



MISSISSIPPI POWER & LIGHT COMPANY

Helping Build Mississippi

P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

May 24, 1984

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NUCLEAR PRODUCTION DEPARTMENT

U.S. Nuclear Regulatory Commission
Region II
101 Marietta St., N.W., Suite 2900
Atlanta, Georgia 30303

Attention: Mr. J. P. O'Reilly, Regional Administrator

Dear Mr. O'Reilly:

SUBJECT: Grand Gulf Nuclear Station
Unit 1
Docket No. 50-416
License No. NPF-13
File: 0260/15524/0310
Report No. 50-416/84-11, dated
April 24, 1984 (MAEC-84/0162)
AECM-84/0282

This is in response to your letter to Mississippi Power & Light Company from Richard C. Lewis, dated April 24, 1984.

Attached is the response to the Notice of Deviation 416/84-11-05 cited in the report.

Should you have any questions, please contact my office.

Yours truly,

L. F. Dale
Director of Nuclear Licensing & Safety

PRH/SHH:rg
Attachment

cc: Mr. J. B. Richard (w/a)
Mr. R. B. McGehee (w/o)
Mr. N. S. Reynolds (w/o)
Mr. G. B. Taylor (w/o)

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

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Q PDR

NRC DEVIATION 416/84-11-05

I. CORRECTIVE ACTIONS REGARDING THE DEVIATION

A Technical Specification Review Program is now in effect to review and certify that the specifications accurately reflect the plant, the FSAR, and the SER analyses. Discussions are currently taking place with the Office of Nuclear Reactor Regulation to resolve outstanding issues. Technical Specification Problem Sheet 077 addresses the review of FSAR paragraph 7.4.2.4.2 and the consistency with Technical Specification 3.3.7.4. Upon completion of the discussions and review program, the appropriate proposed changes to the Operating License will be submitted to ensure consistency between Technical Specification 3.3.7.4 and FSAR paragraph 7.4.2.4.2.

Upon approval of the appropriate Proposed Change to the Operating License, the related surveillance procedures will be implemented.

II. ACTIONS TAKEN TO AVOID FURTHER DEVIATIONS

The actions described in I above will ensure further deviations do not occur.

III. DATES WHEN ACTIONS WILL BE COMPLETED

These actions will be completed following the issuance of the amendment to the Operating License, by NRC, incorporating the necessary change to provide consistency between the Technical Specifications and the FSAR. The current schedule is to submit a Proposed Change to the Operating License on or before June 8, 1984. This submittal will contain the subject change to resolve Deviation 416/84-11-05.

*Official file
copy*

APR 24 1984

Mississippi Power and Light Company
ATTN: Mr. J. B. Richard
Senior Vice President, Nuclear
P. O. Box 1640
Jackson, MS 39205

Gentlemen:

SUBJECT: REPORT NO. 50-416/84-11

On March 28-30, 1984, NRC inspected activities authorized by NRC Operating License No. NPF-13 for your Grand Gulf facility. At the conclusion of the inspection, the findings were discussed with those members of your staff identified in the enclosed inspection report.

Areas examined during the inspection are identified in the report. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observation of activities in progress.

The inspection revealed no violations of NRC requirements. However, certain activities having safety significance appeared to deviate from a commitment to the NRC. The deviations and elements to be included in your response are presented in the enclosed Notice of Deviation.

In accordance with 10 CFR 2.790(a), a copy of this letter, its enclosures, and your reply will be placed in NRC's Public Document Room upon completion of our evaluation of the reply. If you wish to withhold information contained therein, please notify this office by telephone and include a written application to withhold information in your response. Such application must be consistent with the requirements of 2.790(b)(1).

The responses directed by this letter and the enclosures are not subject to the clearance procedures of the Office of Management and Budget issued under the Paperwork Reduction Act of 1980, PL 96-511.

Should you have any questions concerning this letter, please contact us.

