



STONE & WEBSTER MICHIGAN, INC.

P.O. Box 2325, BOSTON, MASSACHUSETTS 02107

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

December 28, 1983

J.O. No. 14358
Ref. MPF 66

Attention : Mr. R. Cook

DOCKET NO. 50-339/330
MIDLAND PLANT UNITS 1 & 2
INDEPENDENT ASSESSMENT OF UNDERPINNING
REPORT NO. 66

A copy of the Independent Assessment of Underpinning Weekly Report No. 66 for the period of December 18, 1983 through December 24, 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 this report please contact me at (617) 589-2067.

W. E. Kilmer for A. S. Lucks.

A. Stanley Lucks
Project Manager

Enclosures
ASL/pd

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J. O. No. 14358
Midland Plant
Units 1 & 2
Independent Assessment of Underpinning

Weekly Report No. 66

December 18, 1983 through December 24, 1983

Personnel On Site

Stone & Webster Michigan, Inc.

W. Kilker	12/18 - 12/20
J. Springer	12/18 - 12/20
L. Rouen	12/18 - 12/20
P. Majeski	12/19 - 12/23
B. Holsinger	12/20 - 12/23
D. Benvie	12/19 - 12/23

Meetings Attended

<u>Date</u>	<u>Represented</u>	<u>Pur.</u>
12/19 - 12/22	Stone & Webster Bechtel Consumers Power	Daily Assessment Team Meeting
12/19	Stone & Webster MPQAD	Assessment Team Meeting with MPQAD
12/19	Bechtel Consumers Power MPQAD Mergentime Stone & Webster	Weekly Interorganizational Meeting
12/21	Consumers Power MPQAD Bechtel Stone & Webster	FCR/FCN Review Coordination Meeting
12/22	Consumers Power Bechtel Stone & Webster	Agenda Review Meeting for NRC Site Visit

Underpinning and Remedial Soils Activities - Construction

The Stop Work Order issued October 21, 1983 continued in effect throughout the week. Rejacking activities were performed, as required, by the project procedures.

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 Units 1 & 2
 Independent Assessment of Underpinning

Assessment Team Observations

The Assessment Team, in conjunction with the Stone & Webster Construction Implementation Overview Team, has begun its review of the Phase III activities performed for lifting of the Stop Work Order. The Initial Action in this review is an audit of Central Document Control. It is anticipated that the Stop Work Orders will be lifted by work activity, with Soils work having the highest priority.

Work Activity Packages

The following is a listing of the Work Activity Packages overviewed by the Assessment Team that are in the open response stage or have been completed during the past week.

<u>WAP No.</u>	<u>Title</u>	<u>Status</u>
71	SWPS-Thru Anchor Bolt Holes	Open

Nonconformance Identification Reports

<u>NIR No.</u>	<u>Description</u>	<u>Date</u>	
		(Opened)	(Closed)
20	Concrete Admixture Dispenser Calibration	12/1/83	

Open Items

Items discussed during meetings are categorized as follows:

OPEN ITEM - An item for which an action is required. The item will remain open until the required action has been taken. Tracking is required.

CLOSED ITEM - An item, usually brought forward by the Assessment Team, that is discussed and adequately responded to. No tracking is required.

INFORMATION ITEM - An item, brought forward to provide general background information regarding work, such as work status or an upcoming design change. No tracking is required.

OPINION ITEM - An opinion or suggestion, given by the Assessment Team, expressing an alternate construction or quality assurance technique. The opinion or suggestion is given as a possible alternate that may facilitate an operation. No response or implementation is required as a result of an Opinion Item.

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CLOSES ITEM -XX-XX- This notation identifies an action that closes a previously identified open item. Tracking of the open item stops.

The following is a listing of all Open Items from the Daily Meeting Notes with Bechtel, the Weekly Meeting with MPQAD or the text of Weekly Reports. Carry-over items from past weeks which have been Closed this week are also listed.

<u>Item No.</u>	<u>Description</u>	<u>Closure</u>
WR 54, Pg. 3	Weld Tech Sheets	Open
57-17	Wall Ties	Open
WR 58, Pg. 2	Lack of Drawing Reference	Open
58-3	Tubular Steel Lagging	Open
WR 60, Pg. 2	Inspection of Non-Structural Welds	66-14
64-7	QAP Review Program	Open
64-9	FCR/FCN Processing	66-6
64-10	Trend Analysis	Open
WR 64, Pg. 1	U.S. Testing Corrective Action	Open
65-7	Settlement at SWPS	66-12
65-11	Crack Mapped Areas	66-7
65-12	Crack Definition	66-8
65-19	Review of Phase III SWO Resolution	Open
66-3Q	Review of Phase III SWO Resolution	Open
66-5Q	Request for IR Distribution	Open
66-7	Check of Crack Mapped Areas	Open

W E Kellner
 Project Engineer

W E Kellner for AS Zwick
 Project Manager

Notes of Daily Meeting
Independent Assessment of Underpinning
Midland Plant Units 1 & 2
Consumers Power Company

Held at Midland Site
Midland, Michigan
December 19, 1983

Present for:

<u>Consumers Power</u>	<u>Bechtel</u>	<u>MPQAD</u>	<u>Stone & Webster</u>
G. Murray	J. Fisher J. Gaydos E. Cvikl	R. Sevo J. McMaster	W. Kilker J. Springer

PURPOSE

This meeting is held each day to discuss items regarding the Independent Soils Assessment at the Midland Plant Units 1 & 2.

