MISSISSIPPI POWER & LIGHT COMPANY
Helping Build Mississippi
P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

October 14, 1982

NUCLEAR PRODUCTION DEPARTMENT

U.S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Washington, D.C. 20555

Attention: Mr. Harold R. Denton, Director

Dear Mr. Denton:

SUBJECT: Grand Gulf Nuclear Station
Unit 1
Docket No. 50-416
License No. NPF-13
File 0260/L-350.0/0092
Comments and Status on Grand Gulf
Operating License and Safety
Evaluation Report
AECM-82/358

Mississippi Power & Light Company (MP&L) is providing this letter to familiarize you with the results of a review conducted by MP&L of the Grand Gulf Nuclear Station Operating License (NPF-13) and recent supplements to the Safety Evaluation Report on Grand Gulf.

The attached information is arranged as follows:

1. Comments on the operating license conditions.
2. Current comprehensive SER index and status, as perceived by MP&L.
3. Comments on specific sections of SER and SER supplement material.
4. MP&L identified SER errors transmitted by previous submittals.
5. MP&L letter AECM-82/209, dated May 21, 1982.

It is intended that the attached information will provide assistance to your project management in the generation of a fourth supplement to the Grand Gulf Nuclear Station Safety Evaluation Report and the full power operating license.

Should you have any questions or require additional information, please contact this office.

Yours truly,

L. F. Dale
Manager of Nuclear Services

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JHS/JGC/JDR:lm
Attachment

cc: (See Next Page)

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cc: Mr. N. L. Stampley (w/o)
Mr. R. B. McGehee (w/o)
Mr. T. B. Conner (w/o)
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Mr. Richard C. DeYoung, Director (w/a)
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Mr. J. P. O'Reilly, Regional Administrator (w/a)
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ATTACHMENT 1

SUMMARY OF VARIOUS LICENSE CONDITIONS REFLECTING CURRENT STATUS AND/OR MP&L POSITIONS.

The following summary should be reviewed and incorporated into the Grand Gulf Nuclear Station full power operating license.

On June 16, 1982, the Grand Gulf Nuclear Station Facility Operating License (NPF-13) was issued with certain licensing conditions.

In keeping with the requirements of the operating license, Mississippi Power & Light Company (MP&L) submitted information to the Staff for review and resolution.

Since the issuance of the operating license, Mississippi Power & Light Company has amended the license for various reasons.

The purpose of this attachment is to provide a review of information submitted which is applicable to the operating license and amendments. In part, the information submitted satisfied certain licensing requirements which limited the operation of Grand Gulf to five percent power. In such cases, the comments reflect justification for removing or modifying the limiting licensing condition.

Operating License Condition	Comments
2.C.(5)(a)	Probable Maximum Precipitation - In letter dated August 9, 1982 (AECM-82/440), MP&L presented an analysis of the effects of PMP water level at GGNS. MP&L is complying with the requirement detailed in this condition.
2.C.(5)(b)	Probable Maximum Precipitation - Details of permanent plant modifications remain under evaluation. Plans for permanent modifications will be submitted for review as described in the above reference 2.C(5)(a).
2.C.(6)	Soil Structure Interaction - In letter dated April 2, 1982 (AECM-82/122), MP&L provided additional information for the Staff's review. Additional details of MP&L's evaluation were presented in letter dated July 9, 1982 (AECM-82/316). Based on recent conversations with members of Structural Engineering Branch (SEB), it is MP&L's understanding that the reduction factor applied to the EHS spectra is not adequately justified. MP&L requires the NRC's specific criticisms of the report presented in AECM-82/122 so that an appropriate course of action can be taken.
2.C.(8)	Containment Pressure Capability - In letter dated June 19, 1981 (AECM-81/221), MP&L presented results of analysis of the containment ultimate capacity. MP&L presented additional information in response to SEB questions dated August 21, 1981 (AECM-81/312), October 23, 1981 (AECM-81/414), and April 1, 1982 (AECM-82/117). MP&L considers this item closed.

Operating License Condition	Comments
2.C.(9)	Masonry Walls - In letter dated January 19, 1982 (AECM-82/29), MP&L presented results of our evaluation relating to Category I Masonry Walls performed subsequent to the issuance of IE Bulletin 80-11. On July 16, 1982, MP&L met with the Staff to address the concerns raised subsequent to their review of the MP&L evaluation. MP&L agreed to provide additional information to support modifications such that required modifications can be completed prior to startup from the first refueling outage.
2.C.(12)(a)	Environmental Qualifications - In letter dated June 28, 1982 (AECM-82/298), MP&L acknowledged the suspension of the June 30, 1982, deadline reference in 10CFR 50.49.
2.C.(12)(b)	Environmental Qualifications - MP&L has completed and is maintaining auditable records which describe the environmental qualifications required by NUREG-0588, Rev. 1, dated July, 1981.
2.C.(12)(c)	Environmental Qualifications - In letter dated September 13, 1982 (AECM-82/396), MP&L proposed a change to the operating license (PCOL-82/09) pertaining to this condition and is awaiting NRC concurrence to this change.
2.C.(13)(a), (b)	Fuel Lift - In letter dated August 30, 1982 (AECM-82/371), MP&L submitted information endorsing the General Electric Licensing Topical Report NEDE-21175-3-P, "BWR Fuel Assembly Evaluation of Combined SSE and LOCA Loadings", dated July, 1982. MP&L considers these issues resolved.
2.C.(16)(a)	Loose Parts Monitoring System - In letter dated August 13, 1982 (AECM-82/343), MP&L submitted details of the installation and status of the Loose Parts Monitoring System. MP&L considers the actions described in the above response resolve the license condition.
2.C.(22)	Humphrey Containment Concerns - In letter dated July 15, 1982 (AECM-82/321) and August 19, 1982 (AECM-82/353), MP&L provided details in response to this issue which provide justification for full power operation. The Staff's review of this issue is presented in SSER 3. MP&L will

Operating License Condition	Comments
	continue to provide information in accordance with the schedule delineated in the above references.
2.C.(23)	Compliance With Regulatory Guide 1.97 - In letter dated July 15, 1982 (AECM-82/317), MP&L provided an alternate schedule and proposal for meeting the requirements of Regulatory Guide 1.97 specifically for Grand Gulf. MP&L is awaiting the Staff's review on this issue.
2.C.(24)	I.E. Bulletin 79-27 - Based on recent conversations with the ICSB reviewer, it is MP&L's understanding that the IEB 79-27 review is closed on Grand Gulf.
2.C.(25)	I.E. Information Notice 79-22 - Responses to recent concerns offered by ICSB are currently under development with regard to IEN 79-22.
2.C.(26)	Control System Failures - A single minor item remains open at this time. This concern regarding the common sensor analysis portion of the control system failure evaluation will be addressed in an attachment to the IEN 79-22 submittal.
2.C.(27)	Failures in Vessel Level Sensing Lines - The MP&L submittal on this subject was via the letter dated September 10, 1982. No modifications were required. MP&L considers this item closed for Grand Gulf.
2.C.(33)(a)(2)	Reliability of Diesel-Generators - In letter dated August 9, 1982 (AECM-82/459) and in response to NRC Question 40.108, MP&L presented information in resolution of this issue. Based on discussions between PSB's R. Giardina and members of our staff, it is MP&L's understanding this issue is not applicable to Grand Gulf and that this license condition will be removed from the operating license when the license is updated for full power operation.
2.C.(33)(b)	Emergency Diesel Generators - In letter dated August 9, 1982 (AECM-82/459), MP&L presented details which addressed the NRC concerns regarding emergency diesel engine auxiliary support systems. Subsequent conversations between PSB's R. Giardina and members of our staff indicate resolution of this issue.
2.C.(38)	Training Instructors - In letter dated August 13, 1982 (AECM-82/337), MP&L requested NRC certification for the listed instructors based on the

Operating License Condition	Comments
	qualification information provided. The NRC denied the request in the letter to MP&L, MAEC-82/213, dated September 15, 1982. In subsequent discussions with Operator Licensing Branch, certain clarifications of the referenced NRC letter were agreed upon, providing clear guidance on the use of instructors who have been previously licensed by the NRC at plants other than Grand Gulf. MP&L requests that OLB document these clarifications formally to minimize confusion with regard to MP&L's compliance to the subject license condition.
2.C.(39)(a)	Emergency Preparedness - In letters dated April 20, 1982 (AECM-82/167) and July 2, 1982 (AECM-82/306), MP&L presented information addressing this condition. Additional staff concerns regarding Revision 6 to the GGNS Emergency Plan were addressed by MP&L in the letter AECM-82/384, dated September 9, 1982. These changes will be incorporated in the next revision to the emergency plan, scheduled for the end of October, 1982. Action taken to date by MP&L should allow closure of this condition.
2.C.(39)(b)	Alerting/Notification System - In letter dated August 5, 1982 (AECM-82/328), MP&L presented detailed justification pertaining to the resolution of this issue.
2.C.(39)(c)	Offsite Preparedness - The latest status on the FEMA review on the state of offsite preparedness was provided in the MP&L letter, AECM-82/382, dated September 30, 1982. It should be pointed out that, while the Staff has indicated that the FEMA evaluation is a full-power licensing requirement, MP&L has no authority to dictate FEMA's schedule for completing this task. However, 44CFR350 requires FEMA to provide NRC with their final evaluation 30 days after receipt of the subject plans from the Regional Director. The subject plans, as indicated in the above referenced letter, were sent from the Regional Director FEMA on July 27, 1982. Following receipt of FEMA's evaluation of these plans, this section of the license should be revised.

