UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

'83 NOV -1 P12:06

Before the Atomic Safety and Licensing Board

In the Matter of:	)	Docket Nos 50-329 OM
	)	50-330 OM
CONSUMERS POWER COMPANY	)	Docket Nos 50-329 OL
	)	50-330 OL
(Midland Plant, Units 1 & 2)	)	

October 27, 1983

APPLICANT'S RESPONSES TO STAMIRIS INTERROGATORIES OF OCTOBER 11, 1983.

Note: Questions 1-5 are in the process of being answered and will be submitted at a later date.

QUESTION 6

Describe your understanding of the purpose of the May 20, 1982 meeting between Consumers and the NRC.

RESPONSE 6

Mr Mooney's understanding of the purpose of the May 20, 1982 meeting between Consumers and the NRC, was to advise the NRC Staff was that it ". . . advised the NRC Staff that the duct bank was deeper than expected and explained the Company's latest plans . . ."

QUESTION 7

What if any changes do you believe you should make in your prefiled testimony after having read the OI investigative reports.

RESPONSE 7

Mr Mooney does not believe any changes should be made in his prefiled testimony after having read the OI investigative reports.

QUESTION 8

State your current position regarding whether or not Dr Landman told you at any time that he prohibited excavation below the Q duct bank without prior NRC approval.

RESPONSE 8

Mr Mooney's current position is stated in his prefiled testimony.

QUESTION 9

Explain how the May 25, 1982 Memorandum approves excavation of the deep Q duct bank, as referenced on Page 15 of the Supplemental OI Report.

RESPONSE 9

The above reference appears on Page 14 of the Supplemental OI Report and is being answered based on that premise.

The letter to Harold R Denton from J W Cook dated May 10, 1982, "ASLB Soils Order" states in part, ". . .Remedial soils work previously approved by the NRC is continuing. Concurrence as to the scope of this work was obtained from Mr Darl Hood, and is as defined below:

. . . I.c. freeze wall installation, underground utility protection, soil removal cribbing and related work in support of the freeze wall installation, freeze wall monitoring and freeze wall activation . . ."

The letter to J W Cook from D G Eisenhut dated May 25, 1982, "Completion of Soils Remedial Activities Review," responding to the May 10, 1982 letter states in Enclosure 4: ". . . the Staff agrees that prior explicit concurrence for the activities listed by Paragraph I.c. of CP Co's letter, May 10, 1982 had been obtained from the Staff . . ."

QUESTION 10

Identify all discussions, conversations, meetings or communications which mention, or refer to any way the following:

a. Dr Landsman had been called to the Midland Site to inspect the deep Q duct bank before activation of the freezewall;
b. A need existed to stop the water flow beneath the deep Q duct bank;
c. the necessity to excavate to impervious ground beneath the duct bank;
d. QA planning determined the need for "sheeted pit" down to the duct bank;
e. concern with "recharging" the zone below the deep Q duct bank;
f. changes to the design of the duct bank or method of excavation of the duct bank, for the period March 1, 1982 through September 30, 1982;
g. deepening or exposing the deep Q duct bank, for the period March 1, 1982 through September 30, 1982.

RESPONSE 10

a. Mr Sevo had possession of the following communications regarding NRC inspection before activation of the freezewall:

June 4, 1982 letter from Don Horn to Messrs Bird, Marguglio and Dietrich (attachment 6 to Weil Report dated September 12, 1983).

OCR #0159 memorializes a conversation between Mr Sevo and John Fisher; Mr Sevo does not recall how or when he obtained the information conveyed. (Copy attached)

April 1, 1982 memo from Al Boos refers to audit by I&E of freezewall; Mr Sevo was not present for the meetings which were the subject of this document. (Copy attached)

Mr Sevo does not recall any other specific conversations, discussions or meetings concerning this subject.

b. Mr Sevo had possession of the following communications: A document entitled, "Meeting March 12, 1983," refers to the proposed grout curtain which involved stopping the water flow beneath the deep Q duct bank; Mr Sevo does not recall who published the document and does not recall if he was present at that meeting. (Copy attached)

The April 1, 1982 memo from Al Boos references procedures concerning stopping the water flow. (Copy attached)

Mr Sevo may have had a number of routine work related conversations which touched upon this subject, however, he has no present recollection as to any such specific conversation, discussion or meetings.

c. The April 1, 1982 memo from Al Boos may refer to this subject.

Mr Sevo may have had a number of routine work related conversations which included this subject, however, he has no present recollection as to any such specific conversations, discussions or meetings.

d. Mr Sevo does not recall any discussions, conversations, meetings or communications relating to the statement that "QA planning determined the need for 'sheeted pit' down to the duct bank." QA was not responsible for "determining the need" for a sheeted pit; the need was determined by the design group. Mr Sevo may have become aware of the need for a sheeted pit through routine job site meetings and conversations; however, he does not recall the specifics of any such meetings or conversations.

e. Mr Sevo does not recall any discussions, conversations, meetings or communications relating to the "concern with 'recharging' the zone below the deep Q duct bank." To Mr Sevo's knowledge, there was not a concern regarding "recharging" the zone below the deep Q duct bank, however, there was a concern regarding preventing the "recharging" of the area inside the freezewall. Mr Sevo may have become aware of this latter concern from routine job site meetings and conversations, however, he does not recall the specifics of any such meetings or conversations.

f. Mr Sevo and his group would have become aware of some design changes through their review of drawings and processing of Project Inspection Plans and Reports (PIPR). Mr Sevo does not recall any specific drawings

or PIPR's except: PIPR C-26F, Rev 0; PIPR C-26F, Rev 1; PIPR C-26I, Rev 0 (copies attached); and the April 1, 1982 memo from Al Boos. Mr Sevo may have become aware of some changes in design through routine job site meetings and conversations, however, he does not recall the specifics of any such meeting or conversation.

g. Mr Sevo does not recall any discussions, conversations, meetings or communications relating to "deepening . . . the deep Q duct bank." It is Mr Sevo's understanding that the elevation of deep Q duct bank was intended to and remained the same.