DISCUSSION

Status Items

Item 66-1 - Rejacking of Piers & Grillages.

J. Fisher reported that pier E11 rejacking was completed on 12-16. Piers E/W12 required rejacking on 12-16 and continued on active jacks today. There is no indication that E/W 8 rejacking will be required in the near future. (INFORMATION ITEM)

Item 66-2 - FSO Document Control Station.

J. Fisher reported that the FSO document control station is prepared for an MPQAD and/or Assessment Team audit. (INFORMATION ITEM)

Item 66-3 - Christmas Holiday Field Work.

J. Fisher stated the crafts will not work night shift on Christmas Eve or the day shift Christmas day. (INFORMATION ITEM)

Item 66-4 - Bechtel Direct Hire Effort in 1984.

J. Fisher reported the Bechtel direct-hire effort in 1984 will be limited to supporting the underpinning contracts. (INFORMATION ITEM)

Item 66-5 - SWPS Instrumentation Update.

E. Cvikl reported there has been no further movement on the west side of the SWPS that showed 20 mils movement on 12/11/83. The necessity of lifting-off the tendon load is now being evaluated. (Item 65-7 REMAINS OPEN) (INFORMATION ITEM)

New Items

No new items were discussed.

Notes of Daily Meeting
Independent Assessment of Underpinning
Midland Plant Units 1 & 2
Consumers Power Company

Held at Midland Site
Midland, Michigan
December 19, 1983

Response Items

Item 66-6 - FCR/FCN Interim Approval Process.

W. Kilker stated that the Assessment Team has reviewed the recently revised project procedures on FCRs/FCNs. The Team believes the procedures, as revised, addressed the concerns raised in the W. Craig report of October, 1983. (CLOSES ITEM 64-9)

ITEM 66-7 - Check of Crack Mapped Areas.

E. Cvikl reported that as a result of discussions described in Item 65-11, modifications are being made to the project specifications and procedures. New definitions of magnitude of cracks requiring mapping have been established. The baseline crack data will remain as documented. This revision was discussed with CTL, the program consultant. The WJE data reviewer will now be required to look at each wall prior to signing-off on the data sheet. E. Cvikl said the revision will be finalized by 12/21/83. (CLOSES ITEM 65-11) (OPEN ITEM)

Item 66-8 - Definition of Cracks.

In response to the Assessment Team question raised in Item 65-12, E. Cvikl said there has been no attempt made to differentiate between structural and non-structural cracks. CTL says virtually all of the cracks monitored are volumetric change related. No areas of the building are assigned a higher priority. All designated areas are mapped completely as committed to in the procedural requirements. However, the RSE can use judgement in requiring a given area be evaluated. (CLOSES ITEM 65-12)

Notes of Daily Meeting
Independent Assessment of Underpinning
Midland Plant Units 1 & 2
Consumers Power Company

Held at Midland Site
Midland, Michigan
December 20, 1983

Present For:

<u>Consumers Power</u>	<u>Bechtel</u>	<u>MPQAD</u>	<u>Stone & Webster</u>
G. Murray	J. Fisher J. Gaydos	R. Sevo J. McMaster	P. Majeski D. Benvie J. Springer L. Rouen

PURPOSE

This meeting is held each day to discuss items regarding the Independent Soils Assessment at the Midland Plant Units 1 & 2.

DISCUSSION

Status Items

Item 66-9 - Pier Reracking.

J. Fisher indicated that pier E12 was locked off 12/19/83. Pier W12 remains on active jacks. (INFORMATION ITEM)

New Items

Item 66-10 - Phase III Document Review.

The Assessment Team is awaiting completion of the MPQAD audit of Phase III of the FCR/FCN Review before performing their overview. The Team is also awaiting MPQAD's decision to audit the Soils work separate from the Main Plant in order to allow an earlier start date for the Soils work. (INFORMATION ITEM)

Response Item

There were no response items discussed.

Notes of Daily Meeting
Independent Assessment of Underpinning
Midland Plant Units 1 & 2
Consumers Power Company

Held at Midland Site
Midland, Michigan
December 21, 1983

Present For:

<u>Consumers Power</u>	<u>Bechtel</u>	<u>MPQAD</u>	<u>Stone & Webster</u>
G. Murray	J. Fisher J. Gaydos E. Cvikl	R. Sevo J. McMaster	P. Majeski D. Benvie

PURPOSE

This meeting is held each day to discuss items regarding the Independent Soils Assessment at the Midland Plant Units 1 & 2.

