Entergy

Entergy Operations, Inc.
P.O. Box 756
Port Gibson, MS 39150
Tel 601 437-6470

W. K. Hughey
Director
Nuclear Safety & Regulatory
Affairs

May 22, 1997

U.S. Nuclear Regulatory Commission
Mail Station P1-37
Washington, D.C. 20555

Attention: Document Control Desk

Subject: Grand Gulf Nuclear Station
Docket No. 50-416
License No. NPF-29
Request for Meeting to Discuss NRC Safety Analysis for
Emergency Plan Change 28-001-95

Reference: GNRI-97/00057 dated April 24, 1997 from NRC to EOI,
Emergency Plan Change, Revision 28-001-95, For Grand Gulf
Nuclear Station, Unit 1

GNRO-97/00048

Gentlemen:

We were concerned with the overall potential impact your staff analysis may have to the industry when you deemed that Emergency Plan Change (28-001-95) decreased the effectiveness of the plan. We believe that the staff's determination on this Emergency Plan change is incorrect and warrants further discussion and careful consideration by the NRC.

We believe the staff has either misunderstood our intentions or is adopting a position that potentially modifies previous industry utilization of 10CFR50.54(q). We believe this to be the case because the staff analysis implied that our change was a decrease in effectiveness because:

- Electronic alarming dosimeters are inadequate for protecting workers.
- All Emergency teams entering the plant during emergencies shall be escorted by Health Physics (HP) personnel.
- Non-dedicated HPs filling on-shift emergency response organization functions causes a reduction in the quality of HP coverage.

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Since receipt of the April 24, 1997, letter we have evaluated staffing needs and have determined that at this time we can supplement the on-shift HP personnel at 30 minutes. However, this is considered a short term solution. We still desire to use personnel who live greater than 30 minutes, but less than or equal

to 60 minutes from the plant. These actions should be considered as interim until resolution of these issues has been reached. Having satisfied all elements of 10CFR50.54(q), 10CFR50.47, and Appendix E, we still feel our change is acceptable and we were correct in implementing the change without NRC approval.

As stated verbally in 1995 to NRR and Region II personnel, we did not seek staff approval for the change prior to implementing the change because we felt we met the requirements of 10CFR50.54(q). However, we do feel that the evaluation we provided you, which allowed the change, probably did not contain sufficient information for NRC review. (It is important to note that the evaluation was sent as a courtesy and is not a requirement.) Had we determined outside prior approval was required, as is the case with Technical Specification changes, we would have provided a much more detailed analysis containing much of the information in the attached documents. We feel the detailed analysis would have satisfactorily answered the concerns mentioned in the staff analysis supporting the conclusion and subsequent disapproval of our Emergency Plan change. Inclusion of additional information for staff approval would have been done solely for the purpose of providing information for NRC review. We are not implying that the evaluation we did for the Emergency Plan change did not contain adequate detail. We are saying that the change provided enough detail for Grand Gulf reviewers, including the PSRC, to make the determination that the Emergency Plan change was not a decrease in effectiveness.

It should be noted that at no time since we notified the staff that we had implemented the change, did the staff (NRC Regions II, IV, and NRR) indicate to us that we had decreased effectiveness of the Emergency Plan. We believe the change did not and does not adversely impact public health and safety or inhibit our ability to adequately provide protection in the event of a radiological emergency.

The staff's conclusion involves policy and regulatory interpretation issues that may have a significant adverse effect on future Emergency Plan changes under 10CFR50.54(q). We know this topic has been widely discussed by the staff and that the staff is working on guidance that will hopefully provide clarification on this issue.

Attachment 1 contains our basis for the change along with additional information that could help the staff in understanding our change. Attachment 2 is our response to the NRC staff analysis provided in the April 24, 1997, letter. Attachment 3 contains the original evaluation which allowed us to make Emergency Plan Change 28-001-95. Attachment 4 contains NRC regulatory information. The additional information and technical justification provided herein is only part of the appeal of the staff's position. Consequently, we

request a meeting with Mr. Art Howell, Director of Reactor Safety, to present our concerns and additional clarifying information which we anticipate will lead to a constructive resolution of this issue.

We would be happy to further discuss these issues with the staff prior to our requested meeting. Please feel free to contact Kenneth Hughey at (601) 437-6470.

We appreciate the cooperation and attention of the Staff on this matter.

Yours truly,

WKH/MJL
attachments:

1. **Attachment 1**, Background and Basis for Emergency Plan Changes 28-001-95.
2. **Attachment 2**, Grand Gulf Responses To NRR Staff Analysis For Emergency Plan Change 28-001-95
3. **Attachment 3**, 10CFR50.54(q) Evaluation That Allowed Emergency Plan Change 28-001-95
4. **Attachment 4**, NRC Regulatory Information

cc: GGNS NRC Senior Resident Inspector (w/a)
Mr. N. S. Reynolds (w/a)
Mr. L. J. Smith (w/a)
Mr. H. L. Thomas (w/o)
Mr. J. W. Yelverton (w/a)

Mr. E. W Merschoff (w/a)
Regional Administrator
U.S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 400
Arlington, TX 76011

Mr. J. N. Donohew, Project Manager (w/2)
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Mail Stop 13H3
Washington, D.C. 20555

ATTACHMENT 1

BACKGROUND AND BASIS

FOR

EMERGENCY PLAN CHANGE 28-001-95

BACKGROUND

The regulations in 10CFR50.54 requires certain conditions in every license authorizing a licensee to operate a nuclear power plant. One of these conditions, delineated in 10CFR50.54(q) is that a licensee shall follow and maintain in effect emergency plans which meet the standards in 10CFR50.47(b) and the requirements in Appendix E of this part. Under 10CFR50.54(q) it states that "The nuclear power reactor licensee may make changes to these plans without Commission approval only if the changes do not decrease the effectiveness of the plans and the plans, as changed, continue to meet the standards of 50.47(b) and the requirements of Appendix E to this part." It further states that "Proposed changes that decrease the effectiveness of the approved emergency plans may not be implemented without application to and approval by the Commission."

In a letter dated April 24, 1997, the NRC staff concluded Emergency Plan Change 28-001-95, which was implemented on June 30, 1995, was a decrease in the effectiveness of the Emergency Plan. The basis for the NRC staffs determination was that the Emergency Plan Change is a decrease in effectiveness because it is inconsistent with the guidance in NUREG-0654, Table B-1, "Minimum Staffing Requirements for NRC Licensees for Nuclear Power Plant Emergencies." Prior to the April 24th letter, several phone calls were held between Grand Gulf and Region II, IV, and NRR personnel. Also, we answered several sets of questions (some docketed via RAIs and some not docketed) posed by the NRC staff. We understand that the transfer of Grand Gulf from Region II to Region IV shortly after the NRC received our change may have affected the outcome of this particular issue.