Operating License Condition	Comments
2.C.(40)	Initial Test Program - MP&L concurs with the general intent of this license condition; however, some clarification is recommended. The definition of "major modification" to the initial test program does not include the qualifier "essential" in items (c) and (d). This requires MP&L to request NRC prior approval of any test movement or failure to complete any test, regardless of the test's significance and impact to plant safety. It is recommended that in the full power operating license, items (c) and (d) be revised to require NRC prior approval for the movement or failure to complete any essential test, consistent with the criteria the Staff has prescribed in items (a) and (b) of the subject condition. It should also be noted that item (d) requires additional clarification in that the requirement to obtain prior NRC approval for an unforeseen failure to complete a test somewhat lacks meaning and auditability. It is assumed that the Staff here is requiring prior approval for the elimination of any essential portion of a test or at least notification if prior advisement was not possible.
2.C.(43)	Cygna Independent Design Report - This issue is considered resolved as discussed in the MP&L letter, AECM-82/389, dated September 30, 1982. The final Cygna report has been forwarded to the NRC, and it is MP&L's understanding that there are no outstanding concerns.
2.C.(44)(a)	Control Room Design - In letter dated July 30, 1982 (AECM-82/333), MP&L addressed the Staff's requests represented by this condition. The labeling review on control room back panels was deferred per previous agreements with HFEB and commitments made by MP&L. This review is part of the long-term control room design review effort and was incorrectly listed in 2.C.(44)(a)(ii). MP&L is reviewing additional requests from the Staff pertaining to human performance standards in the remote shutdown panel areas.
2.C.(44)(c)(i)	Post Accident Sampling - In letter dated July 30, 1982 (AECM-82/339), MP&L provided additional information pertaining to procedures

Operating License Condition	Comments
	for relating radionuclide gases and ionic species to estimated core damage. MP&L is awaiting comments on the aforementioned procedure submitted by letter dated April 15, 1982 (AECM-82/153).
2.C.(44)(c)(ii), (iii)	Post Accident Sampling - In letter dated July 30, 1982 (AECM-82/339), MP&L provided information documenting resolution of these conditions.
2.C.(44)(d)	Hydrogen Control - A detailed evaluation and discussion of the MP&L submittals on the HIS is contained in the Grand Gulf SSER No. 3, which indicates that the HIS is acceptable for full power operation.
2.C.(44)(e)	A safety/relief valve position indication system meeting the requirements of IEEE Standards 323-1974 and 344-1975 has been installed. Details of this installation are available at the site for your review.
2.C.(44)(f)	Instrumentation for Detection of Inadequate Core Cooling - In letter dated August 30, 1982 (AECM-82/368), MP&L presented a review of the BWR Owners Group report. Our review indicates that no further instrumentation is required to detect ICC at Grand Gulf.
2.C.(44)(g)	Heat Removal Systems - The equipment which automates RCIC restart on a low water level has been installed. Documentation of this work is available at the site for your review.
2.C.(44)(h)	Break Detection Logic - The modifications identified by this condition have been completed. Documentation of this work is available at the site for review.
2.C.(44)(i)(a)	Automatic Depressurization System Logic Modifications - The License Conditions call for an MP&L submittal endorsing the BWR Owners Group alternative design modifications or otherwise satisfactorily resolving this issue by November 1, 1982. This was based on an October 1, 1982 submittal by the BWR Owners Group. Because of the revised schedule of October 29, 1982 for the BWR Owners Group

Operating License Condition	Comments
	Submittal (as discussed in Attachment 3, Item 22.2 II.K.3.18 regarding SSER 2), it is requested that this License Condition be revised to require the MP&L submittal by December 1, 1982.
2.C.(44)(j)	HPCS Restart System - The modification providing for automatic restart for the high pressure core spray system has been completed. Documentation of this modification is available at the site for your review.

Additional Item - 40 Year Operating License

In letters AECM-82/202, dated May 4, 1982, and AECM-82/242, dated June 10, 1982, MP&L requested that the operating license for Unit 1 be issued for a period of forty years. In transmitting the Grand Gulf operating license (MAEC-82/142), dated June 16, 1982, the NRC stated that the issuance of the low power license would be delayed and that MP&L's request would be included in the review activities associated with full power licensing. MP&L has reviewed Grand Gulf with respect to the Nuclear Steam Supply System, the balance of plant, and the Final Environmental Report in support of this request. Certain supporing information was provided in the above referenced June 10, 1982, letter. However, the NRC has asked MP&L not to submit additional supporting documents unless they are requested. The Staff has requested no additional information to date. MP&L requests that this issue be addressed and approved in the full power revision to the facility operating license.

ATTACHMENT 2

LIST OF CURRENT STATUS OF ALL OUTSTANDING ISSUES, CONFIRMATORY ISSUES, AND LICENSE CONDITIONS.

The following list should be reviewed and incorporated into the next supplement to the Grand Gulf Nuclear Station Safety Evaluation Report. The assignment of status as presented in this attachment is based on MP&L's evaluation of the issues.

NOTE: Deletions/Corrections Appear as: ~~delete any data~~
Additions Appear as: [add new data]

	Issue	Status	Section
(18)	Reactor vessel level instrumentation	Resolved	II.K.1.23 (SSER 1)
(19)	Common reference water level instrumentation	Resolved	II.K.3.27 (SSER 1)
(20)	Recent containment concerns	~~Awaiting information~~ [Resolved with license condition]	6.2.9

1.10 Confirmatory Issues

	Issue	Status	Section
(1)	Barge accident - toxic ammonia gas	Resolved	2.2.1 [SSER 1]
(2)	Meteorological measurements	Resolved	2.3.3 [SSER 2]
(3)	Ultimate heat sink (performance)	Resolved	2.4.12 [SSER 2]
(4)	Seismic design (EHS vs. ~~FES~~ [FEM])	Resolved with license condition	3.7.1 [SSER 2]
(5)	Seismic instrumentation	Resolved with license condition	3.7.4 [SSER 2]
(6)	Masonry wall design	Resolved with license condition	3.8.3 [SSER 2]
(7)	BOP piping - dynamic testing	Resolved with license condition	3.9.2 [SSER 2]
(8)	Inservice testing of pumps and valves	Resolved	3.9.6
(9)	Seismic and LOCA loads	~~Resolved with license condition~~ [Resolved]	4.2.3.5 [SSER 2]
(10)	Effects of New Madrid Fault extension	Resolved	3.7.1 [SSER 1]
(11)	Preservice inspection review	Resolved	5.2.4.1, 6.6.1 [SSER 2]
(12)	Secondary containment leakage limits verification	Resolved	6.2.2 [SSER 1]
(13)	RHR and ECCS pump reliability	Resolved (low power)	[5.4.2, 6.3.2.3 SER] 3.10 [SSER 2]
(14)	Containment short-term and long-term pressure response	Resolved	6.2.1.3, 6.2.1.4 [SSER 2]
(15)	RHR/containment spray cooling	Resolved	7.3.2 [SSER 2]
(16)	Safety-related display instrumentation	Resolved with license condition	7.5.1 [SSER 2]
(17)	Postaccident monitoring	Resolved	7.5.2 [SER], 3.10, 3.11 [SSER 2]

	Issue	Status	Section
(18)	Response to IE Bulletin 79-27	~~Resolved with license condition~~ [Resolved]	7.8 (SER)
(19)	Redundant safety-related electrical systems	Resolved	8.4.1 [SSER 2]
(20)	Control of heavy loads	Resolved	9.1.4 [SER]
(21)	Alternate safe shutdown panel license condition	Resolved with license condition	9.5.4.1 [SSER 2]
(22)	Appendix R	Resolved	9.5.9 [SER]
(23)	Noise level at working stations	Resolved with license condition	9.6.1.2 [SSER ?]
(24)	HPCS D/G reliability test report	Resolved	8.3.1 [SSER 2]
(25)	Operating shift work limitation	Resolved with license condition	~~7.5.1~~ [13.1.2 SSER 2]
(26)	Supplemental fire brigade training	Resolved	13.1.2 [SSER 2]
(27)	Physical security and safeguards plans	Resolved with license condition	13.7 [SSER 1]
(28)	Low power test program	Resolved with license condition	I.G.1 [SSER 2]
(29)	Plant shielding for post-accident operation	Resolved	II.B.2 [SSER 1]
(30)	IE Bulletins on measures to mitigate small-break LOCAs and loss-of-feedwater accidents	~~Resolved with license condition~~ [Resolved]	II.K.1.5 [SSER 2]
		Resolved	II.K.1.10 [SSER 2]
(31)	ADS logic	Resolved with license condition	II.K.3.18 [SSER 2]
(32)	Actions for auxiliary heat removal system	~~Resolved with license condition~~ [Resolved]	II.K.3.13 (SER)
(33)	Loss of power to pump seal coolers	Resolved	II.K.3.25 [SSER 1]
(34)	Conformance to commission regulations	Resolved	1.1 [SSER 1]

1.11 License Conditions

	Issue	Status	Section
(1)	Embankment protection for culvert 1	Withdrawn	2.5.5 [SSER 1]
(2)	Channel box deflection information	Withdrawn	4.2.3.4 [SSER 2]
(3)	Response to IE Bulletin 79-26, Rev. 1, on control rod failure		4.2.3.14
(4)	Core thermal-hydraulic stability analysis		4.4.1
(5)	Loose parts monitoring evaluation report		4.4.1
(6)	Modification and testing of reactivity control systems		4.6
(7)	Inservice inspection programs		5.2.4.1, 6.6.2
(8)	Exemptions for Appendix G and H		5.3.3
(9)	Responses to IE Bulletin 79-27; IE Information ~~Bulletin~~ [Notice] 79-22	~~Modified~~ [Withdrawn]	7.8B [SSER 2]
		Modified	7.8C [SSER 2]
(10)	Control system failures	Modified	7.8D [SSER 2]
(11)	Failure of vessel sensing lines	~~Modified~~ [Withdrawn]	7.8H [SSER 2]
(12)	Diesel generator reliability	~~Modified~~ [Withdrawn]	9.6.3 [SSER 2]
(13)	Filling of Unit 2 CWS		10.4.5
(14)	Supplemental shift staffing through 100% power		13.1.2
(15)	SRO qualification of instructors		13.2
(16)	Control room design	Modified	22.2 - I.D.1, Appendix E [SSER 2]
(17)	Post-accident sampling capability		22.2 - II.B.3
(18)	Incore thermocouples	~~Modified~~ [Withdrawn]	22.2 - II.F.2 [SSER 2]
(19)	Containment water level monitor	[Withdrawn]	22.2 - II.F.1.5

	Issue	Status	Section
(20)	HPCI and RCIC equipment installation	[Withdrawn]	22.2 - II.K.3.13
(21)	Break detection logic	[Withdrawn]	22.2 - II.K.3.15
(22)	Restart core spray, ~~low~~ [high] pressure	[Withdrawn]	22.2 - II.K.3.21
(23)	Containment emergency sump	Withdrawn	(A-43) - Appendix C [SSER 2]
(24)	Station blackout procedure and training		(A-44) - Appendix C
(25)	Replacement of feedwater check valve discs		6.2.8
(26)	Containment capacity	~~Addition~~ [Withdrawn]	3.8.1 [SSER 1]
(27)	Turbine disc inspection	Addition	10.2.1 [SSER 1]
(28)	Security and safeguards	Withdrawn	13.7 [SSER 2]
(29)	Seismic design (EHS vs. FEM)	Addition	3.7.1 [SSER 2]
(30)	Seismic instrumentation	Addition	3.7.4 [SSER 2]
(31)	Masonry wall design	Addition	3.8.3 [SSER 2]
(32)	BOP piping - dynamic testing	Addition	3.9.2 [SSER 2]
(33)	Seismic and LOCA loads	~~Addition~~ [Withdrawn]	4.2.3.5 [SSER 2]
(34)	Electrical equipment qualification	Addition	3.10 [SSER 2]
(35)	Safety-related display instrumentation	Addition	7.5.1 (SER)
(36)	Spent fuel pool ventilation	Addition	9.4.2 [SSER 2]
(37)	Alternate safe shutdown panel	Addition	9.5.4.1 [SSER 2]
(38)	Noise level at working stations	Addition	9.6.1.2 [SSER 2]
(39)	Management advisor	Addition	13.1.1 [SSER 2]
(40)	Shift advisors	Addition	13.1.2 [SSER 2]
(41)	Partial feedwater heating	Addition	15.1 [SSER 2]

