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

JUN 10 1975

Docket Nos. 50-416
and 50-417

Applicant: Mississippi Power & Light Company

Facility : Grand Gulf Nuclear Station Units 1 and 2

SUMMARY OF MEETINGS HELD ON JUNE 3 AND 4, 1975 TO DISCUSS DESIGN BASIS LOADING AND DESIGN METHODS FOR THE GRAND GULF MARK III CONTAINMENT.

A meeting was held on June 3, 1975 at the Bechtel Power Corporation offices in Gaithersburg, Maryland and on June 4, 1975 at the NRC offices in Bethesda, Maryland. The purpose of the meetings was to; 1) establish the capability of containment structures (including I-beams and steel gratings) to accept loads in excess of the current design specification, and 2) establish the degree of uncertainty associated with the current design load specification. The discussions were centered around the clarification and expansion of information presented in the applicant's April 23, 1975 Containment Structures Design and Loading Report. An attendance list is provided in the enclosure.

The June 3, 1975 session was devoted to a discussion of the design methods used by the architect engineer (Bechtel) to factor suppression pool dynamic loads into the Grand Gulf containment structures design. The capability of the structure to withstand loads in excess of the current specification was examined using revised design methods acceptable to the NRC staff. Various load combinations in addition to those presented in the applicant's April 23, 1975 Report were examined.

It was concluded that there is substantial design margin, at least a factor of two, in the junction between the containment foundation and the drywell wall to accept loads induced by suppression pool swell and impact on strucures above the pool. The junction between the containment wall and foundation is not sensitive to impact loads on structures above the suppression pool.

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The design of the traveling incore probe (TIP)station (approx. 6' above the pool) has no margin at present, however, the applicant indicated its intention to lower the bottom of the station into the pool and thereby substantially reduce the loading. Wide flange beams and grantings at approximately the same elevation have some margin under conditions of plastic deformation and are capable of being strengthened.

An analysis by the applicant of the steam tunnel (approx. 15' above the pool) shows that the floor could withstand a triangular load profile of 50 psid peak for 50 msec. The applicants were unable to provide an acceptable basis for the 15 psid load specified for this structure and will be required to provide an acceptable basis for the final design load or relocate the structure.

The HCU floor (approx. 24' above the pool) is supported by steel I-beams attached to the containment and drywell wall with brackets. There is approximately a 50% design margin in the bracket design using a plastic-elastic analysis technique. The NRC staff was unable to determine that this analysis technique is acceptable at the meeting and will require additional information. The HCU floor design has no existing margin but is capable of being strengthened.

The June 4, 1975 session was devoted to examining the design loads specified by the applicant and the uncertainties associated with the specification. The applicant was unable to support its load specification to the NRC staff's satisfaction due to the limited test data base and uncertainties in their methods of interpreting the test data. The NRC staff was able to develop a conservative load specification for valves, pipes, I-beams, and small components and the applicant was offered the option of designing to this specification or waiting to provide additional test data to support its existing design loads.

The meeting was concluded with the applicant's agreement to inform the NRC in the next several days of its intention to; 1) Use a more conservative design load profile, or 2) provide additional test data to support the design load profile currently being used, or 3) relocate or modify the affected structures.

Edward J. Butcher, Project Engineer
Light Water Reactors Branch 1-2
Division of Reactor Licensing

Enclosure:
Attendance List

ENCLOSURE

ATTENDANCE LIST
JUNE 3, 1975

NAME	ORGANIZATION
C. Reid	Bechtel - Licensing
A. J. Bingaman	Bechtel - Chief Civil
C. E. Bald	Bechtel - Mgr. Proj. Operations
J. B. Knotts	Conner, Hadlock & Knotts (MP&L)
L. Pinzow	Bechtel
F. J. Champlin	G.E.
R. P. Barr	G.E.
L. J. Sobon	G.E.
A. J. James	G.E. - BWRSD
E. U. Thomas	Bechtel
M. E. Palmer	Bechtel
B. L. Meyers	Bechtel
M. D. Archdeacon	Bechtel
R. Hails	Bechtel
F. C. Cheng	Bechtel
W. N. Adams	Bechtel
J. J. Tkacik	Bechtel
J. P. McGaughy	MP&L
L. F. Dale	MP&L
H. P. Marsh	Bechtel
G. Bagchi	TR, NRC (SEB)
F. Schauer	TR, NRC (SEB)
Isa Sihweil	TR, NRC (SEB)
Larry Shao	TR, NRC (SEB)
Ed Butcher	NRC - DRL
J. M. Cutchin	NRC - DRL
S. Hou	NRC - MEB
Jeff Gitner	NRC - ELD
J. C. Glynn	NRC - TR
G. C. Lainas	NRC - TR
R. L. Cudlin	NRC - TR
R. J. Stuart	NRC - SEB
C. P. Tan	NRC - SEB
A. L. Gluckmann	NRC - SEB
R. Maccary	NRC - TR

ENCLOSURE

ATTENDANCE LIST
JUNE 4, 1975

NAME	ORGANIZATION
E. J. Butcher	NRC - LWR 1-2
J. M. Cutchin	NRC - LWR 1-2
L. C. Shao	NRC - SEB
Isa Sihweil	NRC - SEB
J. P. McGaughy	MP&L
L. F. Dale	MP&L
J. J. Tkacik	Bechtel Power Corp.
W. N. Adams	Bechtel Power Corp.
F. C. Cheng	Bechtel Power Corp.
K. S. Jolly	Bechtel Power Corp.
J. A. Kudrick	NRC - CSB/TR
R. L. Cudlin	NRC - CSB/TR
G. C. Lainas	NRC - CSB/TR
R. L. Tedesco	NRC - TR
A. J. James	GE - BWRSD
L. J. Sobon	GE - Licensing
R. P. Barr	GE - Projects
F. J. Champlin	GE - Projects
L. Slegers	NRC - TR
J. F. Stolz	NRC - DRL
W. F. Kane	NRC - DRL
I. Peltier	NRC - DRL
J. Glynn	NRC - TR
R. DeYoung	NRC - DRL
C. Reid	Bechtel Power Corp.
R. Brems	Gilbert Associates
H. P. Marsh	Bechtel Power Corp.
D. W. Halligan	Bechtel Power Corp.
C. J. Anderson	NRC - CSB
C. I. Grimes	NRC - CSB
Bob Hails	Bechtel Power Corp
R. Maccary	NRC - TR