The staff analysis for Emergency Plan Change 28-001-95 is silent on whether or not we are meeting 10CFR50.47(b) and Appendix E. The primary basis for disapproving the change is that we have reduced effectiveness of the Emergency Plan. In the 1993 Final Regulatory Review Report, it was noted that licensees should not be precluded from making changes to the emergency plans as long as the plans met a minimum. In this case we believe the minimum to be 10CFR50.47(b) and Appendix E and feel that the staff is holding NUREG-0654 to the same level as the 10CFR. We believe that when NUREG-0654 was written it was developed as the minimum back in 1980 to be used to develop Emergency Plans and improve emergency preparedness. It did not, however, preclude licensee's from making improvements which were above the minimum guidance of NUREG-0654. We believe that 10CFR50.54(q) acknowledges the guidance status of NUREG-0654 in that Emergency Plans can be changed based on improvements without prior NRC approval.

WHAT WE CHANGED

The two protective actions Health Physicist (HPs) listed in Table 5-1 (Table B-1 in NUREG-0654) of the Grand Gulf Emergency Plan were moved from the 30 minute to the 60 minute column. The two on-shift dedicated HPs were not affected by this change. Since we received our operating license, we have had to overman our on-shift personnel with four HPs versus the necessary two HPs, solely to meet the expectations established by Table B-1 of NUREG-0654. This was necessary due to the limitations of available technology at the time of licensing of Grand Gulf and the desire to not mandate emergency response organization (ERO) personnel assignments based solely on an individual's place of residence. The four functions identified in Table B-1 for the 30 minute augmentation HPs and the reason these HPs are not needed until 60 minutes are:

- Access control - Now automated.
- HP coverage - Onshift personnel are providing.
- Personnel monitoring - Minimal HP involvement is needed.
- Dosimetry issuance - Self-issued by workers.

HOW WE UNDERSTAND 10CFR50.54(q)

We believe that 10CFR50.54(q) allows us to make changes to our emergency plan if we satisfy the three criteria of 10CFR50.54(q) which are:

1. Is there a decrease in effectiveness? (Note: There is no approved guidance, that we know of, that defines "effectiveness.")
2. Do we continue to meet 10CFR50.47(b)? - Specifically the provision to provide timely augmentation of response capabilities.
3. Do we continue to meet Appendix E?

If a proposed change does not satisfy all the above criteria, then Grand Gulf would deem the proposed change as a decrease in effectiveness and would submit the Emergency Plan change to the NRC for prior approval.

The way we satisfy the decrease in effectiveness question is to first make sure we are meeting the regulations 10CFR50.47 and Appendix E. If we satisfy these regulatory criteria, then the only criteria left to satisfy is the question; "Does this change result in a decrease of effectiveness of our Emergency Plan?". To do this we apply the Emergency Plan change against the initial criteria used to give us an operating license. The key evaluation criteria (as provided in 10CFR50.47(a)(1)) we use is:

Does the changed emergency plan provide reasonable assurance that adequate protection can and will be taken in the event of a radiological emergency.

If a change to the Emergency Plan would cause us to not provide for adequate protection in the event of a radiological emergency, then it is considered a decrease in effectiveness and prior NRC approval would be necessary.

Changes based on Emergency Program improvements should be given credit and used to change the Emergency Plan as long as it can be shown that the adequacy of protection is maintained. We believe that this is consistent with NRC Generic Letter 95-08, 10CFR50.54(p) "Process for Changes to Security Plans Without Prior NRC Approval which states, "Latitude has always existed in that improvements in one area of the program may offset reductions in other areas." A good example of an improvement to the Emergency Program would be automation of HP processes. HPs spend less time handling paper and manually issuing personnel protective devices. With this improvement, emergency teams and HPs are able to get into the plant much sooner since time is not wasted manually zeroing and issuing dosimeters or checking worker qualifications. The previous manual HP processes increased the overall time required to get emergency workers out into the plant. Since the time for getting workers into the plant has been decreased, we feel we have increased our level of protection since workers are in the plant much sooner and with less likelihood of error than when the Emergency Plan was first approved. This increase in efficiency of HP processes should be used to allocate ERO resources to when they are actually needed. Delayed augmentation of selected ERO functions, which were previously manual functions, should be allowed if the function can now be performed better by computers or is no longer needed due to process improvements.

BASIS for CHANGE

Emergency Plan Change 28-001-95 was made and implemented based on satisfying the criteria of 10CFR50.54(q), 10CFR50.47(b), and Appendix E. The basic process by which the change was made included:

- The proposed change was reviewed against 10CFR50.47(b) requirements and was determined to still met the requirements.
- Appendix E requirements were also reviewed and determined to still be met.
- A determination was made if the proposed change would result in a decrease in the effectiveness of the Emergency Plan.
- Other NRC regulatory and guidance documents (e.g., NUREG-0654, NUREG-1465, NUREG-0737, Statements of Consideration for 10CFR50.54(q), 10CFR...) were reviewed and used to evaluate

acceptance of the proposed change. See Attachment 4 for applicable NRC regulatory information.

- The Grand Gulf Updated Final Safety Analysis Report (UFSAR) and Technical Specifications (TS) were reviewed to ensure the proposed change was allowed.
- The proposed change was approved by the Plant Safety Review Committee (PSRC).
- The approved change was implemented following PSRC approval.
- The Emergency Plan change was then submitted to the NRC as required by 10CFR50.54(q).

If the Emergency Plan Change had failed to meet the criteria of 10CFR50.54(q), the change would have been sent to the NRC requesting approval of the change prior to implementation.

The documented 10CFR50.54(q) evaluation, which has been included as Attachment III, provided the basis for the change and was provided to the NRC along with the Emergency Plan change we mailed to the NRC on June 30, 1995. Some of the items listed below were not included in the 10CFR50.54(q). The primary reason for not including all of the items in the disputed 10CFR50.54(q) evaluation supporting the Emergency Plan change is that these items are considered basic knowledge for Grand Gulf personnel. Since the evaluation was written for personnel at Grand Gulf, who are knowledgeable in plant procedures and processes, inclusion of the additional items was not deemed necessary. The information provided below reiterates the evaluation discussion provided in Attachment 3 which supported Emergency Plan Change 28-001-95. The information below also provides new information that further validates that the Emergency Plan change was not a decrease in effectiveness of the plan, and following the proposed change, 10CFR50.47(b) and Appendix E requirements would continue to be met. The proposed change was determined acceptable based on the following items:

- HP work processes have been automated. Specifically this includes an RWP (radiation work permit) access control computer system and the Electronic Alarming Dosimeter (EAD) computer system. The RWP access control and EAD computer system work together to provide a fully integrated system. Both systems have been online and used by plant workers (ERO personnel) for several years prior to implementing the Emergency Plan change. Worker dose margins and training qualifications are also verified when the access control system is used.

- The RWP access control and the EAD computer systems at the OSC are set up by turning them on.

- Pocket ion chambers (PICs) were replaced with EADs. In the past, ERO team members were typically manually issued 3 PICS to act as accident dosimeters in addition to a TLD

(thermoluminescent dosimeter). Prior to issuance, zeroing/charging of each individual PIC was required. The process of issuing and zeroing PICS was a heavy resource drain on HPs. Also, PIC serial numbers had to be recorded along with dose in and out for each entry as well as zeroing/charging each PIC for each entry. It should be noted that PICs are available, but would only be used if EADs are unavailable.

