



MISSISSIPPI POWER & LIGHT COMPANY

Helping Build Mississippi

P. O. BOX 1640, JACKSON, MISSISSIPPI 39215-1640

APR 14 11:44

O. D. KINGSLEY, JR.
VICE PRESIDENT - NUCLEAR OPERATIONS

April 10, 1986

Dr. J. Nelson Grace, Regional Administrator
U. S. Nuclear Regulatory Commission
Region II
101 Marietta St., N.W., Suite 2900
Atlanta, Georgia 30323

Dear Dr. Grace:

SUBJECT: Grand Gulf Nuclear Station
Unit 1
Docket No. 50-416
License No. NPF-29
Report No. 50-416/86-02
dated March 7, 1986
(MAEC-86/0057) - Safety
Evaluation of Changes
Incorporated into the UFSAR
AECM-86/0089

Mississippi Power & Light Company hereby submits the response to Violation 50-416/86-02-01 regarding Failure to Conduct 10 CFR 50.59 Safety Evaluations of Changes Incorporated into the Updated FSAR (Attachment 1). Based on discussions with Mr. H. Dance of your office, an extension for this response was granted to April 10, 1986.

The letter transmitting Inspection Report No. 50-416/86-02 to MP&L also requested additional information concerning management control of this process and actions taken or planned to improve the effectiveness of the FSAR Update Program. This information is provided as Attachment 2.

Yours truly,

ODK:lwm
Attachments

cc: Mr. T. H. Cloninger (w/a)
Mr. R. B. McGehee (w/a)
Mr. N. S. Reynolds (w/a)
Mr. H. L. Thomas (w/o)
Mr. R. C. Butcher (w/a)

Mr. James M. Taylor, Director (w/a)
Office of Inspection & Enforcement
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

8604210177 860410
PDR ADOCK 05000416
Q PDR

J10AECM86032801 - 1

Member Middle South Utilities System

11

IE 01

NRC VIOLATION 50-416/86-02-01

NOTICE OF VIOLATION

10 CFR 50.59 states in part that the licensee may make changes in the facility or procedures as described in the safety analysis report unless the proposed change involves an unreviewed safety question. The licensee shall maintain records of changes in the facility and procedures made pursuant to this section to the extent that such changes constitute changes in the facility or procedures as described in the safety analysis report. These records shall include a written safety evaluation.

Contrary to the above, the following changes were made to the procedures or facility as described in the original final safety analysis report (FSAR) without performing a written safety evaluation.

- (1) FSAR paragraph 13.1.2.2.16.1 was revised to delete the requirement for the shift superintendent to be responsible for protective tagging.
- (2) FSAR paragraph 6.3.2.2.1 was revised to lower the required water level over the High Pressure Core Spray System suction piping entrance in the condensate storage tank from 2-1/2 feet to approximately 3/4 feet.
- (3) FSAR paragraph 3.8.1.2.2.1 was revised to incorporate additional exceptions to subparagraph c, the applicable code for welding in building construction.

I. ADMISSION OR DENIAL OF ALLEGED VIOLATION

Mississippi Power & Light Company (MP&L) admits having taken the actions described in Paragraphs (1), (2), and (3) of the alleged violation and acknowledges that these examples indicate the need for improvements in the FSAR update program. Accordingly, MP&L does not contest this notice of violation. Moreover, MP&L has committed to apply the section 50.59 criteria to certain FSAR changes reflected in the updated FSAR already submitted as well as changes in future updates, as described in our discussion of corrective actions (Section IV).

II. REASONS FOR THE VIOLATION IF ADMITTED

- A. MP&L has implemented the requirements of 10CFR50.59 through Nuclear Production Department policy and departmental procedure documents. This program requires the conduct of a safety evaluation to the criteria of 10CFR50.59 for proposed changes to the facility or procedures described in the safety analysis report (SAR) and for special tests or experiments not described in the SAR. MP&L recognizes that UFSAR changes frequently result from the implementation of facility and procedural changes evaluated per 10CFR50.59, and many of the changes incorporated in the initial UFSAR did arise from

section 50.59 changes. However, based on MP&L's interpretation of the requirements of 10CFR50.59, it was not MP&L's policy to evaluate the following categories to that criteria: (a) changes incorporated into the initial UFSAR that represented corrections to the SAR, (b) pre-operating license changes, (c) changes originating from MP&L submittals to the NRC, or (d) changes made at the direction or with the approval of the NRC Staff. MP&L now recognizes that there is a need to perform and formally document safety evaluations for corrections and pre-operating license changes not already brought to the attention of the NRC Staff. MP&L believes that section 50.59 provides appropriate criteria for these evaluations. Details on programmatic changes are discussed in Section IV of this response.