DISCUSSION

Status Item

Item 66-11 - Pier Rejacking.

J. Fisher reported that W12 was locked off on 12/20. Rejacking commenced on KC-2 on 12/20 and on KC 11 on 12/21. (INFORMATION ITEM)

New Items

There were no new items discussed.

Response Item

Item 66-12 - SWPS Instrumentation.

E. Cvikl provided a plot of the most recent delta settlement information for the west side of the SWPS. The delta settlement now is approximately 25 mils (the alert level is 50 mils). A visual check of the tendons, an optical survey and a review of dewatering data revealed no indication of a problem. In addition, the delta settlement is currently decreasing with time. Based upon this information, a lift off test on the tendons is not considered necessary. The erratic movement noted on 12/11 was probably an instrument malfunction. Engineering will continue to closely monitor the movement. This response satisfactorily addresses the Team's request for additional information concerning this matter. (CLOSES ITEM 65-7)

Notes of Daily Meeting
Independent Assessment of Underpinning
Midland Plant Units 1 & 2
Consumers Power Company

Held at Midland Site
Midland, Michigan
December 22, 1983

Present for:

Consumers Power

G. Murray

Bechtel

J. Fisher
J. Gaydos
E. Cvikl

MPQAD

R. Sevo
J. McMaster

Stone & Webster

P. Majeski
D. Benvie
B. Holsinger

PURPOSE

This meeting is held each day to discuss items regarding the Independent Soils Assessment at the Midland Plant Units 1 & 2.

DISCUSSION

Status Item

Item 66-13 - Pier Rejacking.

J. Fisher reported that Kc-2 and Kc-11 are on active jacks.

New Items

Item 66-14 - Phase III Review.

P. Majeski indicated that the Assessment Team's audit of Phase III of the FCR/FCN Review will begin today with a review of Document Control. It is expected that the Team's audit of the Soils Document Stations will begin next week after completion of the MPQAD audit. (INFORMATION ITEM)

Response Items

Item 66-15 - Inspection of Non-Structural Welds.

P. Majeski indicated that the changes made to the welding PQCI, requiring inspection of the base metal at non-structural welds, address the Team's concern. (CLOSES ITEM WR60, PG. 2)

Notes of Daily Meeting
Independent Assessment of Underpinning
Midland Plant Units 1 & 2
Consumers Power Company

Held at Midland Site
Midland, Michigan
December 23, 1983

No meeting was held this day.

Notes of MPQAD Meeting
Independent Assessment of Underpinning
Midland Plant Units 1 & 2

Held at Midland Site
Midland, Michigan
December 19, 1983

Present for:

Stone & Webster

D. Benvie
P. Majeski
L. Rouen
J. Springer

MPQAD

J. Meisenheimer
R. Oliver
M. DeWitt
D. Horn
J. McMaster

PURPOSE

This meeting is held to obtain and discuss information relative to QA activities for soils underpinning work at the Midland Units 1 & 2.

DISCUSSION

Status Items

Item 66-1Q - NIR's 16, 18, 19.

L. Rouen stated that NIR's 16, 18 & 19 have been closed. (INFORMATION ITEM)

New Items

Item 66-2Q - Assessment Team Overview.

L. Rouen stated the Assessment Team is reserving the option to overview or assess the MPQAD review of IRs issued on the Soils Remedial Work prior to September 1982. Refer to Item 64-2Q. (CLOSED ITEM)

Item 66-3Q - Review of Phase III SWO Resolution.

J. Meisenheimer said MPQAD may perform Phase III of SWO resolution separately for the Soils Remedial area. L. Rouen replied the Assessment Team will perform it's evaluation of Phase III resolution if Stone & Webster CIO concurs with the approach. (OPEN ITEM)

Item 66-4Q - MPQAD Response to NIRs.

L. Rouen requested that MPQAD respond to Assessment Team NIRs on a separate attachment in the future. This will leave the bottom portion of the NIR form for the Assessment Team's closure statements. (CLOSED ITEM)

Item 66-5Q - Request for IR Distribution.

L. Rouen requested that the Assessment Team receive copies of the closed IRs on crack monitoring. J. Meisenheimer said the Team is on distribution and will receive copies. (OPEN ITEM)

Notes of MPQAD Meeting
Independent Assessment of Underpinning
Midland Plant Unit 1 & 2

Held at Midland Site
Midland, Michigan
December 19, 1983

Response Item

Item 66-6Q - MPQAD Supervisory Personnel.

L. Rouen indicated that the Assessment Team has accepted the MPQAD response describing the availability and use of Level III certified QA staff to provide guidance and resolving conflicts between Level II inspectors and non-certified QC supervisors. (CLOSES ITEM 57-6Q)