- Workers self-issue EADs, self-contained breathing apparatus (SCBA), and anti-contamination protective clothing. Workers also monitor themselves while frisking. All of these items indicate that emergency workers are not dependent on HP for issuance of emergency gear or performance of basic radiation work practices, thus indicating the reduced need for HP.

- EAD alarm setpoints are provided to the worker by the automated access control system which provides their RWP/EAD alarm setpoints for allowed dose, dose rate, and their dose margin for the rest of the year.

- While wearing EADs, workers monitor their dose received and if their EAD alarms they are trained to leave the area and to contact HP.

- Area Radiation Monitors (ARMs) are located in rooms important to plant safety and would be monitored by ERO HP personnel. ERO workers would be made aware of dose rates for areas they would be entering by HP. The ARMs will also alarm locally and provide another layer of warning for workers when unescorted by HPs. Workers are trained to leave areas if an ARM goes into alarm status (which is indicated by an audible and a visual alarm locally and in the control room). HPs and Operations personnel monitor these ARMs on a routine basis and would monitor ARMs during an Emergency.

- Non-HP Shift staffing is routinely overmanned with 30 minute responders as listed in Table B-1 to NUREG-0654 and the Grand Gulf Emergency Plan Table 5-1. Being overmanned means personnel are onshift and are more effective initially than personnel arriving from offsite[1]. The "more effective because they are already here" idea was validated by the NRC when it gave a Region IV nuclear power plant permission to increase its augmentation times because of this very idea. Since we are overmanned by on-shift personnel, we feel that our overall response is more effective, which offsets the delayed augmentation of the 30 - 60 minute HPs who now come in at 60 minutes.

[1] Reference: NRC Safety Evaluation for Revision to South Texas Project Emergency Plan, November 3, 1992 Revision.

- At Grand Gulf the two 30 minute augmentation HPs were staffed primarily for access control and dosimetry issuance. This was to compensate for the antiquated processes to issue PICs and the burdensome paper and pen based RWP access control process. The paper and pen based RWP access control process included checking worker dose margins, training qualifications, and having the worker sign in on a RWP. Issuance of PICs included zeroing/charging each PIC and manually writing down each PIC serial number and who the PIC was issued to. Also included in issuance of PICs was documenting the workers Time In and Dose In, and then, once the worker had completed an entry into the plant, tracking Time Out and Dose Out. Then the dose received had to be manually subtracted from the worker dose margin and a new dose margin given to the worker. This process had to be carried out for each team entering the plant. So, we agree, that in the past, when we did business this way, the augmentation of onshift HPs would be needed at the 30 minute time frame since HP processes were so cumbersome. Since all of these items are now automated or not dependent on HP issuance (workers self-issue items such as EADs), the 30 minute augmentation HPs are not needed until 60 minutes. The two onshift HP personnel continue providing HP coverage and surveys, which they have already been doing for the 0-30 minute time frame of an emergency, for an additional 30 minutes out to the 60 minute time frame. Automation of HP processes and worker self-issuance of protective devices means we have lessened the need for HP augmentation between 30-60 minutes of an emergency. However, they are needed at 60 minutes at which time the majority of the ERO is manned.

- Not all teams going in the field need an HP escort. The two on-shift HPs will only go in the plant on a as-needed basis only. Most likely, for the first 60 minutes of an emergency, the on-shift HPs would be gathering information for the oncoming ERO members or providing advice to the on-shift ERO members.

- If required, the two dedicated on-shift HPs can cover multiple teams. It is possible, and planned, with existing required manning levels (on-shift, 30 minute personnel that are already on-shift, and 60 minute ERO responders), that HPs would be required to provide HP coverage for multiple teams.

- The 30 minute augmentation HPs still come in when the majority of ERO positions are staffed, which is 60 minutes from notification. At the 60 minute time frame, the additional relocated 30 minute HPs would then be expected to provide HP coverage and assist with surveys.

CONCLUSION

We implemented the Emergency Plan change because we felt we were in full compliance with the regulations since there was no decrease in the effectiveness of the plan and we met the requirements of 10CFR50.47(b) and Appendix E. Since we implemented the change there has not been any decrease in our ability to adequately provide protection in the event of a radiological emergency or the level of protection we provide for the preservation of public health and safety. Since we feel our change was based on a sound 10CFR50.54(q) evaluation, we request the NRC staff reanalyze there staff analysis used as the basis that our Emergency Plan Change was a decrease in effectiveness.

ATTACHMENT 2

GRAND GULF RESPONSE TO NRR STAFF ANALYSIS

FOR

EMERGENCY PLAN CHANGE 28-001-95

AREAS OF CONCERN AND CONTENTION

The following items, which were discussed by your staff in the April 24, 1997 letter, are reasons for discussing the Emergency Plan change. We feel there are several new positions taken by the staff with the following items noted:

- The basis for the Staff Analysis (SA) for concluding that the change resulted in a decreased effectiveness of the Emergency Plan is not based on any known regulations or NRC guidance documents. It appears that the reviewers primary reason for disapproving the Emergency Plan change was to not allow for voluntary improvements in Health Physics technology and work processes which were used as the basis for acceptance of the Emergency Plan Change. We feel that we cannot agree with the SA since we feel it is implying these improvements are not acceptable for emergencies but are still in use by our emergency response organization (ERO). Just the idea that the NRC doubts our equipment and processes could lead someone to the belief that we have decreased the adequacy of protection Grand Gulf can and will take in the event of a radiological emergency. We believe we acted in good faith and are still providing adequate protection in the event of a radiological emergency.

- The reviewer stated that use of EADs (Electronic Alarming Dosimeters) does not provide for adequate worker protection as does Health Physicist(HP) escort with a meter. Grand Gulf Technical Specification (TS) 5.7 allows for the use of EADs; it does not say that EADs should not be used in an emergency. We feel the staff is saying we should not use EADs in a emergency and the only way to adequately protect worker is to send an HP escort with a meter with all emergency teams making plant entries. We also believe this position of requiring an HP escort for all emergency teams will limit us to only having six teams in the plant during an emergency.

- The SA discusses that EAD alarms somehow reduce response to emergencies. HPs can very easily set EAD alarms (dose and dose rate) to the appropriate level based on anticipated conditions with minimum effort. We feel that EADs enhance our response to emergencies.

- The SA requires HP escorts for all teams entering the "high radiological areas", however the reviewer does not discuss what "high radiological areas" means.

- The SA states that the use of non-dedicated personnel to fill the on-shift HPs function could reduce the quality of HP coverage. We cannot find any regulatory guidance that supports the NRC conclusion that the use of non-dedicated HP personnel results in a reduction in quality of HP coverage. In fact, the use of non-dedicated personnel is allowed by the footnote in Table B-1 of NUREG-0654 (Table 2, Supplement 1, NUREG-0737) and remains unchanged from Grand Gulf's original Emergency Plan submittal."

- Sending HP escorts with all ERO teams to monitor radiological conditions in rooms that are instrumented with radiological monitoring systems is contrary to staff guidance in Regulatory 8.8 which recommended installation of radiological monitoring systems to avoid sending personnel into the plant to collect radiological data thus keeping their exposure as low as reasonable achievable (ALARA). Maintaining dose ALARA is a requirement of 10CFR20.1101.

