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PRINCIPAL STAFF

RA | [illegible] | ENF
D/RA | | SCS Tony + 3
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Consumers Power Company

Roy A Wells
Executive Manager
Midland Project Office

Midland Project: PO Box 1963, Midland, MI 48640 • (517) 631-8650

April 21, 1983

Mr. Jay Harrison
US Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

MIDLAND ENERGY CENTER PROJECT - CLARIFICATION OF CPCO POSITIONS
File: 1.1.5 Serial: 22124

Per request of Mr. Ron Gardner to Roy A. Wells during an exit meeting at the Midland Site on February 18, 1983, this letter confirms Consumers Power Company's positions in the areas noted below:

TRAINING REGARDING IPINS

Personnel are being trained that IPINS are no longer authorized for use on the Midland Project. In addition, training emphasizes that once an inspection is initiated, it will be completed to the point of construction completion and that all nonconforming conditions observed will be documented on a nonconformance report.

Procedures presently being written for verification and statusing activities required by the Construction Completion Plan (CCP) will cover Inspection Reports (IR) that have an associated IPIN to assure that inspections are complete and that all existing nonconformances are documented. Personnel will be trained in these procedures.

HOW TO HANDLE INSPECTION REPORTS WITH IPINS

Closed IRs

During the verification phase of the Construction Completion Plan (CCP), all closed Inspection Reports (IRs) that had IPINS associated with them will be 100% verified by physical reinspection where possible and by documentation verification where attributes are inaccessible. Any nonconforming condition observed will be documented on a nonconformance report. Correction of nonconforming conditions previously noted on the IPIN will be specifically verified. This process will assure that the item being reinspected has received a total verification.

Open IRs

All items with an open IR and a partial inspection will be completely reinspected during the systems statusing phase of the CCP. This will be done as part of the System Completion Teams Phase 1 responsibility. Inspections will be done using revised PQCIs and any nonconforming conditions will be documented on nonconformance reports. During the reinspection, nonconforming conditions previously identified on an IPIN will be specifically reverified and, if they still exist, will then be documented on a nonconformance report as part of the normal reinspection process. This process will assure that nonconforming conditions will be properly documented, that rework will not cover up a nonconforming condition, and that all units receive a total inspection before the IR can be closed.

PERFORMANCE DEMONSTRATIONS BY QA/QC PERSONNEL

In order to minimize the peer pressure that might be experienced by Level II/III personnel administering performance demonstrations for Project Quality Control Instructions (PQCIs) as part of the QCE recertification process, the following approach is being used:

Balance of Plant PQCIs

Performance demonstrations for QC personnel are being given by Level II/III personnel assigned to Balance of Plant - QA.

Soils PQCIs

Performance demonstrations for QC personnel are being given by Level II/III personnel who do not have an established peer relationship with the QC inspector being tested. Bechtel QC personnel are administering performance demonstrations to Contractor QC personnel and conversely, Contractor QC personnel administer performance demonstrations to Bechtel QC personnel. Personnel assigned to QA section of the Soils organization administer performance demonstrations to either Bechtel or Contractor QC personnel.

The above should be responsive to Mr R Gardner's questions. As appropriate, the above concepts will be incorporated into formal procedures.

RAW/jln

CC JWCook
DBMiller
JEBrunner

Consumers Power Company

Donald B Miller, Jr
Site Manager
Midland Project

Midland Project: PO Box 1963, Midland, MI 48640 • (517) 631-8650

April 14, 1983

Mr. J. J. Harrison
Midland Project Section
U.S. Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

ATTENTION: Dr. Ross Landsman

MIDLAND ENERGY CENTER GWO 7020
MEETING NOTES FOR APRIL 7, 1983, AND MARCH 7-8, 1983
DISCUSSIONS BETWEEN CPCO AND NRC
File: 0485.21 UFI: 42*05*22*04 50*31*01 Serial: CSC-6661

For your information and use please find the attached meeting notes April 5 and 7, 1983 and March 7-8, 1983, including the associated document submittals provided to NRC personnel on March 15, 1983.

Based on providing the attached documentation of these meetings and submittals, we understand per discussions with R. Landsman on 4/12/83, that the NRC Region III will provide authorization to excavate portions of Pier 8E/W. If you have any questions please contact this office.

DBM/RMW/klm

Attachments

APR 20 1983

8304?140256

Notes of Telecon with NRC on April 5 & 7, 1983.

Subject: Soils Remedial Work, Auxiliary Building Underpinning Design Documents.

Participants:

J. Kane R. Landsman S. Poulous (consultant) D. Hood*	Nuclear Regulatory Commission (NRC)
W. Kilker *	Stone & Webster
K. Razdan R. Wheeler G. Murray N. Ramanujam* T. Thiruvengadam*	Consumers Power Co (CPCo)
J. Darby M. Lewis S. Afifi* J. Anderson* B. Dhar* S. Hunt* V. Verma*	Bechtel

(*Part time)

Purpose: This telecon was a follow-up to the telecon with NRC, on March 7 and 8, 1983. During the March telecon, NRC commented on Appendix-D to specification C-195, dealing with the load test for Pier W11, and Specification C-200, dealing with the Administrative action and corrective measures for underpinning activities. Subsequent to the March telecon, NRC was supplied with proposed revisions to Appendix-D and Specification C-200, based on agreements reached. The purpose of this telecon was to get additional comments from NRC on these documents. The following is a summary of agreements and discussions:

1.0 General:

a) D. Hood advised that the notes of the telecon on March 7 and 8 should be submitted along with the package of information given to NRC on March 14, CPCo concurred.

b) D. Hood asked CPCo whether they were going to submit notes of telecon with NRC of January 25, 1983 regarding the FIVP proof load jacking. CPCo indicated that the agreements of that telecon were already documented in D. Miller's letter dated January 27, 1983, to W. Schaffer of Region III. R. Landsman also indicated that the agreements reached in that telecon were covered in his report. It was agreed that no further documentation was necessary.

2.0 Appendix-D to Spec C-195: Testing Procedure for Axial Compressive Load Test of Pier W11.

a) The following agreements were made regarding additional revisions to Appendix-D:

1) Page D-2 Sec 3.1 - Add a new sentence after the fourth sentence of the second paragraph "Care shall be taken to ensure that the antifriction lining does not taper inwards with depth."

2) Page D-4 Sec 5.4.3 - Last sentence of the new paragraph to be revised as "The RGE will require a higher load, not exceeding 600 kips, if needed, based on his evaluation of Carlson stress meter data to ensure that the tip bearing pressure is at least 28.6 k.s.f."

3) Page D-4 Sec 5.4.3 - Add at the end of the first sentence "but not longer than 2 hours".

4) Page D-4 Sec 5.4.4 - Add the following at the beginning of the last sentence "if the short term undrained soil modulus of elasticity determined by RGE from data at bearing pressure of 6.8 to 8.8 k.s.f. is 3000 k.s.f. or more,".

5) Page D-4 Sec 6.1 - Delete "each 20 minutes until 2 hours from start".

6) Page D-5 Sec 6.2 - Revised section as "Carlson stress meters shall be read and recorded at least three times at times determined by RGE such that: one loading is taken near start of the load increment, one reading is taken near the end of the load increment, and one reading is taken in between. RGE may require additional readings to be taken if in his judgement there is variation in the readings".

7) Page D-3 Sec 5.2 - Add a new paragraph after the first paragraph as follows "The specified load for the load test pier is 356 kips corresponding to a nominal bearing pressure of 22 k.s.f.. The nominal bearing pressure at 130% of specified load is 28.6 k.s.f.".

8) Page D-5 Sec 6.6 - Change the number for reading and recording from ".001 inch" to ".0005 inch".

9) Page D-7 Sec 8.1 (t) - Insert the word "top and tip" after the word "versus".

10) Page D-7 Sec 8.1 (u) - Insert the word "tip" after "versus".

11) Page D-7 Sec 8.1 (x) - Replace the word "movement" by "measurement".

b) J. Kane requested that NRC be supplied with a copy of drawing C-1445-1 which gives the specified load for Pier W11. (This is not considered necessary by CPCo since the specified load will now be listed in the proposed revision to to Section 5.2 (see item a.7) above).

c) The following is a summary of additional discussions for Appendix-D:

1) Page D-4 Sec 5.4.4 - In response to an NRC question, CPCo stated that the calculated bearing pressure of 22 k.s.f., corresponding to the specified load for Pier W11, is at least equal to or greater than the maximum design bearing pressure for any other underpinning pier and the permanent wall.

2) Page D-6 Sec 7.2 - NRC concurred with the adequacy of 20 feet. NRC also indicated that the drifts for Piers E/W-8 could be approved. However, NRC indicated that they would like to review the information on the load-settlement data from the initial jacking of Piers E/W-12 and E/W-9 before approving the excavation and remaining work for Piers E/W-8. This information was transmitted to NRC and a copy is attached to these meeting notes.

2.0 Spec C-200: Administrative action and corrective measures for underpinning activities.

a) The following revisions were agreed for Spec C-200, SCN 13001.

1) Page 2 of 7, revised Sec 5.2 - First sentence, replace "(strain for SWPS only)" by "(strain not applicable for Aux Building)".

2) Page 3 of 7, revised Sec 5.3 - First sentence, replace "(strain for SWPS only)" by "(strain not applicable for Aux Building)".

3) Page 3 of 7, revised Sec 5.3 - Add a sentence after the first sentence "The RSE shall identify whether it is a category 1 event" and add at the beginning of the second sentence, "in case it is not a category 1 event,".

4) Appendixes B, C & D - Replace "Exhibit E" by "Appendix E" where reference has been made to the former.

5) Appendixes B, C & D - Replace the box "Take Emergency Action" by "Take Emergency Action per Appendix E or other appropriate measures".

b) The following is a summary of other discussions about the drawings referenced in Spec. C-200:

1) NRC indicated that the Drawing C-2039 (Rev. 0) specified alert and action levels for strain of .001 and .002 respectively instead of the values of .0007 and .0014 specified in the SSER (Supplement No. 2). (Subsequently, CPCo reviewed this item and found that the new Revision 1 of this drawing, dated 3/21/83, had the correct values per the SSER).

2) NRC indicated that Δ_i, values for Phase IV, shown in Draw-C-1493, were not consistent with the values given in Table 2-7 of SSER Supplement No. 2. CPCo replied that the alert value for Δ_i, for Phase IV on the drawing C-1493 is 0.25" and is consistent with the value given in the attachment to the meeting notes of the July 27-30, 1982 design audit issued by D. Hood. These were the agreed values during the audit. SSER Supplement 2 gives a value of 0.2". It seems that the SSER should be revised. NRC stated that they will get back to CPCo on this item after their review.

3.0 Attachments:

a) Pier Load Test Data - Top Load versus settlement for Piers E12, W9, E9, W12 (4 sheets).

