifying the expertise needed for the tasks.

CONCLUSION: The staff concludes that the proposed change clarifies the EP and does not change any requirements of the EP. Based on this, the staff also concludes that the proposed change does not decrease the effectiveness of the EP and, therefore, did not require staff approval for implementation.

- A15 Add new definitions to Section 1.0 of the Emergency Plan for clarification purposes.

JUSTIFICATION: The licensee stated that the revised or new definitions of offsite, onsite, and plume tracking survey in EP Section 1.0 clarify the key terms in the plan related to surveys. These definitions do not change the requirements in the EP.

CONCLUSION: The staff concludes that the revised or new definitions clarify the EP and does not change any requirements in the EP. Based on this, the staff also concludes that the proposed change does not decrease the effectiveness of the EP and, therefore, did not require staff approval for implementation.

- A16 Provide clarifying information to EP Section 7.3.1 of specific functions that the TSC performs in the event of the unavailability of the EOF or the Backup EOF.

JUSTIFICATION: The licensee stated that the proposed change to EP Section 7.3.1 on the TSC is necessary because the TSC has limitations on space; heat, ventilation, and air conditioning capacity; and location within the restricted area of the plant site. These limitations render the TSC unsuitable for the support of additional state, local, licensee, and federal personnel beyond what the TSC was designed to support. This change clarifies the EP and does not alter any requirements in the EP.

CONCLUSION: The staff concludes that the change clarifies the EP and does not change any requirements of the EP. Based on this, the staff also concludes that the proposed change does not decrease the effectiveness of the EP and, therefore, did not require staff approval for implementation.

- A17 Add allowances for the Notification/Communication function in EP Table 5-1 to be performed in the EOF.

JUSTIFICATION: The licensee stated that, with the EOF to be activated at the alert classification in Change M7, the function of notification and communication should be transferred from the control room to the EOF. The TSC will still retain this capability. The function is not being removed from the EP.

CONCLUSION: The staff concludes that the proposed change does not decrease the effectiveness of the EP and, therefore, did not require staff approval for implementation.

- A18 Add allowance for Offsite Dose Assessment in EP Table 5-1 to be performed in the control room (CR) or EOF.

JUSTIFICATION: The licensee stated that the proposed change will allow performance of these functions in any of the emergency facilities. This proposed change does not reduce the requirement of performing the function.

CONCLUSION: The staff concludes that the proposed change does not decrease the effectiveness of the EP and, therefore, did not require staff approval for implementation.

[An addition to Change A18 was submitted in the July 15, 1999, letter.] Due to the deletion of footnotes (a) and (c), footnotes (b), (d), (e), (f), (g), and (h) are relabeled (a) through (f) in EP Table 5-1.

JUSTIFICATION: The licensee stated that Changes A19 and M8 proposed deleting footnotes (a) and (c), respectively, of EP Table 5-1. With these two footnotes deleted, the remaining footnotes are relabeled footnotes (a) through (f). The change is editorial in nature and is needed to ensure the footnotes are properly listed in the table.

CONCLUSION: The staff concludes that the proposed change is needed to clarify the footnotes being added to EP Table 5-1 because of other changes to the table. Because the proposed change does not change any requirements in the EP and is need to clarify EP Table 5-1, the staff concludes that the addition to proposed Change A18 is acceptable.

A19 Delete footnote (a) from EP Table 5-1.

JUSTIFICATION: The licensee stated that the change to EP Table 5-1 will reflect the commitment to activate the emergency facilities at the Alert level of emergency classification and anytime the emergency director considers it necessary. Deleting the footnote that states that "shift augmentation begins at the declaration of an Alert, Site Area Emergency, or General Emergency" will avoid confusion and does not affect the augmentation of the on-shift emergency staff. Deleting the footnote is consistent with Change A20.

CONCLUSION: The staff notes that the proposed change is associated with extending the operational times of the ERFs and, therefore, should have been submitted with the proposed changes to the on-shift emergency staff augmentation times for staff approval. The proposed extension of the augmentation times is addressed in Section 4.3. Based on the acceptance of the proposed extension in that section, the staff concludes that proposed Change A19 is acceptable.

A20 Reword EP Section 5.4.2.e to state the following: "Requests additional resources as deemed necessary up to and including activation of the emergency organization as required."

JUSTIFICATION: The licensee stated that the proposed change to EP Section 5.4.2.e is to clarify the EP and state that the emergency director can request additional resources as needed, including the activation of the emergency organization.

CONCLUSION: The staff concludes that the change clarifies the EP so that it will be clear that the emergency director can request additional resources as deemed necessary up to and including activation of the emergency organization as required. Based on this, the staff also concludes that the proposed change does not decrease the effectiveness of the EP and, therefore, did not require staff approval for implementation.

- A21 Retitle "TSC/EOF Dose Calculator" in EP Section 5.4.19 to "Radiological Assessment Dose Calculator" and add the following sentence to the end of the section: "This function may be performed by on-shift personnel and it is also an augmented function."

JUSTIFICATION: The licensee stated that the proposed change in EP Section 5.4.19 reflects the current practice to allow onsite personnel to perform radiological assessments and thus clarifies the EP and does not alter any requirements in the EP.

CONCLUSION: The staff concludes that the change clarifies the EP. Based on this, the staff also concludes that the proposed change does not decrease the effectiveness of the EP and, therefore, did not require staff approval for implementation.

- A22 Add new sentence to EP Section 5.4.2 as follows: "h. The Shift Superintendent will resume Control Room duties upon relief by the augmenting Emergency Director when the TSC is declared operational."

JUSTIFICATION: The licensee stated that the proposed change corrects the EP section to be consistent with Change A8 to EP Table 5-1. During the initial stages of an event, the "Shift Superintendent (SRO)" in EP Table 5-1 is also responsible for the major functional area of Emergency Direction and Control. The On-Call Manager assumes this duty after the TSC is operational, which allows the "Shift Superintendent (SRO)" to perform other operational emergency duties. The addition of the sentence to EP Section 5.4.2 will provide clarification that the shift superintendent is relieved of the Emergency Direction and Control duties and resumes plant operational duties.

CONCLUSION: The licensee added the words "when the TSC is operational." Activation (augmentation, operational, or fully operational) for ERFs is classification dependent whereas the licensee's capability to augment the on-shift staff (emergency director) is dependent upon any emergency. Change A20 indicates additional resources can be requested as required. These two changes appear to conflict with each other; however it is the staff's understanding that the on-shift Emergency Director could be augmented with an on-call manager in 75 minutes (in 45 minutes if personnel are onsite) and provide relief until the TSC is operational. Based on this the staff concludes that proposed Change A22 is acceptable. See change R3.

- A23 Add the definition of "Augmentation" to EP Section 1.0.

JUSTIFICATION: The licensee stated that the change added a new definition to EP Section 1.0 to clarify the EP by providing a clear understanding of what augmentation means in the proposed plan changes, such as Change L3. The new definition does not impose any new requirements.