- In the SA, it appears that a new NRC position is given that requires HP escort of all ERO teams entering the plant. If this is the official position, then with existing ERO HP manning levels listed in Table B-1 of NUREG-0654 and our Emergency Plan, the NRC is limiting us to only having six teams in the plan at all times during an emergency to perform tasks such as repairing the plant, fighting fires, implementing corrective actions, performing search and rescue, and providing first aid. Our position is that at any given time all of these activities could be occurring simultaneously. HP escort is not necessary for all teams entering the plant and we do not limit our maximum number of teams in the plant to six. We send as many teams as needed, that ERO manning allows, to combat the accident and protect personnel by providing HP coverage on as needed basis.

The following items give detailed areas of concern for points made in the staff analysis.

NRC WORDS in April 24, 1997 Letter	Regulatory Basis & GGNS Position:
Page 4, Evaluation Access Control - Establish boundaries; contamination control; evaluation of radiological airborne conditions; determine when respirator protection is needed; determine the type of	**Regulatory Basis:** Main headings are out of NUREG-0654 Table B-1. Descriptive words appear to be new detail that isn't part of the existing guidance. **GGNS Position:** The following tasks take on the order of few minutes to accomplish: • HP evaluates plant conditions and provides necessary radiological recommendations and conditions to the workers.

respirator and the proper cartridge for radiological protection.	• Respirator use is evaluated on a case-by-case condition. For areas of the plant with unknown airborne radiological conditions, self-contained breathing apparatus are used.[2] Cartridge type respirators would not be used in the initial phases of an accident. • Boundaries are established in the OSC by putting up two ropes or by using existing doors. • Access control is established by HP turning on the HP RWP (radiation work permit)/EAD access control system.
Page 4, Evaluation HP coverage - Evaluate plant radiological conditions and issue RWPs for changing radiological conditions; evaluate radiation levels to determine if entry of a RCA is permissible; determine stay times for entry of a RCA; provide radiation-protection coverage for teams engaged in repair, corrective actions, search and rescue, first aid, and firefighting activities,	**Regulatory Basis:** Main headings are out of NUREG-0654 Table B-1. Descriptive words appear to be new detail that isn't part of the existing guidance. **GGNS Position:** • The RWPs in question do not require issuance. RWPs are already issued and ready for workers and HPs to use at all times. • Area Radiation Monitors provide the means to evaluate changing radiological conditions and to determine if RCA entry is permissible. • Stay times would only be needed for entry into TS High Radiation areas. Surveys would be performed as necessary to establish work area dose rates. Once dose rates were established, stay times could then be assigned. • HP Coverage is provided for all mentioned activities, but only on as needed basis. HP coverage means that an HP can provide coverage for multiple teams performing different functions such as the NRC mentions.

[2] This position is supported by Regulatory Guide 8.15, October 1976, "Acceptable Programs for Respiratory Protection" which states "This type of respirator may be used as an Emergency device in unknown concentrations for proctection against inhalation hazards."

Page 4, Evaluation Personnel monitoring - Decontaminate of personnel contaminated with radioactive particles or gases; deliver the proper medical attention to injured contaminated personnel; frisking personnel out of a controlled area.	**Regulatory Basis:** Main headings are out of NUREG-0654 Table B-1. Descriptive words appear to be new detail that isn't part of the existing guidance. **GGNS Position:** • Medical attention is not an HP task as defined in Table 5-1 in the Emergency Plan or Table B-1 of NUREG-0654. We do not equate radiological personnel monitoring to the function of delivering medical attention. • We do not expect to do decon in the first 30 to 60 minutes of an event. However, if decon is necessary, minimal HP involvement is necessary. On-shift HP personnel can handle this task since they are already doing it in the 0-30 minute frame. • We are not aware of a method other than taking showers and radioactive decay to remove radioactive gas from personnel. In any case, if personnel are radioactively contaminated with gas, HP involvement is minimal. • Personnel self-frisk. No HP involvement is necessary to frisk personnel out of the controlled area.
Page 4, Evaluation Dosimetry issuance - provide proper dosimeters for plant personnel.	**Regulatory Basis:** Main headings are out of NUREG-0654 Table B-1. Descriptive words appear to be new detail that isn't part of the existing guidance. **GGNS Position:** We agree that HP's should issue dosimetry if it was required. However, no dosimetry is required to be issued by HP for ERO personnel. TLDs (thermoluminescent dosimeters) are attached to Security Badges and workers pick these up as they pass through Security Island. Workers self-issue their own Electronic Alarming Dosimetry. If other offsite emergency workers other than GGNS employees show up, security has TLDs at security island and would distribute them on as needed basis.

Page 5, Staff analysis, Paragraph 1 Sentence 5 However, for the duties of HP coverage and personnel monitoring under emergency conditions, the use of the EADs does not adequately provide for worker safety as does the HP technician, as explained below.	**Regulatory Basis:** Unknown **GGNS Position:** We disagree with the staff position that EADs are not adequate to provide for worker safety under emergency conditions. The unacceptability of EADs use to protect workers is contrary to Grand Gulf TS 5.7.1 which endorses the use of EADs. We do agree that prior to the time that Grand Gulf implemented the use of EADs, HP escort was required due to the inadequacies (no integrated doserate and manual issuance requirements) of pocket ion chambers (PICs). With the use of PICs the only way to protect the workers safety was to provide an HP escort with a survey meter for entry into areas of unknown radiological conditions. However with EADs, we can, and will send emergency workers into areas of the plant without HP escort. This would only be done after evaluating area radiation monitors (ARMS) readings. Also, emergency teams dispatched are required to be in contact with HP controllers at all times. If a radiological concern or question occurs, HP can give immediate feedback. If HP assistance is needed, HP would be directed to the worker location. It should also be noted that if an HP escorted a team into the plant, it is possible that the HP could establish doserates for the workers at the desired location, then leave the workers at the location, thus providing intermittent HP coverage. We further believe that promoting the idea that HP escorting for all emergency teams during an emergency is contrary to 10CFR20.1101(b) which requires us to use procedures and engineering controls based upon sound radiation protection principles to achieve occupational dose and doses to the public that are ALARA. We consider the use of EADS to be consistent with the 10CFR20 definition of ALARA (we have accounted for technology) and that using ARMs is an NRC mandated engineering control for which we use in lieu of sending an HP out to verify radiological conditions for areas which are

Page 5, Staff analysis, Paragraph 1 Sentence 5 (cont.)	already being monitored continuously. We believe the requirement for HP escorting of every emergency team entering the plant would unnecessarily expose HPs to radiation dose which is not consistent with concept of ALARA or based on sound radiation protection principles. The use of ARMs and HP surveys to establish work area conditions is the preferred method to keep HPs radiation exposure ALARA. It should be noted that Regulatory Guide 8.8 (Rev. 3, 1978), "Information Relevant to Ensuring that Occupational Radiation Exposures at Nuclear Power Stations Will Be As Low As Is Reasonably Achievable" states: "Central or "built-in" monitoring systems that give information on the dose rate and concentration of airborne radioactive material in selected station areas can reduce the exposure of station personnel who would be required to enter areas to obtain the data if such systems were not provided. These systems also can provide timely information regarding changes in the dose rate or concentrations of airborne radioactive in the areas." We agree with the NRC guidance in Reg. Guide 8.8 in that we do not need to send HPs into the plant to gather radiological data since we have installed airborne and radiation monitoring systems. Sending HPs into plant areas with these systems is unnecessary, not ALARA, and not based on sound radiological work practices. The radiological monitoring systems also satisfy the other NRC concern in that HP and other ERO members are kept informed of changing radiological conditions. Radiological monitoring systems promote the idea of not sending an HP out with each team since they were considered equivalent, by the NRC, to an HP gathering data manually with survey meters. We feel that a new NRC position is given that requires HP escort for all ERO teams entering the plant. If this is the official NRC position, then with existing ERO HP manning levels listed in Table B-1 or NUREG-0654 and our Emergency Plan, the NRC is limiting us to only having six teams in the plant at all