To the best of Mr Sevo's recollection, the exposure of the deep Q duct bank was part of the work necessary for the activation of the freezewall, therefore, the documents referred to in subsections (a)-(f), above, may refer to this subject. Mr Sevo may also have become aware of the excavation and exposure of the deep Q duct bank through routine job site meetings, conversations or QA planning activities, however, he does not recall the specifics of any such meeting, conversation or planning activity.

QUESTION 11

Explain the factual basis for your "belief that NRC, CPC or BPC had not finalized the plans for the deep Q duct bank at the time of the additional excavation."

RESPONSE 11

Mr Sevo believes that the statement contained in this question is the result of a misunderstanding. Mr Sevo's recollection is that Mr Weil asked him a question concerning why construction stopped after the Phase II excavation below the Deep Q duct bank had been completed. In response, Mr Sevo believes that he stated his recollection of events at that time to be that the design of the backfill (i.e., what type of material to use) was still in flux due to geotechnical considerations by NRR.

Although neither Mr Sevo nor his group had responsibility for tracking NRC approvals, Mr Sevo's belief that the NRR had not concurred in the design of the backfill below the deep Q duct bank is based on his general recollection of the Friday job site meetings and other general conversations on site. Mr Sevo has no specific recollection of the details of any of the meetings and conversations mentioned above.

QUESTION 12

Identify all conversations, communications, discussions or meetings relating to obtaining NRC approval for excavation of the deep Q duct bank or the construction of the freezewall.

a. between yourself and the NRC; and

b. between yourself and Consumer and Bechtel.

RESPONSE 12

a. Mr Sevo has no present recollection of any conversation, communication or discussion with the NRC concerning approvals for excavation of the deep Q duct bank or for construction of the freezewall.

Mr Sevo may have attended some NRC exit meetings during the applicable time period, however, he has no re ollection of attending any meeting at which the obtaining of NRC approvals was discussed.

Neither Mr Sevo nor his group had any responsibility for obtaining approvals from the NRC during the applicable time period.

b. Mr Sevo was present for some Friday job site meetings which discussed general NRC approvals and restraints, however, he has no recollection of any meeting where the obtaining of NRC approvals for excavation of the deep Q duct bank or for construction of the freezewall were specifically discussed.

Mr Sevo had possession of the following communications which may relate to the obtaining of NRC approvals for excavation of the deep Q duct bank or for construction of the freezewall:

OCR #0159 memorializes a conversation between Mr Sevo and John Fisher on April 8, 1982; Mr Sevo does not recall how or when he obtained the information conveyed. (Copy attached)

A document entitled, "Meeting March 12, 1982," was sent to Mr Sevo; he does not recall who published the document and does not recall if he was present at that meeting. (Copy attached)

Mr Sevo was sent a copy of the June 4, 1982 letter from Don Horn to Messrs Bird, Marguglio and Dietrich which conveyed the minutes of the May 21, 1982 NRC exit meeting. (See Attachment 6 to the Weil Report dated September 12, 1983.)

To the best of Mr Sevo's recollection, he may have had routine job site discussions with numerous people during the applicable time period. He does not specifically recall if any of these conversations dealt with the obtaining of NRC approvals for excavation of the deep Q duct bank or for construction of the freezewall.

QUESTION 13

Explain the factual basis for the statement that the May 20, 1982 notes meant "the method of accomplishing the impervious zone beneath the deep duct bank had not been approved, " referred to on Page 21.

RESPONSE 13

The statement contained in this question does not appear on Page 21, however, it does appear on Page 23. The answer to this question is based on the statement appearing on Page 23.

Mr Sevo's recollection is that as of May 20, 1982, the NRR was reviewing the design for accomplishment of Phase II, which was the creation of an impervious zone below the deep Q duct bank, and had not given its approval at that time (May 20, 1982).

QUESTION 14

Explain the following portions of your typed and handwritten notes for the May 21, 1982 Remedial Soils Meeting:

a. "target freeze activation on Wednesday, May 26, 1982";
b. "Pit 4 critical";
c. "Clear space duct bank . . . Brien Palmer";
d. "have QA . . . look at all pits for any quality concern before Dr Landsman looks at them. . ."

RESPONSE 14

To the best of Mr Sevo's recollection, the following is an explanation of his notes of May 21, 1982, which were made from a QA point of view:

a. The scheduling goal was to activate the freezewall on Wednesday, May 26, 1982.
b. Pit 4 was the pit which provided the interface between the deep Q duct bank and the freezewall. Pit 4 was "critical" from the standpoint that it had several outstanding items which had to be completed prior to the NRC inspecting the freezewall and giving its authorization to activate the freezewall.

c. This item indicated a notification to Brien Palmer to assure, during the overinspection activities, that the required clear space was present beneath the deep Q duct bank. The clear space was a designed gap between the bottom of the deep Q duct bank and the existing soil prior to freeze-wall activation.

d. This item is a notification to the QA overinspection group (Brien Palmer) to conduct a review of all pits to assure accomplishment of all quality inspection, quality overinspections and the completion of all other open quality items before the NRC inspection of the monitoring pits.

NOTE: Mr Sevo's answers to interrogatories numbered 10, 11, 12, 13 and 14 do not include information already provided in the Weil Report, dated September 12, 1983.

QUESTION 15

Explain the Diagram on Page 3 of the attachments to the May 11, 1982 Ronk Memorandum, including but not limited to the meaning of the following:

a. zone numbers listed;
b. codes used and/or listed;
c. planning schedule caption;
d. "sups soils, Consumers Power Company" in third top box from left; and
e. initials "DRF 5/11/82" at bottom left corner of page.

Describe the purpose of this document.