	Issue	Status	Section
(42)	Low-power test program	Addition	I.G.1 [SSER 2]
(43)	Containment isolation	Addition	II.E.4.2 [SSER 2]
(44)	IE Bulletins on measures to mitigate small-break LOCAs and loss-of-feedwater accidents	~~Addition~~ [Withdrawn]	II.K.1.5, [II.K.1.10 (SSER 2)]
(45)	ADS logic	Addition	II.K.3.18 [SSER 2]
(46)	Probable Maximum Precipitation	Addition	2.4.3 [SSER 2]
(47)	Pressure Interlocks on Valves Interfacing at Low and High Pressure	Addition	6.3.4 [SSER 2]
(48)	Standby Service Water System	Addition	9.2.1 [SSER 2]
(49)	Spent Fuel Pool Ventilation System	Addition	9.4.2 [SSER 2]
(50)	Assurance of Proper Design and Construction	~~Addition~~ [Withdrawn]	17.5 [SSER 2]
(51)	Hydrogen ignitor system	Addition	II.B.7, II.B.8 [SSER 3]
[(52)	Emergency Preparedness	Addition	13.3 (SSER 2)]
[(53)	Recent containment concerns	Addition	6.2.9 (SSER 3)]
[(54)	Deep draft pumps	Addition	3.10 (SSER 2)]

ATTACHMENT 3

SUMMARY OF VARIOUS SER AND SSER SECTIONS REFLECTING CURRENT STATUS AND/OR MP&L POSITIONS.

The following summary should be reviewed and incorporated into the next supplement to the Grand Gulf Nuclear Station Safety Evaluation Report.

3.8.1 (SSER 1) Concrete Containment, Ultimate Capacity

The staff's review, as documented in Supplement 1 to the SER, indicated that information requested by the staff was outstanding. MP&L considers that the following submittals provided sufficient information to close this issue:

AECM-81/221, June 19, 1981
AECM-81/312, August 21, 1981
AECM-81/414, October 23, 1981
AECM-82/117, April 1, 1982

It is MP&L's understanding that no information is outstanding on this matter. The staff should update its review in the upcoming supplement.

3.9.2 (SSER 2) Dynamic Testing

The Staff's review, as documented in Supplement 2 to the SER, and Operating License Conditions 2.C(10) are inconsistent. The due date for the required report is specified in the license condition as no later than 6 months after completion of testing, but not later than June 1, 1983. The SER should reflect the same requirement.

3.10 (SSER 2) Seismic and Dynamic Equipment Qualification

(a) HPCS Service Water Pump. Recent NRC Staff concerns were directed to MP&L's attention in the NRC letter dated September 8, 1982 (MAEC-82/208). MP&L's response was provided in AECM-82/435, dated October 4, 1982. This issue was discussed in a meeting with Equipment Qualification Branch October 8, 1982. During the meeting, MP&L committed to perform an air in situ test to resolve the NRC's concern involving overflow induced vibration. The Staff should update its review for this issue in the next SER supplement.

(b) MSIV's. Qualification of the subject components was confirmed in the MP&L letter, AECM-82/357, dated August 12, 1982.

(c) RHR Heat Exchangers. Qualification of the subject components was confirmed in the MP&L letter, AECM-82/357, dated August 12, 1982.

(d) SRV's (RHR and fuel oil systems). Qualification of theses valves has been delayed as discussed in item (8)B of the attachment to MP&L letter, AECM-82/382, dated September 30, 1982. However, MP&L intends to qualify these valves prior to exceeding 5% power, as required by Supplement 2 to the SER.

(e) HCU (SSER 2 and 3). The agreement reached between MP&L and the NRC on the method of handling variable pool swell loads as presented in both Supplements 2 and 3 requires minor clarification. This clarification is presented in the MP&L letter, AECM-82/285, dated June 12, 1982. Only the variable pool swell ARS for the HCU qualification will be amplified by 25% (not other hydrodynamic loads).

(f) Deep Draft Pumps - IEB 79-15. Supplement 2 indicates that this issue requires resolution prior to exceeding 5% power.

EQB's concerns were provided informally to MP&L in June of 1982. These concerns were addressed in the MP&L letter, AECM-82/460, dated August 9, 1982. Subsequent discussions have been held via telephone with EQB's G. Bagchi. The remaining outstanding item is a summary of the trend analysis program for deep draft design pumps, as committed in AECM-82/460. It is MP&L's understanding that responses provided in AECM-82/460 were adequate and that these concerns are resolved, with the exception of the trend analysis program and the HPCS service water pump, addressed earlier in this section.

The Staff's review on these matters should be updated or revised as indicated above.

3.11 (SSER 2) Environmental Qualification

The Staff's review of this issue was updated in Appendix H to Supplement 2 to the SER. MP&L's response to items covered in this appendix was provided in the MP&L letter, AECM-82/168, dated April 27, 1982. The Staff's review of this submittal should be provided updating the status of qualification as presented in Appendix H. Some items specifically addressed in the above referenced MP&L letter and requiring update include the following:

3.1 Exclusion of containment spray from master list of systems required to mitigate a LOCA and HELB.

Safety related display instrumentation.

Status of NUREG-0737 action plan items.

3.3 Evaluation of temperature in zones of containment affected by steam bypass and RWCU line breaks.

3.9 Information justifying interim operation for selected equipment.

4.2 Additional qualification information and/or corrective action for selected equipment.

4.2.3.5 (SSER 2) Fuel Assembly Liftoff

MP&L has submitted the information required by the Staff in letter AECM-82/371, dated August 30, 1982. This letter endorses the General Electric Licensing Topical Report NEDE-21175-3-P. It is MP&L's understanding that the fuel assembly liftoff issue must be reviewed and approved by NRC before the operation of a second cycle at Grand Gulf Unit 1. The Staff should update its review for this issue in the next SER supplement.

5.2.4.1 (SSER 2) Inservice Inspection Requirements

MP&L requested relief from the required inspections of a certain weld in the RCIC system. The request was submitted in the MP&L letter, AECM-82/196, dated April 30, 1982, and designated Relief Request No. 00008.

This weld has been volumetrically examined by radiography and found acceptable in accordance with ASME Section III, Class 2 requirements. Supplement 2 to the SER Appendix D, Part III "Evaluation of Relief Request", does not mention this inservice inspection relief request nor is this request addressed in Supplement 3. The staff should update Appendix D and present its review of this request for relief. SSER 2 subsection 6.6.1 also addresses relief requests and also requires update.

6.2.1.8.5 (SSER 2) Pool Dynamic Assessment

The Staff's conclusions in this section indicate that load definitions are acceptable for plant operation up to 5%. Furthermore, the Staff committed to a mid-1982 publication to provide details of the Mark III pool dynamic acceptance criteria, along with bases.

It is MP&L's understanding that on the basis of bounding approaches used in establishing LOCA pool dynamic loads, the Staff has sufficient information on which to base an acceptance of the Grand Gulf design. The only open items are (1) in the equipment qualification area (reviewed in Section 3.10), pertaining to the HCU's and (2) the recent Mark III containment concerns (reviewed in Section 6.2.9).

Section 6.2.1.8.5 should be clarified to indicate that the Staff's generic review and expected report on Mark III pool dynamic acceptance criteria are not requirements for full power licensing of Grand Gulf. (The anticipated schedule of June, 1982, for the Staff's generic review of this area is also mentioned in Section 6.2.1.8.4.)

6.6.1 (SSER 2) Compliance with 10CFR50.55a(g), Relief Requests

See comments on subsection 5.2.4.1. Subsection 6.6.1 requires update as indicated in those comments.

9.1.4 (SER) Heavy Loads

The six month Heavy Load report in response to Sections 2.1 and 2.2 of Enclosure 3 to the December 22, 1980 letter was transmitted with AECM-81/427 dated November 23, 1981. The nine month report, in response to Sections 2.2, 2.3 and 2.4 of Enclosure 3 was transmitted with AECM-82/149, dated May 4, 1982.

A Technical Evaluation Report, MAEC-82/169, dated July 13, 1982 was responded to by AECM-82/338, dated August 6, 1982. Most of the open items were resolved during a conference call on September 1, 1982. MP&L was asked to reword certain responses to further address designer responsibilities concerning limitations of use of special lifting devices, dynamic loads, and cautionary remarks in sling procedures.

Responses to these latest concerns are currently in preparation.

9.5.4.1 (SSER 2) Control Room Exposure Fire

The required date for the submittal of the transfer switch design modification description should be revised to be consistent with Operating License Condition 2.C(30), i.e. January 1, 1984.

9.6.1.2 (SSER 2) Interplant Communications Systems

Information addressing NRC concerns was provided in MP&L letters AECM-82/262, dated June 10, 1982, and AECM-82/459, dated August 9, 1982. PSB's review of the most recent submittal has resulted in some outstanding concerns. These concerns will be addressed prior to exceeding 5% power.

The due date stated in Supplement 2 for the startup testing report should be revised to be consistent with the Operating License Condition 2.C(32), i.e. within 90 days of test completion, but no later than June 1, 1983.

9.6.3 (SSER 2) and 9.6.4,5,6,7 (SER) Diesel Generator Reliability

Concerns raised by Power Systems Branch were addressed in MP&L letters, AECM-82/262, dated June 10, 1982, and AECM-82/459, dated August 9, 1982. In recent conversations between the PSB reviewer and our Staff, MP&L was informed that the PSB concerns regarding diesel generator reliability are resolved on the basis of the information provided or commitments made. The NRC Staff should provide an update on this review in the next SER supplement.

10.2.1 (SER, SSER 2) Turbine Disc Integrity

The initial review, as documented in SER subsection 10.2.1, was in part incorrect in implying that Grand Gulf employed General Electric main turbines. The Grand Gulf main turbines are supplied by Allis-Chalmers. This was corrected in Supplement 1 to the SER. The Staff indicated that certain information was outstanding. This information was supplied in MP&L letters AECM-82/20, dated January 7, 1982, and AECM-82/103, dated March 23, 1982.

None of the subsequent supplements to the SER indicate specific criticisms of the MP&L responses to MTEB concerns. The Operating License, however, imposed License Condition 2.C(34), consistent with Supplement 1, with no apparent credit for information provided to the Staff in early 1982.

It is MP&L's position that the Staff should indicate the specific inadequacies of information provided thus far or repeal the requirement to conduct periodic surveillance of the low pressure turbines. In either case the Staff's review should be provided in a supplement to the SER.