CONCLUSION: The proposed definition of augmentation is needed in separating ERF augmentation from making the ERFs operational. The staff has reviewed the proposed definition and concludes that it is acceptable. Based on this, the staff concludes that proposed Change A23 is acceptable.

- R1 Relocate the major functional area of "Emergency Direction and Control" in EP Table 5-1 to the emergency tasks area for the major functional area of "Plant Operations and Assessment of Operational Aspects."

JUSTIFICATION: The licensee stated that the proposed change to EP Table 5-1 combines the two major functional areas of Plant Operations and Assessment of Operational Aspects, and Emergency Direction and Control into one major functional area with the same title as the first functional area. Changes R3 and R5 relocate additional emergency tasks into the functional area.

CONCLUSION: The staff concludes that the proposed change merely reorganizes EP Table 5-1 and does not change any requirements in the table. Based on this, the staff also concludes that the proposed change does not decrease the effectiveness of the EP and, therefore, did not require staff approval for implementation.

- R2 Relocate the "On-Call Manager (Emergency Director)" by listing it under the "Shift Superintendent" in EP Table 5-1.

JUSTIFICATION: The licensee stated that the proposed change to EP Table 5-1 relocates the position title of "On-Call Manager (Emergency Director)" from the major functional area of Emergency Direction and Control to that of Plant Operations and Assessment of Operational Aspects.

The licensee indicates this change also involves the deletion of the "(Emergency Director)" words which if kept would be a repeat of the words included in the relocated words discussed in Change R1.

CONCLUSION: The staff concludes that the proposed change merely reorganizes EP Table 5-1 and does not change any requirements in the table. Based on this, the staff also concludes that the proposed change does not decrease the effectiveness of the EP and, therefore, did not require staff approval for implementation.

- R3 Relocate the major functional area of "Firefighting" as an emergency task under the major functional area of "Plant Operations and Assessment of Operational Aspects" in EP Table 5-1.

JUSTIFICATION: The licensee stated that the change to EP Table 5-1 relocates the major functional area of Firefighting to an emergency task under the major functional area of Plant Operations and Assessment of Operational Aspects. The staffing and expertise in EP Table 5-1 are not being altered.

CONCLUSION: Although Table B-1 of NUREG-0654 indicates Fire Fighting is a "Major Functional Area" and not a task, this change would be acceptable in that a non-collateral

task is still identified in Table 5-1. However, because the proposed change merely reorganizes EP Table 5-1 and does not change any requirements in the table, the staff concludes that the proposed change does not decrease the effectiveness of the EP and, therefore, did not require staff approval for implementation.

- R4 Relocate the Emergency Direction and Control "Shift Superintendent" to the Major Functional Area of Plant Operations and Assessment of Operational Aspects in EP Table 5-1.

JUSTIFICATION: The licensee stated that the proposed change allows combining of the two shift superintendent functions in EP Table 5-1 for the major functional areas of Plant Operations and Assessment of Operational Aspects, and Emergency Direction and Control. The two functions are performed by the same person and EP Table 5-1 shows the onsite staffing of the shift superintendent for Emergency Direction and Control area has EP Table 5-1 footnote (b) meaning the function can be provided by an individual with other assigned duties. The change will allow the deletion of that footnote (b) in Change A1 because the footnote is no longer needed.

CONCLUSION: Because the proposed change clarifies the EP because it will more clearly show that the shift superintendent was meant to perform both functions, which is allowed by EP Table 5-1, the staff concludes that the proposed change does not decrease the effectiveness of the EP and, therefore, did not require staff approval for implementation.

- R5 Relocate emergency tasks "Technical Support" and "Core/Thermal Hydraulics" to the emergency tasks section of Major Functional Area of "Plant Operations and Assessment of Operational Aspects" in EP Table 5-1.

JUSTIFICATION: The licensee stated that the proposed change relocates the tasks by grouping them with the major functional area of Plant Operations and Assessment of Operational Aspects. These emergency tasks are associated with plant operations. The change will clarify the EP and reflects the current practice.

CONCLUSION: Because the proposed change reorganizes EP Table 5-1 and does not change any requirements in the table, the staff concludes that the proposed change does not decrease the effectiveness of the EP and, therefore, did not require staff approval for implementation.

- R6 Relocate the "Firefighting Communications" task in EP Table 5-1 from the Major Functional Area of "Security" to the newly created Emergency Task of "Firefighting" (See Change R3).

JUSTIFICATION: The licensee stated that the proposed change will relocate the emergency tasks of *firefighting communications* from the major functional area of Security to the major functional area of Plant Operations and Assessment of Operational Aspects. The emergency task of firefighting was relocated by Change R3 and the task of fire fighting communications will be added to the task of firefighting to be called "Firefighting, firefighting communications." The change was proposed because

currently firefighting communications is listed in the major functional area of Security that does not provide such support. The change will group firefighting communications in the appropriate emergency task of firefighting.

CONCLUSION: Because the proposed change merely reorganizes EP Table 5-1 and does not change any requirements in the table, the staff concludes that the proposed change does not decrease the effectiveness of the EP and, therefore, did not require staff approval for implementation.

4.3 Extending Time for Augmentation of Emergency Staffing

In its application of March 6, 1998, the licensee proposed to place selected 30-minute responders in EP Table 5-1 on-shift and extend the augmentation time for the remaining 30-minute and 60-minute responders in EP Table 5-1 to 120 minutes. In its letter of January 20, 1999, the licensee amended its request and reduced the extended time from 120 to 90 minutes. The licensee stated that the 120 minutes was based on its ability to perform all key functions in EP Table 5-1 without staff augmentation for all emergency classifications up to and including a general area emergency, and that the staff has approved 120 minutes for other sites. The 90 minutes was considered a more realistic time by the licensee based on the demographics of plant staff personnel living near the site. In the letter of April 6, 2000, the licensee changed its proposal to extend the augmentation time to as soon as possible (without delay) but no later than 75 or 90 minutes (when offsite personnel are needed), or no later than 45 minutes (if only onsite personnel are needed).

The licensee stated that the EP director can have additional personnel added to the on-shift emergency staff as needed independent of activating the ERFs. The additional personnel would have the goal of augmentation as soon as possible (without delay) but not later than 75 or 90 minutes (personnel are needed from offsite) and 45 minutes (personnel needed are onsite). Therefore, personnel can be added to those on-shift to address the emergency even though the ERFs may not be activated and become operational. Therefore, in referring to augmentation in the proposed changes in Sections 4.1 and 4.2, augmentation refers to either augmenting the on-shift personnel or augmenting the ERFs.

