



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

FEB 4 1980

Docket Nos.: 50-329/330

APPLICANT: CONSUMER POWER COMPANY
FACILITY: MIDLAND PLANT, UNITS 1 & 2
SUBJECT: SUMMARY OF JANUARY 16, 1980 MEETING ON SUPPLEMENTAL REQUESTS REGARDING PLANT FILL

On January 16, 1980 the NRC staff and its consultants from the U.S. Corps of Engineers met with Consumer Power Company and Bechtel Corporation in Bethesda, Maryland. Attendees are listed in Enclosure 1. The principal purpose of this meeting was to discuss the status of the staff's supplemental requests for additional information regarding plant fill settlement and effects. These requests were issued November 19, 1979. Earlier requests issued March 21, 1979 were discussed to a lesser extent. Enclosure 2 is the meeting agenda.

The staff's requests of March 21 and November 19, 1979 were issued on the basis of Section 50.54(f) to 10 CFR 50, which is applicable to construction permits by virtue of Section 50.55(c). The staff's 50.54f position requiring modification of the Midland construction permits was subsequently issued December 6, 1979. Consequently, it was recognized that any replies outstanding after December 6, 1979 were no longer needed in the 50.54(f) context, but that replies should be submitted nevertheless since the December 6 order states that the absence of certain information prevents the staff from reaching essential conclusions. It was suggested that the replies be submitted in the normal "Q-1, Q-2" context typically associated with the radiological safety reviews of nuclear power plants. The applicant also reported that the December 6 order, its subsequent request for hearing, and FSAR Amendment 72 provides the basis for concluding its 50.55(e) reports regarding this matter, as further reporting would be by FSAR amendments and by hearing documents, as may be appropriate. The applicant acknowledged its intent to further update the FSAR to reflect appropriate changes associated with the soils settlement matter at an appropriate point in the future; in the interim, those FSAR sections which are subject to change will be flagged.

Staff comments based upon review of the applicants reply to questions 16 through 20 were provided as a handout (Enclosure 3 hereto). These comments relate to mechanical engineering effects of the soil settlement

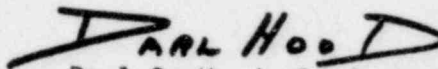
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which are being reviewed with the assistance of a staff's consultant, Energy Technology Engineering Center.

The proposed responses to questions 24 through 35, 4 and 14 were summarized by the applicant and Bechtel. Since these responses will be submitted on the docket within two to three weeks, no summary of these presentations is provided in this report. The response to questions 25 and 26 involve seismic analyses which require additional time to complete prior to submittal of a final reply. Copies of the vugraph slides used during these presentations are maintained by the staff's Licensing Project Manager and are available upon request.



Darl S. Hood, Project Manager
Light Water Reactors Branch #4
Division of Project Management

Enclosures:
As stated

cc: See next page

MEETING SUMMARY DISTRIBUTION

Docket File ~~_____~~
NRC PDR
Local PDR
TIC - NSIC
NRR Reading
LWR#4 File
H. Denton
E. Case
H. Berkow
W. Russell
D. Ross
D. Vassallo
S. Varga
J. Stolz
R. Baer
O. Parr
L. Rubenstein
C. Heltemes
.. Crocker

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R. Mattson
R. DeYoung
Project Manager D. Hood
Attorney, ELD
Licensing Assistant M. Service
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ACRS (16)
R. Denise
NRC Participants: F. Schauer
R. Lipinski
G. Gallagher, Reg. III
R. Landsman, Reg. III
D. Gillen
A. Cappucci
R. Bosnak
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ENCLOSURE 1
LIST OF ATTENDEES
JANUARY 16, 1980

