



STONE & WEBSTER MICHIGAN, INC.

P.O. Box 2325, BOSTON, MASSACHUSETTS 02107

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

July 12, 1983  
J.O. No. 14509  
NRC File #83-07-12

RE: DOCKET NO. 50-329/330  
MIDLAND PLANT - UNITS 1 AND 2  
OVERVIEW OF THE CONSTRUCTION COMPLETION PROGRAM  
REPORT NO. 4

A copy of the Construction Implementation Overview Report No. 4 for the period June 27 through July 7, 1983 is enclosed with this letter. Included are meetings attended and a status of the CIO program development.

If you have any question with respect to this report, please contact me at (517) 631-8650 extension 486.

Very truly yours,

S.W. Baranow  
Program Manager

Enclosure

SWB/ka

cc: JHarrison, NRC Glen Ellyn  
RCook, NRC Midland (site)  
DBMiller, CPCo Midland (site)  
RBKelly, S&W  
APAmaruso, S&W  
CORichardson, S&W

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PDR FOIA  
RICE84-96 PDR

Report No. 4

June 27, 1983 through June 24, 1983

Personnel on Site

Stone & Webster Michigan, Inc.

S. Baranow	W. Miller
F. Bearham	A. Smith
R. Scallan	J. Chawla
J. Langston	W. Sienkiewicz
C. Larson (temporary)	

Meetings Attended

<u>Date</u>	<u>Attendees</u>	<u>Purpose</u>
June 28, 1983	Stone & Webster CPCo Bechtel	PQCI Status

Meetings

June 28, 1983 - Attended a meeting conducted by Bechtel for familiarization of the status and development of PQCI's. Those meetings are conducted on a daily basis between CPCo and Bechtel which provides for an up-to-date status of all PQCI's.

Activities

- 1) System Interaction Walkdown of the Auxiliary Building recommenced on July 7, 1983. The walkdown is being performed in accordance with WTP-3-Q, "Procedure for Performing Walkdowns of SSIP/S Targets."

The CIO evaluation was performed utilizing attribute checklist MP-MIS-WTP-3-Q. One interaction was analysed, documented and witnessed by CIO.

Action Items

Responses to CIO questions and concerns were received on July 6, 1983 covering dates of correspondence of the following:

- 1) May 18, 1983 Management Review Committee meeting of the Bulk Hanger Organization

Five areas of CIO concerns have been satisfactorily responded to. CIO considers these items as closed

- 2) June 3, 1983, Report #1  
Item 8 "CIO concerns noted during reviews of PQCI's"  
"Method of Communication/Notification is under consideration"

Resolutions: It was agreed to in a meeting, July 7, 1983, with Mr. M.P. Leonard, General Superintendent of Quality Assurance, that CIO concerns would be discussed with Mr. G.E. Parker, Section Head Plant Assurance Engineering.

- 3) June 14, 1983 Report #2  
Item (e) "Need to identify commitments made to NRC"

Resolutions: CIO has received a partial listing of commitments on June 16, 1983.  
Subject still remains open.

- 4) June 17, 1983 (Letter)  
Item 6 "CIO considers the list of commitments to the NRC a constraint to the QVP."

Resolutions: Pending receipt of a matrix, this item remains open.

Item (c) "The 14 required to resolve Management Review Team Observations should be approved and issued."

Resolutions: The 14 observations classified as constraints have been resolved through the issuance of approved "N" procedures dated June 20, 1983.

- 5) June 28, 1983, Report #3  
Item 2 - "CIO concerns in the conduct of training of Supervisory personnel."

Resolutions: The response by CPCo is under review and will be addressed in our next report.

#### Action Items

- 1) "CPCo response to items requiring resolutions:

Resolutions: Response B. M. Palmer to R. A. Wells memorandum (Serial 22897A) dated June 14, 1983 is under review and will be addressed in our next report.

- 2) "Are job descriptions and responsibilities of CPCo personnel engaged to implement the QVP available?"

Resolutions: Job descriptions and responsibilities have been received by CIO and are under review.

- 3) "Has a program been developed and responsibilities established of personnel assigned to process nonconformances?"

Resolutions: CIO understands that the program is in the development state - remains as open.

#### Status of CIO Program Development

- 1) Project Quality Assurance Plan - issued June 16, 1983.

