PRESENTATION ON THE CONSTRUCTION PROJECT EVALUATION ON CONSUMERS POWER COMPANY MIDLAND ENERGY CENTER PROJECT UNITS 1 AND 2

Performed by:

MANAGEMENT ANALYSIS COMPANY

March 15, 1983

CONSTRUCTION PROJECT EVALUATION

SPECIFIC AREAS BEING EVALUATED

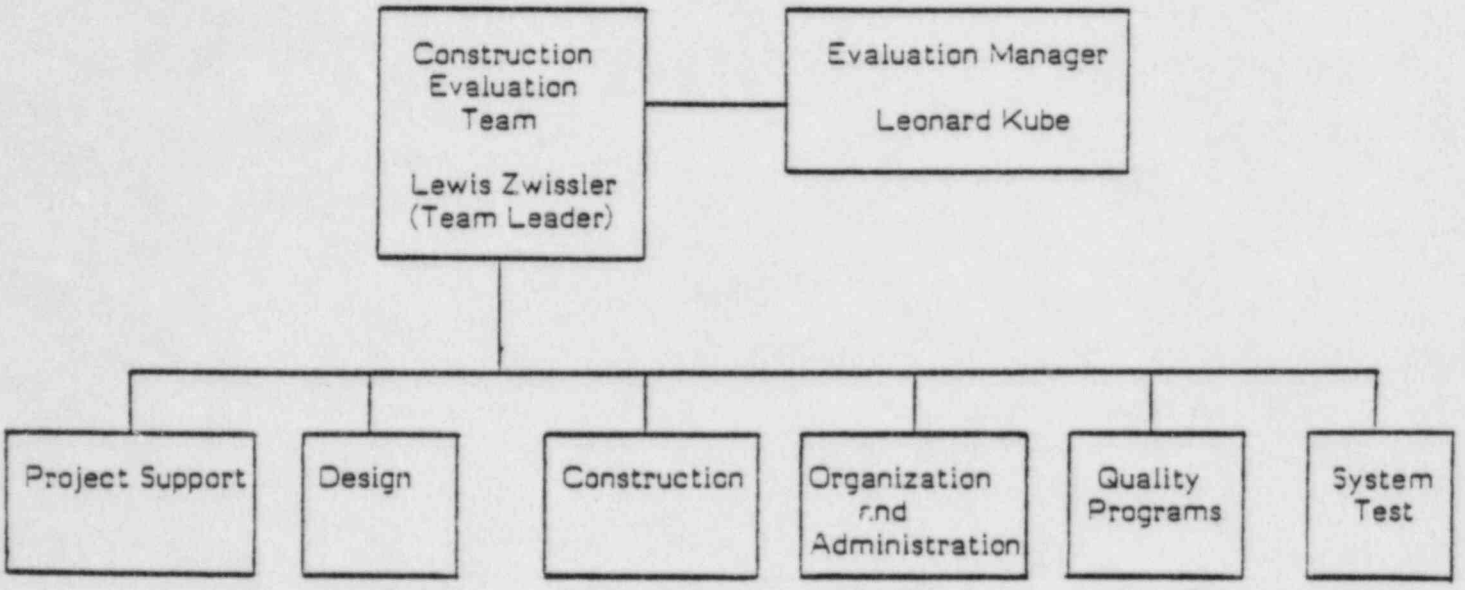
- ORGANIZATION AND ADMINISTRATION
- DESIGN CONTROL
- CONSTRUCTION CONTROL
- PROJECT SUPPORT
- TRAINING
- QUALITY PROGRAMS
- TEST CONTROL

REQUIREMENTS FOR SUCCESS

- CLEARLY DEFINED TEAM LEADERSHIP
- A SELECT TEAM WITH COMPLIMENTARY CREDENTIALS
- SUFFICIENT TRAINING
- DETAIL PLANNING
- SUFFICIENT PRE-REVIEW OF DOCUMENTATION
- SUPPORT OF UTILITY MANAGEMENT
- PRE-BRIEFING OF CONSTRUCTION/ENGINEERING STAFF AS TO PROGRAM OBJECTIVES AND MANAGEMENT'S SUPPORT
- PERFORMING EVALUATION AND SUMMARIZING RESULTS CONSISTENT WITH INPO FORMAT
- COOPERATION FROM MANAGEMENT IN THE HANDLING OF FINDINGS