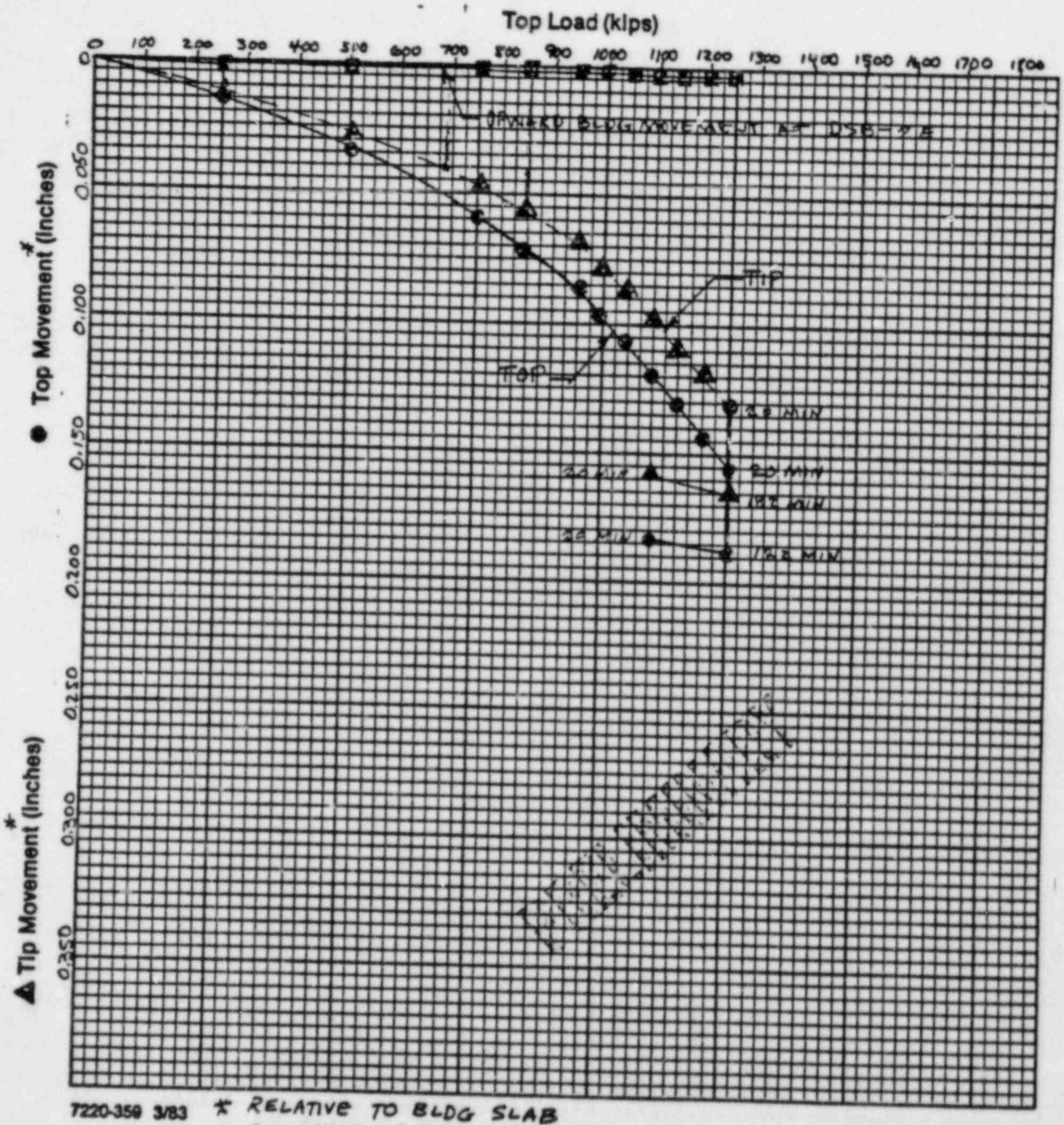
b) Plot of bearing pressure vs tip deflection, composite curve for Piers E/W-9 & E/W-12.

K. Razdan
4/13/83

PIER LOAD TE[illegible] DATA - TOP LOAD VERSUS SETTLEMENT

Project MIDLAND UNITS 1 AND 2
Location MIDLAND, MICHIGAN
Owner CONSUMERS POWER COMPANY
Engineer BECHTEL - ANN ARBOR, MICHIGAN

Pier No. E 12 **
Date 3-18-83
Drawn By S W HUNT
Job No. 7220



7220-359 3/83 * RELATIVE TO BLDG SLAB
ALL MOVEMENTS BASED ON 10 TO 20 MIN. READINGS EXCEPT AS NOTED

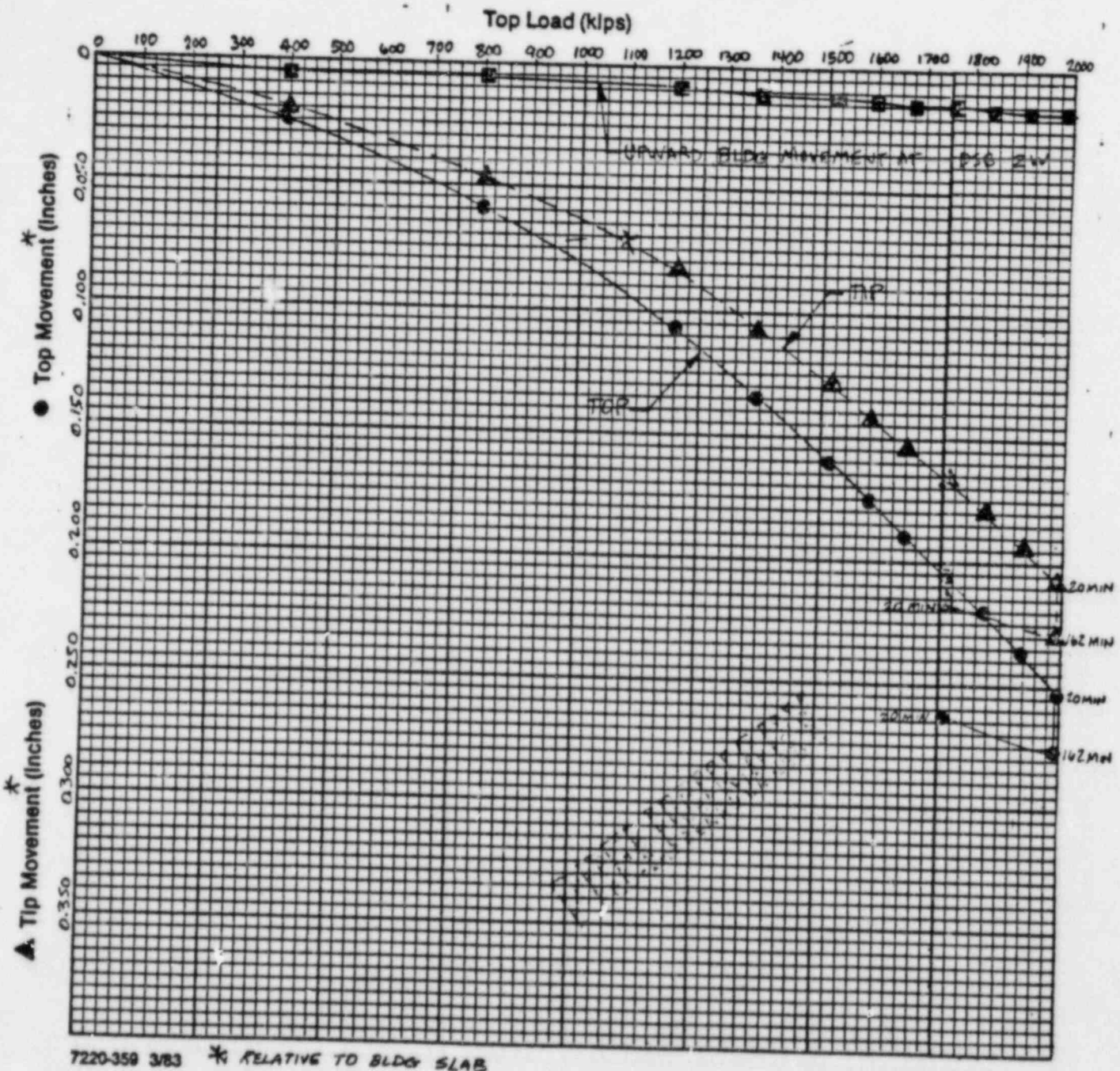
** SHAFT : 3'x6' TOP OF SHAFT (PIER) ELEV: 604.5'
BASE OF BELL: 8'x12' TOP OF BELL ELEV: 572.8'
BASE (TIP) OF BELL ELEV: 565.0'

96 x 7
672
1644

PIER LOAD TEST DATA - TOP LOAD VERSUS SETTLEMENT

Project MIDLAND UNITS 1 AND 2
Location MIDLAND, MICHIGAN
Owner CONSUMERS POWER COMPANY
Engineer BECHTEL - ANN ARBOR, MICHIGAN

Pier No. W-9 **
Date 4-5-83
Drawn By S. W. HUNT
Job No. 7220



7220-359 3/83 * RELATIVE TO BLDG SLAB

ALL PLOTTED MOVEMENTS BASED ON 10 TO 20 MIN. READINGS EXCEPT AS NOTED

** SHAFT : 3'X6'
BASE OF BELL: 10'X11'

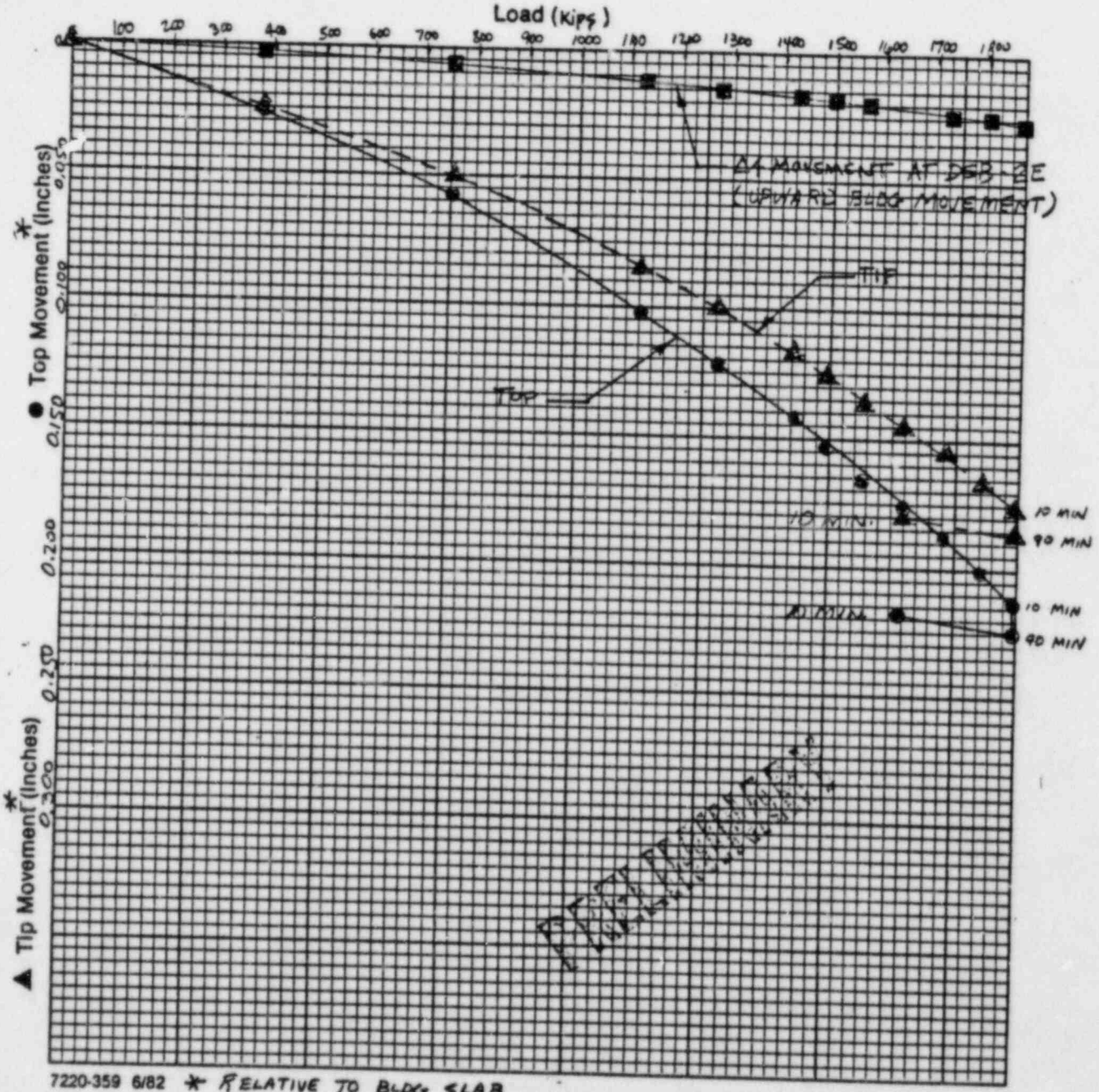
TOP OF SHAFT (PIER) ELEV: 604.5'
TOP OF BELL ELEV: 572.6'
BASE (TIP) OF BELL ELEV: 565.0'

14.9
1.80

PIER LOAD TEST DATA - LOAD VERSUS SETTLEMENT

Project MIDL[illegible] UNITS 1 AND 2
Location MIDLAND, MICHIGAN
Owner CONSUMERS POWER COMPANY
Engineer BECHTEL - ANN ARBOR, MICHIGAN