There is a need to clearly show in EP Table 5-1 that (1) the augmentation of the on-shift emergency staff is "as soon as possible, without delay" and (2) the augmentation is 75 and 90 minutes when personnel are needed for augmentation from offsite, and 45 minutes when all the personnel needed are onsite. This goal will be clearly stated in EP Sections 7.3.1 and 7.3.3 for the ERFs through Changes L3, M7, and A16. The 75 and 90 minutes goals will be stated in EP Table 5-1; however, the text about "as soon as possible, without delay" and "augmentation within 45 minutes if personnel needed for augmentation are onsite" are not in EP Table 5-1. In phone discussions held on September 27, 2000, the staff requested that the licensee add this text to the table. The staff stated that the additional text to EP Table 5-1 would provide the same requirements to the table that the licensee had proposed for EP Sections 7.3.1 and 7.3.3 for ERF augmentation. The licensee stated that the addition of the phrase "as soon as possible without delay" to footnote (g) of EP Table 5-1 for on-shift emergency staff augmentation and the addition of a new footnote (h) that stated "if personnel are onsite they will report and augment the on-shift personnel as soon as possible without delay, but no later than 45 minutes" stated the same requirement that had been proposed in EP Sections 7.3.1 and 7.3.3 for ERF

augmentation. The licensee stated that (1) the addition of the phrase to footnote (g) and the new footnote (h) clarified EP Table 5-1 and did not add additional requirements to the proposed EP changes, and (2) that it agreed to add the new text to the table.

In discussions between the licensee and the staff culminating in the meeting of November 2, 1999, the staff provided criteria for extending the augmentation time that it requested the licensee to address. The criteria were included in a staff handout in the November 2, 1999, meeting and in the meeting summary dated December 15, 1999. Of the six criteria, the staff has concluded that only five are applicable to the licensee's proposed extended ERF augmentation times. The sixth criteria that the conditions for making the ERFs operational must be clear and unambiguous was concluded to be an issue about the ERF becoming operational and not about extending the augmentation time.

The applicable criteria and how it supports the licensee proposal to extend the augmentation time for the capability to augment the on-shift staff during emergencies (Changes L1, L3-6, L8, L9, M1-6, A8, and R1) is discussed below.

The licensee's justification for the increase in augmentation time is based on (1) separating augmentation of the on-shift emergency staff from the ERFs becoming operational, (2) placing selected 30 minute responders on-shift to increase the minimum number of on-shift staff for emergencies from ten to fifteen and the ability of the on-shift staff to perform all key functions in the EP Table 5-1 without augmentation for all emergencies, (3) the low population around a remote site, (4) plant staff demographics and how extending the augmentation time allows the licensee to expand the pool of personnel from which to obtain emergency responders, and (5) early activation of the ERFs.

(1) Separate Emergency Staff Augmentation From ERFs Becoming Operational

The licensee addressed this criterion in its April 6, 2000, letter. The licensee proposed (1) extend the time to augment the on-shift emergency staff in EP Table 5-1 to as soon as possible (without delay) but no later than 75 or 90 minutes (45 minutes if augmenting with onsite personnel), (2) activate the emergency response facilities (ERFs) at the Alert emergency classification, (3) augment the ERFs as soon as possible (without delay) in 75 minutes (45 minutes if augmenting with onsite personnel), and (4) extend the time to make the ERFs operational to as soon as possible (without delay) but not later than 90 minutes (45 minutes if augmenting with onsite personnel). Therefore, proposed augmentation/operational times could then be earlier than the current times of 30 and 60 minutes, if all personnel needed for augmentation were onsite because the emergency occurred during the work day.

Augmentation and being operational will be defined in the EP as (1) the actions taken to support on-shift personnel prior to emergency facilities becoming fully operational and (2) the status of an ERF declared by the appropriate facility manager upon determining that the facility is adequately staffed and equipment is setup and available to perform the emergency functions assigned to that facility, respectively. The definition of augmentation means that the individuals needed to supplement the on-shift emergency staff must be in by the stated augmentation time.

For the case where the staff onsite may be sufficient to staff the ERFs, the licensee proposed that it will make the TSC and EOF operational "as soon as possible (without delay) after declaration of any of [the] emergency classifications. When [the] facility staffing can be

accomplished with onsite personnel, it is the goal to become operational within 45 minutes. Otherwise offsite personnel shall provide shift augmentation in 75 minutes and be fully operational in 90 minutes." The licensee has made the distinction between staffing the emergency facilities entirely from onsite personnel and having to rely on personnel coming from offsite. This distinction is what the staff meant in referring to activating the emergency facilities during off-normal or normal working hours. In stating that the augmentation time is "as soon as possible (without delay)" means essentially that anything identified in a review or drill that would delay the on-shift emergency staff from being augmented would be corrected. By the licensee stating in the EP the augmentation time, augmenting the on-shift emergency staff by the stated time is a goal and not a strict regulatory requirement. If the cause for not meeting a goal is beyond the control of the licensee (e.g., weather, road conditions, traffic) then the inability to meet that goal is understood and the licensee should continue attempting to meet that goal. However, if the inability to meet the goal is for reasons over which the licensee has control, i.e. delay in notification of responders, delay in accessing facilities, delay of activities to setup a facility, etc. then it is the failure of one or more of these and not the failure to meet the facility activation time goal. Based on this, the staff concludes that the licensee meets the criterion.

(2) Description of Normal Plant Operating Organization

Grand Gulf Nuclear Station is a single unit site with the operating staff for the one unit. The licensee provided a table in its April 6, 2000, letter showing the current operator shift staffing to be 13 persons for each of the 5 operations shifts. (The staff notes that the EP is to provide a description of the normal operating organization in accordance with Section IV.A of Appendix E to 10 CFR Part 50.) The licensee stated that this staffing is much higher than required by EP Table 5-1, 10 CFR 50.54(m) and the TSs. However, the guidance in Table B-1, NUREG 0654 indicates that the on-shift staffing shown is for the minimum on-shift staffing. The licensee compensates by placing five additional positions and the 30 minute responders on-shift which increase the current Table 5-1 on-shift staff to fifteen but would add to the existing normal operating organization.

The licensee indicated that the key functional tasks, emergency classification, declaration, notification, dose assessment, protective action recommendations, and mitigation of the event can be performed without augmenting the on-shift emergency staff and staffing of emergency response facilities (TSC and EOF). The licensee indicated in the April 6, 2000, letter that to validate the ability to perform the majority of the tasks in Table 5-1 without staff augmentation, EP evaluated drills are performed by the Operations Staff using the plant simulator. These drills which last approximately 90 minutes (excluding the post drill critique) are performed during the Operations re-qualification period. An average of 20 such drills per year were conducted in the past two years. During these drills, the Operations Staff is taken from normal to accident operating conditions usually culminating in a General Emergency classification. The licensee indicated that the Operations Staff performed all the functions they would normally be required to perform in an emergency condition prior to the TSC or EOF becoming operational.