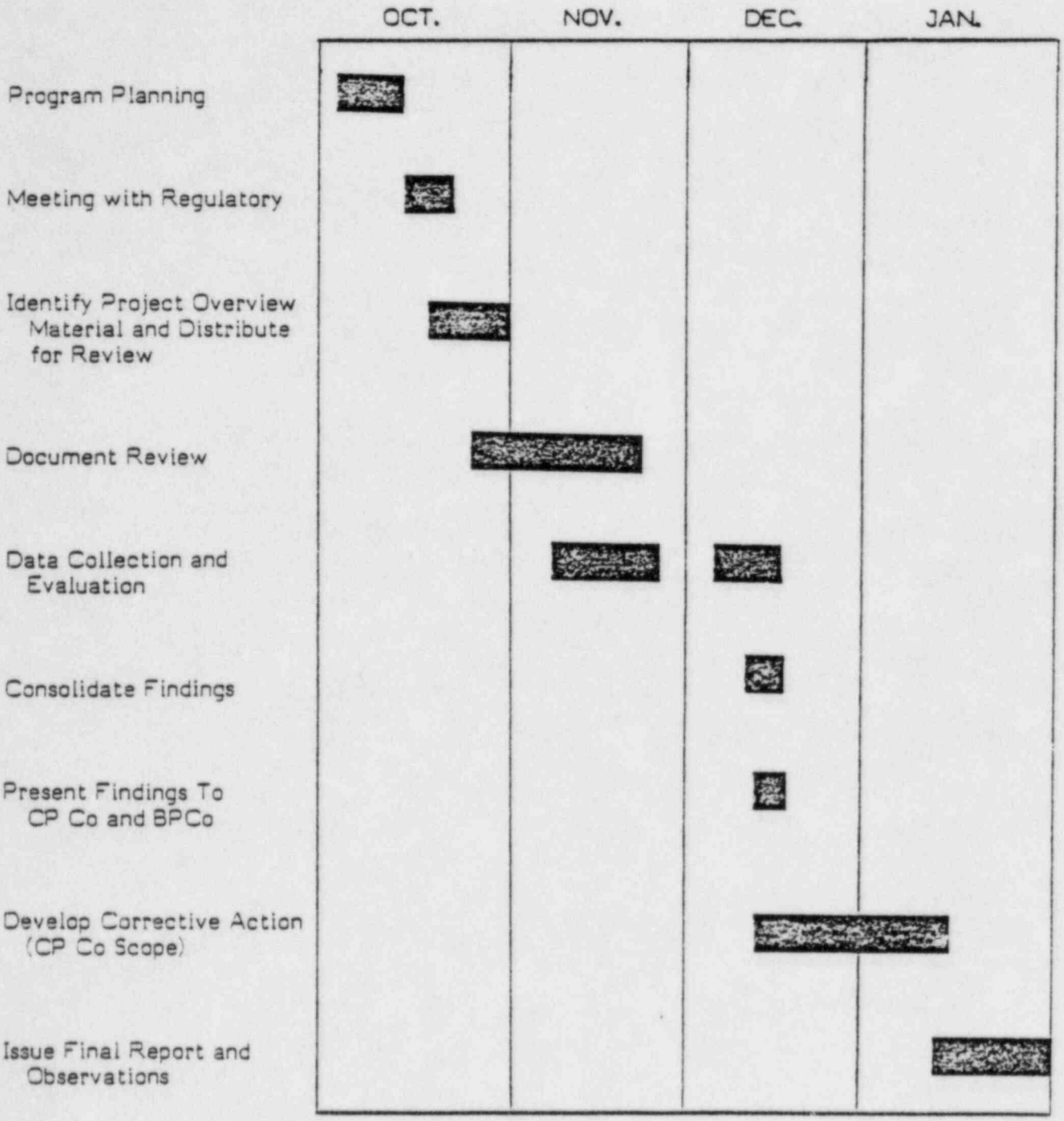
TABLE 2

MIDLAND CONSTRUCTION PROJECT EVALUATION TEAM



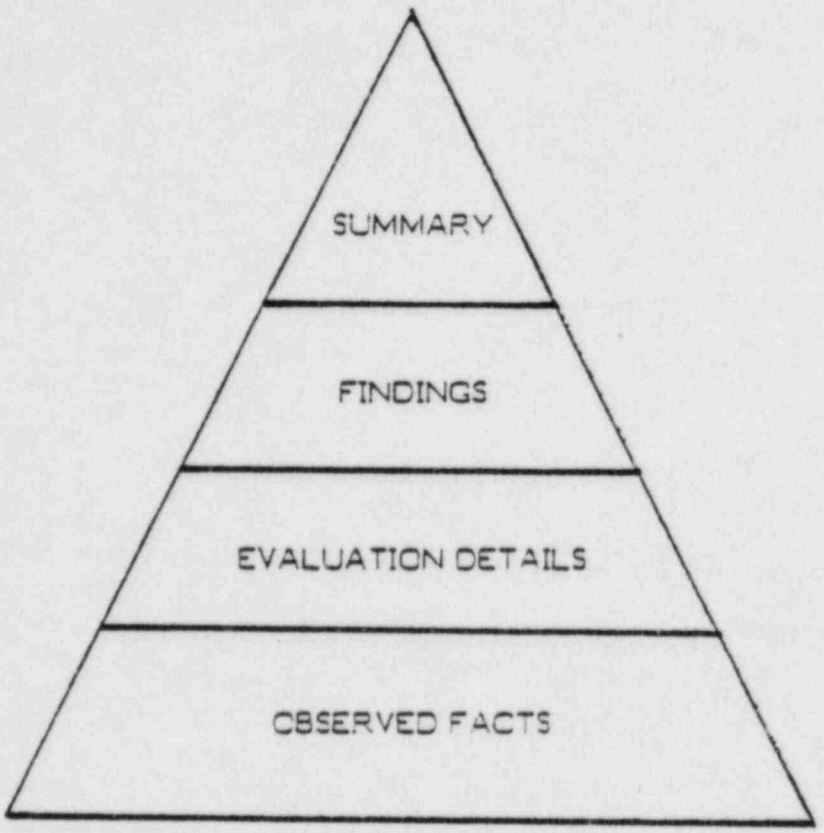
Project Support	Design	Construction	Organization and Administration	Quality Programs	System Test
J. Briskin	K. Horst	V. Johnson	L. Zwissler	L. Zwissler	A. Robeson
D. Hubbard	L. Kube	R. Kelley	L. Kube	J. Copley	D. Hubbard
	R. Lee	L. Kube	J. Briskin	W. Friedrich	
	E. Schlinger				

TABLE 3
MIDLAND CONSTRUCTION PROJECT EVALUATION SCHEDULE



EVALUATION METHODOLOGY

- DOCUMENT REVIEW
- PRESENTATIONS (BY PROJECT STAFF)
- PLANT WALK DOWNS
- OBSERVATIONS
- INTERVIEWS
- DETAIL FACT FINDING
- SUMMARIZATION



DEVELOPMENT OF AN EVALUATION

(By Performance Objective)

REPORTING METHODOLOGY

- WEAKNESSES WERE REPORTED IF ANY NON-COMPLIANCE WITH A PERFORMANCE OBJECTIVE WAS IDENTIFIED.
- SOME WEAKNESSES ARE INTER-RELATED DUE TO OVERLAP IN PERFORMANCE OBJECTIVE CRITERIA.
- GOOD PRACTICES WERE REPORTED ONLY IF THEY WERE SIGNIFICANT AND APPLIED SUCCESSFULLY.