Pier No. E-9**
Date 4-4-83
Drawn By SW HUNT
Job No. 7220



7220-359 6/82

* RELATIVE TO BLDG SLAB

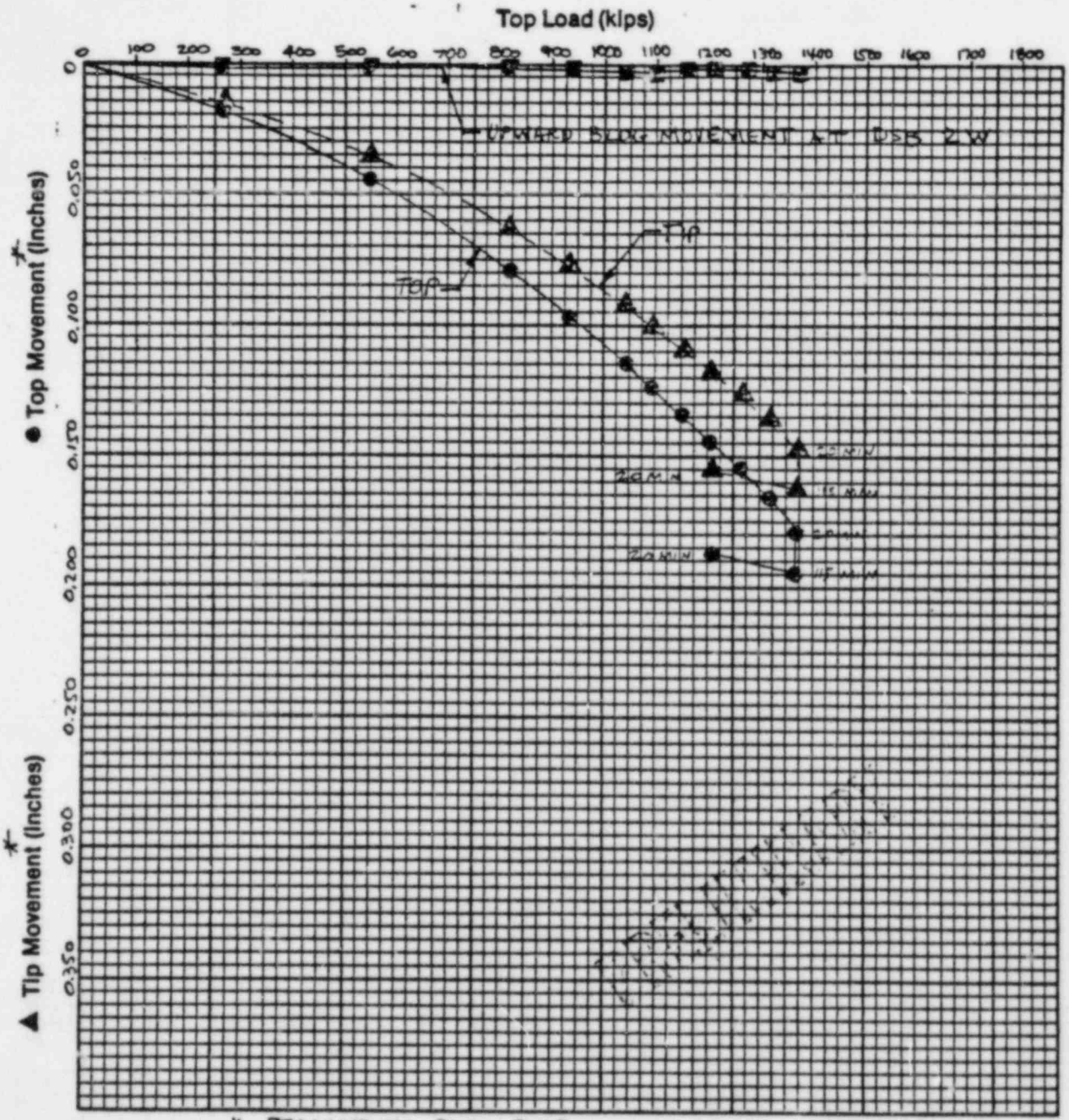
ALL PLOTTED MOVEMENTS BASED ON 10 TO 20 MIN. READINGS EXCEPT AS NOTED

** SHAFT : 3' x 6'
BASE OF BELL 10' x 11'

TOP OF SHAFT (PIER) ELEV: 604.5'
TOP OF BELL ELEV. : 572.9'
BASE (TIP) OF BELL ELEV: 565.1'

PIER LOAD TEST DATA - TOP LOAD VERSUS SETTLEMENT

Project	MIDLAND UNITS 1 AND 2	Pier No.	W-12 **
Location	MIDLAND, MICHIGAN	Date	3-11-82
Owner	CONSUMERS POWER COMPANY	Drawn By	SW HUNT
Engineer	BECHTEL - ANN ARBOR, MICHIGAN	Job No.	7220



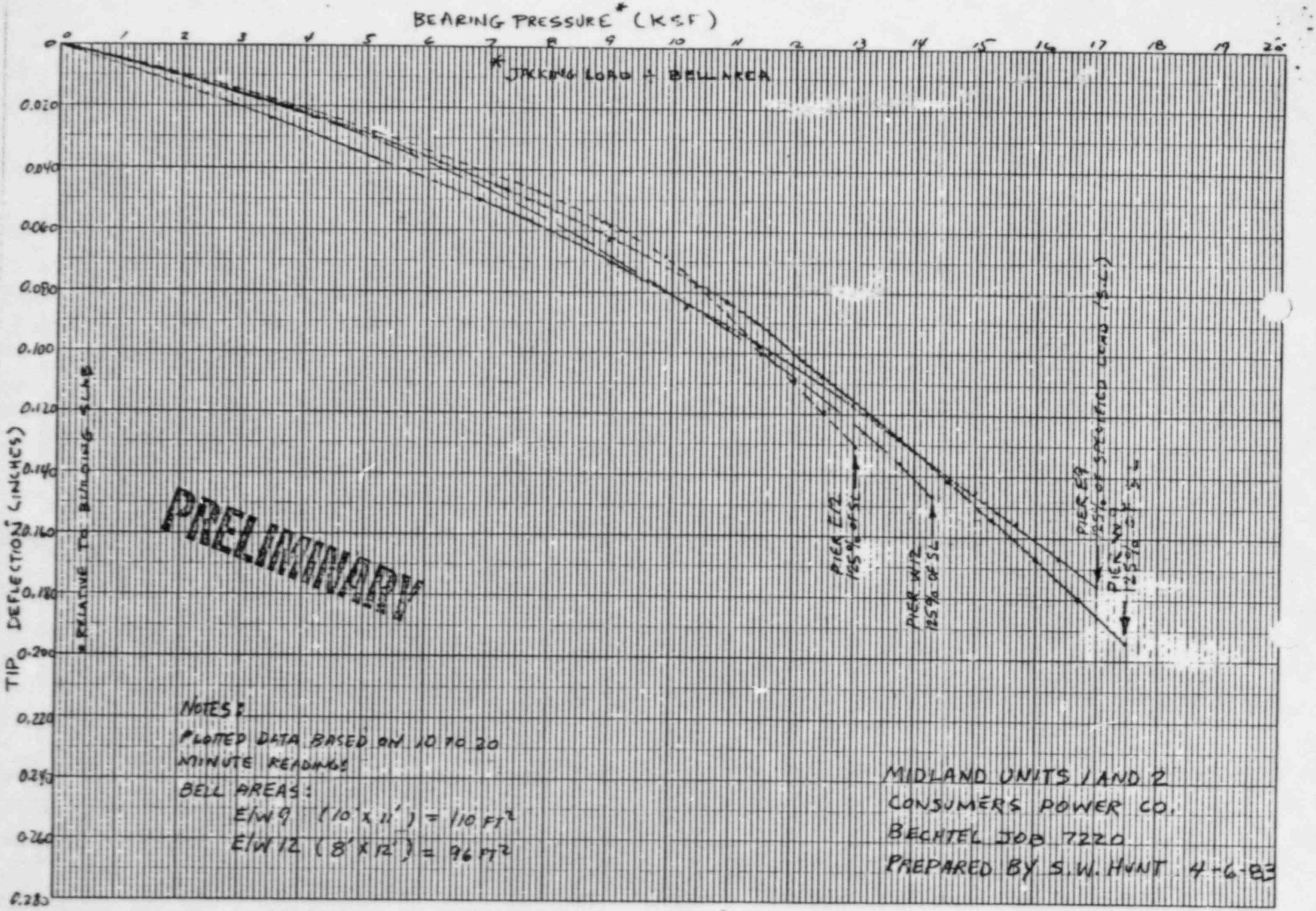
7220-359 3/83

* RELATIVE TO BLDG SLAB

△ ALL PLOTTED MOVEMENTS BASED ON 10 TO 20 MIN READINGS EXCEPT AS NOTED

** SHAFT : 3'X6'
BASE OF BELL: 8'X12'

TOP OF SHAFT (PIER) ELEV: 604.5'
TOP OF BELL ELEV: 573.1'
BASE (TIP) OF BELL ELEV: 565.1'



NOTES:
PLOTED DATA BASED ON 10 TO 20 MINUTE READINGS
BELL AREAS:
E/W 9 (10' X 11') = 110 FT²
E/W 12 (8' X 12') = 96 FT²

MIDLAND UNITS 1 AND 2
CONSUMERS POWER CO.
BECHTEL JOB 7220
PREPARED BY S.W. HUNT 4-6-83

Notes of Telephone Conversation with NRC, on March 7 & 8, 1983.

Subject: Soils Remedial Work

Attendees:

J. Kane R. Landsman S. Poulous (consultant) D. Hood*	Nuclear Regulatory Commission (NRC)
K. Razdan R. Wheeler* R. Wieland G. Murray* D. Sibbald* N. Ramanujam*	Consumers Power Company (CPCo)
S. Hunt J. Anderson B. Dhar* J. DasGupta* M. Lewis* (*Part time)	Bechtel

Purpose: The purpose of this telecon was to discuss with NRC, the following:

1) Auxiliary Building Pier Load Test Procedure.

2) Specification C-200, dealing with Administrative Action and corrective measures for underpinning.

3) Construction Dewatering in the Service Water Pump Structure (SWPS) area.

4) Deep Probing for Utilities in the SWPS area.

5) Procedure for Dutch Cone for observation well number 4.

In addition, R. Landsman wanted to discuss the construction sequence which was presented by CPCo to NRC Region III in a meeting at Midland Plant Site on March 3, 1983. Also J. Kane wanted to discuss the penetrometer readings from Piers 12 East & West.

The following is a summary of the discussions and the agreements:

1) Auxiliary Building Pier Load Test:

   a) NRC provided comments on Appendix-D to Specification C-195, Testing Procedure for Axial Compressive Load Test of Pier W11. These comments were then discussed. It was agreed that CPCo would provide NRC with a marked-up copy of this Appendix with the agreed changes. This would allow NRC to review the proposed revisions. Subsequent to this meeting, NRC was provided with proposed revisions to Appendix-D (attached) on January 15, 1982. It should be noted that the mark-up includes additional minor proposed revisions besides those based on NRC comments.

b) CPCo agreed that two additional carlson stress meters, one at top and the other at bottom, will be provided for Pier W11. It was also agreed that the lower carlson meters will be located as close to the Pier bottom as practical.

c) NRC questioned the basis of the 20 feet exclusion zone in Sec 7.2 of Appendix-D. It was pointed to NRC that no work on drifts or piers would be done in this zone while Pier W11 was being load tested. After discussions, it was agreed that NRC would be provided with a marked-up drawing showing the exclusion zone. Further discussions would then be held between CPCo and NRC as to which other work can be permitted concurrently with the load test. NRC was provided with marked-up prints of drawings C-1417 (plan) and C-1417-1 (elevation), showing the exclusion zone, on January 15, 1982. A copy of these drawings is attached to these meeting notes.

d) NRC asked CPCo as to how long it would take them to evaluate the test results after the load test is completed. CPCo indicated that it was planned to have the engineers available at the site for evaluating the load test data. CPCo would be prepared to discuss the load test data and its evaluation with NRC during their site visit at the time of the load test. NRC concurred to review the evaluation at site.

e) NRC asked with reference to Sec 5.5 page D-4 of Appendix-D, as to which Deep Seated Bench March (DSB) would be read for the upward movement criteria while Pier W11 is being jacked. It was pointed to them that DSB-2W would be the applicable bench mark.

f) NRC asked about the minimum compressive strength required for the pier concrete before it could be jacked. It was pointed that 2000 p.s.i. is required and that the approximate bearing pressure under the bearing plates under the jacks was 275 p.s.i. NRC was satisfied that the concrete strength was adequate.

g) NRC requested a copy of Specification C-195 for reference. This was subsequently provided.

2) Specification C-200, dealing with Administrative Action and Corrective Measures for Underpinning:

NRC provided comments on Revision 1 of this specification. These comments were discussed and agreements were reached as to their resolution. It was agreed that based on these agreements a Specification Change Notice (SCN) be issued for this specification so that the changes can be implemented at the site, and a copy of the SCN be provided to NRC for their review. If NRC had any further comments they could then be incorporated in another revision to the specification. CPCo provided a copy of SCN 13001 to Specification C-200, dated 3/11/83, to NRC on 3/15/83. A copy of this SCN is also attached to these meeting notes.

3) Construction Dewatering in the SWPS Area:

CPCo asked permission for the drilling of wells numbering approximately 130. NRC indicated that they would give permission to drill 6 preliminary wells of continuous soil sampling to confirm the elevation of the sand layer. After the drilling of these wells, discussions would be held with NRC and they would then give permission to proceed with the remaining wells.