Additionally, the licensee modified its original proposal to augment the on-shift staff in 90 minutes to augment five positions in 75 minutes. As discussed in change L9, the positions the licensee designated to have the capability to augment in 75 minutes are:

- On-Call Manager Position for Emergency Direction and Control task at the CR/TSC.
- Core/Thermal Hydraulics Task

- Communicator Positions (two) for offsite notification
- Radiological Assessment Position for offsite dose assessment

Having the capability to augment the on-shift staff with these responders will provide for the relief of tasks in the control room such that the control room staff will be able to focus on mitigating the consequences of the accident. By showing that the licensee has more personnel on shift than what is indicated in Table B-1 would allow for the reduction in staffing commitments for augmenting the on-shift staff. Based on this, the staff concludes that the licensee meets the criterion.

(3) Population Density and Remote Site

The licensee indicated in the April 6, 2000, letter that the population of the area around the site was provided to the NRC in a letter dated July 21, 1995, "Recapture of Low Power Testing Period Proposed Amendment to the Operating License," (GNRO-95/00083) in which the licensee indicated the data in the letter is still valid. The licensee indicated the general trend is that the (0-10 mile radius) population density has actually decreased since the plant was first licensed. In that letter, the population for Mississippi communities and population centers within 50 miles of the site was provided for census years 1970, 1980, and 1990. The 1970 and 1990 data indicated a reduction in the near site population (within the 10 mile Emergency Planning Zone (EPZ)) and that the community of Port Gibson is the only population center within 10 miles of the site. The 1986 data for the population within 10 miles of the site is:

From 0 to 2 miles	94
From 2 to 5 miles	657
From 5 to 10 miles	<u>3362</u>
TOTAL	4113

The licensee demonstrated that the population density within 2 miles of the plant is small enough so that prompt protective actions could be taken by the appropriate offsite authorities in a timely manner when informed of plant conditions by the control room staff prior to full augmentation of the on-shift staff and prior to the licensee's ERFs becoming operational. Based on this, the staff concludes that the licensee meets this criterion.

(4) Increase the Emergency Response Organization Pool

In its April 6, 2000, letter, the licensee stated that extended augmentation time of no more than 75 and 90 minutes was to allow a greater fraction of the GGNS staff to be able to participate in the Emergency Response Organization (ERO). The licensee stated that, since the plant was licensed, plant staff has moved away from the site and this has reduced the fraction of plant staff that can realistically meet the augmentation times in Table 5-1 and the activation, augmentation and operational times for Emergency Response Facilities (ERFs). At this time only 15% of the plant staff live within the immediate area of the plant. Therefore, for the current 30 minute responders in Table 5-1, the fraction of plant staff that can be these responders is down to 15%. For the 60 minute responders, the fraction of the plant staff available is 73%. With the extension of augmentation time to 75 minutes (a driving time of 60 minutes as was stated in the April 6, 2000 letter), the fraction of plant personnel that can realistically participate in the ERO is stated to be 89%. During the November 2, 1999, meeting a representative of the Mississippi Emergency Management Agency stated that the State would assist to expedite

licensee personnel responding to an emergency at Grand Gulf but did not expect that this would significantly reduce the responder's driving times.

By extending the augmentation times, the licensee will be able to draw upon a larger pool of personnel for the ERO which would facilitate having the necessary persons with the appropriate skills to respond to the emergency. This would compensate for the extended times of 75 and 90 minutes by allowing the licensee to have the ability to draw upon the necessary resources to support the on-shift staff. Based on this, the staff concludes that the licensee meets the criterion.

(5) Early Activation of Emergency Response Facilities

The licensee also addressed this criterion in its April 6, 2000, letter. In Change A19, the footnote to EP Table 5-1, on staff augmentation that states the augmentation of the on-shift emergency staff begins at the declaration of the Alert or higher emergency classification, is deleted. The licensee indicated in Change M7 that the EOF would be activated at the Alert emergency classification. However, at the same time, the licensee proposed to increase the time to become operational to as soon as possible (without delay) but no later than 90 minutes (if having to use personnel from offsite) and no later than 45 minutes (if only needing to use onsite personnel). Notwithstanding the increase in activation time, indicating the EOF will be activated earlier at the Alert emergency classification than the staff's guidance, which is at the Site Area Emergency, and in conjunction with the discussions above, the early activation of the EOF would provide additional compensation for extending both the augmentation times for responders in EP Table 5-1 and for extending the EOF activation time. Based on this, the staff concludes that the licensee meets this criterion. Extending ERF operational time is discussed more in section 4.6 below.

Based on the staff's evaluation of the information provided by the licensee discussed above, the staff concludes that extending the time for augmenting the on-shift emergency staff is acceptable.

4.4 Dose Assessment

The licensee stated that the capability to perform dose assessment calculations will be provided on-shift and that the proposed extension of the operational time for the ERFs to not later than 90 minutes was partly based on these calculations being performed by on-shift personnel for the early stages of an accident until the onshift staff is augmented. In terms of the proposed changes to the EP, this proposed change will be the addition of a new on-shift task to EP Table 5-1.

In change L8, the licensee refers to change M3 and indicates that the capability to perform offsite dose assessment calculations will be provided on-shift. The licensee states that augmentation at 90 minutes would be acceptable since offsite dose assessment calculations are easily performed by on-shift personnel for the first 90 minutes of an accident.

In change M3, the licensee refers to EPPOS-3, guidance to NRC staff, which indicates that Section IV.B, Appendix E to 10 CFR Part 50 requires licensees to have the capability to perform dose assessments on-shift. It also indicates, as shown in Table B-1 of NUREG-0654 that this task may be assigned to someone on-shift assigned other duties in that event classification and

initial protective actions probably would be based initially upon plant conditions. Although event classification and initial protective actions would likely be based initially upon plant conditions, allowing a non-dedicated person on-shift to perform dose assessments is also based upon licensees having the capability to add a dedicated Dose Assessor qualified at the health physics supervisor level in 30 minutes to relieve this on-shift person. Therefore, having a dose assessment or the ease in performing a dose assessment capability on-shift does not, in itself, provide a commensurate reduction in the bases for having the capability to add a Sr HP Dose Assessor in 30 minutes.

In the initial proposal, the licensee did not indicate that the augmenting dose assessor responder would possess the qualifications equivalent for a Health Physics Supervisor. The person selected to occupy the Radiological Assessment position would be expected to provide an assessment of the radiological consequences of an accident to decision makers for event classification and protective action recommendations. That person needs to be knowledgeable of HP practices and theory vis a vis a senior/qualified HP to appropriately interface with an emergency director. The licensee indicated that although the position of Health Physics Supervisor is designated as Radiological Assessment, they will fill this position with a person qualified to be a health physics supervisor or a senior health physicist.

The licensee modified its proposal to augment the on-shift dose assessment with an offsite dose assessment responder in 75 minutes as indicated in a letter dated April 6, 2000. The licensee also stated that the on-shift Chemistry Technician would have the capability to perform dose assessments using real time meteorology.

Based on the staff's evaluation of the information provided by the licensee discussed above, the staff determined that the licensee's proposal for dose assessment is acceptable.