RESPONSE 15

a. Zone numbers allow graphically displaying the schedule information in an organized fashion. The number shown has no intrinsic meaning.

b. Codes (called activity numbers) are used to organize the information in the computer files. The numbers are arbitrarily selected.

c. The caption "Planning Schedule" is a standard title that is used with the "PROJECT/2" software program.

d. The words "SWPS SOIL CONSUMERS POWER COMPANY" appearing in the third top box from the left are titles that were entered into the program for this network before the network was used for the remedial soils detailed schedule or 90 day revolving schedule. The network was originally intended to model just the Service Water Pump Structure (SWPS) soils activities.

e. The initials DFR 5/11/82 were placed on the document to indicate that it was prepared under Mr Ronk's supervision and issued on May 11, 1982.

QUESTION 16

Identify all activities or work listed in your May 11, 1982 memorandum that had been submitted to the NRC for approval prior to May 11, 1982.

Identify all documents which refer, mention or evidence such prior submission of work and activities to NRC for approval prior to May 11, 1982.

RESPONSE 16

Objection.

QUESTION 17

Identify all discussions, conversations, meetings, or communications with Mr Wheeler, Mr Schaub or Mr Mooney in period from March 1, 1982 through September 20, 1982 concerning:

a. the deep Q duct bank; and

b. the relocation of the fireline.

RESPONSE 17

Mr Ronk is not able to recall the time, place, participants or nature of any conversation with Mr Wheeler, Mr Schaub, or Mr Mooney between March 1, 1982 and September 20, 1982 regarding the Deep Q duct bank and the relocation of the fireline.

QUESTION 18

Identify all meetings, discussions, conversations and communications between Consumers, Bechtel and Mergentine relating to activities and/or items to be covered by the ASLB Order, including but not limited to the May 5, May 6 and May 7, 1982 meetings referred to in May 11, 1982 Schaub Memorandum.

RESPONSE 18

Objection.

QUESTION 19

Identify all activities determined by Consumers or by Bechtel, during the period from April 30, 1982 through September 30, 1982, to be covered by the ASLB Order.

Identify all documents which relate to, mention or refer to in any way the activities listed above.

RESPONSE 19

Objection.

QUESTION 20

For the period March 1, 1982 to September 30, 1982, identify the person or persons responsible for determining (a) whether or not a certain work activity must receive NRC approval, and (b) whether an activity or work is covered by the ASLB Order.

RESPONSE 20

Prior to April 30, 1980 the informal agreement between the Company and the NRC dictated which activities needed approval. After the April 30, 1980 Order, the Order defined those activities which needed approval. This May 5 conference call further delineated those activities requiring approval.

Mr Ronk's job description did not include keeping track of approvals, therefore, he has no knowledge as to this subject.

QUESTION 21

Explain why the June 23, 1982 and June 30, 1982 Soils Progress Schedule Status Reports include an asterisk indicating NRC review is required for both "complete deep Q duct bank" and "relocate fire protection pipeline."

State all reason for removal and/or omission of the asterisk from these two activities from the July 7, July 14, July 21, and July 28, 1982 Soils Progress Schedule Status Reports.

RESPONSE 21

The asterisk associated with "complete deep Q duct bank" was an indication that approval was needed for the permanent backfill of the excavation.

The asterisk associated with "relocate fire protection pipeline" was an indication that this new item of planned work was not yet approved.

Mr Ronk and Mr Schaub do not remember exactly why the asterisks were removed.

QUESTION 22

Identify all person(s) responsible for determining:

a. which activities in the Status Reports required NRC approval;
b. which activities listed in the Status Reports should be marked with an asterisk;
c. which activities should have asterisk removed;
d. which activities had received prior or required NRC approval.

RESPONSE 22

J R Schaub was responsible.

QUESTION 23

Explain all reasons for your refusal to or declination to provide a written statement to NRC investigators regarding the Office of Investigation investigations into violation of the ASLB Order.

RESPONSE 23

Mr Schaub did not believe that it was necessary to provide a written statement because he had already been interviewed by the investigators extensively and he felt that a written statement would be superfluous.

QUESTION 24

Describe the preparation of the Soils Progress Schedule Status Reports, including the following:

a. identification of all persons preparing the reports;

b. all persons reviewing the reports;

c. all persons who received the reports; and

d. all persons who used the reports in any manner.

For all such persons listed in subpart (d) above, state the use he/she made of the reports.

RESPONSE 24

a. D F Ronk prepared the report, he was assisted by others within the scheduling department;

b. The report was reviewed by J R Schaub;

c. R B Landsman and the persons listed as carbon copy recipients are the only people who the report was sent to;

d. R B Landsman was sent the report for purposes of planning his site visits relative to the status of construction.

QUESTION 25

Describe how the Short Term Action Plans were prepared

a. before June 31, 1983; and

b. after June 31, 1982.

List all reasons for changing their method of preparation.

RESPONSE 25

Since there are only 30 days in June, this answer is based on a reference date of June 30, 1982. The short term action plans were prepared by David Ronk before June 30, 1982. After June 30, 1982, Dave Ronk and Jerome Kostielney jointly prepared the short term action plans. Mr Kostielney was responsible for finding out the start and finish dates of the proposed work and to prepare the draft of the short term action plans to be approved by John Schaub. The reason for changing the method of preparation was to get Jerome Kostielney involved in the soils work.

QUESTION 26

Explain the method of determining which work activities were asterisked in these reports.

Identify all persons who participated in any way in the determination or whether or not to asterisk a particular work activity.

RESPONSE 26

Work activities on the short term action plan were first updated and prepared on a dratt. The draft was then reviewed by Dave Ronk and/or John Schaub. Jerome Kostielney was then directed by John Schaub and/or Dave Ronk to put an asterisk by the appropriate work activities. Participants involved in putting asterisks by work activities were John Schaub and Dave Ronk.

QUESTION 27

Explain your understanding of the following statement when you received the July 8, 1982 Memorandum from Ronk, referenced on Pages 28 and 29 of the Supplemental OI Investigation: "Jerry please make sure that appropriate activities get 2n*."