TABULATION OF EVALUATION RESULTS

EVALUATION AREA	NUMBER PERFORMANCE OBJECTIVES	NUMBER OF WEAKNESSES	NUMBER OF GOOD PRACTICES
ORGANIZATION AND ADMINISTRATION	3	3	0
DESIGN CONTROL	5	11	5
CONSTRUCTION CONTROL	7	8	2
PROJECT SUPPORT	6	7	3
TRAINING	4	1	4
QUALITY PROGRAMS	4	5	0
TEST CONTROL	6	1	1

THE FOLLOWING ARE THE
FINDINGS IN ABBREVIATED
FORM AND CATEGORIZED INTO
MAJOR ACTIVITY/FUNCTION

NOTE: SEE REPORT FOR EXACT
WORDING OF EACH FINDING AND
ASSOCIATED CORRECTIVE ACTION

DESIGN METHODOLOGY

FINDING	DESCRIPTION OF GOOD PRACTICE
DC.1-4	DOCUMENTATION OF DESIGN REQUIREMENTS AND INPUTS ON SOME DESIGN ACTIVITIES WAS EXCELLENT
DC.3-2	DOCUMENTATION OF INFORMATION FLOW AND INTERFACE DEFINITION WAS EXCEPTIONAL ON A NUMBER OF DESIGN ACTIVITIES
DC.4-4	MANAGEMENT SPONSORSHIP OF QUALITY IMPROVEMENT PROGRAMS HAS BEEN COMMENDABLE
DC.4-5	RECORDING CALCULATION IDENTIFICATION NUMBER ON 'HELBA' RESTRAINT DRAWINGS IS A GOOD PRACTICE

DESIGN METHODOLOGY

FINDING	DESCRIPTION OF WEAKNESS
DC.1-1	REQUIREMENTS FOR ACCESSIBILITY AND MAINTAINABILITY NOT SPECIFIC
DC.1-2	DIFFICULTY IN IDENTIFYING DESIGN REQUIREMENTS APPLIED IN THE DESIGN PROCESS
DC.1-3	NEED TO IMPROVE FACTORING INDUSTRY EXPERIENCE INTO DESIGN
DC.2-1	MISSING INFORMATION/DATA FLOW AND INTERFACE DESCRIPTIONS FOR DESIGN/REDESIGN EFFORTS
DC.2-2	INTERDISCIPLINE TRANSMITTALS NOT READILY RETRIEVABLE
DC.3-1	LACK OF EMPHASIS DURING DESIGN REVIEWS ON ASSUMPTIONS, METHODS AND MEETING DESIGN CRITERIA
DC.4-1	INSUFFICIENT EMPHASIS ON CONSTRUCTABILITY AND MAINTAINABILITY
DC.4-3	ENGINEERS PERMITTED TO WORK WITH UNCONTROLLED DRAWINGS

DESIGN CHANGE CONTROL

FINDING	DESCRIPTION OF GOOD PRACTICE
DC.5-3	METHOD OF CHECKING FOR INTERFERENCES IN THE DESIGN CHANGE PROCESS IS VERY GOOD

DESIGN CHANGE CONTROL

FINDING	DESCRIPTION OF WEAKNESS
DC.4-2	FIELD CHANGES NOT BEING ADEQUATELY REVIEWED FOR ROOT CAUSES OF THE CHANGE
DC.5-1	INCORPORATION OF REDLINES (A DRAWING CHANGE METHOD) NOT BEING HANDLED IN A CONSISTANT MANNER
DC.5-2	IDENTIFICATION OF OUTSTANDING REDLINES NOT IN THE PROJECT DRAWING STATUS REPORTING SYSTEM
PS.6-1	SOME STICK FILES WERE FOUND OUT-OF-DATE

CONSTRUCTION ACTIVITIES - GENERAL

FINDING	DESCRIPTION OF GOOD PRACTICE
CC.2-2	PRACTICES USED IN EQUIPMENT RIGGING WERE EXCEPTIONAL
CC.7-1	TEST EQUIPMENT FACILITY AND SYSTEM WERE EXCELLENT
PS.1-2	GOOD SAFETY PRACTICES ARE BEING ENFORCED
PS.1-3	INSPECTION OF RIGGING EQUIPMENT WAS EXTENSIVE
PS.1-4	IMPLEMENTING A GOOD EQUIPMENT TAGGING PROGRAM

CONSTRUCTION ACTIVITIES - GENERAL

FINDING	DESCRIPTION OF WEAKNESS
CC.2-1	BULK LAYDOWN AREA WAS NOT ADEQUATE
CC.3-1	MAINTENANCE/INSPECTION PROCEDURES ON INSTALLED EQUIPMENT NOT BEING FOLLOWED
CC.3-2	INSTALLED EQUIPMENT BEING DEGRADED/ DAMAGED
PS.1-1	POTENTIAL FIRE DANGER RESULTING FROM USE OF NON-FIRE RETARDANT WOOD
PS.1-5	AREAS WHERE CONSTRUCTION CONGESTION PREVENTED SAFE REGRESS

CONSTRUCTION WORK INSTRUCTIONS

FINDING	DESCRIPTION OF WEAKNESS
CC.1-2	INSUFFICIENT INPUT INTO DESIGN/CONSTRUCTION PACKAGES RELATED TO INTERFERENCES, INSPECTION AND PROCEDURES
CC.4-1	CRAFT'S WORK INSTRUCTION PACKAGES HAVING INSUFFICIENT OR CONFLICTING INFORMATION
CC.5-1	WORK INSTRUCTION PACKAGES LACKING CLEAR INSPECTION PROCEDURES AND CRITERIA
QP.2-1	LACK OF STANDARDIZATION IN QA/QC INTERPRETATION OF INSPECTION REQUIREMENTS

