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

October 31, 1983
J.O. No. 14509
NRC File #83-10-31

RE: DOCKET NO. 50-329/330
MIDLAND PLANT - UNITS 1 AND 2
OVERVIEW OF THE CONSTRUCTION COMPLETION PROGRAM
REPORT NO. 20

A copy of the Construction Implementation Overview Report No. 20 for the period October 24, 1983 through October 28, 1983 is enclosed with this report. No Management Review Committee meetings were held during this reporting period.

Matrices of Open Items, Hold Points, NIRs and evaluations of CCP activities, as appropriate, are attached. In addition, a report in the investigation of an allegation of improper welding is underway.

Very truly yours,

S. W. Baranow
Program Manager

SWB/ka

cc: JJHarrison, US NRC, Glen Ellyn, IL
RCook, US NRC, Midland (Site)
DLQuamme, CPCo, Midland (Site)
RBKelly, S&W
APAmoruso, S&W

Report No. 20

October 24, 1983 through October 28, 1983

Personnel on Site

Stone & Webster Michigan, Inc.

A. Amoruso	D. Cooke	R. Scallan
S. Baranow	R. Corson	J. Seely
F. Bearham	J. Langston	W. Sienkiewicz
J. Barr	C. Marrs	A. Smith
R. Carpeggiani	D. MacBay	J. Thompson
J. Chawla	T. Parker	

Meetings Attended

Date	Attendees	Purpose
October 24, 1983 through October 28, 1983	Consumers Power Company Bechtel Power Company Stone & Webster CIO MPQAD	Daily Staff Management Meetings
October 24, 1983	Consumers Power Company Bechtel Power Company Stone & Webster CIO MPQAD	Bi-Weekly Staff and Meetings with Team Supervisors
October 25, 1983	Consumers Power Company Stone & Webster CIO Bechtel Power Company MPQAD	QVP/Status Assessment
October 26, 1983 and October 27, 1983	Consumers Power Company Bechtel Power Company Zack MPQAD Stone and Webster CIO	Area Team and System Team Review Meeting
October 27, 1983	Consumers Power Company Bechtel Zack Stone & Webster CIO	NRR Meeting
October 28, 1983	CPCo BPCo MPQAD S&W CIO	NRC Exit Meeting

October 24, 1983 through October 28, 1983 - during this period, CIO attended daily staff management meetings and bi-weekly meetings with staff and team supervisors.

The main focus of attention during the week has been the Stop Work orders issued by MPQAD. At the daily meetings details of current status and proposed actions are described as well as the logistics to resolve the problems in a timely manner.

Subjects discussed at the daily staff management meetings were:

- Stop Work Orders
- NCR Dispositions
- Delays in Dispositioning/Closing NCRs
- Audit Findings
- NRC Concerns
- Document Control
- Training Progress
- Progress with Procedure Issuance
- Major Meetings
- Status of System 38
- Other Administrative Activities
- Manpower Loading

Subjects discussed at the bi-weekly meetings with staff, team supervisors and support personnel were:

- Training
- Staffing to support Module 340 activities
- Punch List Coding

Meetings

October 25, 1983 - QVP/Status Assessment Meeting. This was the first QVP/Status Assessment Meeting and it was held under the joint chairmanship of MPQAD (B. Palmer) and BPCo (T. Valenzano). T. Valenzano made a brief statement explaining the purpose of the meeting. This initial meeting was to explain the format for future meetings.

A two part hand-out was distributed and a brief walk-through of typical agenda items was conducted.

B. Palmer stated that all inaccessible items do not have to be completely evaluated for Phase I.

The agenda for the upcoming meeting between Mark Technologies (MT) and BPCo was described. It was stated that MT had some findings against the design of the plant although the exact details were not known.

Training stated that the training of the teams was almost finished.

October 26 and 27, 1983 - Area and System Team Review Meetings. At these meetings, any item that is considered to be a restraint is discussed. Action person(s) are assigned to pursue the resolutions for removing restraints. Also discussed is the schedule for completing actions assigned to each restraint item and the progress in meeting the schedule.

October 27, 1983 - US NRR Meeting. At this meeting, the agenda items were related to the design of the HVAC System.

Specific agenda items were:

- Results of Tensile Testing of HVAC Welds
- Material Traceability of Red Head and Hilti Bolts
- Calculations on Prying of Expansion Anchor Bolts
- Review of calculations of Dome Supports
- Discrepancy between drawing and specification on hanger spacing: drawing revised to reflect as built conditions which comply with specification requirements

No open items were identified by the US NRR

October 28, 1983, US NRC - Exit Meeting. At this meeting the following open HVAC related agenda items were discussed.