13.1 (SER, SSER 2) Organizational Changes

Organizational changes made to insure a smooth transition in support of the operational phase of Unit 1 and resumption of the construction phase of Unit 2 were transmitted with AECM-82/49, dated March 23, 1982. Additional revisions and resumes of key personnel were transmitted with AECM-82/163, dated April 22, 1982. The Staff should update this section based on its review of these submittals.

13.3.2.1 (SSER 2) Jurisdiction on Mississippi River
13.3.2.2 (SSER 2) Onsite Emergency Organization

MP&L considers both of these issues resolved by virtue of the information presented in the MP&L letter AECM-82/167, dated April 20, 1982. The Staff should update its review for these areas in the next SER supplement.

13.3.3 (SSER 2) FEMA Evaluation of State and Local Emergency Plans

The latest status on the FEMA review of the subject plans was provided in the MP&L letter, AECM-82/382, dated September 30, 1982. It should be pointed out that, while the Staff has indicated that the FEMA evaluation is a full-power licensing requirement, MP&L has no authority to dictate FEMA's schedule for completing this task. Following receipt of FEMA's final evaluation of the subject plans, this SER section will require an update of the staff's review.

13.3.4 (SSER 2) Staff Conclusions on Emergency Preparedness

The Staff's conclusions stated in this section should be updated to reflect the latest status. Specifically, see comments on 13.3.2.1, 13.3.2.2, and 13.3.3 above.

13.4 Safety Review Committee

The replacement of consultant members of the Safety Review Committee (SRC) was documented in MP&L letters AECM-82/320, dated July 15, 1982, AECM-82/352, dated August 27, 1982 and AECM-82/382, dated September 30, 1982. The Staff's review for this section should be updated.

15.1 (SER) Abnormal Operational Occurrences

The NRC Staff required in this section that certain non-safety related control systems should be identified in plant Technical Specifications. MP&L contends that the turbine bypass system, however, should not be placed in technical specifications. Additional transient analyses were performed to demonstrate non-reliance on the turbine bypass system. This was documented in MP&L letter AECM-82/88, dated March 23, 1982. The NRC Staff's safety evaluation should be revised to reflect their review of the MP&L position.

17.1,2,3,4 (SER) Quality Assurance

The Staff's review, as documented in the SER, contains certain items which require clarification due to organizational changes within MP&L. MP&L submitted a proposed revision to SER Chapter 17 in letter AECM-82/209, dated May 21, 1982. This revision was provided to clarify the organizational and programmatic policies outlined in MP&L's Operational Quality Assurance Manual, MPL-TOP-1A, which has been accepted by the NRC. The NRC Staff should provide an update on this review in the next SER supplement. (A copy of letter AECM-82/209 is provided for your information as Attachment 5.)

17.5 (SSER 2) Independent Design Review

The final report has been submitted by Cygna in the letter from T. T. ig (Cygna) to D. G. Eisenhut (NRC), dated August 25, 1982. MP&L's endorse t of this report is provided in the MP&L letter AECM-82/389, dated September 30, 1982. Recent licensing activity is also documented in that MP&L letter.

It is MP&L's understanding that Mechanical Engineering Branch has completed its review of the subject report and that the issue is closed on Grand Gulf. The Staff's review should be so documented in a supplement to the SER.

18.0 (SSER 3) Report of the Advisory Committee on Reactor Safeguards (ACRS)

During its meeting of August 12 - 14, 1982, the Advisory Committee on Reactor Safeguards (ACRS) completed its review of the application of MP&L. A summary of this review was provided in a letter dated August 18, 1982, from the ACRS to Chairman Palladino. As a result of their review, the ACRS believes there is reasonable assurance that Grand Gulf Unit 1 can be operated at power levels up to 3833 MWt without undue risk to the health and safety of the public. The NRC Staff should provide an update on this subject in the next SER supplement.

22.2 II.B.7 (SSER 3) Analysis of Hydrogen Control

It is stated on page 22-21 of Supplement 3 to the SER that further investigation will include "...confirmation tests on selected equipment exposed to hydrogen burns..." MP&L has made no formal commitment to conduct such testing. The commitments involving equipment survivability did however, include verification of the methodology of analysis. (See MP&L letter AECM-82/221 dated June 19, 1981.) As noted on page 22-18 of Supplement 3 to the SER, "The overall methodology was verified by comparing the analytical results to the results obtained in the experiments... The results indicated that the analytically determined temperature responses were more severe than the responses measured in the experiments." MP&L believes that this closes the issue of confirming the methodology used in the equipment survivability analysis. Page 22-21 of Supplement 3 to the SER should therefore be revised to delete the passage regarding confirmation tests on selected equipment.

22.2 II.E.4.2 (SSER 2) Operability, Drywell Purge and Vent

Operability reports for the drywell purge isolation valves were provided to the NRC in the MP&L letter, AECM-82/442, dated August 9, 1982. The operability analysis was extended by the vendor to the similar design, containment isolation valves. It is MP&L's understanding that the Staff's review is near completion, awaiting additional information from MP&L on the material strength of the valve disc pin.

22.2 II.F.1.5 (SER) Containment Water Level Monitor

The NRC Staff required in this section that the emergency core cooling system (ECCS) suction line inlet be used as the lower limit starting reference point

for the wide-range water level monitors. Information addressing NRC concerns was provided in MP&L letter AECM-81/369, dated September 30, 1981. MP&L has expanded the range to extend from the ECCS suction centerline to above the top of the weir wall. This range provides adequate information to the operator to assess the status of this water supply to ECC systems.

As stated in AECM-81/369, Final Safety Analysis Report (FSAR) subsections 18.1.27.5 and 7.5.1.2.3.3 as well as FSAR Table 7.5-1 were revised to reflect the expanded monitoring range (FSAR Amendment 51, dated November, 1981.) The NRC Staff should provide an update on this review in the next SER supplement.

22.2 II.F.2 (SSER 2) Inadequate Core Cooling

The MP&L letter AECM-82/368, dated August 30, 1982, presents MP&L's review of the subject BWR Owner's Group report. It is MP&L's position that no further instrumentation is required to detect ICC at Grand Gulf. The Staff's review of the owners group report and the MP&L position should be provided in the next supplement to the SER.

22.2 II.K.1.5 (SSER 2) Assurance of Proper Engineered Safety Features Functioning Procedure

The MP&L letter AECM-82/08, dated January 15, 1982, transmitted maintenance procedures per II.K.1.5 and II.K.1.10 of NUREG-0737. It is MP&L's position that the information provided in the referenced letter is sufficient to resolve this issue. However, Supplement 2 to the GGNS SER only indicated that Item II.K.1.10 was resolved. The Staff should document its review in the next supplement to the SER.

22.2 II.K.3.13 (SER) Heat Removal Systems

The equipment which automates RCIC restart on a low water level has been installed. Documentation of this work is available at the site for your review. The Staff should document its review in the next supplement to the SER.

22.2 II.K.3.15 (SER) Break Detection Logic

The modifications identified by this condition have been completed. Documentation of this work is available at the site for review. The Staff should document its review in the next supplement to the SER.

22.2 II.K.3.18 (SSER 2) Modification of ADS Logic

The BWR Owners Group alternative design modifications are now scheduled for submittal on October 29, 1982 rather than October 1, 1982. The SER should be revised to reflect the new schedule.

22.2 II.K.3.21 (SER) HPCS Restart System

The modification providing for automatic restart for the high pressure core spray system has been completed. Documentation of this modification is available at the site for your review. The Staff should document its review in the next supplement to the SER.

22.2 III.A.1.1 Upgrade Emergency Preparedness

The NRC conducted a series of emergency preparedness inspections and appraisals beginning January 5 - 8, 1982, continuing April 12 - 16 and 28 - 29, 1982, and ending August 2 - 6, 1982. Following a recent conversation with NRC Region II, it is MP&L's understanding that this item was closed with the completion of the August 2 - 6, 1982 appraisal.

22.2 III.A.1.2 Upgrade Emergency Support Facilities

The NRC emergency preparedness appraisal, conducted August 2 - 6, 1982, included an evaluation of the adequacy of emergency support facilities. The Emergency Operational Facility (EOF) was the only facility inspected which was in an interim location. MP&L advised the NRC that completion of the permanent EOF would be delayed via MP&L letter AECM-82/398, dated September 29, 1982.

It is MP&L's understanding that this item has been satisfactorily completed, and that NRC inspection of the permanent EOF will be addressed under III.A.1.3. The Staff should update its review of this item.

22.2 III.A.1.3 Improving Licensee Emergency Preparedness - Long Term

MP&L has been given no guidance from the NRC as to the scope of this item. With the exception of the completion of the permanent EOF and the ERFIS, both of which were addressed in MP&L letter AECM-82/398 dated September 29, 1982, it is MP&L's understanding that this item is closed, pending any additional guidance from the NRC on long term improvements.

Appendix C A-44 (SER) Station Blackout (NUREG 0737, I.G.1)

MP&L has addressed this issue in the following MP&L letters:

(1) AECM-81/84, dated April 7, 1981
(2) AECM-81/281, dated August 18, 1981
(3) AECM-81/471, dated December 4, 1981
(4) AECM-82/107, dated April 2, 1982

The NRC Staff's review indicates that required training will be completed prior to fuel load. This is inconsistent with MP&L's previous commitments stated in reference (1) above that this training shall be completed during the startup test phase. In addition, the Staff has not provided the results of its review of the augmented operator training program provided in reference (1) above.

Appendix C A-47 (SER) Safety Implications of Control Systems

The Staff's review in this section is not current with the status of various control systems evaluations as discussed in subsection 7.8 of the SER and its supplements. Following the resolution of all concerns on subsection 7.8, the Staff's review of Issue A-47 should be updated.

Appendix C A-48 (SER) Hydrogen Control

This section requires update to be consistent with the Staff's review, primarily in section 22.2-II.B.7 of the SER and its supplements.

Appendix D (SSER 2) Evaluation of Relief Requests

See comments on subsection 5.2.4.1. Appendix D requires updated as indicated in those comments.

Appendix E (SSER 2) Control Room Design Review

This section should be updated to reflect the Staff's review of information provided by the MP&L letter, AECM-82/333, dated July 30, 1982.

ATTACHMENT 4

INCORPORATION OF SER ERRORS AND INCONSISTENCIES INTO SER SUPPLEMENT ERRATA

The following information identifies those errors and inconsistencies in the Safety Evaluation Report (SER) that have not been incorporated into the SER supplement erratas. These items were provided by AECM-81/394, dated October 13, 1981, and by AECM-82/94, dated March 23, 1982. Only those items that are provided with deletion marks (~~deletion~~) were incorporated in the GGNS SER supplements by the NRC. This list should be reviewed and incorporated into the next supplement to the SER.