4.5 Shared Non-Collateral Tasks

In its application, the licensee proposed to increase the number of on-shift emergency staff positions allowed to be assigned non-collateral emergency tasks until the on-shift emergency staff is augmented. For the review of the proposed EP changes, non-collateral tasks are tasks that are not considered alike or similar, and would require a different education or training. In reviewing this sharing of tasks, the staff understands that (1) augmentation of the on-shift emergency staff is proposed to be as soon as possible (without delay) but not later than 75 or 90 minutes if the personnel needed must come from offsite, and not more than 45 minutes if the personnel needed are onsite, and (2) the licensee would have the capability to augment the on-shift staff when it is needed instead of being tied to an emergency classification. Therefore, the actual time when the non-collateral tasks are being shared is not simply the difference between 30 and 60 minutes in the current EP Table 5-1 and the 75 and 90 minutes proposed by the licensee.

In the proposed EP Table 5-1, the tasks identified as being shared are those annotated with footnote (a) (of the April 6, 2000, letter). The footnote applies to the following four position titles or expertise: radiological assessment for offsite dose assessment, radwaste operator for repair and corrective actions, shift personnel operations for firefighting, and shift personnel for rescue and first aid.

The licensee is changing the number of shared tasks in two ways. First, the licensee proposes to apply footnote (a) to the on-shift personnel for the following position titles or expertise: radwaste operator of repair and corrective actions and retitled radiological assessment of radiological accident assessment and support of operational accident assessment. These are the licensee's Changes M2 and A3, respectively, which are addressed in Section 4.2 above. The total number of dedicated personnel for these tasks identified in EP Table 5-1, however, is not being changed as shown below:

Tasks/ Positions	Current EP Table 5-1			Proposed EP Table 5-1	
	On shift	30-minute Responders	60-minute Responders	On shift	75 / 90-minute Responders
Radiological Assessment	0	1	0	1(a)	1 / 0
Radwaste Operator	0	0	1	1(a)	0 / 1
Total	0	1	1	2(a)	1 / 1
	A total of 2 individuals.			A total of 2 individuals.	

Second, the licensee proposes to reorganize the emergency tasks of (1) offsite radiological surveys, onsite radiological surveys, in-plant surveys and to relocate these tasks from the major functional area of radiological accident assessment and support of operational accident assessment to the area of radiation protection; and (2) technical support in the major functional area of plant systems engineering and to assign the core/thermal hydraulics capability to the STA on-shift instead of having a dedicated person in 30 minutes. These are the licensee's Changes L1 and M5 that are addressed in Section 4.1 above. The total number of dedicated personnel for these tasks identified in EP Table 5-1, however, is not being changed as shown on the next page:

Overall, evaluating the licensee proposed changes involving shared tasks, the staff concludes that they are (1) not changing the overall total number of dedicated personnel for the above emergency tasks, (2) maintaining the capability to augment the on-shift staff for emergencies, and (3) increasing the number of dedicated personnel on-shift from 10 to 15.

The licensee's proposed plan to share non-collateral tasks in EP Table 5-1 affects the tasks of offsite radiological surveys, onsite radiological surveys, in-plant radiological surveys, radiation protection health physicists, technical support, and CTH. The licensee has stated that the number of individuals on-shift to respond to an event in these areas is not changing, only the philosophy of not having dedicated personnel on-shift for specific emergency tasks and then waiting for staff augmentation to handle other tasks is being changed. With this change the emergency director would be able to direct the available trained personnel to do the most critical tasks needed to be done in response to an emergency. The licensee further stated that from quarterly emergency drills and observations they have concluded that the other shared tasks beyond that in the current EP Table 5-1 and in the proposed EP change can be accomplished.

Tasks/ Positions	Current EP Table 5-1			Proposed EP Table 5-1	
	On shift	30-minute Responders	60-minute Responders	On shift	75/90-minute Responders
Offsite Radiological Surveys	0	2	2	2	0/11(b)
Onsite Radiological Surveys	0	1	1		
In-plant Surveys	1	1	1		
Radiation Protection Emergency Tasks	2(a)	2	2		
Technical Support (Shift Technical Advisor)	1	0	0	1	0/0
Core/ Thermal Hydraulics (CTH)	0	1	0	0	1/0
Total	2 + 2(a)	7	6	3	1 + 11(b)
	A total of 15 individuals.			A total of 15 individuals.	

Notes: The titles in the Tasks/Positions column are the titles in the current EP Table 5-1. The four separate tasks/positions of offsite, onsite, and in-plant surveys, and radiation protection emergency tasks in the current EP Table 5-1 were combined into the single tasks/positions of radiation protection emergency tasks in the proposed table.

Where footnote (a) states the task may be assigned personnel with other duties (i.e., the 2 of 2(a) are not 2 additional individuals) and footnote (b) states that the person performing the task must be trained for the task they would perform. The footnotes "(a)" and "(b)" are from latest mark-up of EP Table 5-1 in the April 6, 2000, letter.

Where a "0" is indicated in the on-shift column under "Proposed EP Table 5-1" for both Table 1 and 2, this means that position is proposed to be shared such that the capability for performing the task is on-shift.

In its review of the sharing of non-collateral tasks, the staff specifically reviewed the licensee's proposal to combine the HP tasks into one major functional area and to rely on only two dedicated HP technicians until their augmentation at no later than 90 minutes. This is described in Changes L1, L4, L7, M4, A5 and A6. The licensee proposes to delay HP responders because of (1) improved radiation detection equipment, (2) certain HP activities, such as offsite monitoring surveys, would not be needed for the first 90 minutes of an event, and (3) consolidation of non-collateral HP tasks. However, in the current proposal, the licensee proposes to add an additional dedicated HP on-shift as well as extend the augmentation time for HP responders. The licensee is also required to have the capability to augment the on-shift HP emergency staff if additional HPs are needed, without having to activate the ERFs.

The licensee provided additional information to support relying on two HP technicians until on-shift staff augmentation in its letter of August 29, 2000. Based on drills, walkdowns, and analysis, the licensee has concluded that the two HP technicians can perform the emergency tasks of onsite, offsite, and in-plant surveys, access control, personnel monitoring, and dosimetry until on-shift staff augmentation. Additionally, the licensee indicated that Grand Gulf is a "ground level release plant." Consequently, the licensee would have the capability to detect a release earlier by the on-shift HPs rather than having to provide off site monitoring teams to detect a release and its magnitude. Furthermore, as discussed in the previous section, offsite dose assessments would be performed by the on-shift chemist. The licensee explained current HP practices are less labor intensive, needed equipment is pre-staged and set up in the ERFs for use in the emergency, and the HP practices to be used in the emergency are those used day-to-day onsite and do not need any special effort or training for use in the emergency. When considering this with the time for augmenting the on-shift HPs, it would be acceptable to allow a delay in augmentation for responders who would be tasked to perform off site surveys.