#### NOTE

In our report #83-06-16 dated June 16, 1983, for Item N° 1, the date should read June 13, 1983.

- 2) S&W QCI 15.01 Nonconformance Identification and Reporting Rev. 0, June 14, 1983 - issued June 14, 1983.

- 3) S&W QCI 10.1 Construction Implementation Overview Assessment, Rev. 1, June 27, 1983 - issued June 28, 1983
- 4) Third Party Construction Implementation Overview Rev. 1 - to be issued week of July 11, 1983
- 5) Of a total of 96 PQCI's scheduled for issue by MPQAD for CIO review, 65 have been submitted for review and checklist development
- 6) To-date a total of 79 change notices and 29 revisions to the PQCI's has been received by the CIO
- 7) Checklist development status
  - a) first draft -52
  - b) review and approval - 38
  - c) typing completed - 27
  - d) approved for issue -11
- 8) MP-MIS Activity Checklists (i.e. Interaction Walkdown, Training, Management Evaluation etc.)
  - a) first draft - 11
  - b) review and approval - 6
  - c) typing completed - 4
  - d) approved for issue - 3

File -  
sqw C10



**Consumers  
Power  
Company**

Donald B Miller, Jr  
Site Manager  
Midland Project

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

July 1, 1983

Mr. Stanley Baranow  
Stone & Webster  
Midland Nuclear Cogeneration Plant  
P.O. Box 1963  
Midland, MI 48640

PRINCIPAL STAFF	
RA	<i>Res</i>
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MIDLAND ENERGY CENTER  
STONE & WEBSTER CORRESPONDENCE  
File: 0655, B1.1.4 UFI: 99\*08, 08\*06\*04\*03  
Serial: CSM-0656

Please find attached our response to questions raised in your memorandums to J. G. Keppler.

This response covers memorandums issued from May 19, 1983 through June 28, 1983.

CC:

- J. J. Harrison
- R. J. Cook
- R. A. Wells
- R. B. Kelly
- A. Pamaruso

JUL 11 1983

SUMMARY OF RESPONSE TO S&W CIO REPORTS

I. May 19, 1983 (S&W#1)

No items requiring response

II. No date (S&W#2) - May Management Committee Review(May 18, 1983)

Response contained in Attachment I

III. June 3, 1983 (S&W#3) - Report #1

(5) Program requires revision to address how trainers are trained.

Response: FPG-2.000, Paragraph 7.3 defines how trainers will be trained.

(8) Need a method for SWEC to communicate concerns found during PQCI review.

Response: A satisfactory method for communication on PQCI reviews has been established and will be defined in a S&W memorandum.

IV. June 14, 1983 (S&W#4) - Report #2

The response to items (a) through (d) are provided in Attachment 2.

(e) Need to identify commitments made to NRC.

Response: A project has been started in the Site Management Office (SMO) to collect all of the CCP commitments made to the NRC and to track them to the implementing mechanism.

Page 3 CIO's review of System Interaction Program

Response: Committed to CIO not to start program until SWEC had completed their review and the NRC had been briefed on the program. CPCo (Jackson) met with NRC and was given permission to start. I notified SWEC that on Monday, June 22, we would begin. CIO stated that they would be ready to support that effort.

V. June 15, 1983 (S&W#5) - Organizational Chart

No response required.

VI. June 16, 1983 (S&W#6) - SWEC Document Transmittal

No response required.

Summary of Response to S&W CIO Reports

VII. June 17, 1983 (S&W#7) - Spatial Systems Interaction Program

No response required.

VIII. June 17, 1983 (S&W#8) - June 1, 1983 Mgt Committee Review

Item 6 - SWEC considers the list of commitments to the NRC a constraint to QVP.

-The list is in development.

-The Management Review Committee must take action relative to R A Wells memo dated June 7, 1983 (Serial 22848). (Attachment to S&W#8).

Conditions on QVP Acceptance

(a) and (c) - Response provided in Attachment 3

(b) - List of commitments to NRC are being developed.

IX. June 28, 1983 (S&W#9) - Overview of the Construction Completion Program

No response required.