Identify any reason(s) Ronk gave for writing this statement in his memorandum of July 8, 1982.

RESPONSE 27

This statement was just a reminder to make sure that appropriate activities got an asterisk.

QUESTION 28

Explain what you meant when you stated to NRC investigators, "It's on there I assume I got the information," which is referenced on Page 29 of the Supplemental OI Report.

RESPONSE 28

Mr Kostielney does not recall making a statement "it's on there I assume I got the information." This statement means to him that if an asterisk was placed by a work activity, he would assume he got the information from John Schaub and/or Dave Ronk to put it on the report.

QUESTION 29

Describe your duties or responsibilities related to determining what activities require NRC approval.

Describe your duties and responsibilities with respect to determine whether any activity listed in the Soils Project Schedule Status Reports or the Short Term Action Plans

a. require prior NRC approval; and

b. should be asterisked.

RESPONSE 29

Mr Kostielney assumes that this question refers to his responsibilities at the time he was involved in preparing the short term action plans. His responsi-

bility was to place an asterisk by an activity under the direction of John Schaub and/or Dave Ronk.

QUESTION 30

Describe your understanding of "minor excavation" as Mr Wheeler used it in describing the agreement between himself and Dr Landsman referenced on Page 31 of the OI Supplemental Report.

RESPONSE 30

Because Mr Wieland was not working directly with excavation permits or work permits at the time of the incident which is the subject of alleged Board Order violation, he was aware only in general terms of an arrangement between Dr Landsman and SMO personnel whereby some excavations were informally reviewed after work had begun. Mr Wieland did not have a precise understanding of the details of the arrangement at that time, however, since that time, this subject has been the topic of discussions. Mr Wieland's present understanding is that major excavations were work activities such as underpinning the auxiliary building and service water building; minor excavations were items of lesser magnitude than the examples noted above.

QUESTION 31

Identify all documents you read or reviewed prior to approving the excavation permits for the fireline relocation and deep Q bank excavation.

identify what portion of these documents indicate the NRC gave prior approval for the activity and/or that prior NRC approval was not required for the activity.

RESPONSE 31

Mr Murray signed the excavation permit for the deep Q duct bank only; he signed the work permit for the fireline relocation.

As to the fireline relocation, Mr Murray recalls that there was no documentation which specifically dealt with the relocation. Since the activity covered under the Board order was the excavation in Q soils, it was Mr Murray's understanding that this activity was minor and therefore covered in the Wheeler-Landsman agreement. Mr Murray also recalls that prior to signing the work permit, he telephoned John Schaub to confirm the above reasoning.

Mr Murray does not specifically recall signing the excavation permit for the deep Q duct bank nor does he recall any specific document which he reviewed.

QUESTION 32

Describe all changes in the plans for the deep Q duct bank, including the following:

a. person suggesting the change;

b. person authorizing the change;

c. time when change adopted; and

d. the reason/rationale for the change.

Identify all documents constituting, mentioning, referring to or relating in any way to the above mentioned changes.

RESPONSE 32

Mr Murray has no knowledge of the rationale for, who suggested, or who authored, the changes in the deep Q duct bank design. This information is outside the scope of his job description.

QUESTION 33

Identify all Consumers or Bechtel investigations into the alleged violation of the Board Order or the manner in which the Office of Investigations' investigations were conducted.

Identify all reports or other documents related to such Consumers or Bechtel investigations.

RESPONSE 33

Consumers Power Company attorneys, J E Brunner and V P Provenzano, were present, either jointly or individually, for most of the interviews conducted by Mr Weil as part of his supplemental investigation. Mr Brunner, Mr Provenzano and F C Williams (Consumers' attorney from Isham, Lincoln and Beale) conducted a number of follow-up interviews.

Mr Brunner was also present during the interviews conducted by Mr Weil for the initial investigation; he also conducted follow-up interviews.

OCR #0159

Consumers Power Company

ORAL COMMUNICATIONS RECORD

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

CHRON. FILE NO 0.4.9.20.1

QA5-0

PAGE 1 OF 1

DATE OF CONVERSATION 4/8/82

QA-PROJECT PERSONNEL PARTICIPATING R E Sevo, MPQAD

TIME OF CONVERSATION 4:00 PM

OTHER PARTY(S) J Fisher - Remedial Soils Manager

RECORDED BY R. E. Sevo

SUBJECTS AND/OR SUBJECTS DISCUSSED Discussion with the NRC for permission to activate the freeze wall.

SUMMARY OF CONVERSATION CPCo and Bechtel personnel had made a request to the NRC to allow partial activation of the freeze wall leaving windows (unfrozen zones) at intersections with the Q-buried utilities.

The NRC denied this request and stated that approval will not be granted until the pits around the Q utilities had been completed and inspection by Dr R Landsman of the NRC.

Permission to activate the freeze wall will be considered after these conditions have been met. No partial activation will be considered.

CC All Civil QAEs (MPQAD)
WRBird, P14-416A
AJBoos, Bechtel-AA
MADietrich, Bechtel-Midland
JFisher, Bechtel-Midland
SMarker, Bechtel-Midland
RWVarga, Midland
JAMooney, P14-115A
JESchaub, P13-309A (0485.16 File)
NSwanberg, Bechtel-AA
REServo, Midland

REC'D 4/2/82
GLR

MEMO.
FROM- AL BOOS

To: Remedial Soils Group

CC: JAM
JRS
DMS
WRS
ARM
DFR
TRT
KBR
FV
NR
JKM
EJ

SITE
DES
GM
DEH
[redacted]
RS

Phases I and II Open Items
to Support Construction

A two-day work session was held on Tuesday, March 30, and Wednesday, March 31, 1982, to develop a list of all open items required to be completed for Phase I work, and to support Phase II work.

Attached is a listing of items discussed. This list will be discussed further at the weekly remedial soils schedule review meeting on Friday, April 2, 1982.