1) Report RPT 8308 - hardness testing of three A-307 bolts indicated values of 102 and 104 on the Brinnell scale, maximum allowable is 100. The out of specification values were considered acceptable by US NRC.

2) Report RPT 8318-8319 - sixty-eight (68) samples of the bronze welding of hangers, supports and duct work weretensile tested, bend tested and micro-etched. Results of the tests were satisfactory and accepted by the US NRC.

3) Of eleven allegations received by the US NRC during 1979, 1980 and 1981, ten were considered to be closed items. The eleventh item is considered satisfactory, however the US NRC has this as an open item for tracking purposes.

ACTIVITIES

1. Training Records

   a) sampling of training records of the Construction Field Engineering Staff and the Construction General Services Organization is continuing during this period.

   b) a review of the origin and the adequacy of the Construction Training Matrix is underway.

   c) NIR 006 has been issued October 27, 1983 to address disrepancies observed during the sample inspection of Construction Training Records of Teams 5, 6, 8, 9, 12, 13, 16, 17, 19, 20, 25, 26, (27/28) 29, 30, 31, (32/33), BHO Team Staff.

2) CIO witnessed the tensile testing of 90 HVAC welded specimens in accordance with Zack Company proposal titled "Program to Evaluate Past Welding to Photon Procedures". The tensile testing was performed at the CPCo laboratory in Jackson, Michigan and was in accordance with approved CPCo procedure Number MET-11 "Tension Testing of Weld Assemblies."

   Specimen types were:

   30 each - sheet to sheet welding
   30 each - sheet to structure welding
   30 each - structure to structure welding

All results exceeded the calculated in service load values. The results were considered satisfactory and were documented on MP-MIS-Z-039, "Program to Evaluate Past Welding to Photon Procedures."

3) Allegation

On October 26, 1983 - CIO received an anonymous phone call at 1:10 PM alleging that welding was being performed, contrary to authorized procedures. Specifically the party alleged that: "Bechtel Weld Procedures, P1-T-B and P1-A-LH, were unapproved for the sequence they were being used."

The party stated that there were numerous carbon steel socket welds in the Turbine and Auxiliary Buildings that were originally made using the SMAW (P1-A-LH) process. The welds were undersized and the balance of the weld was made using the TIG (P1-T-A) process.

CIO immediately notified the US NRC (Mr. R. Cook) and CPCo (Mr. B. Peck) of the allegation and advised that an investigation of the allegation would be conducted. CIO conducted its own investigation in the plant area, and the inspection of a weld on line EBD-103 revealed that a weld had originally been made using the SMAW process and a partial weld (probably a repair) had been placed over the original deposited weld filler metal. This observation confirmed that the allegation had merit and should be further investigated.

CIO then notified BPCo, (Mr. G. Hierzer) who immediately made Mr. L. Harrison (BPCo) available to assist in the investigation.

On October 27 - CIO met with Messrs. L. Harrison and S. Sprague (BPCo). CIO was shown an approved chart that indicated that both weld procedures were authorized for the welds on the EBD system. (NOTE: It was also determined that the EBD system was in fact non-Q)

CIO will obtain copies of portions of the ASME III Code applicable to Midland as well as copies of inspection records on a Q system to complete the investigation into the allegation.

The initial finding by CIO is that the welds were made in a sequence described by the informant and that the sequence is authorized and approved. It is anticipated that the investigation will be concluded during week ending November 4, 1983.

GENERAL

1) Signed affidavits, with copies of resumes of the following Stone & Webster personnel have been transmitted to Mr. J. J. Harrison, US NRC, Glen Ellyn, IL.

   - Mr. C. A. Marrs, Consultant Field Quality Control Division reported to job site on October 24, 1983
   - Mr. D. M. MacBay, Level II Inspector, Mechanical, reported to job site on October 24, 1983

2) Copies of revised CIO procedures, instructions are attached for information.

   - Project Quality Assurance Plan Rev. 2
   - Third Party Construction Implementation Overview Rev. 2 October 26, 1983
   - QCI 10.05 Rev. 0 October 14, 1983 CIO Monitoring Inspection
   - OCI 15.02 Rev. 0 October 7, 1983 Trend Analyses

STONE & WEBSTER MICHIGAN, INC.