ORGANIZATION/ADMINISTRATION

FINDING	DESCRIPTION OF GOOD PRACTICE
TN.1-1	MANAGEMENT SUPPORT OF TRAINING PROGRAMS WAS EXCEPTIONAL
TC.3-1	A LARGE AND EXPERIENCED STAFF IS BEING APPLIED IN THE TEST PROGRAM PLAN DEVELOPMENT

ORGANIZATIONAL/ADMINISTRATION

FINDING	DESCRIPTION OF WEAKNESS
OA.1-1	RESPONSIBILITY CHAPTER IN PROJECT MANUAL NEEDS UPDATING
OA.3-1	POSITION DESCRIPTIONS ARE NOT AVAILABLE FOR ALL MANAGEMENT PERSONNEL
CC.1-1	INSUFFICIENT FIELD ENGINEERING SUPPORT
QP.1-2	QA/QC ORGANIZATION CHART NOT UP-TO-DATE
TN.2-1	ORGANIZATIONAL RESPONSIBILITIES FOR QA TRAINING IS FRAGMENTED

QUALITY ACTIVITIES

FINDING	DESCRIPTION OF WEAKNESS
QA.2-1	LACK OF PRODUCTION PERSONNEL INVOLVEMENT IN DISPOSITIONING CORRECTIVE ACTION
QP.4-1	CURRENT METHOD FOR TRACKING CORRECTIVE ACTION WAS NOT EFFECTIVE
QP.4-2	SIGNIFICANT CONDITIONS ADVERSE TO QUALITY ARE NOT ALWAYS VISIBLE IN TREND REPORT

PLANNING AND SCHEDULING

FINDING	DESCRIPTION OF WEAKNESS
CC.5-2	INSPECTION SCHEDULING IS NOT CONSISTENTLY APPLIED
PS.2-1	PLANNING/SCHEDULING PROCEDURES ARE NOT CLEARLY DEFINED
PS.2-2	PLANNING/SCHEDULING PROCESSES ARE NOT INTEGRATED
PS.3-1	CURRENT MILESTONE SCHEDULE CAN NOT BE ACHIEVED
PS.3-2	FLOW OF PROJECT CONTROL INFORMATION IS NOT CLEARLY DEFINED
QP.1-1	PLANNING OF CONSTRUCTION AND INSPECTION ACTIVITIES IS NOT A COMBINED EFFORT
TC.5-1	PREPARATION OF WORKING LEVEL TEST PROCEDURES IS BEHIND SCHEDULE

TRAINING

FINDING	DESCRIPTION OF GOOD PRACTICE
TN.2-2	TRAINING PROGRAM DEVELOPED JOINTLY BY BECHTEL AND CP CO WAS EXCELLENT
TN.3-1	NEW HIRE ORIENTATION AND TRAINING WAS EXCEPTIONAL
TN.4-1	TRAINING FACILITIES, EQUIPMENT AND MATERIAL WERE ABOVE AVERAGE

MAJOR STRENGTHS

- THE SPACE CONTROL PROGRAM FOR INTERFACE CHECKING PRIOR TO RELEASE OF DESIGN CHANGES IS EXCELLENT.
- THE PROGRAM FOR SCHEDULING AND TRACKING TESTING ACTIVITIES IS COMPREHENSIVE AND WELL STAFFED.

MAJOR WEAKNESSES

- CONSIDERABLE EFFORT IS REQUIRED IN IDENTIFYING AND RETRIEVING DESIGN CRITERIA DOCUMENTATION.
- THERE HAS NOT BEEN SUFFICIENT CONSIDERATION GIVEN FOR CONSTRUCTABILITY, MAINTAINABILITY, AND INSPECTABILITY.
- WORK INSTRUCTIONS TO THE FIELD ARE SOMETIMES INCOMPLETE AND CONFLICTING.
- CONSTRUCTION INSPECTION PROCEDURES AND CRITERIA FOR ACCEPTANCE ARE NOT ALWAYS CLEARLY DEFINED.
- INADEQUATE PLANNING COORDINATION OF QA INSPECTIONS WITH CONSTRUCTION ACTIVITIES.
- QA/QC REQUIREMENTS FOR ACCEPTABILITY ARE NOT CLEARLY DEFINED AND DOCUMENTED.

Consumers Power Company

QA 87-0

NONCONFORMANCE REPORT

PROJECTS, ENGINEERING AND CONSTRUCTION

1. NCR NUMBER:	2. START-UP SYSTEM:	3. PRIORITY CODE:	4. TREND CODE:	5. ACTION ITEM NO:
MO1-9-2-179	PGM000	1	N/A	S-1872

6. PROJECT:	7. NONCONFORMING PART NO:	8. NONCONFORMING PART NAME:	9. DATE ISSUED:	CLOSED
MIDLAND PROJECT	N/A	Bechtel NQAM	12/10/82	3/16/83

10. NONCONFORMING PART SERIAL NUMBER:	11. RESPONSIBLE ORGANIZATION:	12. LOCATION IN PLANT:	13. DATE OF REVISION:
N/A	Bechtel Quality Ass.	N/A	N/A

14. DISTRIBUTION:

ACTION: MADietrich

INFO: WRBird, JEBrunner, JWCook, MLCurland, MHanbury, MJuister, GSKeeley, BWMarguglio, REMcCue, DBMiller, JAMooney, BHPeck, JARutgers, ~~ESmith~~, TKSubramanian, DATaggart, RAWells, JLWood, REWhitaker, MAVerderosa, ALAB-2

15. FILE NUMBER: 16.0

16. REQUIREMENT:

ANSI N45.2, 1971 Section 16 "Nonconforming Items" states, in part, "measures shall be established and documented to control items, services, or activities which do not conform to requirements, These measures shall include as appropriate, procedures for identification, documentation, segregation, disposition and notification to affected organizations."