NOTE: Chapter 17 errors as described by AECM-81/394 were readdressed by AECM-82/209 and are covered by Attachment 5 of this transmittal.

Attachment 4

CHAPTER 1

PAGE	SEC.	PARA-GRAPH	LINE	CHANGE
~~1-3~~	~~1.2~~	~~3rd~~	~~6th~~	~~Change "walls" to "wells"~~
1-3	1.2	6th	3rd	Change "coolant injection" to "core spray"
~~1-4~~		~~1st part.~~	~~1st~~	~~Add "low-pressure" in front of "core spray system"~~
1-4	---	1st full	1st	Change "two" to "three" on the 500 KV Transmission lines
~~1-5~~			~~19th~~	~~Add "rods" so line will read "Number of fuel rods per fuel assembly"~~
1-6	T1.1	---	11th	Change "coolant injection" to "core spray"
~~1-6~~	~~T1.1~~		~~13th~~	~~Change line to read "Number of low-pressure pumps."~~
1-8	1.9	---	(1)	Change "valve" to "value"
1-11	1.11	---	(9)	Change "Bulletin 79-22" to "Notice 79-22"

CHAPTER 2

PAGE	SEC.	PARA-GRAPH	LINE	CHANGE
~~2-1~~	~~2.1.1~~	~~1st~~	~~1st~~	~~Change "94 percent of the 1200 acres" to "2300 acres"~~
~~2-1~~	~~2.1.1~~	~~2nd~~	~~3rd~~	~~Change "312,930 meters" to "684,360 meters"~~
2-3	2.2.1	3rd	11th	Change sentence to read: "Chlorine was not identified as being a potential problem to control room operators from accidents." Delete "As a result..." from next sentence and add "However, due to initial storage of bottled chlorine onsite..."
2-13	---	1st full	1st	Delete "Proposed"
2-13	---	last	2nd	Change "132.8 feet" to "132.6 feet"
2-15	---	5th full	5th	Change "40 percent" to "45 percent" and "132.8 feet" on next line to "132.6 feet"
2-16	2.4.6	1st	8th	Delete sentence beginning with "Since the staff..."
2-19	2.4.14	2nd	2nd	Change "overlining" to "overlying" and change "in" after Gin Lakes to "and".
2-21	---	1st	4th	Change "evaluation" to "excavation"
~~2-23~~		~~2nd full~~	~~2nd~~	~~Change "26,4000" to "26,400"~~
~~2-24~~		~~1st~~	~~3rd~~	~~Change "cemented clay, and and" to "cemented clay, sand and"~~
~~2-24~~		~~4th~~	~~6th~~	~~Change "KSG" to "KSF"~~
~~2-25~~	~~2.5.2.1~~	~~1st~~	~~3rd~~	~~Insert "horizontal" to read "which limited horizontal movements"~~
2-27	2.5.3.2	1st	7th	Change "Section 2.5.2" to "Section 2.6.2"
2-27	2.5.3.2	4th	7th	Change "Figure 2.8-86" to "Figure 2.5-86"
~~2-28~~		~~1st part.~~	~~8th~~	~~Insert "*" (asterisk) after "active method"~~
~~2-30~~	~~2.6.1.1~~	~~2nd~~	~~1st~~	~~Change "station" to "stratum"~~
2-34	---	1st part.	2nd	Change "XI-aXII" to "XI-XII"

Chapter 2 - continued

PAGE	SEC.	PARA-GRAPH	LINE	CHANGE
2-34	---	1st full	1st	Change "Section 2.5.1" to "Section 2.6.1"
~~2-34~~		~~6th full~~	~~1st~~	~~Change "Nutli" to "Nutli"~~
2-34	---	7th full	5th	Change "1811-1182" to "1811-1812"

CHAPTER 3

PAGE	SEC.	PARA-GRAPH	LINE	CHANGE
3-5	3.4	2nd	3rd	Change last part of sentence to read "...design basis flood (elevation 103'-0") and a perched water table height (elevation 109'-0").
3-7	---	1st full	2nd	Delete "valve bonnets, safety relief" from valves, and delete "valve stems" from next line.
3-7	3.5.1.3	1st	7th	Change "zone 1" to "region 1".
~~3-12~~	~~3.7.1~~	~~4th~~	~~2nd~~	~~Change "... on caissons which are embedded into the Catahoula" to "compacted backfill".~~
3-12	3.7.1	4th	3rd	Change "basis" to "basins"
3-12	3.7.1	4th	5th	The D-G fuel tanks were vendor supplied and test reports were provided to NRC. Only the finite element method was performed on the tanks.
3-13	---	2nd	2nd	Change sentence to read "The applicants agreed to develop an estimate of the response spectra for this condition and compare this spectrum..."
3-15	3.7.4	3rd	2nd	Expand line to read "... response spectra recorders on reactor equipment supports or reactor piping supports and replace strain gauges with..."
3-15	3.7.4	3rd	4th	Change "by" to "with"
~~3-26~~	~~3.9.3~~	~~5th~~	~~2nd~~	~~Change "all" to "some"~~
3-29	3.9.4	1st	2nd	Change to read "...control rod drive hydraulic system..."

CHAPTER 4

PAGE	SEC.	PARA-GRAPH	LINE	CHANGE
4-6	4.2.3.5	2nd	2nd	Add "ground" before "acceleration"
4-6	4.2.3.5	3rd	1st	Add "ground" before "acceleration"
4-6	4.2.3.5	5th	8th	Add "ground acceleration" before SSE
4-13	4.3.2	2nd	13th	Change (05-1.5 full power) to (05-1.25 full power).
4-21	---	1st	4th	Delete "which is the original General Electric design criteria for BWR stability" and delete "now" in the next sentence (The 0.5 decay ratio was only an operational design guideline for the automatic flow control mode).

CHAPTER 5

PAGE	SEC.	PARA-GRAPH	LINE	CHANGE
5-1	5.1	1st	6th	Add "LPCS system, HPCS system" after "residual heat removal system,"
5-1	5.2.1.1	1st	4th	Change "Safety Class 1" to "Nuclear Class 1"
5-1	5.2.1.1	1st	11th	Change "Safety Class 1" to "Nuclear Class 1"
5-6	---	5th	3rd	Change lines 3 thru 5 to read "... reflective type for piping greater than 2 inches. Regulatory Guide 1.36, "Non-metallic Thermal Insulation for Austentic Stainless Steels" is only applicable to stainless steel piping of 2 inches and smaller for the Grand Gulf RCPB."
5-9	5.2.5	2nd	3rd	Delete "and chemical waste sump"
5-10	---	1st part.	2nd	Delete "closed cooling water system"
5-10	---	1st part.	3rd	Add "floor drain" before "sump"
5-10	---	1st part.	4th	Delete "and control rod drive systems"
5-10	---	1st part.	9th	Delete "and chemical waste sump"
~~5-10~~	~~---~~	~~1st full~~	~~5th~~	~~Add "or pressure" after "temperature" on this line and next line for SRV leakage indication~~
5-10	---	1st full	7th	Sentence should read "Valve stem packing leaks for drywell 2 inch or larger power-operated valves in the nuclear boiler system..."
5-10	---	2nd full	1st	Delete the first two sentences and substitute with this single sentence, "An increase in drywell pressure, temperature or radioactivity or a high service water temperature rise across the air cooler coils indicate possible unidentified reactor coolant boundary leakage."
~~5-16~~	~~---~~	~~1st~~	~~1st~~	~~Change "reactor building" to "auxiliary building"~~
5-16	---	last	2nd	Change item (1) to read "two check valves in the main feedwater line for the reactor core isolation cooling system discharge line,"
~~5-18~~	~~---~~	~~1st full~~	~~7th~~	~~Change "150 pounds" to "200 pounds" and in next line change "300 pounds" to "500 pounds".~~

Chapter 5 - continued

PAGE	SEC.	PARA-GRAPH	LINE	CHANGE
5-18	---	2nd full	---	Add an item (6) to list: "Fuel Pooling Cooling Assist" and correct wording in paragraph below.
~~5-19~~		~~2nd full~~	~~10th~~	~~Change "drywell and suppression pool" to "containment"~~
~~5-19~~		~~3rd full~~	~~3rd~~	~~Change "reactor building" to "auxiliary building"~~
~~5-20~~		~~1st~~	~~9th~~	~~Change "two air receivers" to "four air receivers"~~
5-20	---	1st	10th	Substitute the sentence beginning "The receiver capacity..." with the following: "The receivers capacity is sufficient to account for system leakage and to allow for 3 actuations of each ADS valve over a minimum period of seven days, or for 100 actuations over a six hour period for the low-low setpoint safety/relief valve."

PAGE	SEC.	PARA-GRAPH	LINE	CHANGE
6.2	6.1.2	2nd	5th	Delete "in accordance with" and substitute "by using the guidelines set forth in ANSI N101.4 (1972) which is endorsed by..."
6-3	---	3rd	6th	Change "0.35 percent" to "0.437 percent (includes 255 SCFM per MSIV)"
~~6-6~~	~~T6-1~~			~~Change the leak rate (percent per day) for Mark III of "0.35" to "0.437"~~
6-13	6.2.2	3rd	3rd	Change "high efficiency particulate air filter" to "an upstream and downstream high-efficiency particulate air filter and fan"
~~6-15~~		~~1st full~~	~~3rd~~	~~After "drywell" add "on stainless steel Class 1 pipe greater than 2 inches"~~
6-20	---	4th full	1st	Add "(Except for the main feedwater swing check valve disc B21-F032A which is 80°F)" after "temperature" at end of line.
6-20	---	4th full	7th	Add sentence to end of paragraph "The lowest service metal temperature which may be experienced by the check valve discs is 78°F."
6-20	---	5th full	11th	Change line to read "... applicants have committed to replace one feedwater check valve disc with a disc..."
6-21	---	1st	3rd	Change to read "replacement of one feedwater check valve disc on valve B21-F032B."
6-24	---	1st full	7th	End the sentence after "... outside of containment" and delete the remaining portion of the sentence. Add a new sentence prior to the sentence beginning with "Relief valve..." to read: "Each LPCS and LPCI gate valve is provided with a pressure interlock that prevents the test opening of these valves unless the pressure between the testable check valve and the gate valve is below the setpoint."
~~6-25~~		~~2nd full~~	~~8th~~	~~Change "Section 5.4.7" to "Section 5.4.2"~~
6-28	---	2nd full	1st	Change "drywell spray cooling" to "containment spray cooling"
6-28	---	2nd full	14th	Change "wetwell spray actuation" to "containment spray actuation"
~~6-30~~		~~1st part.~~	~~4th~~	~~Change "equipment room" to "air plenum"~~