In its initial review of the proposed sharing of non-collateral tasks before on-shift staff augmentation, the staff considered approving the sharing of non-collateral tasks on a temporary basis to allow the licensee to test this concept through drills and exercises and to perform a task analysis for those non-collateral tasks the licensee proposes to be shared. This was discussed with the licensee in the meeting of November 2, 1999. The licensee indicated in its letter of April 6, 2000, that it would be willing to conduct such task analyses and conduct such drills and exercises with the details for the task analysis and drills and exercises to be worked out jointly between the licensee and the staff. However, based on additional information provided by the licensee, the staff concludes that the task analysis and drills and exercises are not needed, and the proposed non-collateral shared tasks are acceptable.

The licensee's proposed change related to on-shift HP staffing in EP Table 5-1 and part of the licensee's justifications for the change were considered in appeal of the staff's review of EP Change 28.001-95, which is discussed in Section 1.0. In the conclusion of the appeal, the appeal board concluded that the plan change did not meet 10 CFR 50.54(q), and the change should have been submitted to the staff for approval before implementation. In the staff's letter of November 16, 1998, documenting the conclusion of the appeal board, the staff also listed concerns about the proposed change. Although the licensee is relying on some the justifications addressed in the letter of November 16, 1998, the current proposal and justification is more extensive than that for EP Change 28.001-95. For example, the licensee is identifying a second dedicated HP technician on-shift, the licensee has equipment staged in the ERFs for immediate use, certain HP activities, such as offsite monitoring surveys would likely

not be needed in the first 90 minutes of an event, and the licensee can add additional HP technicians if needed before activation of the ERFs.

4.6 Emergency Response Facility (ERF) Operational Times

During the discussions regarding the extension of the licensee's capability to augment the emergency on-shift crew, the staff discussed the operational times for ERFs, particularly the TSC and the EOF. The staff noted that EP Table 5-1 includes a location column for responders. The staff stated that the capability to augment the on-shift staff, as defined in EP Table 5-1, is to be based on the declaration of any emergency and is not linked to the operational times for ERFs which are dependent upon an emergency classification.

In the licensee's initial submittal, the licensee used the terms activation, augmentation, and operational interchangeably. In the licensee's April 6, 2000, letter, the licensee provided the following definitions for these terms: activation is the steps taken to staff and setup an emergency facility for operation; augmentation is the actions taken to support on-shift personnel prior to the emergency facilities becoming fully operational; and operational is when the ERF is adequately staffed and the equipment is set-up and available so that the facility can perform the emergency functions assigned to that facility. This is in agreement with staff's guidance in Section 2.0.

The letters of July 15, 1999, and April 6, 2000, provided additional information and revised the licensee's original proposal such that it was clear the change was to make the emergency facilities (TSC and EOF) operational as soon as possible (without delay) but not later than 90 minutes when needing personnel from offsite. The goal to augment and make operational the ERFs with only on-site personnel would be within 45 minutes. The EP would indicate that:

"The TSC may be activated at any time, and shall be activated at an Alert, Site Area Emergency, or General Emergency Declaration. Once activated, the TSC shall become operational as soon as possible (without delay) but not later than 90 minutes after declaration of any of these emergency classifications. When facility staffing can be accomplished with onsite personnel, it is the goal to become operational within 45 minutes. Otherwise offsite personnel shall provide shift augmentation in 75 minutes and be fully operational in 90 minutes. During emergencies, the TSC will provide for the classification, accident assessment, notification, and dose assessment functions if these functions are unavailable at the EOF or Backup EOF."; and

"The EOF may be activated at any time and shall be activated at an Alert, Site Area Emergency, and General Emergency declaration. Once activated, the EOF shall become operational as soon as possible (without delay) but not later than 90 minutes after declaration of any of these classifications. When facility staffing can be accomplished with on-site personnel, it is the goal to become operational within 45 minutes. Otherwise offsite personnel shall provide shift augmentation in 75 minutes and be fully operational in 90 minutes."

The licensee has clearly delineated between augmentation and being operational in the EP to be (1) the actions taken to support on-shift personnel prior to emergency facilities becoming fully operational and (2) the status of an ERF declared by the appropriate facility manager upon determining that the facility is adequately staffed and equipment is set up and available to

perform the emergency functions assigned to that facility. The definition of augmentation for ERFs would mean that individuals would report to the ERFs as rapidly as possible and begin preparing the ERFs to be operational.

The licensee stated that the EP director can have additional personnel added to the on-shift emergency staff as they are needed independent of activating the ERFs. The additional personnel would have the goal of augmentation as soon as possible (without delay) but not later than 75 or 90 minutes (personnel from offsite) and 45 minutes (personnel are onsite). Therefore, personnel can be added to those on-shift to address the emergency even though the ERFs may not be activated and become operational.

The licensee's basis for increasing the TSC activation time goal considered the following: (1) personnel relocating who staff the TSC require more time to travel to the site and (2) increasing the operations staff (personnel who would be on-shift for emergencies.) Additionally, the low population density, especially within 2 miles of the plant where prompt protective actions could need to be taken based initially on plant conditions without TSC input, would provide additional confidence that the TSC operational time goal could be extended.

Activating the EOF and having it operational within 90 minutes of the Alert classification provides for the early staffing and transfer of functions to unburden the control room. Additionally, the words "...as soon as possible (without delay) but not later than 90 minutes...When facility staffing can be accomplished with on-site personnel, it is the goal to become operational within 45 minutes..." for both the TSC and EOF activation indicates that during normal working hours, these facilities would be operational significantly faster than the time goals currently specified in the EP.

In evaluating the licensee's proposal the staff considered the guidance in Supplement 1 to NUREG-0737 which indicates that the TSC should be "Staffed by technical, engineering, and senior designated licensee officials to provide needed support, and be fully operational within approximately 1 hour after activation." The activation times for both the TSC and EOF are indicated as approximate or goals and not strict regulatory requirements. Consequently, the licensee should determine the root cause when a goal is not met. If the cause is isolated and beyond the control of the licensee, i.e., weather, traffic, etc. then the inability to meet the goal in that instance is understood and the licensee should continue to meet the goal. However, if the inability to meet the goal is systemic or for reasons over which the licensee has control, i.e. residence of responders, delay in notification of responders, delay in accessing facilities, delay of activities to setup a facility, etc., the licensee should implement appropriate corrective actions to ensure the goals when the licensee can not staff with on-site personnel can be met.

Based on the above, the staff concludes that the proposed extension of the ERF augmentation and operational time goals are acceptable.

4.7 EP Inspections at GGNS

Before completing its review of the licensee's proposed EP plan changes and because the EP appeal letter of November 16, 1998, included a statement about the decrease in the licensee's performance in the radiation protection area of the Systematic Assessment of Licensee Performance (SALP) report of October 9, 1997, the staff also reviewed the results of (1) EP inspections conducted at GGNS and (2) Federal Emergency Management Agency's (FEMA's)

reports on the GGNS exercises, for the past two years. In that time, the staff issued four inspection reports (IRs) and FEMA issued one report. The four IRs that were reviewed are the following: IR 98-08 dated July 14, 1998; IR 98-11 dated October 14, 1998; IR 98-16 dated December 24, 1998; and IR 99-07 dated July 23, 1999. The FEMA report that was reviewed was issued September 23, 1999, by FEMA for the exercise conducted June 23 and 24, 1999.