<u>Name</u>	<u>Organization</u>
Darl Hood	DPM/NRR
Joe Kubinski	COE Detroit Dist.
William Paris, Jr.	Bechtel-Geotech
Jo Wayzeck	Bechtel - Geo Tech
S. S. Afifi	Bechtel
W. R. Ferris	Bechtel
Morothwell	Bechtel
K. Wiedner	Bechtel
Gil Keeley	Consumers Power
T. C. Cooke	Consumers Power
F. Schauer	NRC-SEB
J. J. Zabritski	Consumers Power Co.
S. Lo	Bechtel
T. E. Johnson	Bechtel
John F. Horton	COE NC Division Chicago
James W. Simpson	Army Corps NCO Chicago
William Lawhead	U. S. Army COE, Detroit
R. E. Lipinski	NRC-SEB
Gene Gallagher	NRC Region III:IE
Ross Landsman	NRC Region III:IE
Daniel M. Gillen	NRC - NMSS
A. J. Cappucci	NRC/DSS/MEB
R. O. Bosnak	NRC/DSS/MEB
H. L. Brammer	NRC/DSS/MEB

ENCLOSURE 2

MEETING WITH NRC STAFF IN BETHESDA, MD
January 16, 1980

Agenda

I. INTRODUCTION : Gil Keeley

Purpose of meeting; background, etc

II. WORK ACTIVITY UPDATE : Jim Wanzeck

Summary of work activities and settlement surveys for all Category I structures and facilities founded partially or totally on fill

III. 10 CFR 50.54(f) REQUESTS

Presentation of Information related to:

Question #4 - Soils Engineering and Civil/Structural

Supplemental Questions #27, 31, 33 and 35 - Coils Engineering

Supplemental Question #24 - Dewatering

Question #14 - Civil/Structural

Supplemental Questions #28, 29, 30 and 34 - Civil/Structural

Supplemental Questions #25 and 26 - Seismic Analysis

} Afifi

} Ted
Johnson

IV. FORMAT AND SCHEDULE OF FUTURE RESPONSES (50.55(e), 50.54(f), FSAR)

ATTENDEES:

Bechtel

S Afifi
T Johnson
S Lo
W Paris
M Rothwell
J Wanzeck
K Wiedner
W Ferris

Consumers Power

G S Keeley
T C Cooke
J J Zabritski

ENCLOSURE 3

COMMENTS ON 50.54(f) RESPONSES FOR MIDLAND (MEB)

1. GENERAL

A review of the Response to Questions 16-20 of the Subject document indicates that the applicant proposes to impose the 3.0 S_e criterion of subparagraph NC-3652.3(b) of the ASME B&PVC, Section III and the 5% radial deformation limit of the AWWA. Additional criteria which address buckling of the piping should be imposed since neither of the two proposed criteria are based on this failure mode. Additionally, criteria compliance analyses should be based on maximum expected differential settlement over the life of the plant.

2. RESPONSE TO QUESTION 16, PAGE 16-1

The response addresses stresses based on representative pipes being profiled, i.e. on current local settlements. The response should be modified to include settlements over the life of the plant.

3. RESPONSE TO QUESTION 17, PAGE 17-1, PARA. 1

If all Seismic Category I piping is not to be profiled, criteria for selection of piping to be profiled should be documented.

4. RESPONSE TO QUESTION 17, PAGE 17-2, PARA. 2

The calculation assumes that the curvature is constant over the length of pipe. In general, this condition will not be met. Criteria for changes in curvature should be addressed.

5. RESPONSE TO QUESTION 17, PAGE 17-3, PARA. 2

If the settlement stresses are based on current profiles only, the analysis should be extended to include settlements over the life of the plant and effects of change in curvature (See item 3).

6. RESPONSE TO QUESTION 17

The question regarding measures to be taken to alleviate conditions if settlement stresses approach code allowables or cannot be determined has not been addressed.

7. RESPONSE TO QUESTION 18, PAGE 18-1, PARA. 2 & 3

It is not clear that most of the anticipated differential settlement will occur by the time of final closure (Para. 2). Provisions for effects of settlements occurring after final closure should be specified. The evaluations of Para. 3 addresses this issue partially.

8. RESPONSE TO QUESTION 18, PAGE 18-2, PARA. 2 & 3

Criteria for assessment of the flexibility of piping to accomodate more than the expected differential settlement should be specified.

9. RESPONSE TO QUESTION 19, PAGES 19-1 TO 19-3

The disposition of this response will be delayed pending receipt and review of evaluations based on the preload program (See last paragraph on Page 19-3).

10. RESPONSE TO QUESTION 20

The first paragraph of the response is acceptable. However, the remainder of the response requires clarification.