Al
AJB/ket
4/1/82

NOTE: MEETING CANCELLED. WILL BE DISCUSSED NEXT MEETING (4/9)

Attachment

Listed below are the main topics reviewed for preparation of the list:

I. NRC items

A. NRC staff
B. I & E

II. Engineering design releases (drawings, specifications, and consultant interface)

III. Material procurement

IV. Procedure development

V. Inspection plans

VI. Construction

Phase I

Scope - Freezewall, groundwater control. FIVP jacking, access shaft to 609 feet, partial instrumentation installation.

I. NRC items

A. Freezewall - Utility protection audit by I & E (Can we partial freeze? Flash freeze utility windows?)

B. Groundwater control - No open items

C. FIVP jacking - No open items

D. Access shaft to 609 feet - No open items

E. Partial instrumentation installations

1. Supply copy of C-1493 to NRC
2. Details of strain monitoring system for concrete and steel framing beam at 659

II. Engineering design releases

A. Freezewall - DCNs to C-1315 and 1316 for shallow and deep utility protection

B. Groundwater control

1. Release of hold on dwg C- (ejectors south of turbine building)
2. Supply of well data by Bechtel project engineer to Mergentime

C. FIVP jacking

1. Release of dwg C-1494
2. Revise spec C-198 to allow work to proceed on crack mapping? IFC only for instrument installation
3. Engineering approval of jack locations

D. Access shaft to 609 feet - No open items

E. Partial instrumentation

1. Issue dwg C-1493 for construction
2. Issue dwg C-1490 and 1491 for addition of ninth DSTM
3. Issue dwg C- with strain monitoring details (concrete strain and steel beam at 659 ft and 614 ft)
4. WJE design details for raceway, wire pulling, and terminations to remove management stop work

III. Material procurement

A. Freezewall - Utility protection material by Mergentime

B. Groundwater control - No open items

C. FIVP jacking

1. Delivery of jacks (Mergentime)
2. Letter from MPQAD on acceptance of jack manufacturers' calibration program

D. Access shaft to 609 feet - No open items

E. Partial instrumentation

1. WJE procurement of strain monitoring hardware
2. Thermocouple and wire (who buys?)

IV. Procedure development

A. Freezewall

Procedures for shallow utility protection installation

- Soldier piles
- Exc and lagging
- Surcharging
- Rebar & concrete

1. Procedures for deep utility protection installation

a. driving sheet pile
b. instl of wales
c. excavation

i. around utility
ii. mass excavation

d. contingency procedure for closure at top of clay under duct
e. concrete placement

B. Groundwater control (ejectors) - Resubmit and approve procedure for ejector installation using integrated inspection concept

C. FIVP jacking - Issuance of procedure OP42 for crack mapping and monitoring will have to be in the integrated format

D. Access shaft to 609 feet - No open items

E. Partial instrumentation

1. Resubmittal of WJE procedures OP38 and 39 in integrated work plan
2. Submittal and approval of procedures OP40 (data processing) and OP41 (emergency plan)
3. Submittal and approval of procedure for strain monitoring hardware installation (integrated format)

V. Inspection plans

A. Freezewall - For utility protection installation

B. Groundwater control - No open items

C. FIVP jacking

1. Need overinspection plan for crack mapping
2. Need inspection plan for jacking

D. Access shaft to 609 feet - No open items

E. Partial instrumentation

1. Field inspection plan for raceway installation
2. Field inspection plan for cable pulling
3. Field inspection plan for terminations
4 Revisions to PQCI-6.0 for instrument installation inspection
5. Inspection plan for strain monitoring hardware

VI. Construction status

A. Should be included in above

NRC items for Phase 2A, 2B and 3

I. Phase 2A

A. Plan for pier load test during Phase 2A or plate load test in adjacent area prior to Phase 2A (not a restraint to construction)

B. Plans for local groundwater control - restraint to 2A

C. CPCo letter to NRC on QA philosophy, 3/30/82 (hand carried)

D. Basis for total settlements since 1977 piping connection

E. Criteria for connecting 2-inch ℄ steam generator drain lines

F. Provide results of 70 vs 30 kcf study for structural effects on existing building (2Q3)

II. Phase 3

A. Construction sequence

B. Develop tolerances for building movement based on 70 kcf

C. Provide acceptance criteria for strain monitoring

D. Provide acceptance criteria for DMD 11, 12, and 13 at el. 705

E. Provide increased reading frequency for instrumentation for critical construction stages during Phase 3 (includes def of what the critical stages are)

F. Provide results of loss of support study under EPA during long turbine building drift installation

III. Phase 2A and B

A. Engineering design releases - Unless stated otherwise, dwgs are issued for construction - If necessary, holds for construction will be shown on Phase 2B work, where Phase 2A and B work are shown on the same dwg.

		Forecast
B.	Issue logic dwgs 1418 and 1418-1	3/31/82 F
C.	Issue dwgs C-1422	4/16/82
	C-1423	4/16/82
	C-1424	4/23/82
	C-1430 - lagging details for kc piers	4/23/82 (3/31/82
	C-1445	4/23/82

		Forecast	
	C-1445-1	4/23/82	
	C-1445-2	4/23/82	
	C-1417	4/09/82	
	C-1417-1	4/09/82	
	C-1427 1, 2, and 3 (for fab 3/31)	3/31/82	IFF
opposite hand 1436 —	C-1434	4/23/82	IFC

D. Issue spec C-195, C-200Q, G-33 (couplers, grouts, sliding plates, ethafoam-grout for piers-), C-208 (incorporating C-195)

IV. Material procurement

A. Steel sets
B. Sliding plates
C. Ethafoam
D. Metal lagging for kc piers
E. Jacks for kc piers
F. Delivery of jacks
G. Grout
H. Pier instrumentation hardware (teltales, tubes, centering devices, gauges, etc.)
I. Subcontract for ground stabilization
J. G&H subcontract for rebar detailing, fabrication and installation