- B. Since it was not MP&L's policy to perform 10 CFR 50.59 evaluations on SAR changes incorporated into the initial UFSAR, such evaluations were not performed on the FSAR changes in the violation's cited examples. Additional contributing factors in each instance are described below:

(1) FSAR 13.1.2.2.16.1 - Shift Superintendent Responsibilities
Regarding Protective Tagging

Revisions to this FSAR paragraph as reflected in the UFSAR were required to satisfy MP&L commitments associated with an earlier violation (50-416/84-16-01) pertaining to conflicting FSAR statements pertaining to releasing plant equipment. Lead responsibility for the closure action, i.e., generation of the necessary FSAR change requests, was assigned to an inappropriate organization. This misassignment led to SAR changes incorporated into the initial UFSAR that neither clearly described shift management responsibilities in this matter nor adequately satisfied the required action for closure of the earlier violation.

In addition, MP&L also believes that the SAR change evaluation process contributed to this issue. Although the review of proposed FSAR changes includes a review of related commitments, the process lacks explicit guidance on what constitutes adequate justification for commitment deletion.

It should be noted, however, that while the charges incorporated into the UFSAR were deficient, these changes were not intended as a means to delete the procedural responsibilities for protective tagging or releasing plant equipment. A 10 CFR 50.59 safety evaluation had been performed in response to the above referenced violation (MP&L letter, dated July 13, 1984). Since that violation was issued, there have been certain minor changes to the affected procedure; these procedural changes were evaluated in accordance with 10 CFR 50.59.

(2) FSAR 6.3.2.2.1 - Required Water Level in Condensate Storage Tank

Changes to this FSAR section, as incorporated into the UFSAR did not represent a facility change. The changes in the UFSAR were based on the pre-operating licensing design setpoint for suction transfer. However, these changes described the suction transfer in a different manner, i.e., from an instrumentation standpoint. This matter is addressed in detail in MP&L's letter AECM-86/0049, dated February 15, 1986 (Response to Question No. 6).

MP&L has performed an evaluation to the criteria of 10CFR50.59 on this issue and has concluded that it does not represent an unreviewed safety question. As discussed in AECM-86/0049, MP&L has concluded that neither the FSAR nor the UFSAR description represents an unsafe condition. The NRC review of this submittal is still in progress.

As discussed in AECM-86/0049, the changes to FSAR 6.3.2.2.1, however, are considered to lack clarity regarding the description of submergence of the condensate storage tank suction and in the description of design features pertaining to vortex formation and prevention of air entrainment. The changes deleted information which correctly described the degree of suction submergence at the time of transfer. Overall, this inadequate FSAR change led to confusion and an incorrect conclusion that the facility had changed, when in fact, it had not.

(3) FSAR 3.8.1.2.2.1 - Structural Welding Code AWS D1.1-72

MP&L committed to welding code standard AWS D1.1-72, describing requirements pertaining to the installation of structural and miscellaneous steel. Certain exceptions to the standard were identified in the FSAR; however, in early 1982 additional apparent exceptions were identified. While not described in the FSAR, these apparent exceptions to AWS D1.1-72 were part of the Architect/Engineer's construction practices (prior to issuance of the plant license).

A detailed evaluation by Bechtel Power Corporation of specifications, procedures, and standards used in the GGNS construction was completed in May 1983 and provided to MP&L. The evaluation, while identifying additional exceptions, concluded that the quality of the affected structural hardware was not adversely affected. Therefore, it was felt that processing of this FSAR change as part of the initial FSAR update was appropriate and that a more expeditious processing of the matter was not considered necessary.

MP&L's Nuclear Plant Engineering endorsed the Bechtel findings regarding significance and forwarded the necessary FSAR changes to Nuclear Licensing in documents dated April and July 1984. These changes were scheduled for incorporation into the initial FSAR update and were processed accordingly.

In summary, additional exceptions to the welding code standard that was used in GGNS construction had not been previously identified in the FSAR. While the quality of the affected structural hardware was not adversely affected, the evaluation of these exceptions and revision of the FSAR took an excessive amount of time.

III. CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED

A. General

In light of these cited instances and because of further MP&L review of the initial FSAR update, certain additional actions and programmatic improvements are deemed necessary. The review and evaluation of FSAR changes incorporated into the UFSAR for the specific paragraphs identified in this Notice of Violation is being accomplished through a broader review program discussed with the NRC in a meeting held at the GGNS site on February 7, 1986. This review program and additional programmatic improvements are described in Section IV and Attachment 2. Specific actions regarding the specifically cited UFSAR paragraphs are discussed below.

B. FSAR 13.1.2.2.16.1 - Assignment of Responsibility for Protective Tagging

UFSAR 13.1.2.2.16.1 will be revised to clearly describe the program and associated responsibilities pertaining to protective tagging and releasing plant equipment. FSAR 18.1.13 will also be revised to be consistent with the revised FSAR 13.1.2.2.16.1. Consistent with the improved commitment closure assignment process, the responsibility for the initiation of these UFSAR changes will be assigned to the plant operating staff.