CONSTRUCTION IMPLEMENTATION OVERVIEW
NIR LOG SUMMARY

NIR NO.	MPQAD NCR NO. QAR NO.	SUBJECT	DATE OF ISSUE	DATE DISP. BY MPQAD	DATE CLOSED	REMARKS
001	N/A	Training Records	8/15/83	8/15/83	8/17/83	NIR issued us closed-no corrective action required
002	QAR RT 00005	Forms from both procedures B-3M and B-3M-1 are intermixed in training records	10/4/83	10/12/83		
003	QAR RT 00006	Yearly vision examination was exceeded	10/4/83	10/12/83		
004	RT 00007	OJT training records not available in training records. Revision number not listed on OJT Record	10/4/83	10/12/83		
005	QAR RT 00011	Personnel Certification Form QA-116-1, Attachment D is unavailable in record files	10/4/83	10/12/83	10/20/83	Memo to CPCo advising that NIR-005 can be closed out. Records for Level II certifications have been verified by CIO
006		Discrepancies in three areas of Construction Training Records	10/27/83			

STONE & WEBSTER MICHIGAN, INC.
CONSTRUCTION IMPLEMENTATION OVERVIEW
HOLD POINT LOG SUMMARY

NO.	SUBJECT	ORIGINATING DOC/DATE	CPCo RESPONSE DOC/DATE	STATUS OPEN/CLOSED	CLOSE-OUT DOC/DATE
001	Adequacy of drawings A8 - large bore pipe hangers. CIO established Hold Point when MPQAD issued 2 NCRs against the use of red-lined drawings which were voided by Project Engineering.	Report No. 6 7/25/83	Letter 8/9/83	Closed	Report No. 9 8/15/83
002	Material traceability of installed hangers(E3). CPCo response dated 7/1/83 indicated report on material traceability was to be issued in a timely manner. Due to uncertainty of when the report would be issued, a Hold Point was established by CIO.	Report No. 6 7/25/83	Letter 8/9/83	Closed	Report No. 9 8/15/83
003	Has a program been developed and responsibilities established for personnel assigned to process nonconformances? Has a meeting been held with Project Engineering to discuss methodology of processing non-conformances?	Report No. 6 7/25/83	Letter 8/9/83	Closed	Report No. 9 8/15/83

STONE & WEBSTER MICHIGAN, INC.
CONSTRUCTION IMPLEMENTATION OVERVIEW
HOLD POINT LOG SUMMARY

NO.	SUBJECT	ORIGINATING DOC/DATE	CPCo RESPONSE DOC/DATE	STATUS OPEN/CLOSED	CLOSE-OUT DOC/DATE
004	Evaluation of Phase I Management Review Committee meetings.	Report No. 1 6/3/83 through Letter of 6/30/83	Letters 7/1/83 8/9/83	Closed	CIO Letter to J.G.Keppler dated 10/12/83
005	CPCo has committed to develop a Vendor Equipment Verification Program. Program is required before implementation of Phase II.	Report No. 18 10/17/83		Open	
006	NIRs 002, 003, 004 and 005 issued as a result of sampling inspections of 45 MPQAD Training Records. Corrective action must be completed before any inspections can be performed by the 45 personnel in question.	Report No. 18		Open	
007	Evaluation of Management Review of results of Phase I activities. Evaluation of Management Review Committee plans and procedures for Phase II implementation.	Report No. 19 10/24/83		Open	

STONE AND WEBSTER ENGINEERING CORPORATION
NONCONFORMANCE IDENTIFICATION REPORT

QCI 15.01
Attachment 4.1
Revision 2

DATE OF NONCONFORMANCE: OCTOBER 27, 1983 NIR NUMBER 006

IDENTIFICATION/LOCATION OF ITEMS:
BECHTEL DOCUMENT CONTROL CENTER

DESCRIPTION OF NONCONFORMANCE:
During the review of 2054 non-manual Construction Training Records, three areas of discrepancies were observed which were not in compliance with the requirements of FPG-2.000 Rev. 5, "Training of Construction Personnel." (The following Teams were evaluated #5, 6, 8, 9, 12, 13, 16, 17, 19, 20, 25, 26, (27/28), 29, 30,31, 32/33), BHO Team Staff.
(See attached for descriptions of Discrepancies)

Walter H. Sienkiewicz
INITIATOR
DATE October 28, 1983

PROGRAM MGR [signature]
DATE October 28, 1983

CORRECTIVE ACTION BY:
IDENTIFY ORGANIZATION TAKING CORRECTIVE ACTION

VERIFICATION SAT UNSAT	NEW NIR#	CONCURRENCE
INITIATOR		PROGRAM MGR
DATE	DATE	DATE

REMARKS

1) Course Rosters Attachment D to FPG-2.000 exhibited one or more of the following discrepancies.