V. Procedures

A. Priority - required immediately

Procedure	Description
—	Procedure development (Q)
41	Welding procedure (Q)
15	Handling and storage of materials (Q)
44	Quality training program (Q)
1	Document control (Q)

B. Priority - required for drifts and pier shafts

Procedure	Description	
12	Field fabrication of structural steel (Q)	Note:
47	Contingency plan for ground loss (Q)	Is this includ
—	Dewatering of local pockets (Q)	in spec C-200?
—	Construction of access pits and drifts and pier shafts (Q)	
—	Drilling and installing rock anchors and expansion anchors (Q)	
17	Removal of structural and lean concrete (Q)	

C. Priority - required for pier construction

Procedure	Description
40	Placing and field bending rebar (Q)
32	Mechanical splicing of rebar (Fox Howlet and Cadwelds) (Q)
—	Placing miscellaneous imbedded steel (Q)
—	Placement of pier concrete (Q)
11-1	Sandblasting (Q)
—	Installation of jacking plates and stands (Q)
—	Load transfer for piers (excluding control tower) (Q)
—	Fabrication and threading of rebar (Q)
21	Repair of concrete (Q)

D. Priority - other

Procedure	Description
45	Concrete core drilling (Q)
9	Construction of access shaft below el. 609 (Q)
30	Drypacking (Q)
28	Grouting

Meeting 3/12/82

QA Action Items:

(1) MPQA focal point for any more non-Q activities to be submitted to the NRC.

(2) Q-plan for Spec. C-195 needs to be redone due to Wednesday meeting with NRC.

(3) Q-plan for Spec. C-194 also needs to be revised per NRC meeting.

(4) NRR, Joe Cain, wants details on grout curtain proposed for area of freeze wall with deep duct bank.

(5) G&H subcontract to fabricate/ rebar will be non-Q. QC will inspect fabrication activities.

(6) Jagdish -- the pressure grouting of the bast cracks will be a "Q" order and "Q" procedure/drawings required per J. Morrey.

(7) Call to NRC -- Don Horn to proof notes and distribute.

(8) The NRC has some restrictions (see attached sheet) prior to start of Phase 2 activities.

Items attached to this QA list (to DEH only).

(1) Rough notes

(2) Previous notes and action list

(3) Non-Q list

  (a) Phase 2

  (b) Completed activities

(4) Spec. and drawing register remedials

(5) Detailed schedule marked up

(6) Activities listing required to start Phase 2

(7) Schedule review meeting

(8) NRR commitments prior to start of Phase 2

Consumers Power Company
QA48-1

PROJECT INSPECTION PLAN AND REPORT

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

PROJECT INSPECTION RECORD NO:	PROJECT INSPECTION PLAN NO:	TITLE:
	C-26F REV: 0	Installation Inspection of Sheet Piles for Deep Q - Duct-Bank
UNIT: N/A	PROJECT: Midland Units 1 & 2	PREPARED BY/DATE: Jagdish C. Shah 4/14/82
		APPROVED BY/DATE: R. E. Leo 4.14.82 Edward Swiff 4/14/82

SCOPE:

CHARACTER NO	CHARACTERISTIC DESCRIPTION	REFERENCE CRITERIA	REMARKS INITIALS/DATE
1.0	PREREQUISITES		
1.1	Prior to installation of sheet piles for deep Q-duct bank all supervisory staff or his designee shall be trained. All training sessions shall be documented V/R - HP - 100	C195-53-1 5.1,3.3,3.5	
1.2	Verify the acceptance of the subsequent revisions to shop drawing F7220-C-195-58(1) -1 are reviewed by MPQAD/QC prior to implementation V/R - HP - 100	C195-53-1 4.4	
2.0	INSTALLATION OF SHEET PILES		
2.1	While threading the adjacent sheet piles every other sheet shall be plumbed in accordance with the referenced drawings and tack-welded to the template. V/R - IP - S	C195-53-1 7.4 Shop Drawing F7220-C195 - 58(1)	
2.2	Pile driving shall be stopped at 1'-6" from top of Q Duct-bank.	Shop drawing F7220-C195-58(1)	

REMARKS: References: Shop Drawing: F7220 - C-195 - 58(1)

Procedure: F7220 - C-195 - 53 - 1

Bechtel Drawing: C-1316 (Q) Rev 1

ATTACHMENTS:

COMPLETED BY/DATE:

APPROVED BY/DATE:

Consumers Power Company

QA49-0

PROJECT INSPECTION PLAN AND REPORT

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

OJECT INSPECTION RECORD NO:

PROJECT INSPECTION PLAN NO: C-26F

REV: 0

HARACTER NO-	CHARACTERISTIC DESCRIPTION	REFERENCE CRITERIA	REMARKS INITIALS/DATE
2.3	Verify that the piles are driven 5' to 20' at a time and to approximately the same level. V/R - IP - S	C195-53-1 7.6	
2.4	Verify that the piles are driven to the design depth as shown in the referenced drawings, utilizing "Double acting hammer." V/R - IP - S	C195-53-1 7.6	
2.5	Verify that if obstructions prevent driving of sheet piles, the piles surrounding duct-bank are driven to the desired elevations as determined by the subcontractor, supervision. V/R - IP - S	C195-53-1 7.6	
3.0	QUALITY CONTROL INSPECTION & RECORDS		
3.1	Review QC inspection records including sketch to verify they are complete, accurate and up-to-date. R-IP/PP - S	Bechtel QC FIR-MPC-34	
3.2	Review quality control training records that QC personnel performing these inspections are trained. R - IP/PP - S	PSP G-8.1 Para 9.3	
3.3	Verify the QCE performance of inspection activities V - IP/PP - S	Bechtel QC FIR-MPC-34	

