

STONE & WEBSTER ENGINEERING CORPORATION

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

February 3, 1983

J.O. NO. 14358
Ref. MPF 19

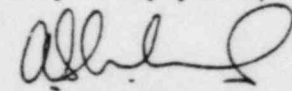
Attention Mr. R. Cook

RE: DOCKET NO. 50-329/330
Midland Plant - UNITS 1 and 2
INDEPENDENT ASSESSMENT OF AUXILIARY BUILDING UNDERPINNING
REPORT NO. 19

A copy of the Independent Assessment of the Auxiliary Building Underpinning Weekly Report No. 19 for the period January 23, 1983 through January 29, 1983, is enclosed with this letter. Included, as an attachment, 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.

Very truly yours,



A. Stanley Lucks
Project Manager

Enclosures

ASL/ka

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PDR FOIA
RICE84-96 PDR

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Midland Plant
Units 1 and 2
Independent Assessment
Auxiliary Building Underpinning

Weekly Report No. 19

January 23, 1983 through January 29, 1983

Personnel on Site

Stone & Webster Engineering Corporation (SWEC)

L. Rouen	1/24 - 1/28
P. Barry	1/24 - 1/27
A. Scott	1/25 - 1/29
B. Holsinger	1/27 - 1/29

Parsons, Brinckerhoff, Quade and Douglas (PBQD)

J. Ratner	1/24 - 1/29
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Meetings Attended

<u>Date</u>	<u>Represented</u>	<u>Purpose</u>
1/24 through 1/28	Stone & Webster Bechtel Consumers Power Parsons (1/25 - 1/28)	Daily Meetings
1/21	Stone & Webster Bechtel Consumers Power	Weekly Soils Review

Activities

Construction - Pier W12 bell excavation was initiated and completed. The excavation was sequenced and supported in order to minimize the possibility of soil collapse. Initially, the short sides of the bell were excavated and supported by steel plates prior to commencing work on the long sides. Excavation of the two long faces was accomplished in 4 stages - one-half of the bell length on each side was shaped and supported before starting excavation on the remaining half. Since some raveling of the soil had occurred near the top of the bell excavation, the contractor elected to support nearly the entire bell area surface with steel plating and channel sections. Minor groundwater seepage continued to enter the pier excavation as during the previous weeks. The contractor installed a second trough type seepage collector in the shaft portion of the pier at El 575.

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Pier E12 excavation was advanced as a straight shaft to El 570. The excavated material consisted of natural stiff gray clay. The excavation was carefully shaped in order to minimize backpacking requirements. In areas of over-excavation backpacking with sand was done as the lagging proceeded. Steel lagging was installed to the level of the top of the bell followed by the placement of temporary wood lagging to El 570. No groundwater entered the pier excavation. In addition, a probe hole was advanced to El 565 with no evidence of groundwater.

Quality Control. Documentation and Records -

1. Reviewed Quality Control Instructions for placing reinforcing steel, miscellaneous embedments, and concrete.
2. Verified that Mergentime training requirements were satisfied for those present in an access pit.
3. Verified resolution of a MPQAD identified need for providing identification and traceability of high strength steel.
4. Verified that Inspection Reports were being reviewed. (See Weekly Report No. 17.)

Observations

Construction - Both pier excavations were advanced and supported in accordance with the project procedures. Based on ground conditions, the decision was made to steel support the belled area of pier W12. The work progress during the week was delayed to the point where some collapsing of the soil would likely have occurred without the added support. For future bellling work the Contractor should either be prepared to organize, schedule, and perform the work in such a way as to avoid the lengthy delays encountered during the pier W12 bellling operation or, enter into the bellling operation with the objective of steel supporting the bell area.

Quality Control. Documentation and Records - The Assessment Team found the MPQAD quality controls employed were in compliance with project procedures and recognized standards. Of particular significance, the Assessment Team observed the MPQAD organization identify and resolve the need for the Contractor to provide identification of high strength steel. Resolution was provided by adding requirements to the Subcontractor's procedures for maintaining identification to the ASTM designation. In addition, Weekly Report No. 17 identified a need for the MPQAD supervisor to review the Inspection Reports in a more timely manner. The Assessment Team observed the MPQAD implementation of corrective action in this area.

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Non-Conformance Identification Reports

Status of previous issues: (NIR numbers on longer listed have been closed-out during previous week.)

<u>NIR No.</u>	<u>Description</u>	(Opened)	<u>Date</u>	(Closed)
4	Welding Qualification Procedure	12/29/82		

W. E. Killen
Project Engineer

A. S. Seely, Jr.
Project Manager

INDEPENDENT ASSESSMENT TEAM MEETING WITH BECHTEL

Date: January 24, 1983

Attendees: Bechtel Stone/Webster MPQAD CPCo
 J. Fisher L. Rouen J. Shah G. Murray
 E. Cvikl P. Barry

1. G. Murray stated that CPCo is providing design packages to the NRC for review in order to gain to release for work on subsequent pier installations.
2. J. Fisher stated that access to the pits is available at anytime for persons with a definite purpose for entry.
3. It was agreed by all present, that at this time meetings on Saturday are not necessary, but will be held if and when the need arises.