Page 5, Staff analysis, Paragraph 1 Sentence 5 (cont.)	times to perform tasks such as repairing the plant, fighting fires, implementing corrective actions, performing search and rescue, and providing first aid. Our position is that at any given time all of these activities could be occurring simultaneously. HP escort is not necessary for all teams entering the plant and we do not limit our maximum number of teams in the plant to six. We send as many teams as needed, that ERO manning allows, to combat the accident and protect personnel and only provide HP coverage as needed for areas that warrant coverage.
Page 5, Staff Analysis, Paragraph 2 Sentence 2 During the early phases of an accident, radiation levels are usually not a major concern if the fuel clad barrier is still intact.	**Regulatory Basis:** Unknown **GGNS Position:** As footnoted in our 10CFR50.54(q) evaluation supporting the Emergency Plan change, we agree with this item. We believe that this statement is a reaffirmation of NRC views in NUREG-1465, "Accident Source Terms for Light-Water Nuclear Power Plants", and a more realistic approach to source term timing. New calculations (in NUREG-1465), using Grand Gulf as an example plant, have shown that the release of 100% of noble gases and 50% of halogens of the total fission product inventory is not instantaneous. The calculations in Table 3.12 of NUREG-1465 show that it would take at least 2 hours to achieve 100% noble gas release levels and between 2-3 hours before the 50% halogen release number would be reached. We believe that this NRC statement supports our position that selected delayed augmentation of 30-60 minute HPs is justified due to the increased time between accident occurrence and predicted releases.

Page 5, Staff Analysis Paragraph 2, Sentence 2-4 However, as an accident progresses and the fuel clad barrier is breached, or where the inventory of radioactive material in the RCS is released directly to the environment, radiation levels within the plant or the immediate area onsite may be a concern. Additionally, for emergencies that do not follow a core damage sequence, such as damage to spent fuel assemblies during handling or accidents involving releases from onsite storage tanks, the release of radioactive material could conceivably be the initiating event. In these cases, HP technician escort for personnel entering high radiological areas will be necessary.	**Regulatory Basis:** Unknown **GGNS Position:** We base HP escort on plant radiological conditions; not accidents. Not all areas of the plant would be affected by releases of radioactive materials. Also, areas important to safety that could be affected by release of radioactive materials are instrumented with Area Radiation Monitoring. The Area Radiation Monitoring system is provided to ensure compliance with the personnel radiation protection guidelines of 10CFR20, 10CFR50, 10CFR70, and Regulatory Guides 8.2, 8.8 and 8.12 (Reference: Updated Final Safety Analysis Report Section 12.3.4.1). It should also be noted that we have analyzed areas for which access would be required post LOCA (loss of coolant accident). NUREG-0737, Item II.B.2, "Design Review of Plant Shielding and Environmental Qualification of Equipment for Spaces/Systems which may be used In Post Accident Operation," identified the requirement that a review be performed of the radiation and shielding design of the spaces around systems that may, as a result of an accident, contain highly radioactive materials. The radiation and shielding design review was performed to identify the location of vital areas and equipment, such as the control room, radwaste control stations, emergency power supplies, motor control centers, and instrument areas, in which personnel occupancy may be unduly limited or safety equipment may be unduly degraded by the radiation fields during post-accident operations of these systems. Additionally, the review results ensure that adequate access to vital areas and protection of safety-related equipment are provided through the use of design changes, additional shielding, or administrative control changes. The issue of personnel access requirements following a postulated LOCA is also addressed in NUREG-0737. Grand Gulf has complied with these requirements. Knowing that access to various plant locations may be required after a loss-of-coolant accident Emergency Procedures were reviewed to determine which

Page 5, Staff Analysis, Paragraph 2 Sentence 2-4 (cont.)	plant locations may require access to either control the plant or assist in the post-accident plant recovery. Based upon these assumptions the integrated personnel doses were calculated for the locations and presented in Updated Final Safety Analysis Report (UFSAR) Table 12.6-2. Review of UFSAR Table 12.6-2 indicates the highest average general area doserates for these areas is 75 mr/hr. The highest expected dose to a worker is 4.0 Rem. These doses and doserates are based on post-accident doses for 30 days after accident. It should be noted that HP coverage would not be required for all areas identified in this table which include: o Control Room o Chem Labs o TSC o ADS air supply makeup connection o Remote Shutdown Panel Room o ADS Booster Compressor area o Diesel Buildings o Post accident sample room o SGTS system
Page 5, Staff Analysis, Paragraph 2 Sentence 3-4 Additionally, for emergencies that do not follow a core damage sequence, such as damage to spent fuel assemblies during handling...the release of radioactive material could conceivably be the initiating event. In these cases, HP technician escort for personnel entering high radiological areas will be necessary.	**Regulatory Basis:** Unknown **GGNS Position:** Handling of spent fuel assemblies is normally performed during refueling outages. During this time on-shift staffing exceeds NUREG-0654 Table B-1 and Grand Gulf Emergency Plan Table 5-1 manning requirements for HP. If a dropped fuel bundle accident, and subsequent release did occur, HP escort would be required for reentry and recovery of the bundle. It should also be noted that if a bundle was dropped, personnel are required to evacuate the fuel handling areas. Evacuation of personnel from the affected areas occurs regardless of the type of fuel handling accident.

Page 5, Staff Analysis, Paragraph 2 Sentence 4 In these cases, HP technician escort for personnel entering high radiological areas will be necessary.	**Regulatory Basis:** Unknown **GGNS Position:** We are unclear as to what "high radiological areas" means.
Page 5, Staff Analysis, Paragraph 3 Sentence 1-3 Under such accident conditions, self-monitoring with EADs would likely not provide sufficient protection of worker health and safety. Rapidly changing direct radiation levels, coupled with a significant potential for releases of airborne radioactive materials, mandate HP technician accompaniment of teams conducting in-plant entries. An EAD would not adequately monitor the radiological environment of the worker under these conditions.	**Regulatory Basis:** Unknown **GGNS Position:** Accompaniment by HP of all emergency teams is new position. We disagree with the NRC analysis that EADs would not provide sufficient protection of worker health and safety. In fact we believe that use of EADs increases worker protection by providing an indication at all times, to the worker, of not only accumulated dose but also provides the ability to alarm when predetermined peak dose rates are achieved. Use of EADs to adequately protect worker health and safety is supported by Technical Specification (TS) 5.7.1. TS 5.7.1 does not say that EADs should not be used in an emergency. We feel the staff is saying we should not use EADs in an emergency and the only way to adequately protect workers is to send an HP escort with a meter for all emergency teams making plant entries. Your position that HP coverage is required for airborne areas is a new position. There is nothing that requires HP coverage for airborne areas. Airborne areas are not a consideration since SCBAs are used by all teams entering the plant. Concerning rapidly changing conditions: For emergency workers wearing SCBAs, without an HP escort, the EAD is the preferred method to protect the worker and is adequate to warn the worker when conditions are changing and it is time to leave the area. EADs provide doserate ALARM and an accumulated dose ALARM and are ideal in areas of the plant where radiological conditions change. It should be