4) Deep Probing for Utilities in the SWPS Area:

CPCo explained the proposed procedure, using jetting, for deep utility probing in the SWPS area. In reply to an NRC question, CPCo stated that there were approximately 16 deep probe holes in the area of soil which was not to be replaced and the remaining probe holes would be in the area where soil is planned to be replaced. NRC indicated that they would give permission for the deep probing inside the area where soil is to be replaced. CPCo would then discuss with NRC the records of the first 5 or 6 probe holes i.e. the rate of penetration, range. material type etc. Based on this record, NRC would make a judgement whether this method of drilling would be allowed for the remaining probe holes in the area where the soil is not to be excavated and replaced.

5) Dutch Cone Penetration Test for Observation Well (OBS) number 4:

NRC provided comments on Specification C-113, static cone penetrometer tests (cone soundings). After discussion of NRC comments it was agreed that the refusal rate, referenced in Sec7.5 of the specification, would be reduced to a range 40 to 90 kilonewtons and the value would be determined by the Project Geotechnical Engineer (PGE). NRC indicated that with this change they would approve this work. (Subsequently Sec 7.5 of the specification has been revised, with SCN 13001, as follows "Refusal shall be defined as a maximum guage pressure between 200 and 460 Kgf/cm^2 (thrust of 39kn to 90kn) as determined by PGE).

6) Auxiliary Building Underpinning Construction Sequence:

R. Landsman made comments regarding a 3/3/83 meeting, which he attended at the plant site, between CPCo and NRC Region III, where CPCo explained the construction schedule. The following is a summary of discussions which followed R. Landsman's comments:

a) R. Landsman pointed out that the schedule showed that Pier W10 would be started before completion of the Pier W11 load test. CPCo indicated that there was a slight error in the information presented to him. In reality, Pier 10 would be restrained by the completion of the load test.

b) R. Landsman informed NRR that the construction schedule showed that CPCo was planning to use the Utility Access Tunnel (UAT) for approaching the CT Piers. NRR indicated that any significant changes should be discussed with them before proceeding. CPCo pointed that NRC was notified about the proposed change at the site during the March 3 meeting, and CPCo also mentioned at the meeting that they were available for technical discussions with NRC. S. Poulous indicated that this change was an improvement in the design. It was agreed that sketches of the UAT scheme would be supplied to NRC. Subsequently on March 15, prints of drawings SK-C-856, SK-C-857 and SK-C-865 showing the sequence and details for the UAT scheme were provided to NRC. A copy of these drawings is attached to these meeting notes.

c) NRC asked whether there were any other proposed changes which were significant. CPCo indicated that there was one other change regarding the top level bracing of the temporary underpinning piers (W Piers) adjacent to the electrical penetration area. Previously it was intended to brace the top level against the containment. Because of the interference with the containment structural integrity test, it is now proposed to brace the top portion of these piers against the Turbine Building Mat. This is termed as the Tie Back scheme. CPCo indicated that this change was also reflected in the construction schedule presented to NRC Region III on March 3. NRC asked that they be provided with sketches of this scheme for their review. Subsequently on March 15, CPCo provided NRC with sketches SK-C-839 and SK-C-840. Copies of these sketches are attached to these meeting notes.

d) NRC emphasized that any significant future changes to underpinning from the SSER supplement 2 should be discussed with them. CPCo indicated that they understand the requirements and intend to do so.

7) Penetrometer Data for Piers E/W-12:

NRC asked about the average values obtained from the cone penetrometer readings for Piers E/W-12. M. Lewis indicated that an average value of 6.5 to 7.0 k.s.f. for the shear strength was obtained. It was agreed that this value seemed reasonable with respect to the design assumptions.

J. Kane was interested in the actual data from the cone penetrometer readings for his information. M. Lewis provided these values over the telephone on 3/9/83. These values are attached.

8) Miscellaneous:

J. Kane asked for copies of the following drawings to enable NRC to prepare for their forthcoming site visit at the time of the load test:

C-1417, C-1492, C-1492-1, C-1490, C-1491, C-1492, C-1493, C-1493-1, C-1495, C-2003, C-2004, C-2039, C-2039-1, C-2039-2, C-2039-3

These drawings were subsequently sent.

9) Attachments:

a) Proposed Revision to Appendix-D, Spec C-195, Testing Procedure for Axial Compressive load test of Pier W11.

b) Marked-up prints of drawings C-1417 and C-1417-1, showing 20 feet exclusion zone during the load test.

c) SCN 13001 to Specification C-200 Revision 1.

d) Sketches SK-C-856, SK-C-857 and SK-C-865, showing the sequence and details for the UAT scheme.

e) Sketches SK-C-839 and SK-C-840, showing the proposed Tie Back scheme.

f) Cone Penetrometer data for Piers E/W-12. (3 sheets)

K. Razdan
4/13/83

Proposed Revision to Appendix-D

3/14/83

TESTING PROCEDURE

FOR

AXIAL COMPRESSIVE LOAD TEST OF PIERS W11

CONTENTS

EXHIBITS

APPENDIX D

TESTING PROCEDURE

FOR

AXIAL COMPRESSIVE LOAD TEST OF PIERS W11

1.0 SCOPE

1.1 GENERAL

This procedure describes the specific requirements for the engineering, materials, and services required for construction of test pier and for performance of incremental axial compressive load test on the designated pier.

This procedure supplements Specification 7220-C-195(Q) by augmenting the unique requirements for construction of the test piers and monitoring of the test load.

1.2 The tests will be performed under the direction of the resident geotechnical engineer (RGE) or his designated representative and it will be his responsibility to have all test data properly documented.

In addition to the RGE's documentation of pier test data, Subcontractor shall document the pier proof load test data and pier acceptance records, as in the case of any other pier.

~~1.2 For the planned compressive load test at pier W11, the specified load is 400 kips and the proof test load is 520 kips, resulting in a proof test bearing pressure of 31.5 ksf.~~

2.0 EXCAVATION REQUIREMENTS FOR SOIL, SOIL SAMPLING, AND TESTING

2.1 Two density tests of the pier subgrade soil shall be performed (by Contractor's testing agency) by either of the following two methods as directed by the RGE:

2.1.1 Two volumetric density tests shall be performed at the level of approved

subgrade of the pier in accordance with ASTM D-1556.

2.1.2 Between 1 and 1-1/2 feet above the minimum pier tip elevation shown in Design Drawing 7220-C-1417-1(Q), two 10-inch cube samples shall be obtained for density tests in accordance with USBR Earth Manual E-2.

2.2 In addition to density ~~tests~~ bearing tests, a minimum of six cone penetrometer tests shall be performed by the RGE for the pier subgrade ~~soils evaluation~~ acceptance.

3.0 PIER INSTALLATION REQUIREMENTS

3.1 A special antifriction lining shall be constructed inside the pier lagging in accordance with Subcontractor's approved procedures.

The antifriction lining shall be installed from the elevation of the bottom of the shaft to the access drift floor (or approach pit) elevation. The lining construction shall be either of the following two options or as modified in Subcontractor's approved procedure.

Option A - Attach a 1/2-inch thick (minimum) plywood lining to the lagging. Coat with grease or tar as required to attach an inner lining of 1/4-inch thick asphaltic fiberboard such as Celotex. The inner lining joints shall be taped to prevent concrete contact with the outer lining.

Option B - Attach a 1/2-inch thick (minimum) plywood lining to the lagging. Completely cover with a layer of grease or tar. Attach an inner lining of 1/2-inch thick plywood. The inner lining joints shall be taped to prevent concrete contact with the outer lining.

3.2 The lagging and support for the designated test pier shall be constructed to allow for the antifriction lining such that the minimum pier concrete dimensions shown on the design drawings or the concrete dimensions as modified in Subcontractor's approved procedures are met. (2)

4.0 PIER INSTRUMENTATION REQUIREMENTS

4.1 Axial deflection measurements will be obtained from the upper and lower telltale dials described in Specification 7220-C-195(Q) and shown in Drawings 7220-C-1492(Q) and C-1492-1(Q).

4.2 Lateral deflection measurements will be obtained by marking the initial dial stem locations on the reaction plates and by measuring changes in the dial stem positions. Lateral movements greater than 1/8 inch will be recorded and noted on the data records prior to applying subsequent load increments.

5.0 LOADING REQUIREMENTS

5.1 The pier load testing shall not begin until the prerequisites specified in Section 6.3.9 of Specification 7220-C-195(Q) have been verified and the RGE has approved the test setup. Load in (and if directed by RGE, additional increments not exceeding 5% and decrements not exceeding 10%)

5.2 Jack loading of test pier shall be performed at the following incremental sequence unless otherwise directed by the RGE or his designated representative: 5, 25, 50, 40, 30, 20, 10, 20, 30, 40, 50, 65, 80, 90, 100, 105, 110, 115, 120, 125, 130, 120, and 110% of the specified load shown in Drawing 7220-C-~~1419(Q)~~ 1445-1 (Q). 2

Each increment load shall be maintained for the duration specified in Section 5.4.

5.3 Calculated gage pressures for the pier load testing shall be determined by combining the individual jack calibration data~~; whether or not the jacks have met a 2% calibration check~~.

5.4 Load increment and decrement duration shall be the following unless otherwise directed by the RGE.

5.4.1 Load increments, except as specified in Sections 5.4.2, ~~and~~ 5.4.3, and 5.4.4 shall be held until the rate of pier top settlement is less than 0.005 inch in 30 minutes, but not longer than 2 hours.

5.4.2 In the unloading/reloading cycle, the decrements at 40, 30, 20, and 10% and increments at 20, 30, 40, and 50% shall

be held for at least 20 minutes. During this loading cycle, it is not required to meet any settlement criterion before proceeding to the next decrement or increment load.

5.4.3 The 100 ~~and 130%~~ increment load shall be held until the rate of pier top settlement is less than 0.005 in 1 hour.

Wedges shall be handtight for snugfit at 110% of load, and shall not be readjusted with ~~further~~ higher increments ~~to 130%~~.

NEW PARAGRAPH

5.4.4 When the acceptance criterion for pier top settlement at the ~~130% increment~~ proof test load is achieved, (less than 0.005 inch in 1 hour) the jacking load shall be reduced to 110% of the specified load. The 110% load will be maintained on active jacks with wedges handtightened for a snug fit. The construction activities in the vicinity of test pier shall then resume as directed by the RGE.

5.4.5 After acceptance of pier at 110% of the specified load, locking off the loads and maintenance of jacking loads on the pier shall be in accordance with respective sections of Specification 7220-C-195(Q).

5.5 If at any time during loading of the test pier there is an upward movement of the existing structure in excess of 0.03 inch at the designated monitoring point, further jacking operation shall follow the procedure specified in Section 6.3.10.f of Specification 7220-C-195(Q).

6.0 LOAD TEST MONITORING REQUIREMENTS

6.1 Unless otherwise directed by the RGE, pressure gages and upper and lower tell-tale dial indicators shall be read and recorded ~~until the loading duration requirements~~ for each increment and decrement at the following minimum times from the start of jacking: 0 (just prior to start of jacking), ~~5~~ 1, ~~5~~ 10, 20, 30, 40, 50, 60, ~~90~~ 80, 100, 120 minutes, ~~and~~ each 20 minutes ~~beyond 120 minutes~~. Until 2 hours from start, each 1 hour until 10 hours from start, and then each 2 hours until the increment duration requirements are met.

The proof test load at 130% of specified load or higher load, if directed by the RGE, shall be held until the rate of pier top settlement relative to the supported structure is less than 0.005 inch per 1 hour period. The RGE may require a higher jacking load not exceeding 600 kips, to ensure that a tip bearing pressure is at least 28.6 KSF based on his evaluation of Carlson stress meter data.

The decrements will be held for at least 20 minutes with no additional acceptance criteria.

Until the acceptance criterion specified in Section 6.3.11.d of Spec. C-195(Q) is met. At this time the pier load test shall be considered complete

and decrement as directed by the RGE.

6.2 Carlson stress meters shall be read and recorded at least twice per load increment, ~~first reading at approximately 10 minutes after load increment has been applied and second reading within approximately 10 minutes prior to changing the load increment.~~

6.3 Building movement Δ4 and other building instrument data shall be recorded once each increment load, as specified in Drawing 7220-C-1493(Q).

6.4 To the extent possible, master pressure gage and telltale dial gage readings shall be taken simultaneously and recorded along with the clock times on the instrumentation data forms. ~~(Wise Jonney's).~~ The RGE shall complete the attached sample data form (Exhibit A) to consolidate the instrumentation and pressure data into a common form. Instrumentation data shall be made available to Subcontractor for its records, as specified in Section 6.3.8 of Specification 7220-C-195(Q).

