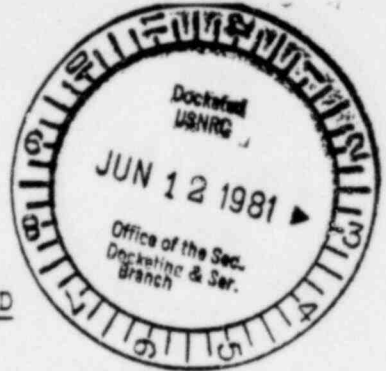


6/10/81

RELATED CORRESPONDENCE

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
BEFORE THE ATOMIC SAFETY AND LICENSING BOARD



In the Matter of
CONSUMERS POWER COMPANY
(Midland Plant, Units 1 and 2)

Docket Nos. 50-329-OM
50-330-OM
50-329-OL
50-330-OL



APPLICANT'S SUPPLEMENTAL RESPONSES
TO NRC STAFF INTERROGATORIES DATED 11/26/80

Question 1(a)

The analyses referred to in our initial response described or will describe the extent of design safety margins.

Question 2(b)

(The question posed here was so vague that Applicant was unable to determine what time period was referenced. Further, the question and the Staff Motion to Compel argumentatively assumes that the driven pile design would not provide a stable footing, which is not true.)

With respect to whether or not a wall footing design was given consideration prior to the decision to utilize driven piles, to the best of Applicant's present recollection, the answer is no.

Question 2(c)

The only structural analyses performed are those mentioned in our initial response to this Interrogatory.

DS03
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ADD:
Lois Tyson
Date:
REG Files

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Question 5(a)

The initial response to Question 5(a) referred to an analysis which predicts future rebar stresses due to differential settlement. That analysis was performed for the diesel generator building. It may not be a "tension field analysis," as the term is being used by the NRC Staff. No such analysis has been performed for the auxiliary building or the service water pump structure, since neither building has demonstrated nor is expected to demonstrate appreciable differential settlement after the implementation of remedial action. In the final design of the underpinning schemes for these structures long-term movement of the underpinning elements will be considered.

With respect to the borated water storage tank ring foundation, preliminary finite element analyses using soils springs and a 3-dimensional finite element model of the structure and the soil were performed. The latest such analysis predicted high element stresses in the vicinity of an observed crack in the ring foundation and formed the basis for the conclusion that remedial action is necessary. Because of the necessity of deciding upon remedial steps and undertaking further analysis based upon such steps, a final structural analysis has not been completed.

Other than the above, no analysis taking into account increased rebar stresses due to differential settlement or predicting future crack size has been performed.

(Note: Applicant invites discussion with the NRC Staff on this matter in the event the Staff has follow-up or concerns.)

Question 5(c)

The analysis for the diesel generator building, which predicts element stresses due to predicted differential settlement, provides information which is believed to be similar to that provided by a tension field analysis of an homogenous structure. (See the response to 5(a))

With respect to the other structures, the reason for not performing an analysis of the type described with respect to Question 5(a) above for the diesel generator building were given in Applicant's initial response.

Question 9(c)

Apparently, Applicant misinterpreted the question. The information with respect to rattlespace for the valve pits is provided below:

The initial readings were taken on November 13, 1978 for the rattlespaces for piping entering the service water valve pits. The final readings were taken on May 2, 1980 after removal of the surcharge.

VALVE PIT PEN. #	LINE #	VERTICAL MOVEMENT MIN. GAP		HORIZONTAL MOVEMENT MIN. GAP	
SWVP #1					
A	26"-1JBD-2	- 1/2	1 1/4	- 1/4	2
B	26"-OHBC-54	0	1	- 1/4	1 7/8
C	26"-1JBD-1	- 1/8	1 3/4	- 1/8	1 1/4
D	26"-OHBC-53	+ 1/8	1 3/8	- 1/8	1 7/8
SWVP #2					
A	26"-2JBD-2	-	-	-	-
B	26"-OHBC-56	- 1/8	1 3/4	1/4	1
C	26"-2JBD-1	0	1	+ 1/8	7/8
D	26"-OHBC-55	-	1 3/4	- 1/8	1 7/8

4

Directions: Vertical + pipe moves up relative to penetration
 - pipe moves down relative to penetration
 Horizontal + pipe moves east relative to penetration
 - pipe moves west relative to penetration

Question 1(b)

Based upon the statements made by the NRC Staff during their recent structural audit, the documents requested in the Interrogatory were provided during the structural audit, excepting certain documents with respect to the service water pump structure which Applicant has committed to sending to the NRC Staff.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

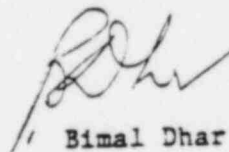
In the Matter of)
CONSUMERS POWER COMPANY)
(Midland, Units 1 and 2))
)
)

DOCKET NOS. 50-329-OM
50-330-OM
50-329-OL
50-329-OL

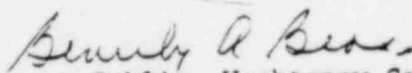
COUNTY OF WASHTENAW)
STATE OF MICHIGAN)ss)

AFFIDAVIT OF BIMAL DHAR

Bimal Dhar, being duly sworn, deposes and says that he is employed by Bechtel Associates Professional Corporation, as an Engineering Supervisor; that he is responsible for providing Supplemental Responses to NRC Staff Interrogatories dated 11/26/80, Nos. 1(a), 2(b), 2(c), 5(a), and 5(c), and that to the best of his knowledge and belief the above information and the answers to the above interrogatories are true and correct.


Bimal Dhar

Subscribed and sworn to before me this 6 day of May 1981.


Notary Public, Washtenaw County,
Michigan

My Commission Expires November 30, 1982

BEVERLY A. BROSS
NOTARY PUBLIC, WASHTENAW CO., MICH
MY COMMISSION EXPIRES NOV. 30, 1982

OM

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

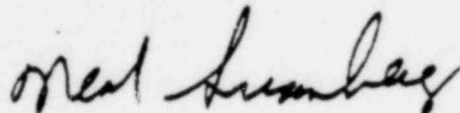
BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	DOCKET NOS. 50-329-OM
CONSUMERS POWER COMPANY)	50-330-OM
)	50-329-OL
(Midland, Units 1 and 2))	50-329-OL
)	
)	

COUNTY OF WASHTENAW)
STATE OF MICHIGAN)ss)

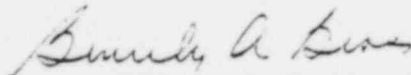
AFFIDAVIT OF NEAL SWANBERG

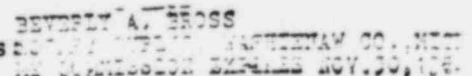
Neal Swanberg, being duly sworn, deposes and says that he is employed by Bechtel Associates Professional Corporation, as an Assistant Project Engineer; that he is responsible for providing supplemental responses to NRC Staff Interrogatories dated 11/26/80, No. 9(c), and that to the best of his knowledge and belief the above information and the answers to the above interrogatories are true and correct.



Neal Swanberg

Subscribed and sworn to before me this 27 day of April 1981.


Notary Public, Washtenaw County,
Michigan

My Commission Expires 

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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CONSUMERS POWER COMPANY
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Docket Nos. 50-329-OM
50-330-OM
50-329-OL
50-330-OL

CERTIFICATE OF SERVICE

I hereby certify that copies of Applicant's Supplemental Responses to NRC Staff Interrogatories Dated 11/26/80, with attached affidavits, were served upon the following persons by depositing copies thereof in the United States Mail, first class postage, on this ^{10th} day of June, 1981.

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