Page 5, Staff Analysis, Paragraph 3 Sentence 1-3 (cont.)	noted that emergency teams dispatched from the OSC have EADs regardless of whether or not a HP is accompanying the team or not. It should also be noted that ARMs are located throughout the plant and provide both an audible and visual alarm (locally and in control room) which is adequate to warn the worker that a condition has changed in a work area. Workers are trained to exit an area that has an ARM that is in alarm status and to contact HP for guidance.
Page 5, Staff Analysis, Paragraph 3 Sentence 4 Further, the use of EADs for self-monitoring would necessitate set points for worker protection which would likely result in numerous aborted in-plant entries, thus rendering the licensee's response to the emergency less effective.	**Regulatory Basis:** Unknown **GGNS Position:** We do not agree with this position. Setpoints can be established based on expected highest levels. If the staff is suggesting that the setpoints we have provided, during telephone calls with the NRC, are values which cannot be changed, then a misunderstanding of the capabilities of the EAD system has occurred. EAD RWP doserate and dose alarm setpoints can be changed very easily by HP in a matter of minutes from either the OSC or the HP Lab. We feel that the NRC is implying that we should not use EADs because if you have an alarm on a EAD go into an alarm status, response to and emergency would be less effective. In an alarm status, the expected worker action would be for the worker to exit the area and contact HP. Also, since the team is in constant radio communication with the HP controller, a new team can be dispatched to replace the team with the alarming EAD(s) with minimal time lost to combat whatever condition the original team was dispatched for. We do not feel that a team is less effective by having an EAD that will alarm at pre-determined doserate. We feel that the team is more effective, because they are warned when they have reached the predetermined turnaround dose or coserate, and worker protection is preserved. It should be noted that workers are not trained to wait until their EAD alarms. They are required to frequently look at their EAD during the performance of a task. They are also

Page 5, Staff Analysis, Paragraph 3 Sentence 4 (cont.)	required to know their alarm setpoints. Workers would most likely notify HP well before an EAD alarm setpoint was reached, thus facilitating early dispatchment of a team to relieve the team approaching its alarm setpoints.
Page 5, Staff Analysis, Paragraph 4 Sentence 1-2 Additionally, the on-shift HP technician positions for radiation protection are not dedicated positions, i.e., they may be-filled by shift personnel assigned other duties. This can further reduce the quality of radiation protection coverage for in-plant team entries.	**Regulatory Basis:** Unknown **GGNS Position:** We do not agree that having non-dedicated personnel filling positions in NUREG-654 Table B-1 reduces adequacy of HP coverage. Table B-1 allows this and does not warn or discuss that the quality of any function is reduced if we decide to take the option to use non-dedicated personnel to fill the listed functions. However, if the staff is taking a new position that the use of non-dedicated personnel to fill NUREG-0654 Table B-1 is unacceptable, we request that the NRC update NUREG-0654. Again this may be another misunderstanding of the material previously provided to the NRC. There has never been an intention on our part to use other than fully qualified HP personnel to man ERO positions.

ATTACHMENT 3

10CFR50.54(q) EVALUATION THAT ALLOWED

EMERGENCY PLAN CHANGE 28-001-95

10CFR50.54(q)
EVALUATION OF PROPOSED CHANGES TO EMERGENCY PLAN

Change # 28-001-95

PURPOSE

10CFR50.54(q) states in part, "The nuclear power reactor licensee may make changes to these plans without Commission approval only if the changes do not decrease the effectiveness of the plans and the plans, as changed, continue to meet the standards of 50.47(b) and the requirements of Appendix E to this part." This form shall be used to document review of proposed changes to the Emergency Plan to meet this requirement.

EVALUATION:

1.0 Proposed changes/revised Emergency Plan sections (Attach mark-up pages if possible):

The capability for additions of two protective actions Health Physicists is being changed from "30 minutes" of notification of an Alert, Site Area Emergency, and General Emergency to "60 minutes." The total number of protective action Health Physicists required to be at the site within 60 minutes of an emergency will remain at four. The onshift requirements are not affected.

See attached pages 5-23, Table 5-1.

2.0 Are the proposed changes/revised Emergency Plan sections other than Administrative in nature? If "NO" go to item 5.0.

(X) YES ( ) NO

3.0 List the affected Emergency Plan content requirements from 10CFR50 App. E.

10CFR50 Appendix E: IV.A.2

4.0 List the affected planning standards from 10CFR50.47(b)and guidance criteria from NUREG-0654 (See Emergency Plan Appendix G).

10CFR50.47(b) Planning Standards: (b)(2)
"On-shift facility licensee responsibilities for emergency response are unambiguously defined, adequate staffing to provide initial facility accident response in key functional areas is maintained at all times, timely augmentation of response capabilities is available and the interfaces among various onsite response activities and offsite support and response activities are specified."

NUREG-0654, FEMA-REP-1, Rev.1, Section II.B.5 and Table B-1, Item B.5, sentence five and six state, "The licensee must be able to augment on-shift capabilities within a short period after declaration of an emergency. The capability shall be as indicated in Table B-1."

5.0 Does the proposed revision still meet the standards identified in 3.0 and 4.0.

( ) YES (X) NO

The revision meets the intent of 10CFR50.47(b) and NUREG-0654, but does not meet the prescriptive guidance specified in NUREG-0654, FEMA-REP-1, Rev.1, Planning Standards and Evaluation Criteria, Section II.B.5 Onsite Emergency Organization, and Table B-1. The revision meets the standard listed in 3.0.

6.0 Provide the basis used to determine the response to 5.0, including appropriate documentation and justification.

It should be noted that the guidance of NUREG-0654 published in 1980 was to provide a basis for licensees, state and local governments to develop emergency plans and improve emergency preparedness. With the increased understanding of accident progression and improvements in automated technology, processes, and specific plant equipment since issuance of NUREG-0654, the staffing of key functional areas for emergency response can be more effectively evaluated. This is especially true for Grand Gulf Health Physics(HP) Technician requirements as it relates to improvements in access control, dosimetry issuance, personnel monitoring, and area radiation monitoring.

7.0 Has the degree of effectiveness of the plan been decreased?
( ) YES (X) NO

8.0 Provide the basis used to determine the response to 7.0 including appropriate documentation and justification.

The following items provide the basis for augmenting the two onshift Health Physicists with two additional protective actions Health Physicists at 60 minutes versus 30 minutes. The four primary areas for which the two 30 minute augmentation protective actions Health Physicists are needed is access control, HP coverage, personnel monitoring, and dosimetry issuance.