6.5 All dial indicators, reference points, and pressure gages shall be clearly identified with a reference number or letter to assist in recording data accurately.

6.6 Dial readings shall be read to the nearest ~~interpolated~~ and recorded to 0.0001 inch and averaged to the nearest 0.001 inch when computing movements. Master pressure gages shall be recorded to the nearest 25 psi. Carlson stress meter readings shall be recorded to the nearest 10 psi.

6.7 Notes and observations shall be recorded on the data forms and shall include, but shall not be limited to, the following: description and explanation of adjustments made to instrumentation or field data or both; notation of any unusual occurrences during testing; detectable lateral movement of the pier and direction; and any other pertinent observations related to the performance of the test.

6.8 Plots of (a) top load versus average top settlement, (b) tip load versus average tip settlement, and (c) settlement versus time (including weight of pier) will be maintained by the RGE to monitor the progress of the test. Sample forms for these plots are attached (Exhibits B, C and E).

The RGE will plot average top load and average tip load indicated by Carlson Stress meters versus jacking load. These plots and other pier instrument data will be used to evaluate the transfer of load from top of pier to tip.

and (d) average top load and average tip load indicated by Carlson stress meter versus jacking load

7.0 OTHER UNDERPINNING ACTIVITIES - RESTRICTIONS

7.1 Jacking other than to maintain specified loads shall not be allowed at any other piers within 100 feet of the test pier during the test.

7.2 Excavating shall not be allowed within 20 feet of the test pier during the test.

7.3 Other construction activities which cause vibrations or which may disturb the test pier instrumentation shall not be allowed as determined by the RGE during the test.

7.4 All operations in connection with pier load testing shall be carried out in such a manner so as to avoid personnel exposure to hazards.

Only authorized personnel shall be permitted within the immediate test area.

8.0 FIELD LOAD TEST REPORT

8.1 A field load test report will be prepared by the RGE. As a minimum, it shall include the following information:

a. Project identification

b. Project location

c. Test pier location and designation

d. Name of the RGE or his designated representative(s)

e. Log and description of excavation and soil testing

f. Cone penetrometer, ~~eccuite and~~ density, ~~and other~~ test results

g. Brief description and sketch of Carlson stress meter installation, ~~and tailtale installation~~

h. Description, ~~and sketch~~ of antifriction lining

i. As-built pier dimensions, and sketch (as a minimum at top, tip and quarter points)

j. Date ~~pier~~ concreted and concrete cylinder test results and date mud mat poured and thickness

k. Surveyed pier tip elevation and top elevation

l. List of related drawings indicating pier rebar, instrumentation details, etc

m. Date tested

n. Brief description and sketch of load application apparatus, including jack capacities, jack arrangement, pressure gage arrangement, and arrangement of pump. A sample of the form to be used is attached (Exhibit D).

o. Identification, location sketch, and description of all gages and reference points

p. Certification and calibration reports of jacks and gages

q. Tabulation of all time, load, stress, and movement readings

r. Notes and observations recorded during testing, including any unusual occurances and deviations from test procedures

s. Temperature and environmental conditions during the test

t. Plot of top load versus movement

u. Plot of tip load versus settlement

v. Plots of top and tip settlement versus time

w. Plot of top and tip load indicated by Carlson stress meters versus jacking load

x. Groundwater levels and basis of measurement

y. Determination of soil modulus and basis (calculations)

PIER LOAD TEST DATA - MOVEMENTS

(See Sheet No. ______ for Plan)
(See Sheet No. ______ for Notes)

Project MIDLAND UNITS 1 AND 2
Location MIDLAND, MICHIGAN
Owner CONSUMERS POWER COMPANY
Engineer BECHTEL - ANN ARBOR, MICH, JOB NO. 7220

Time (min)		Pressure Gages (psi)						Tip Load (kips)		Avg Tip Settmt By Dials (inch)	Avg Pier Compr By Dials (inch)	Net Tip Settmt By Dials (inch)	Abs Tip Settmt By Dials (inch)	Dial Indicators				Structure Movement (in)		
		Master		Functional																
ΔT	Clock	Control	Check	1	2	3	4	Nom	Adj					1	2	3	4	Absol	Change	

7220-358 8/82

By ______ Date ______ Pier No. ______ Sheet ____ of ____

Specification 7220-C-195(Q), Rev 1
Appendix B, Exhibit A-2

PIER LOAD TEST DATA - CARLSON LOADS

(Show Sheet No. _____ for Plan)
(Show Sheet No. _____ for Notes)

Project	MIDLAND UNITS 1 AND 2
Location	MIDLAND, MICHIGAN
Owner	CONSUMERS POWER COMPANY
Engineer	BECHTEL - ANN ARBOR, MICH, JOB NO. 7220

Time		Load		CARLSON STRESS METER READINGS						TIP LOAD BY AVG CARLSON (KIPS)	TIP LOAD BY AVG CARLSON (KIPS)	WEIGHT OF PIER (KIPS)	TOTAL TIP LOAD (KIPS)	COMMENTS
				TOP			TIP							
ΔT	Ø	No.	Kip	1	2	AVG	3	4	AVG					

7229-358 6/72

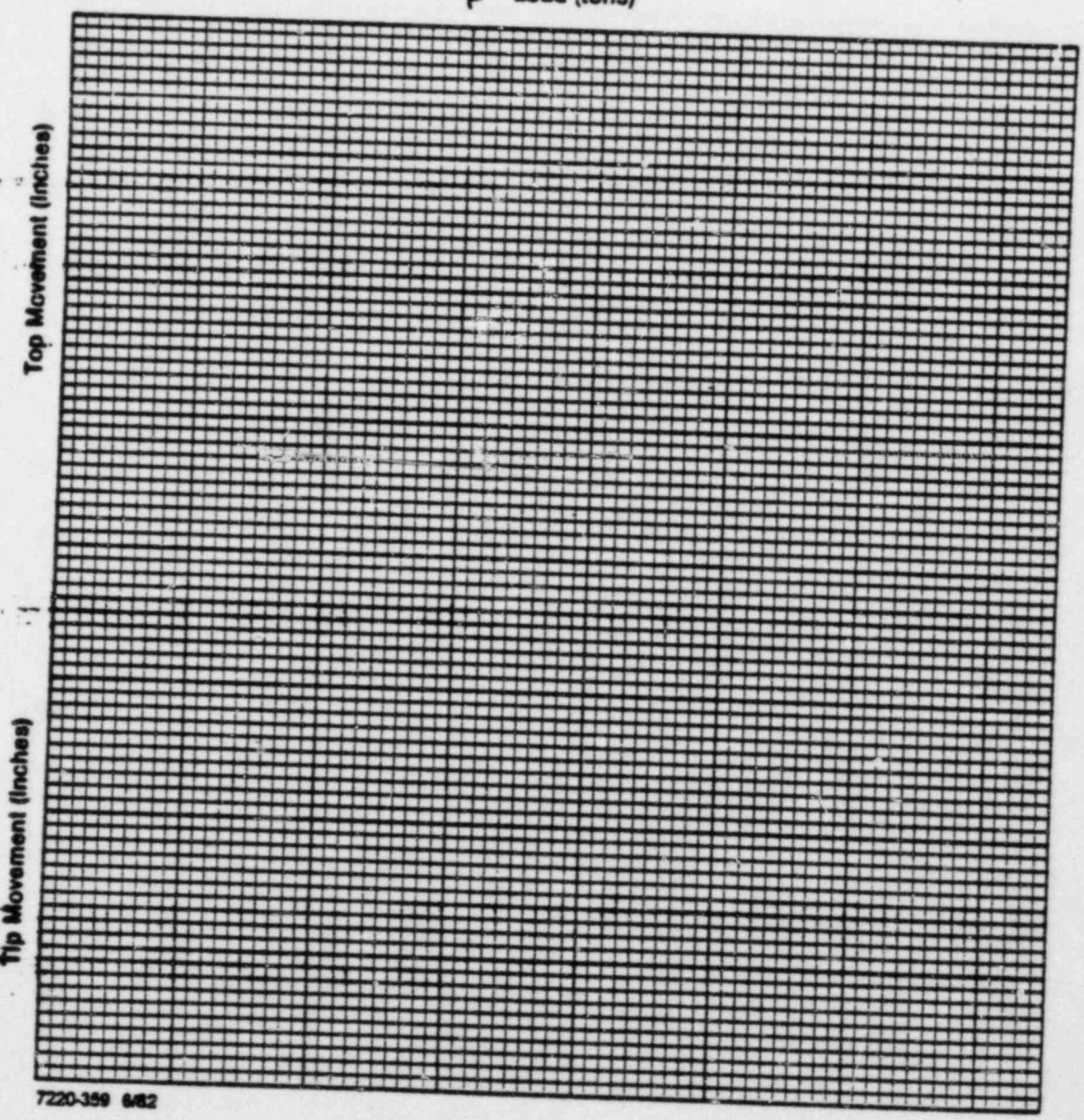
By _____ Date _____ Pier No. _____ Sheet _____ of _____

Specification 7220-C-195(Q), Rev
Appendix D, Exhibit D-1

PIER LOAD TEST DATA - TOP LOAD VERSUS SETTLEMENT

Project MIDLAND UNITS 1 AND 2
Location MIDLAND, MICHIGAN
Owner CONSUMERS POWER COMPANY
Engineer BECHTEL - ANN ARBOR, MICHIGAN

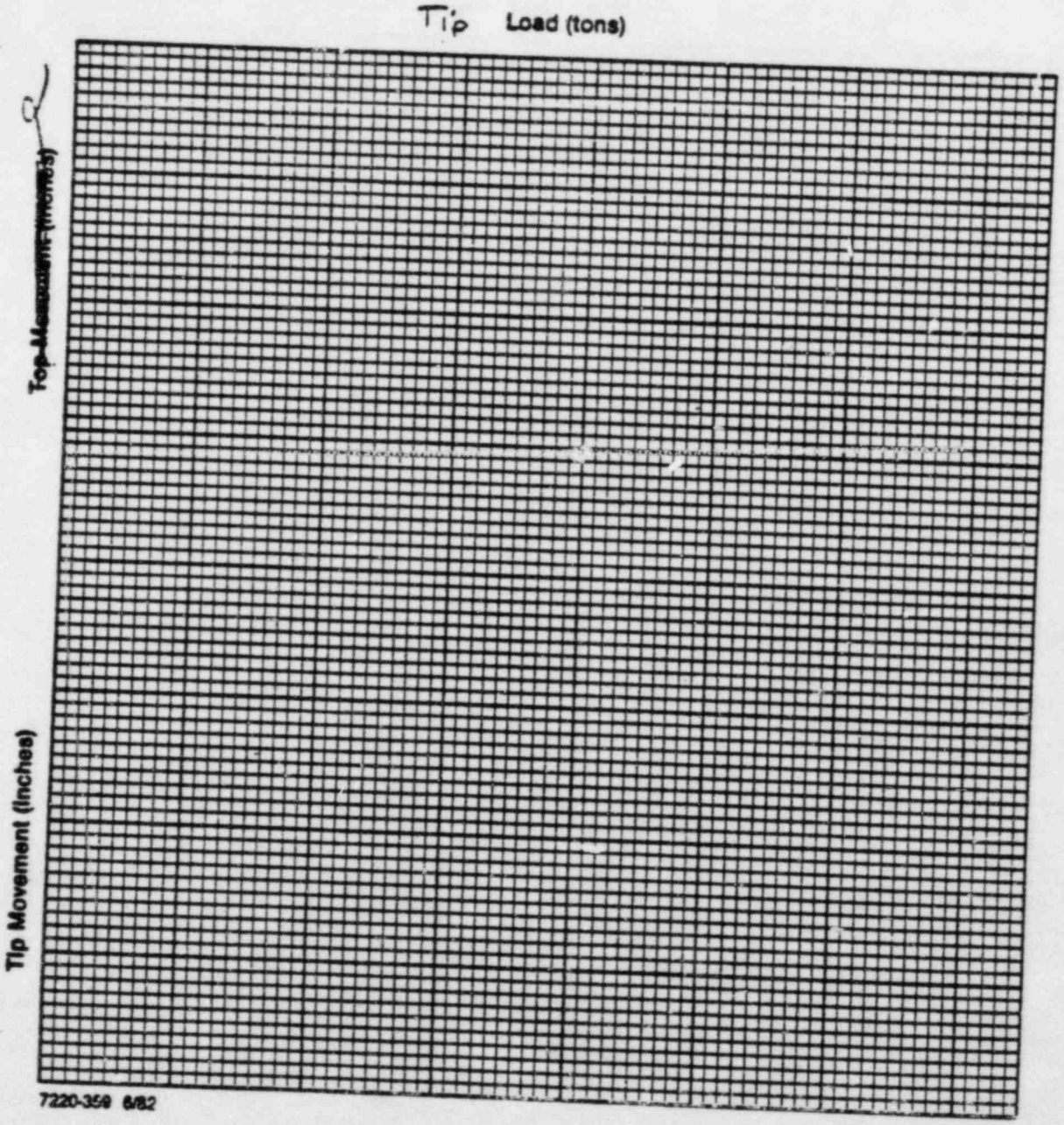
Pier No.
Date
Drawn By
Job No. 7220



PIER LOAD TEST DATA - TIP LOAD VERSUS SETTLEMENT

Project MIDLAND UNITS 1 AND 2
Location MIDLAND, MICHIGAN
Owner CONSUMERS POWER COMPANY
Engineer BECHTEL - ANN ARBOR, MICHIGAN