Consumers Power Company
QA48-1

PROJECT INSPECTION PLAN AND REPORT

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

JECT INSPECTION RECORD NO:	PROJECT INSPECTION PLAN NO: C-26F REV: 1	TITLE: Installation Inspection of Sheet Piles for Deep Q - Duct-Bank	
T: N/A	PROJECT: Midland Units 1 & 2	PREPARED BY/DATE: [illegible] 4/28/82	APPROVED BY/DATE: [illegible] 4·28·82 [illegible] 4/28/82

PE:

ARACTER NO	CHARACTERISTIC DESCRIPTION	REFERENCE CRITERIA	REMARKS INITIALS/DATE
1.0	PREREQUISITES		
1.1	Prior to installation of sheet piles for deep Q-duct bank all supervisory staff or his designee shall be trained. All training sessions shall be documented V/R - HP - 100	C195-53-1 5.1,3.3,3.5	
1.2	Verify the acceptance of the subsequent revisions to shop drawing F7220-C-195-58(1) -1 are reviewed by MPQAD/QC prior to implementation V/R - HP - 100	C195-53-1 4.4	
2.0	INSTALLATION OF SHEET PILES		
2.1	While threading the adjacent sheet piles every other sheet shall be plumbed in accordance with the referenced drawings and tack-welded to the template. V/R - IP - S	C195-53-1 7.4 Shop Drawing F7220-C195 - 58(1)	
2.2	Pile driving shall be stopped at 1'-6" from top of Q Duct-bank.	Shop drawing F7220-C195-58(1)	

MARKS: References: Shop Drawing: F7220 - C-195 - 58(1)

Procedure: F7220 - C-195 - 53 - 1

Bechtel Drawing: C-1316 (Q) Rev 1

TACHMENTS:

Consumers Power Company

QA49-0

PROJECT INSPECTION PLAN AND REPORT

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

OJECT INSPECTION RECORD NO:

PROJECT INSPECTION PLAN NO: C-26F

REV: 1

ARACTER NO	CHARACTERISTIC DESCRIPTION	REFERENCE CRITERIA	REMARKS INITIALS/DATE
2.3	Verify that driving of sheets will be such that the adjacent tips shall not exceed a differential of 20' nor any pile shall not be driven more than 20' at a time to maintain verticality. V/R - IP - S	C195-53-1 7.6 FCN #2040	
2.4	Verify that the piles are driven to the design depth as shown in the referenced drawings, utilizing "impact hammer." V/R - IP - S	C195-53-1 7.6 FCN #1985	
2.5	Verify that if obstructions prevent driving of sheet piles, the piles surounding duct-bank are driven to the desired elevations as determined by the subcontractor, supervision. V/R - IP - S	C195-53-1 7.6	
3.0	QUALITY CONTROL INSPECTION & RECORDS		
3.1	Review QC inspection records including sketch to verify they are complete, accurate and up-to-date. R - IP/PP - S	Bechtel QC FIR-MPC-34	
3.2	Review quality control training records that QC personnel performing these inspections are trained. R - IP/PP - S	PSP G-8.1 Para 9.3	
3.3	Verify the QCE performance of inspection activities. V - IP/PP - S	Bechtel QC FIR-MPC-34	

Consumers Power Company
QA48-1

PROJECT INSPECTION PLAN AND REPORT

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

JECT INSPECTION RECORD NO:	PROJECT INSPECTION PLAN NO: C-26I REV: 0	TITLE: Installation Inspection of Access Pit for Deep O Duct Bank	
N/A	PROJECT: Midland Units 1 & 2	PREPARED BY/DATE: Jagdish C. Shah 4/24/82	APPROVED BY/DATE: 4/25/82 4/24/82

PE:

ARACTER NO	CHARACTERISTIC DESCRIPTION	REFERENCE CRITERIA	REMARKS INITIALS/DATE
1.0	PREREQUISITES		
1.1	Prior to installation of access pit for Deep Q Duct Bank, all supervisory staff or his designee shall be trained. All training sessions shall be documented. V - IP - H	C195-59 5.1	
1.2	All welders shall be qualified and certified by Bechtel, prior to welding. V - IP - H	C195-59 5.2	
1.3	Verify that acceptance of the susequent revisions to the referenced shop drawing M2, Rev 1 are reviewed by MPQAD and Quality Control prior to implementation. V - IP - H	C195-59 4.3	
2.0	EXCAVATION		
2.1	Verify that, if any perched water pockets are met, the dewatering shall be implemented prior to further excavation. V/R - IP/PP - S	C195-59 7.1 C195-64	

MARKS: REFERENCES: Mergentime Corporation procedures: F7220-C195-53-1
F7220-C195-59-1

Shop Drawing: M-2 Rev 1

Bechtel Drawing: C1316 (Q) Rev 1

Bechtel Spec: C231 (Q) Rev 21

COMMENTS:

PROJECT INSPECTION PLAN AND REPORT

PROJECTS, ENGINEERING AND CONSTRUCTION - QUALITY ASSURANCE DEPARTMENT

ENGINEERING STRUCTION - NCE DEPARTMENT

NO:

PROJECT INSPECTION PLAN NO: C-26I

REV: 0

CHARACTERISTIC DESCRIPTION	REFERENCE CRITERIA	REMARKS INITIALS/DATE	RTS S/DATE
at outlined procedures for excava- followed as specified and the s of excavation are controlled as and concurred by the contractor, Soils Group field engineer after tion with resident geo-technical - S	C195-59 8.1, 8.2 9.2, 9.4		
TION OF WALES & LAGGING			
he sequence of installing wales & is followed as specified. - S	C195-59 8.1, 8.2		
hat lagging & backpacking below k is accomplished as specified. - S	C195-59 10.3		
f alternate H - beams are used, erify that steel channels are nstalled as lagging and backpacking s accomplished in accordance with pproved procedure. (alternate) - S	C195-59 13.1 - 13.3		
PLACEMENT			
hat before concrete is placed, the shall be approved by the onsite - Tech Engineer. - S	C195-59 11.1		
hat mudmat or concrete is placed in nce with project specification. - S	C195-59 11.1, 11.2 Bechtel Spec. C231 (Q) 5.6, 11.00		
CONTROL INSPECTION & RECORDS			
QC inspection records to verify they plete, accurate and up-to-date. -S	Applicable Bechtel QC FIR/PQCI		

CERTIFICATE OF SERVICE

I hereby certify that copies of the attached responses of Consumers Power Company to Discovery Questions of Intervenor Barbara Stamiris were sent by U S Mail, first class, postage prepaid, to the attached service list this 27th day of October, except for Lynne Bernabei, William Paton and Chairman Bechhoefer, who were served by Federal Express.