17. NONCONFORMANCE:

Bechtel Nuclear Quality Assurance Manual Section IV, Part 7, Rev 1-E 9/21/82 states, in part, "Discrepancies found during QC in-process inspection and which cannot be corrected during the shift shall be documented on a discrepancy report (DR), an in-process inspection notice (IPIN), or an NCR. This option not to document nonconforming conditions which can be corrected during the shift is contrary to the criterion noted in Block 16.

	YES	NO
19. ENGINEERING DISPOSITION REQ?		X
20. Q-LIST EQUIP. INVOLVED?	X	
21. PROCESS CA REQ? (SEE BACK)		X
22. HOLD TAGS APPLIED?		X
24. REPORTABLE PER 50.50(e)?		X

18. RECOMMENDED PART CORRECTIVE ACTION:

Revise Bechtel Nuclear Quality Assurance Manual Section IV, Part 7 to eliminate allowance to work one shift without documenting a deficiency.

23. LOCATION OF TAGS: N/A

25. REPORTED BY:	26. REPORTED TO:	27. DATE OF REPORT:	28. TIME OF REPORT:
N/A	N/A	N/A	N/A

29. NCR ORIGINATED BY:	30. WRITTEN REPLY REQUIRED:	31. SUPERVISOR'S SIGNATURE/DATE:
MAVerderosa	12/21/82	REWhitaker 12/10/82

32. PART CORRECTIVE ACTION PROPOSED:

The option to not document nonconforming conditions which can be corrected during the shift has been deleted by Rev 0-F from the Bechtel NQAM. The second paragraph under Paragraph 2.2 of Section IV, Number 7, now reads:

"Nonconformances found during QC in-process and final inspection shall be documented on a nonconformance report (NCR) and provision made for obtaining disposition and resolution by rework, repair, reject, use-as-is or other appropriate action."

33. QA CONCURRENCE-SIG/DATE: MAVerderosa 3/16/83

34. PART CORRECTIVE ACTION VERIFIED:

Section IV, Number 7 of the current Bechtel NQAM has been reviewed. It has been revised as stated above.

35. VERIFIED BY-SIG/DATE: MAVerderosa 3/16/83

36. HOLD TAGS REMOVED BY-SIGNATURE/DATE:	37. NCR CLOSED BY - SIGNATURE/DATE:
N/A MAVerderosa 3/16/83	MAVerderosa 3/16/83

Consumers Power Company

NONCONFORMANCE REPORT

PROJECTS, ENGINEERING AND CONSTRUCTION -

M01-9-2-179

NCR SERIAL NUMBER: _____

PROCESS CORRECTIVE ACTION

38. QA ASSESSMENT OF ROOT CAUSE(S):

N/A

39. ACTUAL ROOT CAUSE(S), IF DIFFERENT FROM ABOVE (TO BE COMPLETED BY ORG. RESPONSIBLE FOR PROCESS CA):

N/A

40. PROCESS CA REQUIRED FROM:

DESIGN ☐ FABRICATION ☐ CONSTRUCTION ☐ PROCUREMENT ☐ INSPECTION ☐

OTHER N/A

41. QA RECOMMENDATION FOR PROCESS CA:

N/A

42. PROCESS CA TO BE TAKEN BY ORG(S) CHECKED IN BLOCK 41 & DATE OF COMPLETION:

N/A

43. METHOD OF PROCESS CA VERIFICATION:

N/A

44. SIG. OF ORG. RESPONSIBLE FOR PROCESS CA SIGNIFYING COMPLETION:

N/A

45. PROCESS CA COMPLETION VERIFIED BY/DATE:

N/A

PRESENTATION TO NRC

CONSTRUCTION COMPLETION PROGRAM (CCP)

AGENDA

INTRODUCTION

EVALUATION CRITERIA

BASIC PROGRAM DESCRIPTION

DETAILED PLAN DISCUSSION

PLAN RESPONSES TO CRITERIA

EVALUATION CRITERIA

CONSTRUCTION COMPLETION PROGRAM (CCP)

THEME OF CCP

IMPROVE PROJECT PERFORMANCE (FORWARD)
AND DETERMINE THE STATUS OF THE PLANT (BACKWARD)

CCP

REDUCE MANUAL MANPOWER ON THE PROJECT TO ACCOMPLISH THE FOLLOWING:

- WORK NON-Q SYSTEMS TO COMPLETION AS SOON AS POSSIBLE
- PROVIDE STAFFING TO WORK OFF TURNOVER EXCEPTIONS AND SUPPORT TEST ACTIVITIES ON TURNED-OVER SYSTEMS
- IMPLEMENT THE BUILDING CONSTRUCTION COMPLETION PROGRAM (SEE NEXT PAGE)
- COMPLETE ZACK ACTIVITIES
- COMPLETE B&W ACTIVITIES
- PERFORM REMEDIAL SOILS WORK

CONTINUE WITH QA REINSPECTION

- CABLE
- HANGERS

SPECIFIC BUILDING CCP

A. PREPARE THE BUILDING FOR REINSPECTION (COORDINATED WITHDRAWAL)

REMOVE ALL CONSTRUCTION MATERIAL AND CLEAN ALL AREAS OF THE BUILDING.

AS WITHDRAWAL IS MADE, PLACE SYSTEMS AND EQUIPMENT IN LAYUP (TEST ENGINEERS TO COORDINATE). COMPLETE CONSTRUCTION NECESSARY TO LAYUP EQUIPMENT.