Pier No.
Date
Drawn By
Job No. 7220

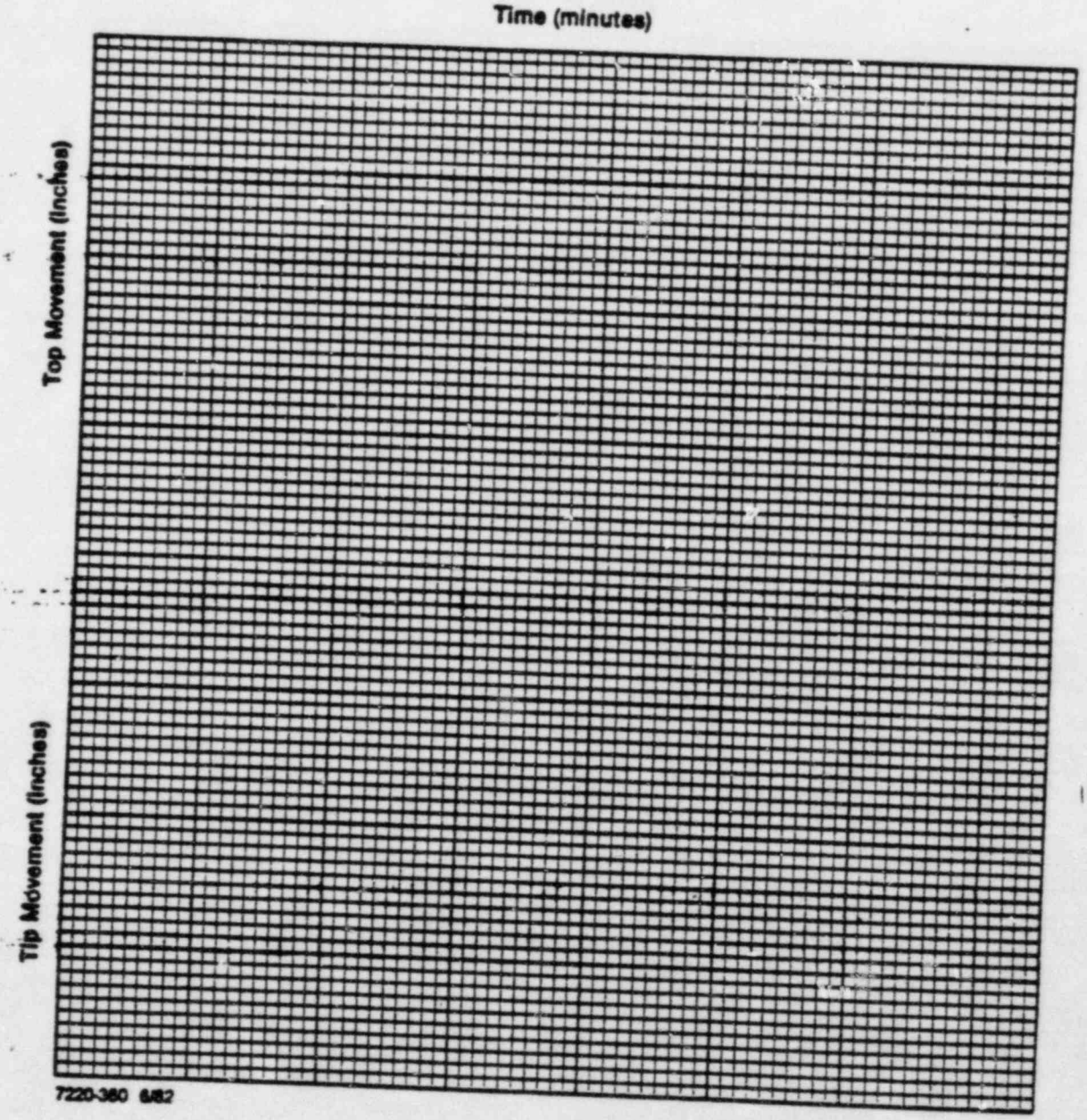


7220-359 6/82

PIER LOAD TEST DATA - SETTLEMENT VERSUS TIME

Project MIDLAND UNITS 1 AND 2
Location MIDLAND, MICHIGAN
Owner CONSUMERS POWER COMPANY
Engineer BECHTEL - ANN ARBOR, MICHIGAN

Pier No. _____
Date _____
Drawn By _____
Job No. 7220



7220-360 6/82

PIER LOAD TEST DATA/SETUP

Project MIDLAND UNITS 1 AND 2
Location MIDLAND, MICHIGAN
Owner CONSUMERS POWER COMPANY
Engineer BECHTEL - ANN ARBOR, MICHIGAN JOB NO. 7220

Sheet ___ of ___
Date
Pier No.
By
Weather
Temp °F

Hydraulic Jack/Gage ~~Certification~~ Calibration - See Sheets:
Jack Serial Numbers:
Gage Serial Numbers:
Spherical Bearing Numbers:
Stress Meter Serial Numbers:
Pier and Boring Locations - See Drawing Numbers:
Soil Data Reference:
Notes:

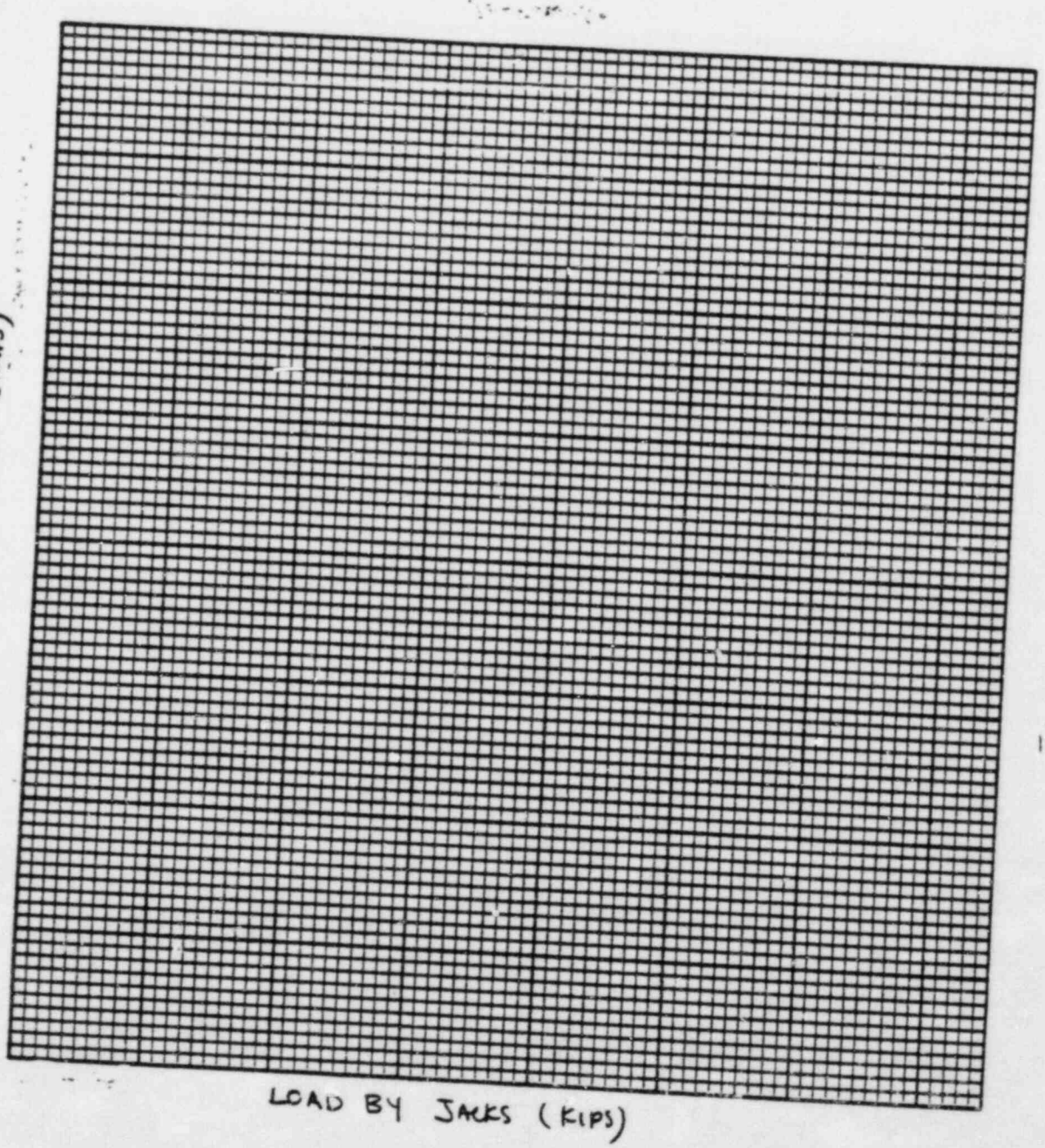
Show Sketches Below for (1) Test Setup, and (2) Plan of Pier Locations

Specification 7220-C-195(Q), Rev 1
Appendix D, Exhibit E

PIER LOAD TEST DATA - LOAD BY CARLSON STRESS METERS VERSUS LOAD BY JACKS

Project MIDLAND UNITS 1 AND 2
Location MIDLAND, MICHIGAN
Owner CONSUMERS POWER COMPANY
Engineer BECHTEL - ANN ARBOR, MICHIGAN

Pier No. _____
Date _____
Drawn By _____
Job No. 7220



file

Consumers Power Company

Donald B Miller, Jr
Site Manager
Midland Project

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3

April 13, 1983

Mr. Jay Harrison
Midland Project Section
US Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

MIDLAND ENERGY CENTER GWO 7020
WORK AUTHORIZATION
File: 0485.16 UFI: 42*05*22*04 Serial: CSC-6662

We have completed our review of the following work activities:

206050102	SWPS, Building Monitoring - Install Brackets
206050101	SWPS, Building Monitoring - Install Permanent Benchmark covers
206050100	SWPS, Building Monitoring - Install Extensometer
206050106	SWPS, Building Monitoring - Install Instruments and terminate instrument cable (includes Testing and Calibration)

Per the NRC-CPCo Work Authorization Procedure, we request concurrence to proceed with the above listed activities.

DBM/GMM/dmh

APR 21 1983

file

Consumers Power Company

Donald B Miller, Jr
Site Manager
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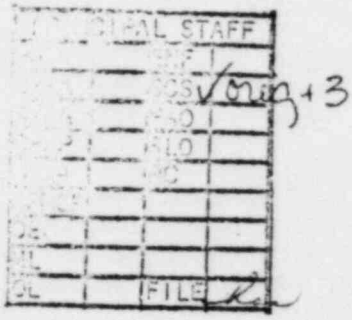

April 8, 1983

Mr. Jay Harrison
Midland Project Section
U.S. Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

MIDLAND PROJECT GWO 7020
PURCHASE OF CHEMICAL GROUT
File: 0485.16 UFI: 42*05*22*04 Serial: CSC-6655

This is to confirm a telephone conversation Glenn Murray of CPCo-SMO had with Dr. Landsman of the NRC Region III on April 5, 1983. The purpose of the conversation was to obtain concurrence on the Non-Q purchase of chemical grout (polyurethane based) for soil stabilization for the Service Water Pump Structure (C-194).

The above item will be purchased Non Q. However, CPCo will invoke the appropriate Quality Assurance Program requirements upon receipt and installation.