Chapter 6 - continued

PAGE	SEC.	PARA-GRAPH	LINE	CHANGE
6-30	6.5.1.1	1st	3rd	Add "during normal operation" at end of sentence after "pressure"
6-31	---	1st part.	8th	Change "33,000" to "33,320"
6-31	6.5.1.2	1st	11th	Add "carbon adsorber, downstream high efficiency particulate air filter" after "upstream high efficiency particulate filter,"
~~6-31~~	~~6.5.1.3~~	~~2nd~~	~~1st~~	~~Change "reactor building" to "auxiliary building"~~
~~6-31~~	~~6.5.1.3~~	~~2nd~~	~~3rd~~	~~Change "120 seconds" to "101 seconds"~~
~~6-34~~		~~4th~~	~~1st~~	~~This sentence is incomplete~~

CHAPTER 7

PAGE	SEC.	PARA-GRAPH	LINE	CHANGE
7-7	---	3rd full	4th	Change item (4) to read "a drywell hydrogen analyzer and containment hydrogen analyzer."
~~7-12~~	~~7.6.2~~	~~1st~~	~~1st~~	~~Add "inoperable" before "status indication"~~
7-12	7.6.2	1st	8th	Add "and" between "removed" and "system"
~~7-12~~	~~7.6.2~~	~~1st~~	~~9th~~	~~Add "inoperable" before "status indication"~~
~~7-13~~		~~6th~~	~~5th~~	~~Change to read "...low reactor water level..."~~
7-13	---	6th	6th	Change to read "...vessel isolation control system."
~~7-14~~		~~1st part.~~	~~7th~~	~~Delete "there are no restrictions on rod motion or patterns" and connect previous portion of sentence to next sentence to read: "Between 20 percent and 70 percent and above 70 percent power..."~~
7-14	7.7.2	1st	5th	The sentence beginning with "Previously, ..." is not a complete sentence.
7-17	---	---	---	The heading to item C should be "IE Information Notice 79-22, ..."
7-21	---	1st	6th	Delete "HPCI"

CHAPTER 8

PAGE	SEC.	PARA-GRAPH	LINE	CHANGE
8-2	---	2nd	3rd	Change to read "... Service Transformers Nos. 11 and 21..."
8-6	---	2nd full	12th	Change "t4st" to "test"
8-6	---	4th full	2nd	Add "and generator ground fault protection" after "diesel generator protection trips"
8-7	---	1st part	1st	Add "and ground overcurrent (Div. 1 and 2 only)" after "differential."
~~8-7~~	~~---~~	~~4th full~~	~~5th~~	~~Change "two 240/120 volt" to "four 240/120 volt"~~
8-7	---	4th full	6th	Change line to read "...power supplies) with an additional two being added for essential non-class 1E equipment..."
8-7	---	4th full	10th	Change "regulating" to "non-regulating"
8-11	---	2nd full	10th	Delete "Battery Low Voltage Alarm" from list
~~8-11~~	~~---~~	~~2nd full~~	~~12th~~	~~Change "Charger AC Overvoltage alarm" to Charger DC Overvoltage Alarm"~~
8-11	---	4th full	3rd	Change sentence to read "for the Class 1E Div. I and Div. II batteries Grand Gulf has a Battery Monitoring Devise..."
~~8-12~~	~~---~~	~~2nd~~	~~1st~~	~~Change "unvoltage" to "undervoltage"~~
~~8-18~~	~~item 1~~	~~1st~~	~~2nd~~	~~Change to read "Each Div. 1 and Div. 2 has two levels..."~~
8-18	item 1	1st	7th	Delete the last two sentences of the first paragraph of item (1) beginning with "The degraded grid..."
8-18	item 1	2nd	4th	Change line to read "... loads except the permanently connected Class 1E loads are shed." Delete the rest of the paragraph.
8-18	item 1	3rd	1st	Delete the portion of the first sentence up through "... generator breaker and" and begin sentence with "Loads are sequentially connected..."

Chapter 8 - continued

PAGE	SEC.	PARA-GRAPH	LINE	CHANGE
8-19	8.4.5	1st	7th	Delete all of item A
8-19	8.4.5	item 2a	3rd	Delete "(such as diesel generator testing or while transferring from one power source to another)"

PAGE	SEC.	PARA-GRAPH	LINE	CHANGE
~~9-2~~	~~---~~	~~1st~~	~~3rd~~	~~Change "auxiliary building" to "fuel handling"~~
9-11	---	1st full	3rd	Change "quality group C" to "Safety Class 3"
9-15	---	2nd full	2nd	Change "compartment" to "area"
9-15	---	3rd full	2nd	Change "compartment" to "area"
9-16	9.4.1	4th	4th	Change to read "The system is designed to normally maintain the control room under a slight positive pressure."
9-17	---	1st part.	3rd	Change "draw air from a separate intake location and pass" to "recirculate" for control room air.
9-17	---	2nd full	3rd	Add "by manual actuation of the control room fresh air vents" at the end of the sentence ending in "... to the outside."
9-17	---	3rd full	1st	Add "and the HVAC equipment rooms" after "battery rooms".
9-18	9.4.2	2nd	10th	Change isolation "valves" to "dampers"
9-19	---	1st full	2nd	Change isolation "valves" to "dampers"
~~9-21~~	~~9.4.5~~	~~1st~~	~~3rd~~	~~Add "fuel pool cooling and cleanup pump room" after "ECCS pump rooms"~~
~~9-26~~				~~Under Auxiliary Building heading: For El. 119' 0" delete "1A215". For El. 139' 0" delete "1A314", change "11.0-15.1" to "13.0-15-1" and change "G-R" to "G-J.5"~~
~~9-29~~	~~9.5.4.1~~	~~1st~~	~~4th~~	~~Change to read "... control room fire area."~~
~~9-29~~	~~9.5.4.1~~	~~2nd~~	~~2nd~~	~~Change "1½ hour fire door" to "bullet resistant certified door"~~
~~9-30~~	~~---~~	~~1st full~~	~~1st~~	~~Change "Section VI" to "section 9.5.6"~~
~~9-30~~	~~9.5.4.3~~	~~---~~	~~---~~	~~Change heading to "Containment and Auxiliary Building"~~
~~9-31~~	~~---~~	~~1st part.~~	~~7th~~	~~Add "operators manually start supply fans in two unaffected diesel generator rooms" between "control room(s) and "when a fire is detected".~~

Chapter 9 - continued

PAGE	SEC.	PARA-GRAPH	LINE	CHANGE
9-40	item 5	---	---	Add "(HPCS Only)" after "No" in conformance column
~~9-41~~	~~item 3~~	~~1st~~	~~1st~~	~~Change "Section 9.5.7" to "Section 9.6.6"~~
~~9-48~~	~~9.6.6~~	~~1st~~	~~5th~~	~~Change "Section 9.5.4.1" to "Section 9.6.3.1"~~

CHAPTER 10

PAGE	SEC.	PARA-GRAPH	LINE	CHANGE
~~10-1~~	~~10.2~~	~~2nd~~	~~4th~~	~~Change "1350 MVA" to "1525 MVA"~~
10-4	---	1st full	1st	Change "General Electric Company" to "Allis Chalmers Power System, Inc."
10-11	10.4.5	2nd	9th	Delete "control building".

CHAPTER 11

PAGE	SEC.	PARAGRAPH	LINE	CHANGE
~~11-1~~	~~11.1~~	~~1st~~	~~5th~~	~~Delete "and laundary"~~

CHAPTER 12

PAGE	SEC.	PARA-GRAPH	LINE	CHANGE
12-3	12.2	3rd	6th	Change "coolant pump" to "recirculation pump"
12-5	---	3rd full	4th	Delete "shield"
~~12-5~~		~~3rd full~~	~~7th~~	~~Add "hatch" after "equipment"~~
~~12-7~~		~~1st~~	~~6th~~	~~Change "49" to "41"~~
~~12-7~~		~~1st~~	~~7th~~	~~Change "8" to "9"~~

CHAPTER 13

PAGE	SEC.	PARAGRAPH	LINE	CHANGE
~~13-10~~		~~8th full~~	~~2nd~~	~~Change "Figure 13.1-2" to "Figure 13.1-4"~~
~~13-35~~	~~13.6~~	~~1st~~	~~8th~~	~~Change "ANS 18.7--1976/ANS-3.2" to ANSI 18.7--1976/ANS-3.2"~~

CHAPTER 17

PAGE	SEC.	PARA-GRAPH	LINE	CHANGE
*17-1	17.2	1st	5th	Delete the last sentence and substitute with "He provides guidance on corporate QA policies, goals, and objectives to the Asst. Vice-President, Nuclear Production and the Site Manager."
*17-1	17.2	5th	2nd	In the 5th para. of 17.2, 2nd line - change "assisting in the development and implementation of" to "providing QA input in the development of"
*17-3	---	1st part.	2nd	Add "and/or concurring with specified" between "approving" and "quality related".
*17-3	---	1st part.	3rd	Change "assuring" to "performing audits to assure"
*17-3	---	1st part.	4th	Change "assuring" to "performing reviews to assure"
*17-3	---	1st part.	5th	Change "surveillance and" to "source"
*17-3	---	1st part.	6th	Delete "establishing plant monitoring and inspection programs" and renumber remaining two items.
*17-3	17.3	2nd	6th	Add "source" before "inspections"
*17-4	---	1st full	1st	Change "directing" to "auditing the implementation of"
~~17-4~~	~~---~~	~~5th full~~	~~5th~~	~~Add "adverse" before "quality trends"~~
~~17-6~~	~~T17.1~~	~~---~~	~~---~~	~~Add to bottom of table: "NOTE: Exception to specific Regulatory Guides are discussed in MPL-TOP-1A, Appendix A.~~

*These errors and inconsistencies are addressed in Attachment 5 of this transmittal.

CHAPTER 22

PAGE	SEC.	PARA-GRAPH	LINE	CHANGE
~~22-14~~	~~II.B.2~~	~~2nd~~	~~4th~~	~~Change "gaseous, and liquid radwaste systems." to "drains system."~~
~~22-19~~	~~II.F.1~~	~~1st~~	~~2nd~~	~~Change "(10^{7} to 10^{5} uci/cc)" to "(10^{-7} to 10^{5} uci/cc)"~~
22-19	II.F.1	1st	6th	Delete "Units 1 & 2"
22-19	II.F.1	1st	7th	Change to read "system A and B exhausts"
22-20	---	3rd	1st	Delete "main"
22-20	---	3rd	3rd	Delete "main"
22-20	att. 3	last	1st	Add "radiation" after "In-containment area"
22-21	att. 6	1st	4th	Delete sentence beginning with "The range of the analyzers..." and substitute with "Each analyzer has two range scales of 0-5 and 0-10 percent hydrogen concentration by volume."
~~22-21~~	~~att. 6~~	~~1st~~	~~6th~~	~~Change "4 percent" to "5 percent"~~
22-24	item 23	1st	1st	Change "AECM-8±/311" to "AECM-81/311"
22-26	item 18	2nd	4th	Change to read "low reactor water level"
~~22-27~~	~~item 25~~	~~1st~~	~~4th~~	~~Change "10 seconds" to "30 seconds"~~
22-27	item 25	2nd	2nd	Change to read "... recirculation pump seals are beneficial lines and should not be isolated..."
~~22-31~~		~~2nd~~	~~2nd~~	~~Change "Susquehanna" to "Grand Gulf"~~

PAGE	SEC.	PARA-GRAPH	LINE	CHANGE
~~A-13~~				~~Add: "July 1, 1981 Letter from applicant submitting response to NUREG-0588~~
C-13	---	2nd full	2nd	The sentence beginning with "Should the resolution of Task A-40..." is incomplete.
C-13	A-43	1st	6th	Change "drywell and wetwell" to "containment"
C-15	---	2nd	8th	Delete this sentence. It is a combination of the previous and following sentences.