Sincerely,

Richard C. Lewis, Director
Division of Project and
Resident Programs

Enclosure:
Inspection Report No. 50-416/84-11

cc w/encl: (See page 2)

DE 8408200263

APR 24 1984

Mississippi Power and Light Company 2

cc w/encl:

J. E. Cross, Plant Manager
Ralph T. Lally, Manager of Quality
Middle South Services, Inc.

bcc w/encl:

NRC Resident Inspector
Document Control Desk
State of Mississippi

*cc for
M. Puckett
4/24/84*

~~RII~~

~~JC Maxwell:jw
4/24/84~~

RII

CX
CA Julian
4/24/84

RII

DV
DM Verrelli
4/24/84

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ENCLOSURE

NOTICE OF DEVIATION

Mississippi Power and Light Company
Grand Gulf

Docket No. 50-416
License No. NPF-13

The following deviation was identified during an inspection conducted on March 28-30, 1984.

Paragraph 7.4.2.4.2 of your Final Safety Analysis Report states the instrumentation and control components required for remote shutdown, which are not normally in operation, will be periodically tested.

Contrary to the above, as of March 30, 1984, no surveillance procedure had been established to periodically test the remote shutdown control components and they had not been tested since preoperational testing.

Please provide, in writing within 30 days of the date of this Notice, a description of corrective actions regarding these deviations, actions taken to avoid further deviations, and the dates when these actions were or will be completed.

Security or safeguards information should be submitted as an enclosure to facilitate withholding it from public disclosure as required by 10 CFR 2.790(d) or 10 CFR 73.21.

Date: APR 24 1984

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UNITED STATES
 NUCLEAR REGULATORY COMMISSION
 REGION II
 101 MARIETTA STREET, N.W.
 ATLANTA, GEORGIA 30303

Report No. 50-416/84-11

Licensee: Mississippi Power and Light Company
 Jackson, MS 39205

Facility Name: Grand Gulf

Docket No.: 50-416

License No.: NPF-13

Inspection at Grand Gulf site near Port Gibson, Mississippi

Inspectors: <u>C. Julian for</u>	<u>4/24/84</u>
J. L. Caldwell	Date Signed
<u>C. Julian for</u>	<u>4/24/84</u>
C. W. Hehl	Date Signed
<u>C. Julian</u>	<u>4/24/84</u>
C. A. Julian	Date Signed
<u>C. Julian for</u>	<u>4/24/84</u>
A. W. Wagner	Date Signed

Accompanying Personnel: D. S. Brinkman, NRR

Approved by: <u>D. M. Verrelli</u>	<u>4/24/84</u>
D. M. Verrelli, Branch Chief	Date Signed
Division of Project and Resident Programs	

SUMMARY

Inspection on March 28-30, 1984

Areas Inspected

This special, announced inspection involved 78 inspector-hours on site in the areas of observation of the Grand Gulf Technical Specification Review Program.

Results

Of the areas inspected, one apparent deviation was found (Failure to test remote shutdown panel as committed in FSAR, see paragraph 6).

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REPORT DETAILS

1. Persons Contacted

Licensee Employees

J. E. Cross, Plant Manager
R. F. Rogers, Assistant Plant Manager
T. H. Cloninger, MP&L Project Manager, Unit 2
J. F. Pinto, Manager-Nuclear Plant Engineering
L. F. Daughtery, Compliance Superintendent
D. W. Stonestreet, Manager, Review Group
R. C. Fron, MP&L Technical Assistant
S. M. Feith, Nuclear Site QA Manager
L. C. Burgess, Administrative Manager, Technical Specification
C. L. Tyrone, MP&L Project Manager, Technical Specifications
J. C. Roberts, MP&L Technical Superintendent
P. R. Hughes, Regulatory Compliance

Other licensee employees contacted included technicians, operators, engineers, mechanics, security force members and office personnel.

Other Organizations

*J. Guibert, IMPELL Corporation
*D. E. Stewart, Bechtel Power Corporation

2. Exit Interview

The inspection scope and findings were summarized on March 30, 1984, with those persons indicated in paragraph 1 above. Licensee representatives did not take issue with the deviation. The details of the inspection findings were discussed at length with licensee representatives.