BLOCK NO.	ENTRY REQUIRED	ENTRY RECORDED
1	CCP	DWG. No. FIG. No.
2	(a) Name of lesson (b) Procedures (c) Revision	Either a, b, or c missing
6	Location of Session	Bechtel
10	(a) Signature (b) Print Last Name	Either a or b missing
5	Instructor Name	Instructor Department
	In addition many entries were left blank	

2) Reading Records Attachment C to FPG-2.000 exhibited one or more of the following discrepancies:

Reading Record

1) The department and or assignment lines are illegible or incomplete.

2) Assigned reading performed on October 11, 1983 and September 29, 1983 were not documented on Reading Form Attachment C, Rev. 5.

3) Team Records and TSR (Training Status Report) show training completed Document Control Files showed no record of training. For example:

NAME	TEAM #	TRAINING REQUIREMENT	DISCREPANCY
Kranzfelder	Management	FPD-2.000 Code 2	No Record in File
J. Hull	32/33	M-204 Code 5	No Record in File

In addition to these violations, inconsistency was noted in 4 areas: (1) Modification to records, some lined through, signed and dated and others simply lined through. (2) Some entries on course register are completed using pencil while most are in ink. (3) Difficulty is experienced in determining the accuracy of records where attendance at a course carries credit for several others. (4) Some entries carried the revision number to procedures and some omitted the revision. (5) Proper "Course Roster Form as listed in Procedure FPG-2.000 were not utilized. (6) Some courses on Rosters contain information not identical to matrix listing.

It is recommended that the disposition to this NIR include a committment to verify training records of each individual prior to status assessment assignment.

STONE & WEBSTER MICHIGAN, INC.
MIDLAND NUCLEAR COGENERATION PLANT
CIO OBSERVATIONS

Observation Number	Observations	Originating Document/Date	CPCo Response Document/Date	Status Open/Closed	Close-Out Document/Date
030	Need to review Vendor Equipment Verification Program - MPQAD/SMO	Report No. 5 7/18/83		Open	

J.O. No. 14509
Midland Plant Units 1 & 2
Consumer Power Company
Third Party Construction
Implementation Overview

PROJECT QUALITY ASSURANCE PLAN

Approvals: Dates:

S W Bowman — October 25, 1983
Program Manager

C W Sattler for — October 20, 1983
Chief Engineer
Engineering Assurance

Richard B Kelly — October 20, 1983
Manager
Quality Assurance

SCOPE

This procedure describes the quality assurance plan for activities performed by Stone & Webster Michigan (S&W) for the Consumers Power Company's (CPCo) Midland Plant- Units One and Two. The work involved in this third party overview is described in applicable CPCo specifications and procedures and shall be accomplished in the following manner:

a. Development of an overview program and preparation of a Project Quality Plan.

b. Review of the design and construction documents to gain familiarity with the work.

c. Assessment of the adequacy of technical and related administrative construction and quality procedures.

d. Assessment of the degree of compliance with technical and administrative construction and quality procedures.

e. Assessments are made by conducting audits, monitoring (surveillance) inspections, and redundant (sample) inspections.

f. Daily reviews as necessary with the Owner to obtain any clarifying information and project documents that are needed to carry out this program. The Owner and S&W will establish a specific communication plan at the start of the work.

g. Submittal of brief weekly progress reports and a final report to the NRC with a copy to CPCo.

h. S&W will not be responsible for implementing corrective action, however, their professional opinion may be requested.

PROGRAM REQUIREMENTS AND ACTIVITIES

I. ORGANIZATION

The overall Stone & Webster Engineering Corporation (SWEC) organization is depicted in SWSQAP 1-74A (Section I). A Program Manager will function as the site leader for the third party overview. Project organization is described in the Project Program Plan.

II. QUALITY ASSURANCE PROGRAM

The overall SWEC quality assurance program is designed to provide assurance that all SWEC activities are accomplished in a controlled manner. The SWEC corporate QA program complies with 10CFR50, Appendix B, and NRC Regulatory Guides, and is described in an NRC approved topical report, SWSQAP 1-74A, "Standard Nuclear Quality Assurance Program."

This quality assurance plan shall be maintained up-to-date to reflect any changes in the scope of S&W work.

This quality assurance plan identifies the procedures which implement the overall QA program as it applies to the S&W scope. Insofar as possible, applicable standard SWEC procedures will be used to govern the work. When standard procedures do not fit project circumstances, project procedures will be issued to govern the work. Variances from standard SWEC procedures will be approved according to Quality Standard (QS) 5.1 and Engineering Assurance Procedure (EAP) 5.7.