X. June 28, 1983 (S&W#10) - Overview of the Construction Completion Program - Report #3

Response to Activities Item #2

The CIO evaluated and commented on a training session given to personnel of the Bulk Hanger Organization. A concern was expressed that evaluation sheets, filled out by approximately one-half of the class attendees, were unsigned and hence "does not provide objective evidence of who correctly or incorrectly answered the questions on the evaluation sheets."

The concern expressed by the CIO appears to stem from a misunderstanding of the training evaluation program as outlined in G-4.00 (Training Evaluation Team Organization and Responsibility). The objective evidence that individuals are qualified and have received adequate training is provided by their performance on the job. The individual's supervisor monitors his performance.

The training session evaluation observed by the CIO has a different purpose which is covered in G-4.00. Each lesson plan includes an effectiveness measurement strategy which is designed to demonstrate that the student can master the lesson objectives for the material presented. In many cases the effectiveness measurement used will be a written exam which is administered to a minimum percentage of the class as specified in G-4.00. since the results of the exam are used to define modifications to the lesson plan and/or the instructor presentation, identification of the evaluation form to specific students is not needed.

The initial experience with this approach indicates that it is working to provide effective classroom instruction and student mastery of the lesson objectives.

Summary of Response to S&W CIO Reports

In summary, the purpose of the training session evaluation is to verify that the classroom instruction has been effective in presenting the stated lesson objectives. If the students sampled can pass the effectiveness measurement instrument, it is taken that the lesson objectives have been met. The ultimate test is the responsibility of the supervisor in monitoring individual on-the-job performance.

Response to Action Items

- 1) This item is closed with the response contained in Attachment #2
- 2) Job descriptions of QVP supervisory personnel are provided in Attachment #3
- 3) Will be responded to later.



RESPONSE TO CIO LETTER #2

After reviewing your overview observations on the Management Review of the Bulk Hanger Teams, the following is our response to your questions:

I. Stone & Webster Question:

Subtitle and Objectives of the CCP-

Two objectives are stated: (A) to improve information status  
(B) to improve implementation of the QA Program

These objectives are considered auditable by CIO and more details should be available. Details should include references to appropriate policy statements, procedures, responsible personnel and orientation sessions.

CPCo Response:

1. Response to "A"

- a. Preparing an accurate list of to-go work against a defined baseline.

This accurate list of to-go work will be defined against the baseline established during the status assessment (Phase I) work activity. This list will be prepared in accordance with the following procedures and instructions:

FPM 9.200 - Bulk Hanger Organization Hanger Walkdown  
FPG 9.800 - Bulk Hanger Organization Charter  
FIG 7.500 - Area Release for Construction  
FPG 9.900 - Construction Punchlist

- b. Bring inspections up to date and verify that past quality issues have been or are being brought to resolution.

Completed hangers will be handled through the Hanger Reinspection Program (P.2.30). All other inspections will be brought up to date and the validity of past quality issues will be handled under the Quality Verification Program (QVP).

For instruction and reference please see:

- 1. PQCI P-2.30 - Reinspection of Pipe Supports
  - 2. Quality Verification program, Midland Nuclear Cogeneration Plant Units 1&2
- c. Maintain a current status of work and quality inspections as the project proceeds.

The current status of work and quality inspections will be maintained using the following procedures:

- FPM 9.200 - Bulk Hanger Organization Hanger Walkdown
- FPG 9.800 - Bulk Hanger Organization Charter
- FPG 9.900 - Construction Punchlist

2. Response to "B"

- a. Expanding and consolidating CPCo control of the quality function

Consumers Power Company's Midland Project Quality Assurance Department (MPQAD) was expanded to assume direct control of site project quality functions including Engineer/Constructor QC except ASME. Features of the new organization are described in Section 3.0 of Revision 1 of the Construction Completion Program (CCP) dated June 10, 1983. The organization has been described in the Consumers Power Company Topical Report (CPC-1A), the FSAR, appropriate quality program manuals (Volume II, BQAM and NQAM) and MPQAD Procedure A-1M.

- b. Improving the primary inspection process

MPQAD has initiated a program for retraining and recertifying all Quality Control Engineers (Inspectors) and for reviewing and, as necessary, revising all Project Quality Control Instructions (PQCIs). The details of this program are also contained in Section 3.0 of the CCP.

MPQAD Procedure B-3M-1 describes training and certification of QCEs.