Additional Errors Noted in the Safety Evaluation Report for Grand Gulf Nuclear Station (NUREG-0831). Suggested deletions are indicated as [~~deletion~~] and recommended additions are indicated as addition.

1) Chapter 2, Page 2-10, Subsection 2.3.3

SER Text:

> To address the meteorological requirements for emergency preparedness planning outlined in 10 CFR Part 50.47 and Appendix E to 10 CFR Part 50, the applicants have committed by letters (AECM-81/103, dated April 10, 1981 and AECM-81/327, dated August 28, 1981) to provide meteorological monitoring capability and compensating actions on [~~the schedule in NUREG-0654, Appendix 2, Annex 1~~] or before October 1, 1982.

Rationale for Change:

Neither of the letters outlined in the above statement contain a Mississippi Power & Light Company (MP&L) commitment to the July 1, 1982, implementation date outlined in NUREG-0654. Instead, MP&L has consistently indicated that the Backup Meteorological System and the Class A Model will be operational on or before October 1, 1982. The Safety Evaluation Report (SER) related to the operation of Grand Gulf Nuclear Station Units 1 and 2 should, therefore, be revised as indicated to reflect this position.

2) Chapter 22, Page 22-20, Paragraph 7, Line 1

In response to Item II.F.1.3 of NUREG-0737, the SER states that the required radiation monitors have been installed. This is a misinterpretation of the submittal made in FSAR Amendment 49 (7/81). FSAR subsections 7.5.1.2.3.6, 12.3.4.3. and 18.1.27.3, all present a description of the Grand Gulf design on this issue. This design will be implemented, i.e., installation of the radiation monitors, prior to fuel load. The SER should be amended to more accurately describe the status of this system and its associated implementation schedule.

3)--Chapter-9,-Page-9-26,-Subsection-9.5.1.2

SER-text:

Auxiliary-Building
Standby-gas-treatment-system-charcoal-filters
Containment-exhaust-system-charcoal-filters
El.-93'-0"----open-areas-1A101,-1A117,-1A121,-1A123 between-col.-10.5-15.1-and-G-J.5-(above metal-grate-floors)*
El.-119'-0"---open-areas-1A201,-1A211,-[1A215,]-1A222, between-col.-13.0-15.1-and-G-J.5-and-between col.-8.0-12.0-and-P.4-R*
El.-139'-0"---open-areas-1A301,-[1A314]-1A316,-1A321, 1A322-between-col.-13.0-[11.0]-15.1-and G-[R]-J.5-and-between-col.-5.5-13.6-and P.4-R*
El.-166'-0"---open-areas-1A401,-1A417,-[1A424]-between col.-11.0-15.1-and-G-J.5*
Railroad-area,-room-1A325

Rationale-for-Change:

The-above-changes-were-discussed-with-GEB's-Fire-Protection-reviewer-Mr. G.-Harrison-and-were-submitted-by-letter-October-13,-1981-(AECM-81/394). These-items-have-been-identified-by-NRC,-Region-II-as-changes-which-must be-made-prior-to-criticality.

4) Chapter 9, Page 9-26, Subsection 9.5.1.3

SER Text:

9.5.1.3 Gaseous Fire Suppression Systems

Total flooding Halon 1301 systems are provided for the two computer and control panel rooms and in the PGCC floor sections in the control room and the control cabinets rooms. [~~The systems are designed to provide a 20 percent concentration in each area, and sufficient halon is provided for a double shot system.~~] The computer room Halon 1301 systems are designed to provide a concentration of 5 to 7 volume percent in 10 seconds with a soak time of 10 minutes. The PGCC Halon 1301 systems are designed to provide a final concentration of 20 volume percent with a soak time of 20 minutes. Sufficient halon is provided for a double shot system. The systems are automatically actuated by heat detectors.

At our request, the applicants agreed as indicated in Table 1.6-1 of the FSAR to comply with all of the fire protection specifications contained in the NEDO-10466A Report, Revision 2, dated March, 1978 which was previously approved by us.

Rationale:

The above change is recommended on the basis of our response to question 13.22 and the proposed revision to 9.5.1.3 which is attached and will be included in FSAR Amendment 55.

ATTACHMENT 5

MP&L LETTER AECM-82/209, DATED MAY 21, 1982

The following letter is provided to clarify Quality Assurance organizational and programmantic policy changes within MP&L. This letter was previously transmitted to the NRC on May 21, 1982; however, the items were not incorporated into the GGNS SER supplements.

Attachment 5

MISSISSIPPI POWER & LIGHT COMPANY
Helping Build Mississippi
P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

May 21, 1982

NUCLEAR PRODUCTION DEPARTMENT

U. S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Washington, D. C. 20555

Attention: Mr. Harold R. Denton, Director

Dear Mr. Denton:

SUBJECT: Grand Gulf Nuclear Station
Units 1 and 2
Docket Nos. 50-416 and 50-417
File: 0260/L-350.0
Transmittal of Corrections to SER
AECM-82/209

Mississippi Power & Light Company (MP&L) has conducted a review of Chapter 17 of the Grand Gulf Safety Evaluation Report (SER) (NUREG-0831). This review has revealed certain items which require clarification due to organizational changes within MP&L.

Attached for your consideration is a proposed revision to SER Chapter 17. This revision is provided to clarify the organizational and programmatic policies outlined in MP&L's Operational Quality Assurance Manual, MPL-TOP-1A, which has been accepted by the NRC.

Should clarification of this recommended revision be required, please contact this office.

Yours truly,

L. F. Dale
Manager of Nuclear Services

JHS/JGC/JDR:lg
Attachment

cc: Mr. N. L. Stampley (w/a)
Mr. R. B. McGehee (w/a)
Mr. T. B. Conner (w/a)
Mr. G. B. Taylor (w/a)

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

Mr. J. P. O'Reilly, Regional Administrator (w/a)
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Region II
101 Marietta St., N.W., Suite 3100
Atlanta, Georgia 30303

8205260010
PDR

17 QUALITY ASSURANCE

17.1 General

The description of the quality assurance (QA) program for the operational phase of the Grand Gulf Nuclear Station, Units 1 and 2, is contained in Mississippi Power & Light Company's (MP&L) QA topical report, MPL-TOP-1A, Revision 2, "Operational QA Manual." Our evaluation of this QA program is based on a review of this information and discussions with representatives from MP&L and the NRC Office of Inspection and Enforcement. We assessed MP&L's QA Program for the operational phase to determine if it complies with the requirements of 10 CFR Part 50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," the applicable QA related Regulatory Guides listed in Table 17.1, and the Standard Review Plan, Section 17.2, Rev. 1, dated February 1979, "Quality Assurance During the Operations Phase."

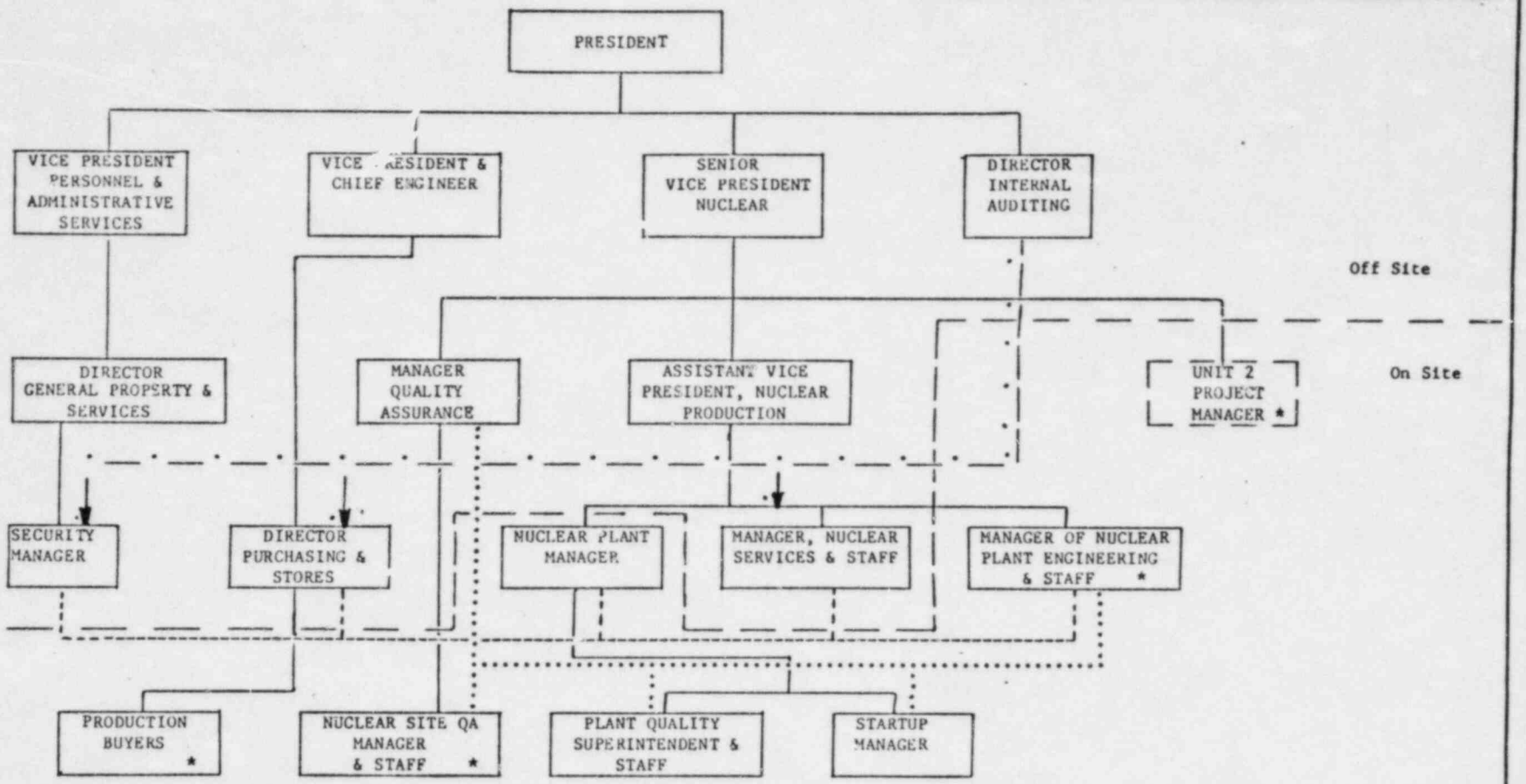
17.2 Organization

The structure of the organization responsible for the operation of Grand Gulf Nuclear Station, Units 1 and 2, and for the establishment and execution of the operational phase QA program is shown in Figure 17.1. The Senior Vice President - Nuclear, who reports to the President, has been delegated ultimate responsibility for the safe and reliable operation of the Grand Gulf Nuclear Station. He provides guidance and Corporate QA policies, goals, and objectives to the Manager of Quality Assurance.