Personnel performing activities in accordance with this plan requiring qualification and certification will be qualified and certified in accordance with Quality Standard 2.12 and Quality Assurance Directive 2.5.

III. DESIGN CONTROL

(Not within the S&W scope)

IV. PROCUREMENT DOCUMENT CONTROL

Consulting Services, as required, are procured in accordance with Engineering Assurance Procedures 4.1 and 4.15, which are supplemented by Project Procedure (PP) (LATER).

V. INSTRUCTIONS, PROCEDURES, AND DRAWINGS

S&W procedures, including variances, are prepared and controlled in accordance with Section II of this QA plan.

(Instructions, drawings and specifications are not within the S&W scope).

VI. DOCUMENT CONTROL

Plans, procedures, instructions, and documents prepared and implemented by S&W will be controlled per PP (later).

VII. CONTROL OF PURCHASED MATERIAL, PARTS, EQUIPMENT, AND SERVICES

(Control of Purchased Material, Parts and Equipment - not within the S&W scope).

Control of Services is in accordance with Engineering Assurance Procedure 7.1.

VIII. IDENTIFICATION AND CONTROL OF MATERIAL, PARTS, AND COMPONENTS

(Not within the S&W scope)

IX. CONTROL OF SPECIAL PROCESS

(Not within the S&W scope)

X. INSPECTION

Monitoring inspections are conducted on a surveillance basis to assess on-going CCP activities. Redundant sample inspections are conducted after acceptance of an area, commodity, or product by CPCo as a final assessment measure. 2

XI. TEST CONTROL

(Not within the S&W scope)

XII. CONTROL OF MEASURING AND TEST EQUIPMENT

(Not within the S&W scope)

XIII. HANDLING, STORAGE, AND SHIPPING

(Not within the S&W scope)

XIV. INSPECTION, TEST, AND OPERATING STATUS

(Not within the S&W scope)

XV. NONCONFORMING MATERIAL, PARTS, OR COMPONENTS

Nonconformances observed by S&W during monitoring and sample inspections are reported in writing to the NRC with copy to CPCo. These reports will be used in establishing the extent of inspection and adjustments to the extent of inspection by trend analysis. 2

XVI. CORRECTIVE ACTION

The criteria for the identification of conditions that require review to determine reportability under 10CFR50.55(e) and/or 10CFR21 are defined in QS/EAP-16.2 and QS/EAP-16.3, respectively. Identified conditions are processed for review/evaluation in accordance with Project Procedure "Nonconformance Identification and Reporting."

XVII. QUALITY ASSURANCE RECORDS

S&W General Policy and Procedure for records collection, retention, and turnover to Consumers Power Company are described in QS-17.1, EAP-17.2 and QAD-17.1 and as detailed in the scope under items f. and g. QAD-17.1 and EAP-17.2 are supplemented by PP (LATER).

XVIII. AUDITS

Audits of the S&W CIO program are performed in accordance with QS-18.1 and QAD's 18.1 and 18.2.

J.O.No. 14509
Midland Plant Units 1 & 2

Date October 26, 19[illegible]
Revision 2

THIRD PARTY CONSTRUCTION IMPLEMENTATION OVERVIEW
Approval:

Richard C. Kelly Date 10/26/83
Manager Quality Assurance

Date 10/26/83
Program Manager

1.0 PURPOSE AND SCOPE

To establish a program whereby Stone & Webster Michigan (S&W) performs independent evaluations and verifications of the Consumers Power Company (CPCo) Construction Completion Program, (CCP) reports progress, observations, and nonconformances to the program; specifically, to verify: <2

1.1 Management performance is adequate in the following areas:

A. Establishment of the Management Review Committee

B. Duties and responsibilities of the Review Committee are clearly defined

C. Procedures governing the actions of the Review Committee are in place

D. Management reviews are complete, effective, and conducted in accordance with the requirements of the CCP Program

1.2 CCP procedures, instructions, inspection plans, records, and prerequisites for inspections/reinspections have been satisfactorily approved prior to implementation.

1.3 Specific CPCo commitments to the NRC are identified to facilitate tracking; dates for compliance (as appropriate) are adequately identified; appropriate action parties are clearly identified; committed actions have been satisfactorily resolved.

1.4 Procedures, prerequisites, and reinspection attributes in References 2.1, 2.2 and 2.3 have been approved by the Management Review Committee.

1.5 Personnel assigned to implement the CCP Program have been properly trained, qualified and certified in accordance with the requirements of ANSI-N45.2.6; SNT-TC-1A and MPQAD Procedure B-3M-1, Qualification and Certification of Inspection and Test Personnel. Construction and craft personnel shall be trained to meet the requirements of the Construction Training Procedure FPG-2.000.