There was a notice of violation in IR 98-16 for, contrary to 10 CFR 50.54(q), making a change to the EP that decreased the effectiveness of the EP without prior staff approval. However, in the last three IRs, including IR 98-16, the comments in the IRs on the licensee's EP implementation were overall very positive. Although there were some negative conclusions in IR 98-08, the earliest report referenced above, the conclusions in the last three IRs were that the EP was effectively implemented and performance was good, emergency classifications were correct and timely, a comprehensive plan was developed to resolve chronic ERO qualification maintenance and tracking problems, drill reports were thorough and auditable, and the self assessments were thorough and critical.

In the FEMA report, no deficiencies during the June 1999 exercise were identified. The two areas requiring corrective action in the report concerned contamination control during the medical drill and do not involve the licensee.

Based on its review, the staff did not identify any information that would alter the conclusions stated in the Safety Evaluation.

5.0 CONCLUSION

The staff concludes, as discussed above, that the licensee's EP changes as proposed in its letter of March 6, 1998, and revised in its letters of January 20 and July 15, 1999, and April 6 and August 29, 2000, are acceptable. The staff also concludes that the changes to the EP for GGNS meet the planning standards of 10 CFR 50.47(b) and the requirements of Appendix E of 10 CFR Part 50.

6.0 IMPLEMENTATION OF EP CHANGES

In its letter of April 6, 2000, the licensee stated that it would implement the approved EP changes within 120 days of receipt of the staff's letter approving the changes. Given the extensive revision of the EP by the approved changes, the staff concludes that the 120-day implementation period is acceptable.

Attachment: Table, "Emergency Plan Changes for Grand Gulf Nuclear Station"

Principal Contributors: Edwin Fox
Jack Donohew

Date: September 29, 2000

EMERGENCY PLAN CHANGES FOR GRAND GULF NUCLEAR STATION

CHANGE NO./ EP Location	PROPOSAL	APPLICABLE LETTERS
L1 EP Table 5-1	(a) Combine offsite, onsite and in-plant radiological surveys as "Surveys (offsite, onsite and in-plant surveys on as-needed basis only)" and relocate as tasks under renamed major functional area of "Radiation Protection" in EP Table 5-1; (b) add two extra types of surveys that on-shift health physicists will be capable of performing: onsite and offsite surveys; and (c) add to this emergency task the words stating that surveys will be performed on an as-needed basis.	March 6, 1998 August 29, 2000
L2 EP Table 5-1	Add a new footnote (e) to EP Table 5-1 to allow certain positions to be vacant for not more than 2 hours due to unexpected absences. This allowance is not applicable during a declared emergency.	March 6, 1998
L3 EP Table 5.1 EP Sections 7.3.1, 7.3.3, and 7.6.4.	Change the augmentation times of 30 and 60 minutes, in EP Table 5-1 and EP Section 7.3 for the ERFs, to (1) extend the time to augment the on-shift emergency staff in EP Table 5-1 to as soon as possible (without delay) but no later than 75 or 90 minutes (45 minutes if augmenting with onsite personnel), (2) augment the ERFs as soon as possible (without delay) in 75 minutes (45 minutes if augmenting with onsite personnel), and (3) extend the time to make the ERFs operational to as soon as possible (without delay) but not later than 90 minutes (45 minutes if augmenting with onsite personnel). A footnote (h) stating this is added to EP Table 5-1.	March 6, 1998 January 20, 1999 July 15, 1999 April 6, 2000

CHANGE NO./ EP Location	PROPOSAL	APPLICABLE LETTERS
L4 EP Table 5-1	In EP Table 5-1, extend the augmentation of two 30- and two 60-minute offsite radiological survey (emergency task) responders to as soon as possible (without delay) but either not later than 45 minutes if augmentation personnel are onsite or not later than 90 minutes if personnel are offsite.	March 6, 1998
L5 EP Table 5-1	Staff the core/thermal hydraulics (CTH) emergency task in EP Table 5-1 as soon as possible (without delay) but no later than 75 minutes instead of by the current 30 minutes.	March 6, 1998
L6 EP Table 5-1	Augment the in-plant survey as soon as possible (without delay) but no later than 90 minutes versus the current 30- and 60-minute times.	March 6, 1998 August 29, 2000
L7 EP Table 5-1	Reword footnote (b) in EP Table 5-1 to allow the use of personnel trained to perform specific radiation protection emergency tasks instead of the current prescriptive words.	March 6, 1998
L8 EP Table 5-1	Staff a dedicated Offsite Dose Assessment person as soon as possible (without delay) but no later than 75 minutes versus the current 30-minute allowance.	March 6, 1998
L9 EP Table 5-1	Augment selected positions as soon as possible (without delay) but at no later than 75 minutes. The change is made by the addition of footnote (g) to Table 5-1 which will state that these personnel will report and augment shift personnel as soon as possible, without delay, but no later than 75 minutes.	April 6, 2000
M1 EP Table 5-1	Increase On-shift communicator staffing number from one to two and eliminate the current 30-minute responder.	March 6, 1998

CHANGE NO./ EP Location	PROPOSAL	APPLICABLE LETTERS
M2 EP Table 5-1	Assign a repair and corrective action radwaste operator as an on-shift position and add EP Table 5-1 footnote (a) to allow personnel assigned other duties to perform this task.	March 6, 1998
M3 EP Table 5-1	Reassign the 30-minute offsite dose assessment emergency task in EP Table 5-1 as an on-shift capability position and EP Table 5-1 footnote (a) is applied to this newly created on-shift position to allow on-shift personnel assigned other duties to perform this task.	March 6, 1998
M4 EP Table 5-1	Increase on-shift onsite radiological survey (outside the plant structures but inside the security fence) staffing from zero to one by relocating the 30-minute responder to the on-shift column in EP Table 5-1.	March 6, 1998
M5 EP Table 5-1	Add the words "and Core/Thermal Hydraulics" to emergency task Technical Support in EP Table 5-1 to have the on-shift STA provide the on-shift CTH capability.	March 6, 1998
M6 EP Table 5-1	Delete the current EP Table 5-1 footnote (b) from the on-shift staffing numbers for the mechanical and electrical maintenance positions. Assign the current 30-minute instrumentation and control (I&C) maintenance position responder to on-shift.	March 6, 1998
M7 EP Section 7.3.3	Add a requirement to activate the Emergency Operations Facility (EOF) at an Alert in Section 7.3.3, paragraph 3 of the Emergency Plan.	March 6, 1998
M8 EP Table 5-1	EP Table 5-1 footnote (c) is deleted. Footnote (c) states "Not required in Mode 4 or 5 per GGNS Technical Specifications."	July 15, 1999