The revision to UFSAR 13.1.2.2.16.1 and 18.1.13 will be made consistent with the 10 CFR 50.59 safety evaluations already performed to support the response to Violation 50-416/84-16-01 (AECM-84/0364, July 13, 1984) and other procedural changes. This violation pertained to conflicting FSAR statements pertaining to releasing plant equipment.

C. FSAR 6.3.2.2.1 - Required Water Level in Condensate Storage Tank

As discussed in II.B.(2) above, an evaluation of the issue to the criteria of 10CFR50.59 has concluded that it does not represent an unreviewed safety question.

A proposed revision to this section to address the deficiencies of this UFSAR section has been developed and submitted to the NRC for review in AECM-86/0049 (Question No. 5). Following NRC review of the proposed changes, they will be incorporated into the next UFSAR revision.

D. FSAR 3.8.1.2.2.1 - Structural Welding Code AWS D1.1-72

As part of the program noted in III.A. above, an evaluation to the criteria of 10 CFR 50.59 has been conducted on the changes incorporated into UFSAR 3.8.1.2.2.1 and has concluded that these changes do not represent an unreviewed safety question.

IV. CORRECTIVE STEPS WHICH WILL BE TAKEN TO AVOID FURTHER VIOLATIONS

- A. MP&L is conducting an UFSAR Change Notice Review Program per Nuclear Licensing and Safety Administrative Procedure (NLSAP) 2.16. This program consists of a screening of all FSAR changes processed in UFSAR, Revision 0, to determine those for which safety evaluations in accordance with the criteria of 10 CFR 50.59 will be performed. Those UFSAR changes so identified will be evaluated using the criteria of 10 CFR 50.59. Summaries of safety evaluations originating from the UFSAR changes will be included and identified as such in the annual report of section 50.59 changes.

- B. To prevent recurrence of similar violations, NLSAP 2.2 (FSAR change control procedure) will be revised to require for each initial UFSAR change that a safety evaluation be performed in accordance with the criteria of 10 CFR 50.59 subject to the same exclusion criteria as discussed with NRC in the February 7, 1986 meeting. In addition, NLSAP 2.2 will be revised to provide more explicit criteria on what constitutes adequate justification for commitment deletion.

Although it has not been the policy of MP&L to require performance of 10 CFR 50.59 type safety evaluations for the express purpose of evaluating the adequacy of proposed UFSAR changes themselves, MP&L does agree that similar evaluation criteria are desirable and, therefore, will conduct safety evaluations as discussed in the above paragraph as a prudent action for future UFSAR changes.

Since the literal provisions of 10 CFR 50.59 contemplate proposed changes, MP&L believes that it is not the appropriate method to disposition conditions such as discovered discrepancies between the SAR description and the as-built plant which have been determined to involve a change in the technical specifications or an unreviewed safety question. In such a circumstance, the Section 50.59 disposition would require a license amendment under Section 50.90. In our view such situations should be evaluated in a timely manner and action taken in accordance with the provisions of the plant's technical specifications and applicable reporting criteria of 10 CFR (such as 10 CFR 21 or 10 CFR 50.72 and 50.73). The details of this process will be further developed and included in applicable NPD procedures.

- C. A Nuclear Production Department level procedure will be developed and implemented governing the UFSAR change process. The principal goal is to achieve consistency among NPD departments regarding the content of UFSAR change request packages with specific emphasis in the areas of justification and safety evaluation.

V. DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

Safety evaluations to the criteria of 10 CFR 50.59 on changes incorporated into the initial UFSAR, as described in IV.A above, are scheduled to be completed by June 1, 1986.

Other corrective steps and programmatic improvements will be accomplished on or before December 1, 1986 upon submittal of the annual report on 10 CFR 50.59 safety evaluations and upon submittal of the next revision of the UFSAR.

UFSAR PROGRAMMATIC IMPROVEMENTS

I. STATEMENT OF NRC CONCERNS

Inspection Report No. 50-416/86-02 also stated the following:

"In summary, the following problems appear to indicate a lack of management attention and control when updating the FSAR.

- (1) Contrary to the guidance given in Generic Letter 81-06, the level of detail of the original FSAR was not always maintained in the updated FSAR.
- (2) Although 10 CFR 50.71(e) allows the UFSAR to include all changes made based on safety evaluations performed by the licensee, apparently many changes did not have a safety evaluation performed as required by 10 CFR 50.59.
- (3) Changes in the UFSAR to reflect the as built configuration of the plant were not submitted to or approved by the NRC nor were 10 CFR 50.59 safety evaluations performed."