1.6 The effectiveness of the Quality Verification Program based on witnessing inspections/reinspections of selected component installation, fabrication and review of applicable test/inspection reports and records.

1.7 Measures have been developed to ensure that NRC hold points are clearly identified and controls are in evidence to prevent continuance of work pending clearance of the hold points. "

2.0 REFERENCES

2.1 Quality Verification Program Document, April 16, 1983

2.2 Construction Completion Program

a. Letters J.W. Cook to the NRC: January 10, 1983
April 6, 1983
April 22, 1983
August 26, 1983 2

2.3 Nonconformance Identification and Reporting Procedure

3.0 ATTACHMENTS

3.1 Evaluation Attribute Checklist

3.2 Verification Attribute Checklist

3.3 Nonconformance Identification Report 2

4.0 DEFINITIONS

4.1 Construction Completion Program (CCP)

A program to provide guidance in planning and management of design and quality activities necessary for completion of construction of the plant and verification of completed work.

4.2 Quality Verification Program (QVP)

An element of the CCP used to confirm the quality status of safety related procurement and construction activities completed and inspected by the Engineer-Constructor personnel prior to December 2, 1982.

4.3 Evaluation

Assessment of quality related activities based upon review of procedures, plans, instructions, inspection reports, test results and additional commitments.

NOTE

Documentation resulting from resolution of CPCo commitments to the NRC and NRC Hold Points shall be 100% reviewed to verify that proper corrective action has been accomplished.

4.4 Verification

Confirming, substantiating or assuring that CCP and QVP requirements have been implemented and are adequate. Verification actions may include documentation, hardware and management systems. K2

NOTE

Verification of the CCP and QVP Programs will be accomplished by monitoring and sample inspections in sufficient detail to ensure adequate CPCo implementation. K2

5.0 GENERAL REQUIREMENTS

5.1 All personnel assigned quality assurance program evaluation responsibilities shall be certified auditors in accordance with ANSI-N45.2.23 and applicable SWEC procedures.

5.2 All personnel assigned construction verification responsibilities shall be certified inspectors in accordance with ANSI-N45.2.6 and applicable SWEC procedures and possess the appropriate combination of education, experience and training.

5.3 The Third Party Construction Implementation Overview (CIO) program will be structured to determine, by evaluation of predetermined procedures and instructions, the quality practices utilized in the construction of the Midland Plant Units 1, 2, and the effectiveness of those practices.

5.4 A site team will be established to monitor the effectiveness of the Construction Completion Program. The team will consist of a Program Manager and two functional groups. One group will assess the completeness of compliance with procedures and inspection plans being used to complete the work. The other group will review certain aspects of construction activities which relate to the performance of the Quality Control Inspection Program. These two groups will use special procedures, attribute checklists, and random sampling techniques to evaluate the following:

A. Adequacy and implementation of CPCo procedures regarding construction activities, personnel qualification, training programs, and organizational practices.

B. Compliance of Construction Completion Program teams to prescribed procedures.

C. Compliance of Midland Project Quality Assurance (MPQAD) personnel to applicable inspection procedures.

D. Compliance of construction activities to applicable procedures.

5.5 The Program Manager shall maintain communications with the NRC and CPCo Site Manager. Monthly progress meetings shall be held with the NRC and CPCo to discuss progress and report on nonconformance and observations. 2

5.6 Programmatic nonconformances of a serious nature shall be immediately reported to the NRC and CPCo.

6.0 PROCEDURES

6.1 The following procedures shall be prepared to control the activities of the Construction Implementation Overview (CIO) teams.

A. Quality Control Instruction 10.01 Construction Implementation Overview Assessment

6.2 The site teams shall develop attribute checklists for each evaluation and verification activity. Attributes shall be selected from the CCP, PQCI's, CPCo committments to the NRC and other applicable requirements.

6.3 Auditors assigned to conduct evaluations shall, utilizing attribute checklists, verify that acceptable quality practices are evident in the performance of each activity. 2

The results of each evaluation shall be documented on the attribute checklist to ensure repeatability. Summaries of the results shall be tabulated weekly for presentation to the NRC and CPCo.

6.4 Inspectors assigned to conduct verification shall, utilizing the checklist, monitor the activities of CPCo personnel involved in CCP and QVP activities.

