

Weekly Report No. 32

April 24, 1983 through April 30, 1983

Personnel on Site

Stone & Webster Michigan, Inc.

A. Scott	4/25 - 4/30
P. Barry	4/25 - 4/30
P. Majeski	4/25 - 4/30

Parsons, Brinckerhoff Michigan, Inc.

J. Ratner	4/25 - 4/28
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Meetings Attended

<u>Date</u>	<u>Represented</u>	<u>Purpose</u>
4/25 through 4/29	Stone & Webster Bechtel Consumers Power Parsons (4/26 - 4/28)	Daily Meetings
4/26	Stone & Webster (Part-time) Bechtel Consumers Power (Part-time)	Meeting To Analyze Load Test Results With NRC Consultant
4/26 & 4/27	Stone & Webster Bechtel Consumers Power Mergentime Parsons	Up-Date on Status Of Pier W11 Load Test
4/29	Stone & Webster Bechtel Consumers Power	Weekly Soils Review

Activities

Construction -

Pier E12: The load transfer remained in the active jack mode until April 26 at which time the deflection criteria was satisfied and the load was locked-off.

Pier E9: The load transfer remained in the active jack mode until April 27 at which time the deflection criteria was satisfied and the load was locked-off.

Pier E11: The initial load transfer was completed on April 26 and rejaacked per specifications for the succeeding 3 days.

Drift to KC11: The excavation, between piers E11 and E12, was started on April 27 and progressed approximately 10 ft. The excavated material consisted of clay fill and lean concrete. The thickness of concrete decreased from nearly the full cut face at the start of the drift to approximately 2 ft. at the 10 ft. point.

Pier E8: The drift was completed and pier excavation and lagging advanced to a depth of 24 ft. The excavated material consisted of zones of clay and granular fill to El. 586 underlain by the natural clay till. No groundwater entered the excavation.

Pier W8: Progress on the drift was hampered by Hilti-bolt installation problems. The drift was near completion by week's end.

Pier W11: The load test started on April 25. Reduction of the early test data indicated the pier load as measured by the upper Carlson meters was not the same as the load jacked into the pier and the lower Carlson meters recorded considerably less load than the upper Carlson meters. Also, the measured elastic shortening of the pier is significantly less than theoretical and the anti-friction liner moved down with the pier.

Additional information was obtained to aid in the analysis of these results by increasing the load to the maximum allowable and by cycling the load. However, neither of these procedures resulted in resolving the disparity in the Carlson meter readings. Further discussions with the NRC are required before additional steps are taken.

Service Water Pump Structure: An FCR was issued to permit cutting of selected reinforcing bars in the existing mat for installation of dewatering wells and/or piezometers. On the exterior of the structure the contractor placed numerous pipecasings through which the soldier piles will be installed.

Quality Control, Documentation and Records:

1. Witnessed QC inspection of pressure grout fix for Hilti-bolts in the W8 drift.
2. Witnessed QC/QA inspection of rejack of pier E11.
3. Witnessed QC inspection of load transfer at pier W11.

Observations

Construction - The rejack of piers E9, E12 and E11 was according to the approved procedures.

The continued problems encountered during installation of the Hilti-bolts in the drift to pier W8 indicate a need for additional flexibility in the installation requirements or the consideration of alternate support system details. However, to-date the Contractor has remained resolute in adhering to pre-established procedures despite significant schedule impacts.

The Contractor responded promptly to the initial test results obtained at pier W11. Consultants were contacted and advised of the situation within 24 hours. An alternate procedure was formulated and discussions with the NRC continued until April 29 at which time permission was granted to cycle the load to test the responsiveness of the Carlson meter.

Quality Control Documentation and Records - The QC inspections witnessed by the Assessment Team were thorough and in compliance with the MPQAD documents.

Design Work Packages and Procedures - The Assessment Team performed an overview of the technical procedures relating to the installation and load transfer to the grillage beams.

Non-Conformance Identification Reports

Status of previous issues: (NIR numbers no longer listed have been closed-out.)

<u>NIR NO.</u>	<u>Description</u>	<u>Date</u>	
		(Opened)	(Closed)
5	Concrete Mix Qualification	2/10/83	
6	Lagging Spacers	3/21/83	
7	Backpacking Material in Wet areas-Pier W11	4/5/83	
8	Load Transfer Methodology -Pier E12	4/5/83	
9	Release of Pier W9 for Load Transfer	4/13/83	
10	Verification of Vibrator Frequency	4/21/83	

W E Kilker
Project Engineer

A. S. Lewis
Project Manager

DAILY INDEPENDENT ASSESSMENT TEAM MEETING

Date April 25, 1983

Attendees:	<u>Bechtel</u>	<u>Stone/Webster</u>	<u>MPQAD</u>	<u>CPCo</u>
	J. Fisher	A. Scott	-----	G. Murray
	J. Gaydos			R. Wieland

1. J. Fisher stated that the Administrative Guideline, FIU - 1.100 would be revised and ready to be issued on April 27, 1983.
2. Bechtel stated that an FCR has been written on the checking of vibrators in concrete.