CHANGE NO./ EP Location	PROPOSAL	APPLICABLE LETTERS
M9 EP Table 5-1	Proposed EP Table 5-1 footnote (e) is modified by the addition of the following note: "This allowance is not applicable during declared emergencies."	July 15, 1999
A1 EP Table 5-1	Eliminate EP Table 5-1 footnote (b), that the position may be performed by personnel assigned other duties, from Shift Superintendent.	March 6, 1998
A2 EP Table 5-1	Change Position Title or Expertise for Notification/Communication function in EP Table 5-1 from the current words "Operator/Plant System Engineer/Engineering Technician" to "Communicator."	March 6, 1998
A3 EP Table 5-1	Change Position Title or Expertise in EP Table 5-1 for Offsite Dose Assessment from "Health Physics Supervisor" to "Radiological Assessment."	March 6, 1998
A4 EP Table 5-1	Delete the words "Other as Designated (d)" from the Position Title or Expertise for Offsite Radiological Surveys in EP Table 5-1.	March 6, 1998
A5 EP Table 5-1	Rename Major Functional Area "Protective Actions (in-plant) Radiation Protection" in EP Table 5-1 as "Radiation Protection."	March 6, 1998
A6 EP Table 5-1	Delete EP Table 5-1 footnote (b) from on-shift staffing number for the newly renamed Major Functional Area of "Radiation Protection."	March 6, 1998
A7 EP Table 5-1	Rename Emergency Task "EOF Director" in EP Table 5-1 as "EOF Direction and Control."	March 6, 1998
A8 EP Table 5-1	Add EP Table 5-1 footnote (f) to newly renamed emergency task of "Emergency Direction and Control" to state that the Shift Superintendent (SRO) is relieved of this task at 90 minutes and, upon this relief, the Shift Superintendent (SRO) resumes plant operational duties.	March 6, 1998

CHANGE NO./ EP Location	PROPOSAL	APPLICABLE LETTERS
A9 EP Table 5-1	Rename the current Position Title or Expertise for the Major Functional Area of Rescue/First Aid in EP Table 5-1 from the current words "Shift Personnel (i.e. Computer Support, Maintenance)" to the new words of "Rescue and First Aid."	March 6, 1998
A10 EP Table 5-1	Add words "Provided by Claiborne County/Port Gibson" to the capability for additions for the Major Functional Area of Rescue/First Aid in EP Table 5-1.	March 6, 1998
A11 EP Table 5-1	Rename Position Title or Expertise in EP Table 5-1 from "OEC" to "Senior Manager."	March 6, 1998
A12 EP Table 5-1	Add allowance in EP Table 5-1 for the electrical and mechanical engineers Position Title or Expertise to reside in either the OSC or TSC.	March 6, 1998
A13 EP Table 5-1	Add proposed EP Table 5-1 footnote (d) to newly created emergency task (see Change M5) of "Technical Support and Core/Thermal Hydraulics" which states "Core/Thermal Hydraulics is part of normal STA duties listed in the Updated Final Analysis Report and Technical Specifications."	March 6, 1998
A14 EP Table 5-1	Rename the task words of "Electrical" and "Mechanical" in EP Table 5-1 to "Technical Support." This change involves deletion of the words "Plant Systems" from "Engineer" and the addition of the words "Electrical" and "Mechanical" to "Engineer" under the table heading of "Position Title or Expertise" for the renamed task.	March 6, 1998 April 6, 2000
A15 EP Section 1.0	Add new definitions of offsite, onsite, and plume tracking survey to Section 1.0 of the Emergency Plan for clarification purposes.	March 6, 1998

CHANGE NO./ EP Location	PROPOSAL	APPLICABLE LETTERS
A16 EP Section 7.3.1	Provide clarifying information to EP Section 7.3.1 of specific functions that the TSC performs in the event of the unavailability of the EOF or the Backup EOF.	March 6, 1998
A17 EP Table 5-1	Add allowances for the Notification/Communication function in EP Table 5-1 to be performed in the EOF.	March 6, 1998
A18 EP Table 5-1	Add allowance for Offsite Dose Assessment in EP Table 5-1 to be performed in the control room (CR) or EOF.	March 6, 1998
A18 EP Table 5-1	[An addition to Change A18 was submitted in the July 15, 1999, letter.] Due to the deletion of footnotes (a) and (c), footnotes (b), (d), (e), (f), (g), and (h) are relabeled (a) through (f) in EP Table 5-1.	July 15, 1999
A19 EP Table 5-1	Delete footnote (a) from EP Table 5-1. Delete footnote (a) that shift augmentation begins at the declaration of an Alert, Site Area Emergency, or General Emergency.	July 15, 1999
A20 EP Section 5.4.2.e	Reword EP Section 5.4.2.e to state the following: "Requests additional resources as deemed necessary up to and including activation of the emergency organization as required."	July 15, 1999
A21 EP Table 5-1 EP Section 5.4.19	Retitle "TSC/EOF Dose Calculator" in EP Section 5.4.19 to "Radiological Assessment Dose Calculator" and add the following sentence to the end of the section: "This function may be performed by on-shift personnel and it is also an augmented function."	April 6, 2000
A22 EP Section 5.4.2	Add new sentence to EP Section 5.4.2 as follows: "h. The Shift Superintendent will resume Control Room duties upon relief by the augmenting Emergency Director when the TSC is declared operational."	April 6, 2000

CHANGE NO./ EP Location	PROPOSAL	APPLICABLE LETTERS
A23 EP Section 1.0	Add the definition of "Augmentation" to EP Section 1.0.	April 6, 2000
R1 EP Table 5-1	Relocate the major functional area of "Emergency Direction and Control" in EP Table 5-1 to the emergency tasks area for the major functional area of "Plant Operations and Assessment of Operational Aspects."	March 6, 1998
R2 EP Table 5-1	Relocate the "On-Call Manager (Emergency Director)" by listing it under the "Shift Superintendent" in EP Table 5-1.	March 6, 1998
R3 EP Table 5-1	Relocate the major functional area of "Firefighting" as an emergency task under the major functional area of "Plant Operations and Assessment of Operational Aspects" in EP Table 5-1.	March 6, 1998
R4 EP Table 5-1	Relocate the Emergency Direction and Control "Shift Superintendent" to the Major Functional Area of Plant Operations and Assessment of Operational Aspects in EP Table 5-1.	March 6, 1998
R5 EP Table 5-1	Relocate emergency tasks "Technical Support" and "Core/Thermal Hydraulics" to the emergency tasks section of Major Functional Area of "Plant Operations and Assessment of Operational Aspects" in EP Table 5-1.	March 6, 1998
R6 EP Table 5-1	Relocate the "Firefighting Communications" task in EP Table 5-1 from the Major Functional Area of "Security" to the newly created Emergency Task of "Firefighting."	March 6, 1998