6.5 All systems verified shall be identified and documented to assure repeatability.

6.6 Nonconformances identified in conjunction with this procedure shall be documented on a Nonconformance Identification Report (NIR) and processed in accordance with Reference 2.3 of this procedure. 2

7.0 REPORTS

7.1 The following reports will be submitted to NRC and CPCo and S&W by the Program Manager.

A. Weekly Progress Reports

B. Monthly Meeting Reports 2

C. Final Reports on Construction Completion

7.2 Weekly Progress Reports - Weekly Progress Reports will be submitted to the USNRC and CPCo.

7.3 Monthly Meeting Report - The Monthly Meeting Report shall consist of the minutes of monthly meetings conducted by the USNRC with the public in attendance. Copies of the minutes of the meetings shall be transmitted to the USNRC and CPCo. 2

7.4 Final Report - A final report will be submitted 30 days after completion of the program. The report will summarize the S&W assessment. The final report will be submitted by the Program Manager to the NRC, CPCo and S&W.

T-391

STONE & WEBSTER	QCI NO. 10.05	REV. 0	DATE 10/ /83	PREPARED BY J.C. Thompson
	DIVISION CIO		LOCATION MIDLAND	
QUALITY CONTROL INSTRUCTION	APPLICABILITY MIDLAND		APPROVED BY [signature] 10/24/83 [signature] 10-27-83	
	RE: PROCEDURE QS-4.2			
	SUBJECT CIO MONITORING INSPECTION			

1.0 PURPOSE AND SCOPE

To establish a system for planning, conducting and documenting Construction Implementation Overview (CIO) inspections. This QCI shall be applicable to Babcock Wilcox, NSSS and Zack HVAC activities.

2.0 REFERENCES

2.1 QCI 10.01 - CONSTRUCTION IMPLEMENTATION OVERVIEW ASSESSMENT

3.0 ATTACHMENTS

3.1 None

4.0 GENERAL

4.1 The CIO Program shall assure proper implementation of QA/QC programs through systematic evaluations of records, methods, procedures, and activities. Inspections shall assure conformance of materials, processes and/or services to the requirements specified in engineering, construction and QA/QC documents and procedures. An inspection checklist, as delineated in Reference 2.1, shall be used as the basis for monitoring inspections.

4.2 As a minimum, the monitoring program shall encompass each quality related activity or each section of the QA program being monitored as indicated on the inspection schedule.

4.3 CIO shall perform all monitoring inspection functions, i.e., prepare schedules, inspection checklists; perform monitoring inspections and document results.

4.4 Monitoring inspection results shall be documented and reported in accordance with Paragraph 5.3.

4.5 Responsibilities

4.5.1 The CIO Program Manager is responsible for the implementation and control of the Monitoring Inspection Program at the construction site.

4.5.2 The CIO Program Manager is also responsible for evaluating results and effectivity of the program.

5.0 PROCEDURE

5.1 Scheduling

5.1.1 Schedules of monitoring inspection activities shall be based on workload and areas where activities to be monitored are in progress, where known or potential problem areas exist, and where the review of NCRs indicates negative trends.

5.1.2 CIO shall prepare a monitoring schedule on a semi-annual basis and update it to reflect changes when deemed necessary.

5.1.3 Additional inspection of products or processes may be performed based on types of activities in progress. These inspections are not scheduled but are supplemental to the required inspections. They shall be documented in accordance with Paragraph 5.3.

5.2 Attribute Checklist

5.2.1 CIO shall prepare attribute checklists for all monitoring inspection activities indicated on the inspection schedule using the applicable documents that effect quality, i.e., PQCI's, specifications, codes, contractor QA/QC programs, engineering and construction department procedures, etc. The attribute checklist delineates specific items that require inspection.

5.2.2 In preparing attribute checklists, the responsible monitoring inspector shall interface with the appropriate Babcock & Wilcox/Midland Plant Quality Assurance Department (BW/MPQAD) inspector as necessary to assure that the pertinent activity will be adequately monitored.

5.2.3 An attribute checklist will be established as a standard and define the minimum requirements for the inspection. The inspector may add additional attributes as conditions warrant, e.g., adverse trends. Attributes that are not applicable to a specific inspection shall be identified as N/A and not be deleted.

5.2.4 All specifications, procedures, drawings, etc., and revisions thereto used during monitoring shall be referenced on the checklist.

5.2.5 The monitoring results shall be transmitted to the NRC and CPCo summarizing the results of the inspections.

5.2.6 All checklists shall be prepared in accordance with the requirements of Reference 2.1.

5.3 Monitoring Inspection Reporting

5.3.1 The result of scheduled and unscheduled monitoring inspections shall be documented using the attribute checklist. All results shall be described in sufficient detail to ensure repeatability of inspections.