DBM/GMM/dmh

APR 13 1983

This letter took exception to use the 7/2/83 subject system in the underpinning activities. CPCo committed on 5/6/83 during the ASLB Hearing to implement the procedure, thus voiding this letter's purpose. Open item 83-03-02 provided a track. MMB

Sent to DMB 7/11/83

J A Mooney
Executive Manager
Midland Project Office

file

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April 4, 1983

R F Warnick, Director
Office of Special Cases
US Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

MIDLAND ENERGY CENTER PROJECT
APPLICATION OF EXCAVATION WORK PERMIT SYSTEM
FILE 0485.16 SERIAL 20506

This letter responds to questions raised by Dr R B Landsman during the ASLB Board hearings the week of February 14-18, 1983 as to why the Excavation Permit System did not include the underpinning work.

The Excavation Permit System is intended for general excavations on site and for those activities not covered and/or specifically located by design documents. Examples of these activities are excavation for temporary utilities, slabs, roads, exploratory pits to locate utilities and temporary and permanent wells. These permits are reviewed by appropriate discipline field engineers and superintendents to ensure that foundation subgrades for structures are not disturbed, the integrity of compacted backfill is maintained, and existing buried utilities are protected.

An equivalent system of protection is in existence for underpinning work. All of the work associated with the major underpinning activities is covered by detailed procedures, drawings, quality plans and specifications and is monitored by field engineering, resident engineering and MPQAD Soils. The design provides for protecting foundations of adjacent structures. It specifies that the integrity of existing compacted backfill that is not to be replaced be maintained by use of lagging, bracing and/or soldier piles during excavation. It also provides protection for all known underground utilities.

In the control tower area, the buried duct banks will be supported during underpinning as shown on C-1439 series drawings. The permanent support of these utilities is being incorporated in the permanent underpinning design. In the Service Water Pump Structure area, the braced excavation design incorporates all known utilities. Details of support for these pipes and duct banks are shown on C-2031 series drawings. All probing including those for establishing water levels and soils stabilization is carried out in accordance with approved procedures and under the surveillance of the resident geotechnical engineering staff.

IE01

APR 11 1983

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Design documents are coordinated with representatives of engineering, construction and the quality groups, to provide the necessary control. Also, Appendix E of Specification C-200 addresses corrective measures for unplanned events. A further control of the underpinning activities is provided through the use of the CP Co-NRC Work Authorization Procedure and the soils work permit system.

As explained above, it is evident that the underpinning work is adequately controlled to protect subgrades for adjacent structures, to maintain the integrity of compacted backfill, and to protect buried utilities. Therefore, CP Co believes that it is not necessary to use the Excavation Permit System for this work.

GAMooney

CC OL/OM Service List

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James W Cook
Vice President - Projects, Engineering and Construction

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March 31, 1983

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James G Keppler, Administrator
Region III
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799 Roosevelt Road
Glen Ellyn, IL 60137

MIDLAND ENERGY CENTER
MIDLAND DOCKET NOS 50-329, 50-330
COMPUTER/ELECTRONIC NETWORKING SYSTEM
FILE: 0505.2, E-43 SERIAL: 21642

REFERENCE: NRC REGION III (J G KEPPLER) LETTER TO CPCO (J W COOK) DATED 3/4/83

Enclosed please find the Palisades/Big Rock Point response to the reference. Consumers Power Company would also be interested in tying into a computer/electronic networking system with Region III for Midland-related activities. The enclosure lists the Midland Energy Center hardware.

James W. Cook

JWC/JNL/bjb

CC RJCook, Midland Resident Inspector
RHernan, US NRC
HRDenton, US NRC

oc0383-0397a100

8304150423

APR 11 1983

Consumers Power Company

General Offices: 212 West Michigan Avenue, Jackson, MI 49201 • (517) 788-0550

COPY

March 16, 1983

James G Keppler, Administrator
Region III
US Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60137

DOCKET 50-255 - LICENSE DPR-20 - PALISADES PLANT -
DOCKET 50-155 - LICENSE DPR-06 - BIG ROCK POINT PLANT -
COMPUTER/ELECTRONIC NETWORKING SYSTEM

This is in response to your letter requesting information on Consumers Power Company electronic communicating hardware. The following equipment is currently being used at the locations indicated:

EQUIPMENT	LOCATION
IBM 5520	General Office, Both Parnall Road and Michigan Avenue Offices
IBM 5520	Midland Energy Center
IBM Displaywriter	General Office, Both Parnall Road and Michigan Avenue Offices
IBM Displaywriter	CPCo Bethesda, MD Office

In addition, we are using Comet Electronic mail on a subscription basis at both General Office (Parnall and Michigan Avenue) locations and all three nuclear plant sites (Big Rock Point, Palisades and Midland Energy Center).

Should the NRC decide to implement a computer/electronic networking system, Consumers Power Company would be most interested in tying into it.

Nathan L Haskell (Signed)

Nathan L Haskell
Senior Licensing Engineer

CC Director, Office of Nuclear Reactor Regulation
Director, Office of Inspection and Enforcement
NRC Resident Inspector - Palisades
NRC Resident Inspector - Big Rock Point
OC0383-0014A-NL02

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Vice President - Projects, Engineering and Construction

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DRMA		RC	
DRMSP			
DE			
ML			
OL		FILE	

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March 29, 1983

Mr J G Keppler, Regional Administrator
US Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

MIDLAND ENERGY CENTER PROJECT
DOCKET NOS 50-329 AND 50-330
RESPONSE TO SUPPORT REINSPECTION
FILE 0.4.2 SERIAL 20746

Reference: A. R F Warnick letter to J W Cook, Subject: Support Reinspection dated August 30, 1982.

B. J W Cook letter to J G Keppler, Subject: Support Reinspection dated November 15, 1982.

Reference A requested our schedule for the reinspection of the supports at the Midland site. Reference B identified our planned actions in this area and indicated that we expected to commence support reinspection by January 1, 1983.

Our recent effort in planning and developing the Construction Completion Program (CCP) has resulted in a revision to the planned actions and schedule. Considering the current status of construction activities, we no longer believe the approach outlined in Reference B to be consistent with timely completion of the project.

We now intend to reinspect all installed supports irregardless of the time of their installation or turnover. We expect the new support reinspection procedure, training and certification of inspection personnel, QA program revisions, and other support activities to be in place so that we can commence support reinspections during the week of April 11, 1983. It is estimated that the support reinspection program will extend into 1984.

James W. Cook

JWC/RAW/lr

OC0383-0040A-MP01

APR 8 1983

8304120510

CC RWarnick, NRC Region III
WShafer, NRC Region III
RGardner, NRC Region III
RJCook, NRC Resident Inspector, Midland Site
BBurgess, NRC Region III

Chron. file

James W Cook
Vice President - Projects, Engineering and Construction

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DRMA		IRC	
DRMSP			
DE			
ML			
OL		FILE	

letter only

March 9, 1983

Mr J G Keppler
Regional Administrator
US Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glenn Ellyn, IL 60137

MIDLAND ENERGY CENTER PROJECT -
MIDLAND DOCKET NOS 50-329, 50-330
MIDLAND PLANT INPO TYPE EVALUATION -
FILE 0485.16 SERIAL 21769

In an October 5, 1982 letter to you and Mr H R Denton we enclosed details describing the proposed Midland Plant Independent Review Program. Based upon subsequent discussions with NRR and Region III we agreed to a program consisting of separate efforts by MAC to conduct the INPO Construction Program Evaluation and by Tera to conduct the Independent Design Verification.

As indicated in the October 5, 1982 letter, "the final report will be submitted to the NRC and an auditable record will be maintained of all comments on any draft or final reports, any changes made as a result of such comments and the reasons for such changes." In compliance with this commitment and in keeping with industry's practice, we are submitting to you as the NRC Regional Administrator for the Midland Nuclear Plant three copies of the Self-Initiated Final Report by MAC entitled "Construction Project Evaluation of Consumers Power Company Midland Energy Center." The draft report was reviewed by INPO and changes were incorporated in the attached Final Report in response to the INPO review.

James W. Cook

MAR 10 1983

oc0383-3938a112

8303110405

CC Atomic Safety & Licensing Appeal Board, (w/o)
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RJCook, Midland Resident Inspector, (w/o)
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WHMarshall, (w/o)
WDPatton, Esq, (w/o)
WDShafer, NRC, (w/o)
BStamiris, (w/o)
MSinclair, (w/o)

file

Consumers Power Company

Donald B Miller, Jr
Site Manager
Midland Project

Midland Project: PO Box 1963, Midland, MI 48640 • (517) 631-8660

PRINCIPAL STAFF			
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March 8, 1983

Mr. W. D. Shafer, Chief
Midland Project Section
U.S. Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

MIDLAND PROJECT GWO 7020
FINAL DISPOSITION OF THE SLOPE LAYBACK
File: 0485.16 UFI: 07070(S) Serial: CSC-6595

This is to confirm a telephone conversation between Mr. Wheeler and Mr. Murray of our office and Dr. Landsman of Region III on March 4, 1983.

The purpose of the call was to inform Dr. Landsman of the final disposition of the slope layback. Bechtel Engineering analyzed the existing conditions and determined the as-built condition is acceptable. The only remaining work is to place temporary cribbing on the east side of the layback adjacent to the Unit 2 Turbine Building.

Dr. Landsman concurred that the remaining work is covered under the work activity entitled "Redress the slope layback surfaces" and work could proceed.

D. B. Miller
Site Manager

DBM/GMM/dmh

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MAR 17 1983

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Consumers Power Company

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March 4, 1983

Mr. W. D. Shafer, Chief
Midland Project Section
US Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

MIDLAND PROJECT GWO 7020
NON Q MATERIALS FOR UNDERPINNING
File: 0485.16 UFI: 42*05*22*04 Serial: CSC-6593

This is to confirm a conversation on site between Glenn Murray of CPCo-SMO and Ron Gardner of Region III on 3/3/83. The purpose of the conversation was to obtain concurrance on the purchase of "non-Q" materials for the underpinning instrumentation for the Service Water Pump Structure (C-194). The following will be purchased "non-Q":

1) Structural shapes for instrument covers
2) Plexiglass for covers
3) Fasteners for covers
4) Expanded metal for covers
5) EMT/Rigid raceway materials
6) Instrument covers for extensometers
7) Gasket material for covers
8) Dead and live end anchors for extensometers
9) Support brackets for instruments
10) PVC pipe for telltales
11) Centralizer material for telltales

The above items will be purchased "non-Q". However, CPCo will invoke Quality Assurance Program Requirements upon receipt and installation.

D. B. Miller
Site Manager

DBM/GMM/dmh

MAR 14 1983

8303170385

file

Consumers Power Company

Donald B Miller, Jr
Site Manager
Midland Project

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March 3, 1983

PRINCIPAL STAFF			
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Mr. W. D. Shafer, Chief
Midland Project Section
U. S. Nuclear Regulatory Commission
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799 Roosevelt Road
Glen Ellyn, IL 60137

MIDLAND PROJECT GWO 7020
CLARIFICATION TO THE WORK ACTIVITY LIST
File: 0485.16 UFI: 07070(S) Serial: CSC-6586

The purpose of this letter is to document discussions held with Dr. Landsman on March 2, 1983. Our R. M. Wheeler proposed deleting from the Work Activity List the activity described as "Monitor and Adjust Pier Jacks after Load Transfer". It was explained that this activity was already covered under the activity described as "Install and Load Pier".

After reviewing the activity, Dr. Landsman concurred with deleting the activity entitled "Monitor and Adjust Pier Jacks after Load Transfer" from the Work Activity List.

D. B. Miller, Jr.
Site Manager

DBM/RMW/lrb

MAR 14 1983

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file

James W Cook
Vice President - Projects, Engineering and Construction

General Offices: 1945 West Parnall Road, Jackson, MI 49201 • (517) 788-0453

February 11, 1983

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Mr J G Keppler, Administrator
Region III
US Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60137

MIDLAND NUCLEAR COGENERATION PLANT
MIDLAND DOCKET NOS 50-329, 50-330
INPO SELF-INITIATED EVALUATION
FILE: B1.1.5 SERIAL: 21032

This is to confirm our conversation of January 18, 1983 at which time we agreed that the INPO self-initiated evaluation will be submitted to Region III with the INPO overview included. This change was necessitated by INPO's request that all participants submit their evaluation first to INPO and then to NRC with the INPO overview included.

Thank you for your understanding in this matter.

James W. Cook

JWC/DMB/bjb

CC RJCook, Midland Resident Inspector
RHernan, US NRC
HRDenton, NRC
RFWarnick, NRC
WDShafer, NRC

Rec. Federal Express 2/17/83
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FEB 17 1983

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PRINCIPAL STAFF			
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February 9, 1983

Mr. Wayne Shafer
United States Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

MIDLAND PROJECT GWO 7020
SERVICE WATER PUMP STRUCTURE ACTIVITY REVIEW
File: 0485.15.2 UFI: 44*05*22*04 Serial: CSC-6541

On February 2, 1983, Bob Wheeler and Don Sibbald of CPCo met with Ross Landsman and Ron Gardner to discuss Service Water Building open items. Shallow probing for the Service Water Pump Structure, deep probing for the Service Water Pump Structure and dewatering wells for the Service Water Pump Structure were discussed with Dr. Landsman. We were informed by Dr. Landsman that he was still awaiting feedback from Joe Kane of NRR before he could authorize the wells and the deep probing.