ALL CONSTRUCTION EQUIPMENT REMOVED TO AN AREA FOR INSPECTION AND SCRAPPING AS NECESSARY.

B. AS AREAS ARE CLEANED, ASSEMBLE SYSTEM TEAMS (SEE NEXT SHEET) AND PERFORM AN INSPECTION OF THE AUXILIARY BUILDING ON A SYSTEM-BY-SYSTEM BASIS. INCLUDE ENGINEERING WALKDOWNS (SEISMIC II/I, PROXIMITY, ETC) AS PRACTICABLE.

C. AFTER A REVIEW OF THE SYSTEM OPEN ITEMS, COMPLETE CONSTRUCTION ON A SYSTEM BASIS AND TURN OVER TO CPCo.

D. AS THE AUXILIARY BUILDING PROGRAM DEVELOPS, MOVE INTO THE DIESEL BUILDING AND THE CONTAINMENTS. SERVICE WATER PUMP STRUCTURE TO BE LAST DUE TO THE NUMBER OF SYSTEMS IN THAT BUILDING THAT HAVE BEEN THROUGH THE TURNOVER PROCESS.

PRESENTATION TO J D SELBY ON MIDLAND CONSTRUCTION COMPLETION PROGRAM

AGENDA

Overview of NRC Inspection

Evaluation Criteria

Presentation of the program

Project Impact

OVERVIEW OF NRC INSPECTION

NRC INSPECTION STATUS

TIMETABLE

- October 12, 1982	Entrance Meeting with Wayne Shafer and others.
- October 12, 1982 through November 5, 1982	Four (4) week inspection of Plant by up to nine (9) NRC inspectors. Three (3) informational "exit" meetings held throughout this time.
- November 10, 1982	Exit Meeting with Wayne Shafer, Bob Warnick and others.
- November 10, 1982 through November 22, 1982	Continued to work with NRC Inspectors by phone and in person to provide additional information on findings.
- November 23, 1982	"Final" Exit Meeting with NRC - held at CPCo request.

GENERIC ISSUES

I. Material Traceability

Examples: NRC has generic concerns with our perimeter control system of storage.

Our ability to locate a bad heat number after receipt once it is installed.

Use of high strength field fabricated materials (A-36 issue).

Resolution of a Bechtel NCR where material was purchased from an unapproved vendor.

Status: We have been unable to fully resolve all of the NRC concerns. They still feel our system has problems.

We feel we can resolve the Bechtel NCR issue, and plan to do so the week of 11/29/82.

II. The Plant is not built according to design drawings.

Example:
- HVAC fan supports
- Cable Tray supports
- Electrical Conduit pull boxes
- Welded vs. bolted connections
- D/G Engine control panels - missing washers.

Status: We have written NCR's, FCR's, etc. to track these items. Most of them are valid findings. Final QC inspection has not been done in all cases.

III. QC Inspector Records Incorrect

Examples:

- QCIR's have been closed, yet the item does not look like the drawing.

- IPIN's issue

Status: This is a major concern. Still open.

IV. Design Document Controls Inadequate

Example: - D/G fan support references design drawing to FSK.

- Control of redlines.

- Labeling of retired FCR's.

Status: We have prepared changes to our procedures to resolve all of these. Nevertheless, they are valid findings.

V. Field Inspections Not Adequate

The NRC feels that the problems in II and III above would not exist if we had adequate field inspections.

IV. Design Controls Not Adequate

Examples:

- "Q-ness" issue: monorail, hangers

- FSK's used to design structural connections.

- Length of time for SCN's to come to the site.

- Preheat of welds.

Status: The issue of "Q-ness" is a big one. The other ones can/are being resolved.

VII. Receipt Inspections

The panel in the D/G Building from DeLaval was found to have wiring defects not picked up by receipt inspection, or MPQAD overinspection. This is a major concern.

MISCELLANEOUS CONCERNS

- Painting of welds: resolved.

- Code question on D/G air start lines: resolved with Region III - referrel to NRR.

- Chipping of concrete: valid finding, being tracked now by an NCR.

- Cable tray segregation: valid find, procedural revisions being made.

BHPeck
11/29/82

EVALUATION CRITERIA

CONSTRUCTION COMPLETION PROGRAM (CCP)

THEME OF CCP

IMPROVE THE PROGRAM IMPLEMENTATION (FORWARD)
AND DETERMINE THE STATUS OF THE PLANT (BACKWARD)
WITH FOCUS ON GENERIC ISSUES

CONSIDERATIONS:

- On-going QA/QC Issues
  - Transfer of QC to CPCo
  - QC recertifications
  - Need to redefine the inspection process
    - Adequacy of PQCI's
    - Inspector performance evaluation
    - In-process inspection requirements
- System turnovers continuing to slip
  - Large number of turnover exceptions
- Results of recent NRC inspections
  - Implementation Issues
    - Bring all hardware up to date
    - Inspections should closely follow construction
  - Programmatic Issues
    - Receipt inspections
    - Document control
    - Design control
    - Material traceability
- Engineering can be completed or moved further ahead
  - Seismic and HELBA reanalysis
  - Number of walkdowns to complete on the project
- Soils restart needs more attention
- Company cash flow
- Quality Improvement Plan

CCP

REDUCE MANUAL MANPOWER ON THE PROJECT TO ACCOMPLISH THE FOLLOWING:

WORK NON-Q SYSTEMS TO COMPLETION AS SOON AS POSSIBLE

PROVIDE STAFFING TO GSO TO WORK OFF TURNOVER EXCEPTIONS AND SUPPORT TEST ACTIVITIES ON TURNED-OVER SYSTEMS

IMPLEMENT THE BUILDING CONSTRUCTION COMPLETION PROGRAM (SEE NEXT PAGE)