ACCESS CONTROL, PERSONNEL MONITORING, and DOSIMETRY ISSUANCE

Currently the Emergency Plan calls for augmentation of onshift Health Physicists to issue dosimetry, monitor personnel, and provide access control. The use of electronic alarming dosimeters (EAD) coupled with Radiation Work Permits (RWP) has eliminated the need to have additional personnel to control access and issue dosimetry for personnel onshift and 30 minute responders. The EAD radiation dose and doserate alarms associated with the RWP are such that workers are precluded from exceeding radiation dose limits, but at the same time allow workers to carry out emergency actions. Workers self-issue EADs, eliminating the need for Health Physicists to physically issue dosimetry. The computer system the EADs are connected to check the workers training and dose margins for each entry. In the past, this was done manually and required a number of Health Physicists to zero and issue dosimeters, verify workers training had not expired, and to check radiation dose margins. The EAD computer system is installed in the OSC and the Health Physics laboratory, thus allowing easy access and availability. Access control is maintained since the worker must enter a Radiation Work Permit (RWP) number to be allowed access into the Radiologically Controlled Area (RCA).

Conclusion: Considering these items, the two additional protective actions Health Physicists, which would normally be called on to augment the two onshift Health Physicists at 30 minutes into the emergency, are not needed. The primary activities they have been augmenting have been dosimetry and worker control related. The EAD system does these items automatically, with the worker's self issuing their own dosimetry and the EAD computer system providing checks to ensure only authorized and trained personnel enter areas of the plant during an emergency. Coupled with the warning capabilities of the EADs, dependence on Health Physics personnel has been reduced since these personnel in the past have provided the warning that the EADs now provide.

HP COVERAGE

A combination of items reduces the need for augmenting the onshift Health Physicists to provide job coverage. The items are as follows:

Electronic Alarming Dosimetry

The EAD provides the worker with integrated total dose and doserate, and alarms when either of these two have been exceeded. Radiation Worker Training and plant procedures require workers to contact Health Physics whenever EADs alarm (either due to a dose or dose rate limit being exceeded). In the past, pocket ion chambers and a Health Physicist with a meter providing job coverage was the only method available to protect the worker. The use of EADs has reduced the need for Health Physics coverage for evolution's related to performing emergency or corrective actions to place the plant in a safe condition.

Conclusion:
Since the Health Physicist' involvement in dosimetry issuance and job coverage has been lessened, the two onshift Health Physicists can more effectively perform their intended functions, thus augmentation at the 30 minute time frame is not needed.

Design and Existing In-Plant Radiation Monitoring Equipment
The design of GGNS safety related systems requires minimal personnel plant access for systems to perform their intended safety function. Each of the major ESF rooms has Area Radiation Monitors (ARMs) with indication in the control room. These ARMs provide ALARM and DOSERATE functions. These functions provide an indication of radiological conditions and aid radiological personnel in making decisions related to personnel protections. The ARMs are also used in Grand Gulfs Emergency Operating procedures to make decisions related to shutdown of the Reactor and Emergency Reactor Pressure Vessel Depressurization. These monitors also feed computer points which allows Emergency Response Organization (ERO) personnel to access readings within the rooms from computer terminals located throughout the site.
Conclusion
Since this equipment is required and readily available for use, the need for HP coverage is minimal between time 0 and 60 minutes post event declaration. With this equipment, the two onshift Health Physicists can concentrate on protective actions (job coverage) related to reactor and personnel safety for the additional 30 minutes that they are not augmented. The additional Health Physicists are brought in for the other protective actions (access control, dosimetry issuance, and personnel monitoring). The ERO is required to be staffed 60 minutes after declaration of an emergency, at which time additional Health Physicists would be needed to support the two onshift Health Physicists. This change does not eliminate augmentation of onshift Health Physicists. It brings the additional radiation control resources to the site at the 60 minute time frame, when these Health Physicists are truly needed.

Overall Conclusion:

The effectiveness of the plan has not been decreased for the following reasons. Augmentation of ERO Health Physicists is not being eliminated, but is being delayed to when augmentation is actually needed. The Onshift Health Physicists, with existing dosimetry, worker control procedures, and in plant monitoring equipment, can handle the immediate actions for the additional 30 minutes past the initial 30 minute augmentation time, at which time all Emergency Response Personnel would report to the site. From the initial response to declaration of an emergency in the 0-30 minute time frame, to the 30-60 minute event time frame, there are no additional responsibilities for the two onshift Health Physicists other than providing protective actions and onsite and in-plant surveys. In-plant surveys and onsite surveys will only be performed on an as needed basis. Considering these items, and the supporting justification in 6.0, augmenting Health Physicists at the 60 minute time frame causes no increased risk to the public due to radiological events or any decrease in the effectiveness of the plan.[3] (Note: Grand Gulf Technical

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[3] While unnecessary to support the conclusion that Emergency Plan effectiveness is not reduced, it is worthwhile to examine how our understanding of severe accident phenomena has improved since the guidance of NUREG-0654 was published.

When NUREG-0654 was developed, the accepted design basis accident (DBA) assumptions related to release of radioactive material from fuel and containment called for instantaneous release of radioactive materials (100% noble gases and 50% halogens of full power fission product inventory). NUREG-0654 gives a range of one-half hour to several hours for the onset of a major release of radioactive materials, presumably based on DBA instantaneous release assumptions.

A better understanding of accident progression has resulted in the issuance of NUREG-1465, "Accident Source Terms for Light-Water Nuclear Power Plants", and a more realistic approach to source term timing. New calculations (in NUREG-1465), using Grand Gulf as an example plant, have shown that the release of 100% of noble gases and 50% of halogens of the total fission product inventory is not instantaneous. The calculations in Table 3.12 of NUREG-1465 show that it would take at least 2 hours to achieve 100% noble

Specification 5.2.2.d requires a Health Physics Technician to be onsite when fuel is in the reactor. This requirement is not affected.) In addition, the proposed revision meets the Emergency Plan requirements from 10CFR50 Appendix E planning standards from 10CFR50.47(b).

SUMMARY

Do proposed changes require NRC approval prior to implementation?

( ) YES (X) NO

Since these changes do not decrease the effectiveness of the Emergency Plan, these changes can be made without prior NRC approval as allowed by 10CFR50.54(q).

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gas release levels and between 2-3 hours before the 50% halogen release number would be reached. Compared to the NUREG-0654 assumptions associated with an instantaneous release, the new data demonstrates on the order of 2 hours exists before significant quantities of source terms have been released. Although Grand Gulf has not yet formally adopted the new source term work into its license basis (nor credited it in this evaluation), NUREG-1465 is clearly applicable and relevant to emergency planning issues at Grand Gulf, and provides additional support for the conclusions of this evaluation.