Dr. Landsman received a drawing which extended the excavation area associated with the shallow probing for the Service Water Pump Structure. Dr. Landsman said he felt the change from the original excavation was minor and he concurred with the new concept.

D. B. Miller, Jr.
Site Manager

DBM/RMW/lrb

FEB 17 1983

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PRINCIPAL STAFF			
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February 9, 1983

Mr. W. D. Shafer, Chief
Midland Project Section
US Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

MIDLAND PROJECT GWO 7020
AUTHORIZATION FOR AUXILIARY BUILDING UNDERPINNING PIER 11
File: 0485.16 UFI: 43*05*22*04 Serial: CSC-6544
12*32

We have completed our review of the documents for Pier 11 E&W including the load test on Pier 11 West. Based on our review, we have concluded that we are ready to start the work.

According to the NRC/CPCo Work Authorization Procedure, we request authorization for the following activities:

155052027	Drift from access shaft to Pier 11E
155053015	Excavate Pier 11E
155054015	Install and load Pier 11E
165052027	Drift from Access Shaft to Pier 11W
165053015	Excavate Pier 11W
165054015	Install and load Pier 11W (includes install bituminous plywood forms)
105050908	Perform Pier load test

Please note that the activities listed above are similar to the corresponding activities for Pier 12 which have previously been authorized.

D. B. Miller
Site Manager

DBM/RMW/dmw

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PRINCIPAL STAFF			
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Consumers Power Company

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February 4, 1983

Mr. W. D. Shafer, Chief
Midland Project Section
US Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

MIDLAND PROJECT GWO 7020
AUTHORIZATION FOR AUXILIARY BUILDING UNDERPINNING PIER 9
File: 0485.16 UFI: 43*05*22*04 Serial: CSC-6537
12*32

We have completed our review of the documents for Pier 9 E&W. Based on our review, we have concluded that we are ready to start the work.

According to the NRC/CPCo Work Authorization Procedure, we request authorization for the following activities:

165052010 - Drift from Access Shaft Under FIVP to Pier 9W

165053005 - Excavate Pier 9W

165054005 - Install and load Pier 9W

155052010 - Drift from Access Shaft under FIVP to Pier 9E

150053005 - Excavate Pier 9E

155054005 - Install and load Pier 9E

Please note that the activities listed above are similar to the corresponding activities for Pier 12 which have previously been authorized.

D. B. Miller
Site Manager

DBM/GBJ/lrb

FEB 9 1983

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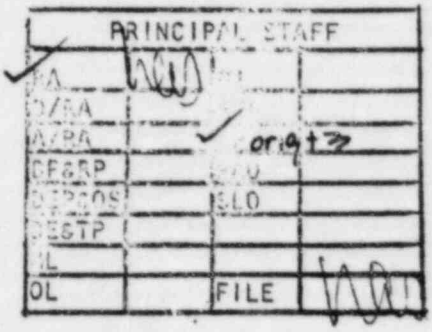
Consumers Power Company

Midland Project: PO Box 1963, Midland, MI 48640 • (517) 631-8650



January 5, 1983

Mr. W. D. Shafer, Chief
Midland Project Section
US Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

MIDLAND NUCLEAR COGENERATION PLANT
REMEDIAL SOILS
NON-Q MATERIALS FOR UNDERPINNING
File: 0485.16 UFI: 42*05*22*04 Serial: CSC-6486

REFERENCE: CSC-6323, dated 9/17/82

Per 12/22/82 discussion between Dr. R. Landsman of NRC and R. Wieland of CPCo, CPCo will purchase the plywood/fibreboard for a bond breaker on Pier W11 "non Q." The bond breaker is required to facilitate using Pier W11 as the test load pier. This material had not been previously identified as non-Q on our 9/17/82 letter (CSC-6323).

D. B. Miller
Site Manager

DBM/RHW/dmw

Response Required: No

cc: ABoos
DLavelle
JMooney
JSchaub
KRazdan

8301280095

JAN 17 1983

Consumers Power Company

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PRINCIPAL STAFF			
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January 27, 1983

Mr. W. D. Shafer, Chief
Midland Project Section
U.S. Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

MIDLAND PROJECT GWO 7020
FOUR POINT JACKING FOR THE FIVP
File: 0485.16 UFI: 12*32 Serial: CSC-6528
42*05*22*04

This letter is to confirm and document discussions with your Dr. Landsman and Joe Kane with NRR regarding the loads to be applied during the FIVP four point jacking. Based on our discussions held on January 25, 1983, Consumers Power Company agreed to increase the total jack load to a value 10% above the estimated weight of the structure. Based on an estimated weight of 1715K, we would jack the structure to a maximum load of 1890K.

Based on the above noted agreement, we request your authorization to proceed with the work.

D. B. Miller
Site Manager

DBM/RMW/dmw

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James W Cook
Vice President – Projects, Engineering and Construction

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PRINCIPAL STAFF			
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December 28, 1982

J G Keppler, Administrator, Region III
U S Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60137

MIDLAND NUCLEAR COGENERATION PLANT
MIDLAND DOCKET NOS 50-329, 50-330
ACCESS TO JOBSITE BY SOURCES OF ALLEGATIONS
FILE: 15.3 SERIAL: 20355

Dear Mr Keppler:

Region III has received a number of allegations regarding the Midland Project. These have been made by sources, some of whom have been publicly identified and some of whom have apparently requested non-disclosure of their identities. Recently, Region III has requested that one of its investigators be permitted access to the Midland job site with one such source in order to facilitate an NRC investigation of the merits of the allegations.

Consumers Power Company wishes to cooperate fully with the NRC in its investigations into the merits of all allegations regarding the quality of construction at the site. Accordingly, we are pleased to grant the sources of the allegations access to the site in the presence of the NRC investigators. Indeed, we urge the NRC to encourage all sources of allegations to visit the site with NRC investigators to specifically point out the defects, if any, which are the subjects of the allegations.

In accommodating the sources of allegations who come to the site, we wish to maintain the appropriate security measures and obtain an understanding of the technical specifics of the allegations. Accordingly, the routine plant security measures which apply to the NRC (e.g. signing in and out, wearing badges, etc) would apply in the normal course to the sources of allegations who visit the site. Also, in conformance with our normal plant security and insurance procedures, which provide that all site visitors be escorted by an official of Consumers Power Company, we would designate a responsible official to participate in each site visit. The official would be technically competent in the area of the allegation and would record the allegation in accordance with the existing MPQAD procedure which, upon request, includes reasonable measures aimed at protecting the anonymity of the sources of allegations. In addition, depending upon the source and nature of the

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allegation, the Company may desire to have present an additional person from its contractor or consultant organizations. He, too, will honor any request for anonymity. While the Company official may respond to NRC inquiries, during the visit he will not question or challenge the validity of the allegations. This will certainly facilitate the NRC investigations and, to the extent the allegations have any merit, it will enable us to make the necessary repairs, or otherwise resolve the matters.

Because some of the sources may request confidential treatment or restricted disclosure of their identities, we are prepared to schedule the site visits at times consistent with attaining that objective, e.g., site visits may be scheduled for weekends or after hours. Of course, we cannot guarantee that an individual visiting the site will not be recognized; we can, however, assure you that neither we nor our contractors or consultants will engage in any retribution towards such sources.

Some sources of allegations may wish to be accompanied during the site visit by a person other than the NRC investigator and the Company official. Subject to conformance with our normal plant procedures, we will have no objection if any such source requests participation in the site visit by a co-worker on-site or by his or her union representative on-site.

Site visits, under these ground rules, will materially aid NRC investigations and the resolution of the allegations, and will assure the safety of all site visitors without jeopardy to plant security. We applaud your efforts to search out the facts behind the allegations and assure you of our full cooperation.

James W. Cook

CC: RSWarnick, NRC Region III
WDShafer, NRC Region III
RJCook, Midland Resident Inspector

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James W Cook
Vice President - Projects, Engineering and Construction

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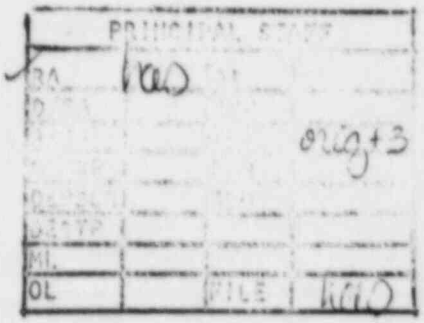
December 3, 1982



Harold R Denton, Director
Office of Nuclear Reactor Regulation
Division of Licensing
US Nuclear Regulatory Commission
Washington, DC 20555

J G Keppler
Administration, Region III
US Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60137

MIDLAND NUCLEAR COGENERATION PLANT
MIDLAND DOCKET NOS 50-329, 50-330
MIDLAND PLANT INDEPENDENT REVIEW PROGRAM
FILE: B1.1.5 SERIAL: 19750

REFERENCES: (1) J W COOK LETTER TO H R DENTON AND J G KEPPLER, SERIAL 18879 DATED 10/5/82

(2) NRC SUMMARY DATED 11/8/82 OF 10/25/82 MEETING ON INDEPENDENT DESIGN VERIFICATION

Reference (1) provided a description of the Midland Plant Independent Review Program. Reference (2) summarized the October 25, 1982 meeting wherein Consumers Power Company and their contractors, Management Analysis Company (MAC) and Tera, discussed in more detail the Independent Review Program. During this meeting, questions posed by the Staff were responded to by the Company and its contractors.

At the end of the meeting, Consumers Power Company requested the Staff to provide the applicant with policy guidance on the proposed Independent Review Program. The Staff agreed to provide preliminary feedback to Consumers Power Company by October 29, 1982 and to arrange for additional meetings as deemed appropriate. This was subsequently done and an additional meeting was held on November 5, 1982 to provide the NRR Staff more details of the Stone and Webster third party assessment of the implementation of the soils underpinning work.

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Based upon the meeting of October 25, 1982 and subsequent feedback from the NRC Staff, Consumers Power proposes the following changes to the Independent Review Program as submitted in Reference (1) and discussed at the October 25, 1982 meeting:

(1) The three specific evaluations will not be combined into a single program with coordination of the individual reports by MAC.

(2) The Tera Independent Design Verification (IDV) effort will be completely separate from the MAC effort with neither subcontractor having members from their company involved in the other company's efforts.

(3) The Tera IDV will be on the Auxiliary Feedwater System (AFWS) as originally planned, and will also be implemented on another system which the Staff is to select based on three candidates provided by Consumers Power Company on a risk assessment basis. The three candidate systems proposed by Consumers Power Company are:

   a. Electric Power System (Diesel Generator)
   b. Safeguards Chilled Water System
   c. Containment Isolation System

(4) The Tera IDV will be expanded to include a more in-depth review of construction activities to provide assurance of as-built construction adequacy of the systems included in the Tera (IDV).

(5) For the IDV, any discussions between project personnel and Tera on confirmed findings will take place in formal meetings with the NRC being notified of the meetings in time to attend, if they desire.

(6) For the INPO Construction Project Evaluation, a copy of the final report will be given to the NRC when it is sent to INPO.

We believe that this letter documents the conclusions reached between our organizations regarding the Midland Independent Review.

James W. Cook

JWC/GSK/bjb

CC Atomic Safety and Licensing Appeal Board
CBechhoefer, ASLB
MMCherry, Esq
FPCowan, ASLB
RJCook, Midland Resident Inspector
RSDecker, ASLB
SGadler, Esq
JHarbour, ASLB
GHarstead, Harstead Engineering

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DSHood, NRC
FJKelley, Esq
WHMarshall
WDPatton, Esq
WDShafer, NRC
BStamiris
MSinclair
LLBishop

CONSUMERS POWER COMPANY
Midland Units 1 and 2
Docket No 50-329, 50-330

Letter Serial 19750 Dated December 3, 1982

At the request of the Commission and pursuant to the Atomic Energy Act of 1954, and the Energy Reorganization Act of 1974, as amended and the Commission's Rules and Regulations thereunder, Consumers Power Company submits Midland Plant Independent Review Program.

CONSUMERS POWER COMPANY

By _____
J W Cook, Vice President
Projects, Engineering and Construction

Sworn and subscribed before me this 3 day of December, 1982

_____
Notary Public
Jackson County, Michigan

My Commission Expires September 8, 1984

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