MPQAD Procedure E-3M describes preparation and approval of PQCIs.

- c. Providing a uniform understanding of the quality requirements among all parties

As a part of the PQCI revision process, project Engineering does a review of PQCI's partly to ensure that the PQCI is consistent with specification requirements and that clarifications are made to specifications as necessary.

The Team Organization defines a relationship between the construction and quality organizations that will enhance a uniform understanding of quality requirements (See Team Charter, FPG 9.800 and MPQAD Procedure on Team Quality Representative - T1)

Training is provided to the construction organization to improve understanding of the design requirements for construction. Strict adherence to design requirements is necessary to ensure quality in construction. (See subjects of Training Matrices)

## II. Stone & Webster Question:

### Subtitle - Status of BHO Pilot Team

This subtitle states that all procedures required for status assessment are approved. CIO considers this statement auditable and an index of these procedures should be available.

Additionally, this subtitle states that the preliminary hanger walk-downs results are available. CIO requests an opportunity to review these results.

### CPCo Response

The procedures, specifications and drawings required for status assessment were included in the handout distributed prior to the Hanger Team Management Review Meeting. This document is a living list subject to change due to revisions in specifications, work scope and/or unforeseen items. The CIO will be kept informed periodically as modifications are made to the listing.

The preliminary walkdown list is maintained by the Bulk Hanger group. It is available any time you would like to review it. Please contact T A Spelman if you need any assistance.

## III. Stone & Webster Question:

### Subtitle - Hanger Team Engineers

Additional information is required regarding NCRs - Trend analysis and prevention of recurrence.

III. (Contd)

CPCo Response

All NCRs that are issued during Phase II work will be brought to the cognizant Team Supervisor's attention by the respective team quality representative. The NCR will be evaluated and the appropriate action will be taken down to and including the craft level to avoid recurring situations by the Team Supervisor or one of his leads. For those items not falling under the Team Supervisor's direct control, appropriate action will be taken by the proper discipline staff group.

IV. Stone & Webster Question:

Subtitle - Hanger Team Quality Representative

Clarification on non-Q interfaces is required. Where a "Q" support has non-Q elements, to what level is the interface inspected?

CPCo Response

It is Bechtel's practice to prohibit connection of "Q" pipe hangers to non-Q structural steel or walls. This is encompassed by FSAR Appendix 3A response to Regulation Guideline 1.29; FSAR Section 3.2 and referenced in the first paragraph of the "Q"-list.

The civil structural drawings clearly indicate what structures are "Q" by an identification on the design drawings.

Bechtel does allow the installation of non-Q supports attached to "Q" supports. The non-Q support is shown in phantom on the "Q" support drawings.

V. Stone & Webster Question:

Subtitle - Procedures/Inspections

This subtitle states that 23 procedures, 19 specifications and 8 drawings are required for status assessment. CIO requests objective evidence that MPQAD, Bechtel and CPCo Construction agree that this listing is complete.

CPCo Response

The procedures, specifications and drawings listed for status assessment were compiled and reviewed by the Bulk Hanger System Team Superintendent, Lead Field Engineer, CPCo Construction Engineer, Team Quality Representative and Team Field Engineers. This list was then cross checked by Bechtel staff engineering. It must be emphasized that these lists are living documents that will change as design or field conditions dictate. Attached is the Hanger Team Training Matrix. This encompasses training requirements for both status assessment and construction. It is approved and signed by the Bechtel Project Field Engineer, Bechtel Field Construction Manager and a Consumers Power Company Site Management Office representative. MPQAD does review the list through the Team Quality Representative but does not sign off on the Training Matrix.



e) Identification of QVP related commitments.

Commitments made by Consumers Power management to the NRC have been compiled and tracked to the implementing mechanism. Because this has been completed, this item is considered to be closed.