Catherine M Gleeson

Catherine M Gleeson

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

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

Docket No 50-329 OM
50-330 OM
Docket No 50-329 OL
50-330 OL

AFFIDAVIT OF JAMES E BRUNNER

My name is James E Brunner. I am primarily responsible for providing a response to the interrogatory numbered 33 submitted by Barbara Stamiris on October 11, 1983. To the best of my knowledge and belief, the response to the above-mentioned interrogatory is true and correct.

James E Brunner

Sworn and Subscribed Before me This 26th Day of Oct 1983

Alma C. Robinson

Notary Public
Jackson County, Michigan

My Commission Expires October 1, 1986

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

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

Docket No 50-329 OM
50-330 OM
Docket No 50-329 OL
50-330 OL

AFFIDAVIT OF JEROME E KOSTIELNEY

My name is Jerome E Kostielney. I am primarily responsible for providing responses to the interrogatories numbered 25, 26, 27, 28 and 29 submitted by Barbara Stamiris on October 11, 1983. To the best of my knowledge and belief, the responses to the above-mentioned interrogatories are true and correct.

Jerome E. Kostielney

Sworn and Subscribed Before me This 25th Day of Oct 1983

Patricia A Puffer

Notary Public
~~Midland~~ Bay County, Michigan

My Commission Expires March 4 1983

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

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

Docket No 50-329 OM
50-330 OM
Docket No 50-329 OL
50-330 OL

AFFIDAVIT OF GLENN MURRAY

My name is Glenn Murray. I am primarily responsible for providing responses to interrogatories 31 and 32 submitted by Barbara Stamiris on October 11, 1983. To the best of my knowledge and belief, the responses to the above-mentioned interrogatories are true and correct.

Glenn Murray

Sworn and Subscribed Before me This 25 Day of Oct 1983

Patricia A Puffer

Notary Public
~~Midland~~ Bay County, Michigan

My Commission Expires March 4, 1986

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

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

Docket No 50-329 OM
50-330 OM
Docket No 50-329 OL
50-330 OL

AFFIDAVIT OF DAVID F RONK

My name is David F Ronk. I am primarily responsible for providing responses to the interrogatories numbered 15 and 17 and jointly responsible for providing responses to interrogatories numbered 20, 21 and 22 submitted by Barbara Stamiris on October 11, 1983. To the best of my knowledge and belief, the responses to the above-mentioned interrogatories are true and correct.

David F. Ronk.

Sworn and Subscribed Before me This 25th Day of Oct. 1983

Patricia A. Puffer

Notary Public
~~Midland~~ BAY County, Michigan

My Commission Expires March 4, 1983

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

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

Docket No 50-329 OM
50-330 OM
Docket No 50-329 OL
50-330 OL

AFFIDAVIT OF JOHN R SCHAUB

My name is John R Schaub. I am jointly responsible for providing responses to interrogatories numbered 20, 21 and 22 and primarily responsible for providing responses to interrogatories numbered 23 and 24 submitted by Barbara Stamiris on October 11, 1983. To the best of my knowledge and belief, the responses to the above-mentioned interrogatories are true and correct.

John R Schaub

Sworn and Subscribed Before me This 25th Day of Oct 1983

Patricia A Fuller

Notary Public
Midland County, Michigan
My Commission Expires March 4, 1986

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

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

Docket No 50-329 OM
50-330 OM
Docket No 50-329 OL
50-330 OL

AFFIDAVIT OF JAMES A MOONEY

My name is James A Mooney. I am primarily responsible for providing responses to the interrogatories numbered 6, 7, 8 and 9 submitted by Barbara Stamiris on October 11, 1983. To the best of my knowledge and belief, the responses to the above-mentioned interrogatories are true and correct.

J A Mooney

Sworn and Subscribed Before me This 25th Day of Oct 1983

Alva C. Robinson

Notary Public
Jackson County, Michigan

My Commission Expires October 1, 1986

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

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

Docket No 50-329 OM
50-330 OM
Docket No 50-329 OL
50-330 OL

AFFIDAVIT OF ROBERT SEVO

My name is Robert Sevo. I am primarily responsible for providing responses to the interrogatories numbered 10, 11, 12, 13 & 14 submitted by Barbara Stamiris on October 11, 1983. To the best of my knowledge and belief, the responses to the above-mentioned interrogatories are true and correct.

RE Sevo

Affirmed and Subscribed Before me This 21st Day of Oct 1983

Patricia A Puffer

Notary Public
Midland County, Michigan

My Commission Expires March 4, 1983

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

'83 NOV -1 P12:06

ATOMIC SAFETY AND LICENSING BOARD

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

Docket No 50-329 OM
50-330 OM
Docket No 50-329 OL
50-330 OL

AFFIDAVIT OF RODNEY H WIELAND

My name is Rodney H Wieland. I am primarily responsible for providing a response to Interrogatory 30 submitted by Barbara Stamiris on October 11, 1983. To the best of my knowledge and belief, the response to the above-mentioned interrogatory is true and correct.

Rodney H Wieland

Affirmed and Subscribed Before me This 31st Day of Oct 1983

Patricia A Fuller

Notary Public
Midland County, Michigan

My Commission Expires March 4, 1986