3. Licensee Action on Previous Enforcement Matters

Not inspected.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Observations on Technical Specifications Review Program

As described in MP&L letter AECM-84/0183 of March 18, 1984 to NRR, a Technical Specification (TS) review program has been undertaken by MP&L to identify any and all discrepancies in the Grand Gulf TS. The purpose of this inspection was to observe the review program in progress. This was accomplished in two ways.

First inspectors reviewed samples of the review program results and discussed the findings with various program managers. Various program participants were interviewed to fully understand the program and attempt to identify deficiencies in the program or inadequacies in implementation.

Second, certain specific TS items were selected and the item compared with the FSAR, SER, and the as built plant as observed by the inspector. Any TS discrepancies were noted and compared with the review program results in the same TS areas. This section of the report presents observations by the inspectors resulting from the first facet of the inspection. Sections 6, 7, and 8 present the inspector's observations from the second facet.

The licensee divided the Grand Gulf TS (GGTS) as currently approved by NRC into four portions for work by four review groups. These four portions were: (1) the technical specifications and associated bases within the NSSS (GE) scope, (2) the technical specifications and associated bases within the architect engineer's (Betchel) scope, (3) the technical specifications and associated bases concerning radiological effluent and monitoring (RETS), and (4) the technical specifications concerning definitions, design features and administrative controls. This divisions of the technical specifications and their subsequent assignment to appropriate review groups ensured that all the technical specifications were reviewed by at least one, and in some cases, more than one review group. Therefore, it appears that the program covers the entire scope of the TS.

The program requires that the TS be used as a focal point for comparing them with the Final Safety Analysis Report (FSAR), the NRC Safety Evaluation Report (SER), BWR/6-Standard Technical Specifications (STS) and the as-built plant. Such a comparison requirement is desirable, however, there appears to be an inherent deficiency in the program in that by establishing the GGTS as the focal point of the review, the program presumes the GGTS to be sufficient in scope and in mode applicability. In addition to comparing the GGTS with the BWR/6-STs, the program should require consideration of the GGTS to determine if their scope and mode applicability are adequate and if the CC contain unnecessary requirements. The BWR/6-STs were prepared in conjunction with the GGTS preparation and their scope and mode applicability have not been proven through use on other plants as have the other STS currently in use. Furthermore, the BWR/6-STs have not yet been officially endorsed by the NRC staff. Therefore, the BWR/6-STs are not considered to provide a sound basis for determining that the GGTS are adequate in scope or mode applicability.

While the program provides for a direct comparison of the GGTS with the as-built plant and with the FSAR, it does not provide for a direct comparison of the as-built plant to the FSAR. In view of the fact that a number of discrepancies between the FSAR and the as-built plant were detected during other recent such comparisons (e.g. during the Region II inspection of February 21-24, 1984, Inspection Report 84-06), such a comparison would have provided added assurance that the as-built plant is accurately described in the FSAR. However, a limited comparison of the as-built plant to the FSAR will be possible through cross comparisons of the

as-built plant to the GGTS and the FSAR to the GGTS. If in this limited comparison, a large number of inconsistencies are detected and are determined to be significant from a safety standpoint, a more direct and thorough comparison should be required.

The licensee established a project-oriented organization reporting to the Senior Vice President-Nuclear to coordinate the review effort. The Project Manager, Technical Specifications Review is an MP&L employee who reports directly to the Senior Vice President-Nuclear. The Review, Priorization and Direction (RPD) Manager, Administrative Manager, RETS Manager, and the NSSS/BOP Manager are all MP&L employees and they report directly to the Project Manager. It appears that the program provides for appropriate MP&L management involvement and oversight.

The RPD Group includes representatives from Nuclear Plant Engineering (NPE), Plant Staff and Nuclear Safety and Compliance. The primary functions of the RPD Group are to: (1) evaluate findings forwarded to it, (2) assign priority to potential changes to the technical specifications, (3) direct necessary corrective action, and (4) concur with findings or adequacy of completed or proposed corrective actions.