BMP/ckb

TO DATaggart

FROM BMPalmer *BPalmer*

DATE June 28, 1983

SUBJECT MIDLAND ENERGY CENTER PROJECT -  
QVP MANAGEMENT REVIEW: CIO OPEN ITEMS  
FILE 23.0 SERIAL 22910

CC HPLEonard  
DBMiller  
RAWells

**Consumers  
Power  
Company**

INTERNAL  
CORRESPONDENCE

BMP 09-83

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- References: A) SWBaranow (S & W) letter to JGKepler (NRC), dated 6/17/83, Management Committee Review
- B) CPCo Serial 22834 dated 6/3/83 - Midland Energy Center Project - Quality Verification Program Management Review
- C) CPCo Serial 22848 dated 6/7/83 - Midland Energy Center Project - QVP Management Review Open Items

Reference A provides a list of three actions required for CIO approval of the QVP. Below is an update on the status of these items.

- a) Job descriptions for MPQAD personnel assigned QVP duties.  
Attachments 1 - 4 identify job positions and duties as they appear in current revisions of site procedures. In addition, as you know, the Administration and Training section is working on an effort to produce specific, detailed job descriptions for MPQAD positions. I understand that this effort is scheduled for completion sometime next week.
- b) Matrix of QVP NRC commitments  
The Verification group has completed its commitment list with regard to those CPCo letters up to and including the June 10th letter. As you realize, however, this list will never be "complete" until after the last commitment has been made.
- c) Management Review Team observations  
The fourteen GSlade team observations considered restraints, which were originally noted in references B and C, have been resolved. Attachment 5 provides an update of the original punchlist from reference B.

BMP/ckb

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ORGANIZATION

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ATTACHMENT 1

- 5.3.8 Coordinating with the Section Head Administration and Training for training and certification of QC personnel;
- 5.3.9 Submitting Quality Verification records for turnover;
- 5.3.10 Ensuring implementation of the Quality Control program;
- 5.3.11 Reviewing QC generated nonconformance reports for potential reportability;
- 5.3.12 Approving QC personnel assigned to the group

Additional organizational description of the Quality Control (BOP) Organization is delineated within the QC Notices Manual.

5.4 General Superintendent Quality Assurance And Organizational Responsibilities

The General Superintendent Quality Assurance reports to the Executive Manager, MPQAD and is responsible with regard to, Balance of Plant and HVAC activities for:

- 5.4.1 Supervising the Electrical - IC and the Structural - Mechanical Section; directing the Assistant Superintendent BOP for the supervision of Turnover & Test Support Section, QA Technical Services Organization and the Quality Verification Group; directing the Assistant Superintendent HVAC for the supervision of HVAC QA Engineering Section, HVAC IE&TV Section and HVAC QA Administration Group.
- 5.4.2 Providing the primary Quality Assurance interface with other CP Co departments and contractor organizations located at the site for other than Soils related activities;
- 5.4.3 Coordinating activities in support of NRC site inspections of BOP and HVAC related activities;
- 5.4.4 Preparing responses to NRC site inspection reports on BOP and HVAC related activities;
- 5.4.5 Providing the preparation, review, approval and issuance of all BOP and HVAC inspection plans;



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ORGANIZATION

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Attachment 1 cont.

- a. Functional system turnover;
- b. Records turnover;
- c. Area turnover;
- d. Preoperational testing;
- e. Review of procedures relative to turnover and pre-operational testing.

5.4.14 Monitoring all activities concerning turnover.

5.4.15 Acquiring the required support from other CPCo organizations to meet the MPQAD commitments for timely implementation of all MPQAD activities concerning turnover and preoperational tests.

5.4.16 Throughout all activities:

- a. Assuring the maintenance and reporting of hardware design quality and corrective action status;
- b. Evaluating the implementation of the Quality Assurance Program and recommending improvements;
- c. Reviewing and concurring (or approving) of other Midland procedures which are quality related;

5.5 Assistant Superintendent QA (BOP)

The Assistant Superintendent QA (BOP) assists the General Superintendent in the supervision and implementation of those activities applicable to Balance Of Plant as assigned by the General Superintendent. The Assistant Superintendent manages the Turnover and Test Support Section, the QA Technical Services, and the Quality Verification Group.

5.6 Assistant Superintendent QA (HVAC)

The Assistant Superintendent QA (HVAC) assists the General Superintendent QA in the supervision and implementation of those activities applicable to Heating Ventilation and Air Conditioning System. The Assistant Superintendent manages the HVAC Quality Engineering Services Section, HVAC IE&TV Section and the Administration Group Supervisor.

ORGANIZATION

ATTACHMENT 1 CONT

ORGANIZATION CHART