5.3.2 The attribute checklist shall document all areas, items and details observed. It shall also identify both satisfactory and unsatisfactory findings.

5.4 Maintenance of Documentation

5.4.1 CIO shall maintain a file of all completed attribute checklists, and related documentation.

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STONE & WEBSTER	QCI NO. 15.02	REV. 0	DATE 9/83	PREPARED BY W.H. Grieves
QUALITY CONTROL INSTRUCTION	DIVISION FQC		LOCATION MIDLAND	
	APPLICABILITY MIDLAND		APPROVED BY [signature] 10/26/83 [signature] 10/21/83	
	RE: PROCEDURE N/A			
	SUBJECT TREND ANALYSIS			

1.0 PURPOSE AND SCOPE

To establish the procedure for evaluation of CIO verification and evaluation results for the purpose of identifying significant and recurring quality problems.

2.0 REFERENCES

2.1 SWEC Third Party Construction Implementation Overview (CIO).

2.2 SWEC Project Quality Assurance Plan.

2.3 Construction Completion Program.

3.0 ATTACHMENTS

3.1 Quality Trend Report

4.0 GENERAL

4.1 CIO activities are designed to assess the Midland Station QA Program implementation through the performance of evaluations/verifications and the analysis of results. Analysis will be performed to determine effective implementation of the PQCI's and the effectiveness of the CCP teams.

5.0 RESPONSIBILITIES

5.1 Evaluation/Verification Supervision:

5.1.1 Review and approval of CIO attribute checklists.

5.1.2 Review and evaluation of evaluation/verification results for the purpose of identifying significant and recurring quality problems.

5.2 Evaluation/Verification Personnel:

5.2.1 Performing and documenting CIO evaluations/verifications.

5.2.2 Updating the CIO Evaluation/Verification Status Log as activities are performed.

6.0 PROCEDURE

6.1 The Evaluation/Verification Supervisors shall review the Evaluation/-Verification Status Log on a monthly basis for significant and recurring quality problems.

6.2 Results of the analysis shall be documented on a monthly Quality Trend Report (QTR) from the Program Manager to the Regional Administrator. The QTR shall contain as a minimum:

6.2.1 A summary of CIO activities within the month and cumulative.

- Checklists Initiated
- Teams Evaluated
- Sampled Lots Passed
- Sampled Lots Failed
- NIR's Issued

6.2.2 A detailed breakdown of checklists completed for each team, both for the month and cumulative.

- Total Checklists
- Total Observations
- Unsatisfactory Observation
- Sample Lots Rejected
- Number of NIR's Issued
- Narrative summary of conclusions based on review of the activities and the individual unsat observations.

6.2.3 A detailed breakdown of checklists completed for each PQCI, both for the month and cumulative.

- Total Checklists
- Total Observations
- Unsatisfactory Observations
- Sample Lots Rejected
- Number of NIR's Issued
- Narrative summary of conclusions based on review of the activities and the individual unsat observations.

6.2.4 Trend charts may be included to graphically display negative trends determined either by PQCI or team, as applicable.

6.3 Significant problem areas identified in the QTR shall be addressed by separate memo to CPCo for corrective action.

CIO MONTHLY TREND REPORT

I. SUMMARY

		PERIOD	TOTAL TO DATE
A.	Checklists Completed	_____	_____
B.	Teams Assessed	_____	_____
C.	PQCI's Assessed	_____	_____
D.	Passed Lots	_____	_____
E.	Failed Lots	_____	_____
F.	NIR's Issued	_____	_____

CIO MONTHLY TREND REPORT

II. TEAM ASSESSMENTS

TEAM NO.	TOTAL CHECKLIST		REJECTED LOTS		TOTAL OBSERVATIONS		UNSAT OBSERVATIONS		NIR's	
	PERIOD	TOTAL	PERIOD	TOTAL	PERIOD	TOTAL	PERIOD	TOTAL	PERIOD	TOTAL

CONCLUSIONS: _____

CIO MONTHLY TREND REPORT

III. PQCI ASSESSMENTS

PQCI NO.	TITLE	TOTAL CHECKLISTS PERIOD	TOTAL CHECKLISTS TOTAL	REJECTED LOTS PERIOD	REJECTED LOTS TOTAL	TOTAL OBSERVATIONS PERIOD	TOTAL OBSERVATIONS TOTAL	UNSAT OBSERVATIONS PERIOD	UNSAT OBSERVATIONS TOTAL	NIR's PERIOD	NIR's TOTAL

CONCLUSIONS: _____