The NSSS/BOP Group receives the combined review results from both GE and Bechtel offsite. Also reporting to the NSSS/BOP Manager is an Onsite Review Team whose minimum composition includes: (1) a GE or Bechtel engineer, (2) an MP&L NPE engineer, and (3) an MP&L Senior Reactor Operator. The initial review of TS within the NSSS/BOP Review Group scope of responsibility will be conducted in the GE and Bechtel home offices, as appropriate, followed up by some field verification at the plant site.

The Administrative Review Group is directed by an engineer from the MP&L Quality Assurance organization. The RETS Review Group Manager is the MP&L Manager of Radiological and Environmental Services. There is substantial licensee involvement in all appropriate aspects of the program which is considered preferable to delegation of such involvement to a consultant or other organizations.

The program provides for auditing of its implementation and effectiveness by the MP&L Quality Assurance organization. A Quality Engineer is assigned to the program to provide quality control support to the Project Manager. Therefore, it appears the program includes commitments for adequate participation by the licensee's Quality Assurance organization.

Although it was not a formal requirement, the program includes the use of an independent organization to assess the program's effectiveness. The licensee selected the Impell Corporation to perform this independent audit. The Impell Corporation is to review the program, inspect work activities in progress, and provide a report on the adequacy of the program to the Senior Vice President-Nuclear.

The licensee developed a prioritization scheme for all items identified which require resolution and possible technical specification changes. Priority 1 items would be those required to be changed prior to resuming operation of the plant. Priority 2 items are those for which technical specification changes are required but such changes are not immediately required for safe operation of the plant. Priority 3 items are those which are determined after review to not require TS changes. The licensee recommends that all items identified as Priority 1 be approved by the NRC and issued as license amendments prior to resuming critical operation of the plant. The remaining priority 2 items will be resolved on a schedule to be determined later by the licensee and the NRC. The licensee initiated implementation of the Grand Gulf Technical Specification Review Program on March 2, 1984. It is anticipated to be complete by mid April 1984.

During this inspection, several member of the licensee's organization as well as several GE and Bechtel representatives were interviewed. Each individual problem identified is given an item number and documented on a TS problem sheet. All TS problem sheets related to a given TS line item are combined in a single package for review and disposition. Numerous technical specification line item packages were examined during onsite review. From examination of these packages, it was determined that the licensee implementation of the program appears to be as described in its submittal of March 18, 1984. However, certain reviewers particularly in the Bechtel areas of review responsibility were apparently using the draft BWR/6-STs as justification for the acceptability of the GGTS. As discussed above, the draft BWR/6-STs have neither been endorsed for use by the NRC staff nor are the BWR/6-STs considered as "mature" as are the other STs currently in use. Therefore, while the BWR/6-STs can serve as a useful guide in evaluating the adequacy of the GGTS, the inspectors concluded that a determination or acceptability of GGTS line items based upon a comparison with the BWR/6-STs is not technically adequate. The licensee stated that in final closure of technical specification packages, the BWR/6-STs will not be used as sole justification for determining the acceptability of the GGTS but that additional justifications will be provided. Region II will followup to confirm this commitment as Inspector Followup Item IFI 416/84-11-01.

Although there are indications that some of the reviewers considered the accuracy of the mode applicability requirements during their reviews of the GGTS, there was no systematic implementation of a clear requirement for the reviewers to determine the accuracy of mode applicability requirements of the GGTS. This appears to be a deficiency in the program and in its implementation. Although the program gives the reviewer a check list of attributes that must be considered during review of each TS line item, the list contains no attribute relating to verification that TS requirements are applicable in the correct plant operating modes. The licensee has made an informal commitment to address and correct this deficiency and Region II will followup on the licensee's commitment. (IFI 416/84-11-02)

It was observed the potential technical specification problems could be identified during reviews by various reviewers and determined to be insignificant by the RPD. When such a determination was made, item numbers were not assigned to the technical specification problem sheets and therefore a potential exists for items which were actually significant to not be tracked and hence dropped from further consideration. The problem sheets are retained in the review package, however. The inspectors found that this is a deficiency in the program and that a tracking system for such items should be developed and implemented. The licensee has informally committed to consider action on this item. Region II will also followup on this item. (IFI 416/84-11-03)