COMPLETE ZACK ACTIVITIES

COMPLETE B&W ACTIVITIES

AS THE AUXILIARY BUILDING PROGRAM DEVELOPS, MOVE INTO THE DIESEL BUILDING AND THE CONTAINMENTS. SERVICE WATER PUMP STRUCTURE TO BE LAST DUE TO THE NUMBER OF SYSTEMS IN THAT BUILDING THAT HAVE BEEN THROUGH THE TURNOVER PROCESS

PREPARE FOR REMEDIAL SOILS WORK

SPECIFIC BUILDING CCP

A. PREPARE THE BUILDING FOR REINSPECTION (COORDINATED WITHDRAWAL)

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C. AFTER A REVIEW OF THE SYSTEM OPEN ITEMS, COMPLETE CONSTRUCTION ON A SYSTEM BASIS AND TURNOVER TO CPCo.

ADVANTAGES

CLOSES AN NRC CONCERN ON EQUIPMENT PROTECTION AND CLEANLINESS.

INSPECTION OF THE EQUIPMENT GIVES US AN UP-TO-DATE IDEA AS TO WHAT IS OUT THERE. GETS QC/QA UP-TO-DATE ON PLANT.

ORGANIZATIONAL TRANSFERS MADE WITHOUT PRODUCTION PRESSURES.

ENGINEERING CAN MOVE OUT AHEAD OF CONSTRUCTION.

SHOWS THE NRC WE ARE AWARE OF THEIR CONCERNS AND THEY HAVE OUR ATTENTION.

BECAUSE OF THE WORK REDUCTION, THIS PLAN WOULD HELP 1983 CASH FLOW PROBLEMS.

QA/QC AND REST OF PROJECT CAN PUT MORE FOCUS ON SOILS RESTART.

SYSTEM COMPLETION WOULD BE MORE EFFICIENT AND PREDICTABLE IN THE FUTURE.

DISADVANTAGES:

NRC MAY NOT ALLOW US TO PROCEED WITH WORK AFTER INSPECTION BUT MAY RESTRICT WORK SIMILAR TO SOILS.

LOSS OF SOME QUALIFIED CRAFTS

LOSS OF MOMENTUM

DOW REACTIONS

MPSC REACTIONS

PROJECT IMPACT

Investigation Input Form

* [X] Insert [ ] Modify [ ] Delete

* Investigation Number: 82206AM

Date Received: 040282

Name/Facility/License: MIDLAND

Docket Number: 50-329; 50-330

Investigators: CNWELL

Subject: MISREPRESENTATION TO RIII OF SOIL SAMPLE EQUIPMENT

Action: INVESTIGATE

Start date: 040682

Completion date:

Report #:

Report Due:

Report Sent:

Report Received (HQ, LTC, DOJ, RI, etc):

Findings:

Enforcement Action: B

Enforcement letter issue:

Response due:

Response Rec:

Ack. due:

Ack. Sent:

Date letter to Chief:

Other Remarks:

Status: [ ]

* these blocks must always be filled in

Handwritten notes pertaining to the GAP discovery request on Midland for B. Stamiris.

Item 5. Documents relating to independent audits at Midland.

1. 2-24-83 Notes on telecon with B. Garde. Follow-up on Midland meeting.
2. 4-18-83 Notes from meeting with TERA on IDCVP
3. Undated notes on TERA IDVP
4. Undated notes on TERA IDVP
5. Undated notes on ACRS requested report on design quality and construction adequacy.

Item 7. Documents relating to the March 1982 SALP

6. Undated notes on Midland Salp meeting with Licnesee and Region III
7. 4-26-82 Notes on Midland SALP Licensee Meeting.

Record book with notes on telecons and meetings from 5-12-82 to present. Not complete.

St. & 68

(1)

Telecon w/ Billie Garde 2/24/83

Follow-up on Midland meeting -

GAP wants to provide a more technical analysis of CCP's proposal -

Some kind of forum to present analysis
Wants to meet w/ NRC.

in next week or couple of days →

Reg. III + NRR people in Wash., D.C.

? Major details being worked between Cook + Eisenhut on S+W + CCP

* GAP would prefer a meeting or would present analysis in letter.

GAP analysis of CCP

- ACRS - Late March

Pre-hearing →

MEMORANDUM OF CALL — Previous editions usable

TO: E. Liner

☒ YOU WERE CALLED BY- ☐ YOU WERE VISITED BY-

Billie Garde

OF (Organization) Gov't Accountability P.

☒ PLEASE PHONE ☐ FTS ☐ AUTOV

933-2727

☒ WILL CALL AGAIN ☐ IS WAITING TO SEE Y

☐ RETURNED YOUR CALL ☐ WISHES AN APPOINTM

(2)

[illegible] -

4/13/83 -

- Prgm. plans to HUAC / [illegible] [illegible]
by early May -
Do we approve the Prgm. plan?

Protocol approval -

ID reviewer approval -

[illegible] plan on [illegible] -

(3)

Relative to TERA IDUP -

Division of responsibility between Reg. III + NRR. re implementation of the plan.

OCR report in NRR status reports CO/NRR
Leave w/ Region lead. findings; finding resolution.

- No CP Co audits of TERA.
- Warnick may not come.

(4)

Midland —
~~Note to:~~

TERA IDCUP plan for review.
All inputs are in → request for info.
Address @ a meeting –

TERA independence & qual. → Rec'd 3/18.
Requested more info. rec'd 3/30
R input to DL
[Sullivan/Mesier] 4/8/83

Ltr to CPCo.

Mtg. 4/13/83

- To discuss staff review of IDCUP plan
  - TR question
  - CAP question/comment
  - level of reptg. – concern
- To listen to TERA proposal to expand IDCUP plan to other system
- To get NRC initial reactions to proposed expansion.