The following action was required:

"In addition to the need for corrective action regarding the specific matters identified in the enclosed Notices, we are concerned about the implementation of your management control systems that permitted this situation to develop. Consequently, your response should describe those particular actions taken or planned to improve the effectiveness of your program."

II. FACTORS LEADING TO IDENTIFIED CONCERNS

Based on MP&L's appraisal of this matter, the following factors were identified as playing a key role in the development of conditions identified.

- A. MP&L's Nuclear Production Department Policy and Organization Manual directs compliance with 10 CFR 50.59. This direction is implemented by department procedures which require 10 CFR 50.59 safety evaluations of proposed facility changes, proposed procedure changes, and proposed conduct of additional or changed tests or experiments. It has not, however, been the policy of MP&L to require performance of 10 CFR 50.59 type safety evaluations of changes proposed for incorporation into the UFSAR for the express purpose of evaluating the adequacy of the proposed UFSAR changes themselves. It should be noted that the review of each proposed UFSAR change included a determination of reportability using the criteria of 10 CFR 50.73 and included a review for consistency with Technical Specifications.

- B. Although MP&L's review of proposed FSAR changes included a review of related commitments, the process lacked explicit guidance on what constituted adequate justification for commitment deletion.
- C. Little information existed to guide MP&L with respect to the level of detail appropriate for incorporation of NRC Question and Response portions of the FSAR into the UFSAR.

III. CORRECTIVE ACTIONS/PROGRAMMATIC IMPROVEMENTS

A. UFSAR Process

1. UFSAR Change Notice Review Program

As discussed in the February 7, 1986 meeting with NRC Region II personnel, MP&L has initiated a UFSAR Change Notice Review Program. This program is being performed in accordance with Nuclear Licensing and Safety Administrative Procedure (NLSAP) 2.16.

In the initial phase of this program FSAR Change Notices that were incorporated into the initial FSAR Update will be screened to determine the need to conduct a safety evaluation in accordance with the criteria of 10 CFR 50.59. The basis for each FSAR Change Notice will be evaluated to determine whether there exists sufficient justification for excluding the change from such a safety evaluation. Exclusion criteria used in this determination was discussed with the NRC in the above referenced meeting. Where sufficient justification for exclusion does not exist, a safety evaluation will be performed in accordance with the criteria of 10 CFR 50.59.

Concurrent with the above described screening process, the FSAR Change Notices will also be screened to determine where FSAR commitments may have been deleted without a justified basis. If a commitment deletion is confirmed, MP&L will conduct operations under the original commitment pending disposition by one of the following actions:

- (a) Request NRC approval of the commitment deletion, or
- (b) Prepare a UFSAR Change Notice to restore the commitment.

As committed in our February 7, 1986 meeting, MP&L will formally report to the NRC any items identified in this review representing a change to the facility description for which a safety evaluation in accordance with the criteria of 10 CFR 50.59 has not been conducted.

MP&L has completed the screening process and has begun the safety evaluation phase of the review program.

2. Review of Process/Handling of NRC Questions and Responses

The second major portion of this review program will address NRC's concern that commitments have been deleted from the UFSAR as a result of the handling of the incorporation of NRC FSAR Questions and Responses (Q&R) into UFSAR text. In this phase, MP&L will review the Q&R as necessary to identify any commitments not placed in the UFSAR text. UFSAR Change Notices will be prepared to incorporate any such commitments identified.

3. Programmatic Improvements

To prevent recurrence of similar violations, NLSAP 2.2 (FSAR change control procedure) will be revised to require for each UFSAR change that a safety evaluation be performed in accordance with the criteria of 10 CFR 50.59 subject to the same exclusion criteria as discussed with NRC in the February 7, 1986 meeting. In addition, NLSAP 2.2 will be revised to provide more explicit criteria on what constitutes adequate justification for commitment deletion.

Although it has not been the policy of MP&L to require performance of 10 CFR 50.59 type safety evaluations for the express purpose of evaluating the adequacy of proposed UFSAR changes themselves, MP&L does agree that similar evaluation criteria are desirable and, therefore, will conduct safety evaluations as discussed in the above paragraph as a prudent action for future UFSAR changes.

A Nuclear Production Department (NPD) level procedure will be developed and implemented governing the UFSAR change process. The principal goal is to achieve consistency among NPD departments regarding the content of UFSAR Change Request packages, specifically in the areas of justification and safety evaluation.

B. Related Areas of Improvement

1. MP&L will develop and implement an improved NPD policy addressing the requirements of 10 CFR 50.59 and will provide more specific guidance on its application to proposed changes to the UFSAR.
2. MP&L will incorporate improved administrative controls to enhance the effective assignment of responsibility for action necessary to fulfill each given commitment, including the responsibility for preparation of resulting UFSAR changes.