ATTACHMENT 4

NRC REGULATORY INFORMATION

APPLICABLE REGULATIONS and NRC GUIDANCE

10CFR50.54(q)

A licensee authorized to possess and operate a nuclear power reactor shall follow and maintain in effect emergency plans which meet the standards in 50.47(b) and the requirements in appendix E of this part.... The licensee shall retain the emergency plan and each change that decreases the effectiveness of the plan as a record until the Commission terminates the license for the nuclear power reactor. The nuclear power reactor licensee may make changes to these plans without Commission approval only if the changes do not decrease the effectiveness of the plans and the plans, as changed, continue to meet the standards of 50.47(b) and the requirements of appendix E to this part.... This nuclear power reactor, research reactor, or fuel facility licensee shall retain a record of each change to the emergency plan made without prior Commission approval for a period of three years from the date of the change. Proposed changes that decrease the effectiveness of the approved emergency plans may not be implemented without application to and approval by the Commission. The licensee shall submit, as specified in 50.4, a report of each proposed change for approval. If a change is made without approval, the licensee shall submit, as specified in 50.4, a report of each change within 30 days after the change is made.

NUREG-0737 Supplement No. 1 "Clarification of TMI Action Plan Requirements"

Table 2, "Minimum Staffing Requirements for NRC Licensees for Nuclear Power Plant Emergencies" (Note: Table 2 of NUREG-0737 is the same information contained in Table B-1 of NUREG-0654. The requirements of Supplement 1 of NUREG-0737 were issued to the industry by Generic Letter 82-33, which states that the staffing levels contained in Table 2 are only goals, and not strict requirements).

Regulatory Guide 1.101 "Emergency Planning and Preparedness for Nuclear Power Reactors" C, Regulatory Position

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 onsite and offsite emergency response plans.

NRC GENERIC LETTER 95-08, 10CFR50.54(p) "Process for Changes to Security Plans Without Prior NRC Approval" [4]

Some confusion and inconsistencies apparently occurred in the past regarding implementation of 10 CFR 50.54(p) by licensees without NRC approval. This generic letter restates the original criterion for judging the acceptability of changes made pursuant to 10 CFR 50.54(p). The original criterion's "test" for deciding if a change decreased the effectiveness of the plan was based on determining if the overall effectiveness of the plan was decreased. This generic letter clarifies the language in 10 CFR 50.54(p) that licensees shall "make no change which would decrease the effectiveness of a security plan, or guard training and qualification, ... or safeguards contingency plan." The following is a clarification of this language. Changes that meet the following screening criteria may be made without prior NRC approval.

- A change in any of the three security plans is deemed not to decrease the effectiveness of the plan if the change does not decrease the ability of the onsite physical protection system and security organization, as described in paragraphs (b) through (h) of 10 CFR 73.55, or equivalent measures approved under 10 CFR 73.55(a), to protect with high assurance against the design basis threat as stated in 10CFR 73.1(a). The change cannot delete or replace any of the regulatory capabilities, as described in paragraphs (b) through (h) or in Appendixes B and C to 10 CFR Part 73.

- A change that increases the effectiveness of any plan.

Use of these screening criteria would allow licensees to reduce certain commitments that have exceeded regulatory requirements or published guidance if the overall effectiveness of the plan is not reduced. Each issue is reviewed against the overall assurance levels contained in the plan and not against the specific individual changes. Latitude has always existed in that improvements in one area of the program may offset reductions in other areas. Overall assurance levels of the plans must be maintained, and this clarification is not intended to reduce plan commitments to levels less than the overall high-assurance objectives stated in 10 CFR 73.55(a).

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[4] This is provided to help explain why we concluded that the change was acceptable and feel that if the NRC would use or issue similar guidance for Emergency Plan Changes, utilities would better understand NRC expectations. This approach was also discussed with, and a white paper (similar to this Generic Letter) was supplied to, the NRC during a meeting (April 23, 1996) between the Emergency Preparedness Branch Section Chief , NEI, and utility representatives.

10CFR20 Definitions

ALARA (acronym for "as low as is reasonably achievable") means making every reasonable effort to maintain exposures to radiation as far below the dose limits in this part as is practical consistent with the purpose for which the licensed activity is undertaken, taking into account the state of technology, the economics of improvements in relation to state of technology, the economics of improvements in relation to benefits to the public health and safety, and other societal and socioeconomic considerations, and in relation to utilization of nuclear energy and licensed materials in the public interest.

10CFR20.1101 - Radiation Protection Programs.

(b) The licensee shall use, to the extent practicable, procedures and engineering controls based upon sound radiation protection principles to achieve occupational doses and doses to members of the public that are as low as is reasonably achievable (ALARA).

10CFR50.47(b)(1)

Except as provided in paragraph (d) of this section, no initial operating license for a nuclear power reactor will be issued unless a finding is made by the NRC that there is reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency.

10CFR50.47(b)(2)

On-shift facility license responsibilities for emergency response are unambiguously defined, adequate staffing to provide initial facility accident response in key functional areas is maintained at all times, timely augmentation of response capabilities is available and the interfaces among various onsite response activities and offsite support and response activities are specified.

10CFR50, Appendix E. IV. Content of Emergency Plans

The applicant's emergency plans shall contain, but not necessarily be limited to, information needed to demonstrate compliance with the elements set forth below, i.e., organization for coping with radiation emergencies, assessment actions, activation of emergency organization, notification procedures, emergency facilities and equipment, training, maintaining emergency preparedness, and recovery. In addition, the emergency response plans submitted by an applicant for a nuclear power reactor operating license shall contain information needed to demonstrate compliance with the standards described in 10 CFR 50.47(b), and they will be evaluated against those standards.

10CFR50, Appendix E, IV. A. Organization

The organization for coping with radiological emergencies shall be described, including definition of authorities, responsibilities, and duties of individuals assigned to the licensee's emergency organization and the means for notification of such individuals in the event of an emergency,

NUREG-0654/FEMA-REP-1, Rev. 1, Section I.D. Planning Basis

The range of times between onset of accident conditions and the start of a major release is of the order of one-half hour to several hours. The subsequent time period over which radioactive material may be expected to be released is of the order of one-half hour (short term release) to a few days (continuous release).

NUREG-0654/FEMA-REP-1, Rev. 1, Criterion B. Onsite Emergency Organization

Each licensee shall specify the positions or title and major tasks to be performed by the persons to be assigned to the functional areas of emergency activity. For emergency situations, specific assignments shall be made for all shifts and for plant staff members, both onsite and away from the site. These assignments shall cover the emergency functions in Table B-1 entitled, "Minimum Staffing Requirements for Nuclear Power Plant Emergencies." The minimum on-shift staffing levels shall be as indicated in Table B-1. The licensee must be able to augment on-shift capabilities within a short period after declaration of an emergency. This capability shall be as indicated in Table B-1. The implementation schedule for licensed operators, auxiliary operators and the shift technical advisor onshift shall be as specified in the July 31, 1980, letter to all

power reactor licensees. Any deficiencies in the other staffing requirements of Table B-1 must be capable of augmentation within 30 minutes by September 1, 1981, and such deficiencies must be fully removed by July 1, 1982. (See Table B-1).

Each licensee shall specify the corporate management, administrative, and technical support personnel who will augment the plant staff as specified in the table entitled "Minimum Staffing Requirements for Nuclear Power Emergencies," (Table B-1) and in the following areas:

a. logistics support for emergency personnel,
b. technical support for planning and reentry/recovery operations;
c. management level interface with governmental authorities; and
d. release of information to news media during an emergency (coordination with governmental authorities),