INDEPENDENT ASSESSMENT TEAM MEETING WITH BECHTEL

Date: January 25, 1983

Attendees: Bechtel Stone/Webster MPQAD CPCo

 J. Fisher L. Rouen ----- -----

 E. Cvikl P. Barry

 D. Lavelle

Parsons

J. Ratner

1. J. Ratner asked if P. Parish questions were answered concerning unused grout stabilization materials. J. Fisher said no answer was yet available.
2. D. Lavelle asked that Stone & Webster personnel on night shift advise the night shift superintendent, Al Meier. J. Fisher also asked for notification of the personnel on night shift and to be informed of the group leader in W. Kilker's absence.
3. P. Barry questioned if there was a requirement on strength of concrete for torquing against embedded reinforcement when installing couplers. E. Cvikl will respond.
4. D. Lavelle stated that the NRC site visit of the previous week did not result in findings concerning the work performed on the E-W12 piers to date.

INDEPENDENT ASSESSMENT TEAM MEETING WITH BECHTEL

Date: January 26, 1983

Attendees:

<u>Bechtel</u>	<u>Stone/Webster</u>	<u>MPQAD</u>	<u>CPCo</u>
E. Cvikl	L. Rouen	J. Shah	G. Murray
J. Kelleher	P. Barry		
	A. Scott		
	<u>Parsons</u>		
	J. Ratner		

1. Discussed the W12 pit angle welding non-conformances and the effect of response time on the work.
2. E. Cvikl stated that Project Engineering is considering action on a minimum strength requirement prior to torquing couplers.

INDEPENDENT ASSESSMENT TEAM MEETING WITH BECHTEL

Date: January 27, 1983

Attendees:	<u>Bechtel</u>	<u>Stone/Webster</u>	<u>MPQAD</u>	<u>CPCo</u>
	E. Cvikl	L. Rouen	D. Oliver	G. Murray
	J. Kelleher	P. Barry		
		A. Scott		
		<u>Farsons</u>		
		J. Ratner		

1. J. Ratner and J. Kelleher will meet to discuss resolution of P. Parish's concerns regarding storage of stabilizing grout.
2. E. Cvikl stated that the NCR on the pier W12 breast plate weld had been resolved. An FCN had resolved the question of welds on the angle supports within the bell of pier W12.
3. J. Ratner asked if the ring set for E12 would be ready when needed. J. Kelleher would check.
4. A. Scott asked how the week lag between E/W piers would be handled. G. Murray said he believed E12 would not progress into the bell, unless W12 was ahead by one week.
5. J. Ratner stated that he reviewed the backpacking of pier E12 with Mr. Lewis and reached concurrence on a acceptable degree of backpacking.

INDEPENDENT ASSESSMENT TEAM MEETING WITH BECHTEL

Date: January 28, 1983

Attendees:	<u>Bechtel</u>	<u>Stone/Webster</u>	<u>MPQAD</u>	<u>CPCo</u>
	E. Cvikl	L. Rouen	R. Oliver	-----
	R. Bradford	A. Scott	J. Shah	
	J. Kelleher			
		<u>Parsons</u>		
		J. Ratner		

1. NCR on pier W12 steel set channel weld is still unresolved.
2. The ring beam for E12 pier is ready.
3. A second shift on the E12 pier will begin Monday. Bob Wheeler is checking on the NRC commitment to maintain one week lag time between piers.
4. Pier concrete is tentatively scheduled for Wednesday or Thursday.
5. L. Rouen requested pier concrete mix design information. J. Kelleher action item.

STONE AND WEBSTER ENGINEERING CORPORATION

NONCONFORMANCE IDENTIFICATION REPORT

DATE OF NONCONFORMANCE: 12/8/82 NIR Number 3

IDENTIFICATION/LOCATION OF ITEMS: Specification 7220-C 195(Q) Rev. 1, and U. S. Testing Co. Inc. QCP-11, Rev. 2 - Testing of splices for Qualification of Splicers and Production Splices made by Splicers.

DESCRIPTION OF NONCONFORMANCE: ASME, Section III, Div. 2, Para. CC-4333.5.4 requires splice tensile test for all tapered threaded splices be conducted at 20°F (-7°C). QCP 11 - Rev. 2, Section VI, Para. 2-1 specifies splice tensile test to be conducted at 60°F minimum.

INITIATOR: <i>A.B. Scott</i>	DATE: <i>12-8-82</i>	PROJECT MANAGEMENT CONCURRENCE: <i>A. S. Zucker</i>
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CORRECTIVE ACTION BY: C.P.C.
(IDENTIFY ORGANIZATION TAKING CORRECTIVE ACTION)

CPC has prepared an SAR change for submittal to the NEC that delineates the applicable requirements for crew qualifications and tensile testing of the Fox-Howlett couplers. This SAR change takes exception to the ASME Section III Division 2 requirements for low temperature testing. At the same time the SAR change endorses the requirements of ACI 349. Since the ASME III Division 2 Code applies only to concrete containments and ACI 349 does not detail requirements for taper threaded splices, the SAR commitment forms the criterion to be used for installation, inspection and testing of Fox-Howlett couplers.

INITIATOR CONCURRENCE: <i>A.B. Scott</i>	PROJECT MANAGEMENT CONCURRENCE: <i>A. S. Zucker</i>	DATE: <i>1/2/83</i>
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