DAILY INDEPENDENT ASSESSMENT TEAM MEETING

Date: April 26, 1983

Attendees:	<u>Bechtel</u>	<u>Stone/Webster</u>	<u>MPQAD</u>	<u>CPCo</u>
	J. Fisher	A. Scott	G. Carpenter	G. Murray
	J. Gaydos	P. Barry		
	D. Lavelle	P. Majeski		
	M. Blendy			
		<u>Parsons</u>		
		J. Ratner		

1. The issue date for Administrative Guideline FIU-1.100 (Construction Aid Procedure) has been changed from April 27 to April 29.
2. There was further discussion regarding frequency of checking of concrete vibrators. The consensus was that the vibrators would be checked in concrete often. Bechtel will be working out the details in the next few days.
3. J. Fisher requested that in order to expedite responses to future NIR's a copy should be brought to the next scheduled Daily Meeting rather than waiting for the NIR to be issued through normal channels. P. Barry will respond.
4. The load test at W11 was started on April 25 at about 3:45 PM. Presently, based upon a comparison of the measured elastic shortening versus the theoretical elastic shortening and the information from the Carlson meters, the load at the tip of the piers is only a fraction of the applied load at the top. It therefore, appears that the anti-friction liner is not functioning. The RGE and RSE are investigating the situation. In addition, Bechtel's consultants have been notified and will be on-site on April 27.
5. M. Blendy indicated that a FCR has been issued which allows cutting of selected rebar in the SWPS to allow installation of wells and/or piezometers.
6. M. Blendy indicated that an FCR has been issued to allow completion of the work on the connections of the six beams in the Auxiliary Building.

DAILY INDEPENDENT ASSESSMENT TEAM MEETING

Date: April 27, 1983

Attendees:

Bechtel

E. Cvikl
D. Lavelle
M. Blendy
J. Kelleher

Stone/Webster

A. Scott
P. Barry
P. Majeski

MPQAD

R. Sevo

CPCo

G. Murray

Parsons

J. Ratner

1. A plan for checking of concrete vibrators will be prepared by April 29. Following development of this plan a FCR will be prepared.
2. Following the regular daily meeting, a meeting will be held to up-date interested persons on the progress of the test at W11.

DAILY INDEPENDENT ASSESSMENT TEAM MEETING

Date: April 28, 1983

Attendees:	<u>Bechtel</u>	<u>Stone/Webster</u>	<u>MPQAD</u>	<u>CFCo</u>
	D. Lavelle	P. Barry	R. Sevo	G. Murray
	J. Fisher	A. Scott		
	E. Cvikl	P. Majeski		
	M. Blendy			
	J. Gaydos			
		<u>Parsons</u>		
		J. Ratner		

1. Bechtel performed a test of six concrete vibrators as part of the development of a procedure for checking the frequency of the vibrators. The frequency of the vibrators checked met the requirements of ACI 309.
2. The test at W11 remains at the 600 kip load, awaiting review with the NRC of the changes in the test procedures. Contact with the appropriate NRC personnel could not be made on April 27 but it is believed contact would be made today. A copy of Bechtel's preliminary conclusions and recommendations regarding the load test was given to the Team.
3. P. Barry asked if pier KC11 (which is currently shown as unreinforced on the drawings) must be designed in accordance with ACI 318 which would require that reinforcing steel be placed in the pier.
4. P. Barry indicated that he wanted to clarify the purpose of the Assessment Team's participation at the Bechtel meetings in light of a general statement made yesterday at the up-date meeting regarding the test at pier W11. At this meeting a general question was asked whether there was any reason why the proposed test procedure changes could not be made and if all were in agreement with this course of action. P. Barry stated that the Assessment Team's attendance was primarily to obtain information regarding on-going activities and not to approve any particular action. D. Lavelle responded that he understood this and his wording of the previous day was not the best. However, he welcomes any participation by the Team at the meetings.

DAILY INDEPENDENT ASSESSMENT TEAM MEETING

Date: April 29, 1983

No Meeting held on this date.

P.O. Box 2325, BOSTON, MASSACHUSETTS 02107

PRINCIPAL STAFF	
DA	EMF
DYRA	WPS
AZRA	PAO
DEMP	SLO
DRMA	BOS
DRNPF	
DE	MS
ML	
OL	FILE <i>ls</i>

United States Nuclear Regulatory Commission
Midland Site Resident Inspection Office
Route 7
Midland, MI 48640

May 5, 1983

J.O. No. 14358
Ref. MPF 32

Attention Mr. R. Cook

RE: DOCKET NO. 50-329/330
MIDLAND PLANT - UNITS 1 and 2
INDEPENDENT ASSESSMENT OF UNDERPINNING
REPORT NO. 32

A copy of the Independent Assessment of the Auxiliary Building Underpinning Weekly Report No. 32 for the period April 24, 1983 through April 30, 1983, is enclosed with this letter. Included as attachments, are the minutes of the daily meetings held during the week between members of the Assessment Team and Site Engineering, Construction, and Quality Assurance personnel.

If you have any questions with respect to his report, please contact me at (617) 589-2067).

Very truly yours,

A. Stanley Lucks
Project Manager

Enclosures

ASL/ka

MAY 9 1983