The Manager of Quality Assurance reports directly to the Senior Vice - President - Nuclear and is delegated the overall responsibility for establishing, controlling, and verifying the implementation and adequacy of the QA program. He is assisted in carrying out his responsibilities by onsite (Nuclear Site Quality Assurance Manager and Staff) and offsite QA personnel.

The QA organization has the authority to identify quality problems; to initiate, recommend, or provide solutions through designated channels; to verify implementation of solutions; and to stop unsatisfactory work and to control further processing, delivery, or installation of nonconforming items in accordance with established procedures.

The QA organization, which verifies the effective implementing of the QA program, is given responsiblity for: (1) providing QA input in the development of indoctrination and training programs for personnel performing quality-affecting activities: (2) reviewing, and approving or concurring with specified quality-related documents (e.g., procedures, instructions, and Q-list); (3) performing required audits to assure that personnel qualifications are current and applicable to the work being performed; (4) performing designated reviews to assure that design and procurement documents include applicable QA requirements; (5) performing pre-award evaluation of suppliers and source inspection at the suppliers' facilities; (6) assuring corrective actions are effective and accomplished in a timely manner; and (7) conducting internal audits of station operations and external audits of suppliers.



LEGEND

.....WORKING & QUALITY INTERFACE & DIRECT COMMUNICATION
_____TECHNICAL & ADMINISTRATIVE AUTHORITY
__ . __ . MANAGEMENT AUDITS
----------WORKING INTERFACE & COMMUNICATION
_ _ _ _ ON SITE/OFF SITE BOUNDARY LINE

* LOCATED PHYSICALLY ON SITE BUT CONSIDERED OFF-SITE WITHIN THE PROGRAM.

MP&L OPERATIONAL QUALITY ASSURANCE PROGRAM
ORGANIZATION FIGURE 17.2-1

The Nuclear Plant Manager reports to the Assistant Vice President, Nuclear Production and is directly responsible for assuring the safe, reliable, and efficient operation of the plant and for assuring the implementation of MP&L's QA Program at the plant.

The Plant Quality Superintendent reports directly to the Nuclear Plant Manager and maintains a working interface and direct communication with the Manager of Quality Assurance and the Nuclear Site Quality Assurance Manager. The Plant Quality Superintendent is responsible for assuring implementation of MP&L's QA program at the plant. He independently evaluates and reports the status and effectiveness of the QA program at the station to the Nuclear Plant Manager and the Manager of Quality Assurance.

The resolution of disputes on any quality assurance matter arising between MP&L organizations are resolved by management of the involved organizations. If necessary, the Senior Vice President - Nuclear provides ultimate resolution.

17.3 Quality Assurance Program

The QA program for the operation of Grand Gulf Nuclear Station, Units 1 and 2, is described in Mississippi Power & Light Company's Operational Quality Assurance Manual and is supplemented by quality assurance procedures and instructions which provide the detailed instructions and checklists necessary to implement the QA program requirements. MP&L has committed its QA program for the operational phase to be in compliance with the provisions of the regulatory guidance provided by the NRC in Table 17.1 with the specific clarifications as noted in MPL-TOP-1A, Appendix A.

Procedures and instructions for implementing the QA program are contained in documents which are established and maintained by the Manager of QA and the Plant Quality Superintendent in compliance with applicable regulations, codes, and standards. The QA organization is responsible for assuring that procedures and instructions provide for complete and adequate QA requirements with sufficient reviews, source inspections, and audits by QA personnel to verify the effective implementation of the entire QA program.

MP&L's QA program requires that implementing documentation encompasses detailed controls for: (1) translating codes, standards, regulatory requirements, technical specifications, engineering and process requirements into drawings, specifications, procedures, and instructions; (2) developing, reviewing, and approving procurement documents, including changes; (3) prescribing all quality-related activities by documented instructions, procedures, drawings, and specifications; (4) issuing and distributing approved documents; (5) purchasing items and services; (6) identifying materials, parts, and components; (7) performing special processes; (8) inspecting and/or testing materials, equipment, processes or services; (9) handling, storing, and shipping of items; (10) identifying the inspection, test, and operating status of items; (11) identifying and dispositioning nonconforming items; (12) correcting conditions adverse to quality; (13) preparing and maintaining QA records; and (14) auditing of activities which affect quality.

The Manager of Quality Assurance is responsible for auditing the implementation of QA indoctrination and training programs to assure that persons involved in safety-related activities are knowledgeable in QA instructions and implementing procedures and demonstrate a high level of competence and skill in the performance of their quality-related activities.

Quality is verified through checking, review, surveillance, inspection, testing, and audit of work activities. The QA program requires that quality verification be performed by individuals who are not directly responsible for performing the actual work activity.

Inspections are performed with procedures, instructions, and/or checklists by inspectors who have been qualified and certified in accordance with applicable codes, standards, or licensing requirements.

The QA organization is responsible for the establishment and implementation of the audit program which includes both internal and external audits. Audits are performed in accordance with procedures by appropriately trained personnel not having direct responsibilities in the areas being audited. The audit function, which is conducted at scheduled intervals and/or on a random unscheduled basis, includes an objective evaluation of: the adequacy of and compliance with QA policies, procedures, and instructions; the adequacy of work areas, activities, processes, items, and records; the performance, training, and qualifications of the operating plant staff; the implementation of the nonconformance control and corrective action program; and the effectiveness of implementation of the QA program.

The QA program requires documentation of audit results and review by management having responsibility in the area audited to determine and take corrective action needed, if any. Followup audits are performed to determine that nonconformances are effectively corrected and that the corrective action precludes repetitive occurrences. Audit findings will be analyzed; adverse quality trends and the evaluations of effectiveness of the QA program will be reported to responsible management for review and assessment.

17.4 Conclusions

Our review of MP&L's QA program description for the operational phase for Grand Gulf has verified that the criteria of Appendix B to 10 CFR 50 have been adequately addressed in Chapter 17 of the FSAR. This determination of acceptability included a review of the list of items to which the QA program applies.

The list of items was reviewed by the technical review branches to assure that safety-related items within their scope of review fall under the quality assurance program controls. Differences between the staff and the applicant regarding the list have been resolved to the staff's satisfaction. The list has been expanded to include safety-related items reflected in NUREG-0737, "Clarification of TMI Action Plan Requirements," November 1980. Therefore, the staff has no open items concerning the quality assurance program for operations or to what the program applies.

Based on our review and evaluation of the QA program description contained in MPL-TOP-1A, Revision 2 dated June 1981 for the Grand Gulf Nuclear Station, Units 1 and 2, and the organization changes documented in a letter (AECM-82/33) dated February 5, 1982, we conclude that:

1. The QA organization of MP&L provides: independence from cost and schedule (when opposed to safety considerations), authority to effectively carry out the operational QA program, and access to management at a level necessary to perform their QA functions.

2. The QA program describes requirements, procedures, and controls that, when properly implemented, comply with the requirements of Appendix B to 10 CFR 50, and with the acceptance criteria contained in Standard Review Plan Section 17.2.

Accordingly, the staff concludes that MP&L's description of the QA program, is in compliance with applicable NRC regulations.

Table 17.1 Regulatory Guidance Applicable to Quality Assurance Program

1.	Regulatory Guide 1.8 (2nd Proposed Revision 2), "Personnel Selection and Training," (DRAFT 12/79).
2.	Regulatory Guide 1.26-Rev. 3, "Quality Group Classification and Standards for Water, Steam and Radioactive Waste Containing Components of Nuclear Power Plant," (2/76).
3.	Regulatory Guide 1.29-Rev. 3, "Seismic Design Classification," (9/78).
4.	Regulatory Guide 1.30, "Quality Assurance Requirements for the Installation, Inspection, and Testing of instrumentation and Electrical Equipment," (8/11/72).
5.	Regulatory Guide 1.33-Rev. 2, "Quality Assurance Program Requirements (Operation)," (2/78).
6.	Regulatory Guide 1.37, "Quality Assurance Requirements for Cleaning of Fluid Systems and Associated Componenets of Water-Cooled Nuclear Power Plants," (3/16/73)
7.	Regulatory Guide 1.38-Rev. 2, "Quality Assurance Requirements for Packaging, Shipping, Receiving, Storage, and Handling of Items for Water-Cooled Nuclear Power Plants," (5/77).
8.	Regulatory Guide 1.39-Rev. 2, "Housekeeping Requirements for Water-Cooled Nuclear Power Plants," (9/77).
9.	Regulatory Guide 1.58-Rev. 1, "Qualification of Nuclear Power Plant Inspection, Examination, and Testing Personnel," (9/80).
10.	Regulatory Guide 1.64-Rev. 2, "Quality Assurance Requirements for the Design of Nuclear Power Plants," (6/76).
11.	Regulatory Guide 1.74, "Quality Assurance Terms and Definitions," (2/74).
12.	Regulatory Guide 1.88-Rev. 2, "Collection, Storage, and Maintenance of Nuclear Power Plant Quality Assurance Records," (10/76).
13.	Regulatory Guide 1.94-Rev. 1, "Quality Assurance Requirements for Installation, Inspection, and Testing of Structural Concrete and Structural Steel During the Construction Phase of Nuclear Power Plants," (4/76).
14.	Regulatory Guide 1.116-Rev. 0-R, "Quality Assurance Requirements for Installation, Inspection, and Testing of Mechanical Equipment and Systems," (6/76).
15.	Regulatory Guide 1.123-Rev. 1, "Quality Assurance Requirements for Control of Procurement of Items and Services for Nuclear Power Plants," (7/77).
16.	Regulatory Guide 1.144-Rev. 1, "Auditing of Quality Assurance Programs for Nuclear Power Plants," (9/80).
17.	Regulatory Guide 1.146, "Qualification of Quality Assurance Program Audit Personnel for Nuclear Power Plants," (8/80).

Exceptions to Specific Regulatory Guides are discussed in MPL-TOP-1A, Appendix A.