The inspectors noted that the program does not specifically require a search of the FSAR for additional items that are Grand Gulf specific and are not presently addressed in the TS. The licensee has informally committed to a followup verification program to address this issue. Region II will follow up on this item during a future inspection. (IFI 416/84-11-04)

6. T.S. 3.3.7.4 Remote Shutdown Monitoring Instrumentation

A review of the current Remote Shutdown Monitoring Instrumentation TS was conducted to audit incorporation of FSAR chapter 7.4 requirements, 10 CFR 50 requirements and agreement with the as built plant systems. A check was made of the surveillance program for this system. The following comment was noted.

The TS does not require in this section that the RHR, SSW, ADS RCIC, and CRD Hydraulic system control switches and flow controller be surveilled. The inspector was informed that the switches have not been tested since the completion of preoperational testing. They are not included in the licensee's surveillance program. FSAR paragraph 7.4.2.4.2 states that "the instrumentation and control components required for remote shutdown, which are not normally in operation, will be periodically tested." The failure to perform periodic testing as required by the FSAR is a deviation from a commitment made to the NRC. This deviation will be identified as 416/84-11-05, failure to perform periodic testing.

7. TS 3.7.1 Standby Service Water

A review of TS 3/4.7.1.1, 3/4.7.1.2, and 3/4.7.1.3 on the Standby Service Water (SSW) system and the Ultimate Heat Sink (UHS) for adequacy and conformance with the FSAR and SER was conducted. TS 3/4.7.1.1 and 3/4.7.1.2 on the SSW system appear to be adequate but their surveillance requirements do not appear to meet the commitments and requirements of FSAR 9.2.1.4, the SER and 10 CFR part 50 General Design Criteria 46 for testing of cooling water systems. In particular the existing surveillances do not require verifying the repositioning of valves and starting of pumps and fans on a LOCA signal and transfer to an emergency power source on loss of normal power as required by the FSAR, SER and 10 CFR 50. This problem with TS 3/4.7.1.1 and 3/4.7.1.2 surveillance requirements has been previously pointed out to the licensee by NRR. TS 3/4.7.1.3 appears adequate but a

review of the FSAR 9.2.5.1.1 for the UHS revealed an inconsistency in the required time in days that the UHS must be available without make up water under accident conditions. The FSAR para 9.2.5.1.1 states that the UHS is designed for 28 days but an earlier FSAR commitment para 9.2.1.3 stated 30 days as the criteria as does Regulatory Guide 1.27 Rev. 2 January 1976 committed to by the FSAR in Appendix 3A. This item will be identified as IFI 416/84-11-06.

8. Nuclear Instrumentation Review

The inspector performed an independent audit of the Grand Gulf TS with regard to nuclear instrumentation. The facility FSAR and SER were utilized as base documents for determining requirements. The facility TS were then compared to these requirements to identify potential inadequacies and/or omissions. The licensee review findings were then compared to the inspector findings in an attempt qualify the adequacy of the licensee's review. The licensee's TS review findings correlated with those of the inspector's with the following exceptions.

FSAR chapter 7.6 states that the source range monitors (SRMs), the intermediate range monitors (IRM's) and the average power range monitors (APRM's) are aligned to produce a non-coincident scram during refueling by removal of shorting links. TS 3.9.2 requires that the shorting links be verified removed during certain refueling operations but does not contain a surveillance requirement to test the non-coincident scram function.

Table 3.3.1-1, which delineates reactor protection system (RPS) instrumentation, does not identify the SRM's as RPS instrumentation. TS table 4.3.1-1, which delineates surveillance requirements for RPS instrumentation does not identify a requirement to test the non-coincident scram function of the SRMs, IRM's or APRM's with the shorting links removed. This apparent omission of identifying the SRMs as RPS instrumentation in Mode 5 with the shorting links removed and the absence of a surveillance requirement was not identified by the licensee review program. This finding was discussed with the licensee at the exit interview and the licensee committed to reviewing this item. This will be identified as IFI 416/84-11-07.

No violations or deviations were identified in this area.