Attendees: TReviewers – Gilray, Sullivan, LeFave, & Reg. III rep.; GAP(?); CPCo

(5)

The ACRS asked for a report on design quality and construction adequacy. They are looking for assurance that w/all the QA problems @ Midland in specific areas that we have not overlooked problems in other areas that have not yet reared their head. Is CPCo addressing this only from the AFW review?

But the INPO effort addresses "work in progress" only But when integrates with TERA effort, you get both.

Only for the AFW system, known as a "sample" (audit)

But it doesn't answer Okent's problem with hidden problems. INPO goes from today & does only address forward fit. They do not investigate what happened previously. TERA looks backward also.

But only for the AFW system! (We're come full circle)

(6)

Bob -

Midland SALP meeting w/ licensee + Reg III.

SALP report is pretty negative in some respects. (Copy attached). Keppler told CPCo he was concerned w/ the finding for the period 7/80 - 6/81 as that was the period just preceding his testimony on O&A before the licensing Board. He told CPCo he'd come to go home & try to reconcile the differences & meet w/ them again. Stamiris was there w/ friend. We got a copy of the preliminary report w/ the letter sent to CPCo. We are preparing a Board notification to send it to the Board.

Keppler asked about deferring the 5/11-14/82 hearing session until CPCo has a chance to respond / comment on the SALP report. They have until 5/16 to comment. We have a telecon w/ Paton (OELD) + Keppler planned for tomorrow (4/27) to discuss the hrg. session. I told Keppler that any delay was up to the Board, but I think Board members are booked for the rest of the month. We (you + I) need to talk re generic issues which were @ the time the Midland FSAR / OL application was noticed

1

Cont have been relegated to the Cash Crisis as not qualifying as UST's. They are all contentions in this OC hearing.

As an aside; were you aware of a remand issue on the CP that is currently before the Appeals Board on this case?

(1)

4/26/82 Midland SALP Licensee Mtg.
Manual Chapter on SALP.
Hinds' paragraph –

– Copy of prelim. SALP to Lic. discs.

Cook – CPCo –
"applauding the purpose of the SALP":

Post inspection – May '81 – optimistic about ability to meet regm't. – R-III backsliding in opinion of CPCo.

– Objected to findings on design control

– Lic. activities – "selling short" Amt. of work + qual of work earlier submitted. Work w/ staff to develop ....

Want R III to QA work before initiation. (∴ R III liable + no citations.)

Soils area – What's required needs to be defined.

Keppler – reconsid Assessment period
Point – things no better.

E. [illegible] Record Book

MIDLAND PROJECT TELECONS & MEETINGS.

5/12/82 - Telecon w/ D. Budzik 4:39 P.M.

-Topic - Past 4 weeks - Soils treated like mushrooms.

Wants to know what schedule projections are.
- Constr. dewatering wells + DSB - 5/13/82
- Telecon re approval issues ~~+~~ before issuing letter.

Letter on submittals to address correct oath and affirmation.

Would like to know ahead if there are any design questions on [illegible]

5/13/82 Telecon w/ Reg. III - Norelius etal Gilray, ~~Hood~~, Kane, Adensam.

Subject: Implementation of Board Order QA-plans.

What's approved and what's not approved.

April 5 - ltr. to Keppler - non-q status of permanent dewatering system has been approved by NRR.

Already installed dw wells will be monitored for fines.

- Reg. III to send us their understanding of what's approved.

- QA plan - PZ OK - Assume other activities under that plan.

5/17/82 - Telecon w/ [illegible], Reg III.
Comments will be in [illegible]
Little - QA + Constr. progm. Reg III plans to write out as much as feasible. [illegible] will be [illegible] [illegible] - Hot [illegible] last May - [illegible] between [illegible] - [illegible] views. Progm/People OK. [illegible] [illegible].

Mtg. w/ CPCo. Fri. Elec. overinspection - + results of reassessment of Elec. QC inspectors - 55 problems. misreporting. ∴ "5% error should be expected anywhere." - CPCo.
of 55 some safety problems.
Major potential for prob. identi. in inspect. progm. - transition points + [illegible] for [illegible] [illegible] raceways. ∴ [illegible] closed.

100% reinspection except for one guy.
100% insp. this guy ~ 30 [illegible] out of ~ 400 reinspect.

Reg. ask if NRC balance of prog. inspect.

W/ similar errors approach is reasonable.
- Inspect. need for transition point inspect
- Crit. for identifying hi risk raceways
- Same point - NRR involvement. FSAR - All elect. cables installed properly. Some TDO in error.

We set remedial actions discussed [illegible]

5/18/82 - Telecon w/ J. Cook / D. Eisenhut - Ltr. forthcoming. Expect to call Cook regularly to see what problems are.

Telecon w/ R. Cook re attendance @ ACRS sub committee

5/20/82 + 5/21/82 - ACRS Subcommittee

5/25/82 - I spoke w/ G. Keeley re letter on completion - [illegible] review. Told him if his people would [illegible] to me first, before ACRS, that it might simplify their life [illegible]

5/25/82 Telecon w/ C. [illegible] re [illegible]).

1/2/82 [illegible]

Questions on SER

- [illegible] natural circulation analysis — not nec. under small break LOCA's

[illegible] subcommittee on transient 6/2/82 — why not in the SER? pattern!

- [illegible] @ PORV level — Question of [illegible] of access to that area.

- [illegible] flooding — [illegible] emergency plan. [illegible]

- [illegible] turbine missiles.

- Determination of NPSH — accuracy of calculation — [illegible] that [illegible] pumps

- Reliability [illegible] for [illegible] isolation.

- Vent & purge valve — qualified @ [illegible] psi pressure. operability

- [illegible] problem — [illegible] impacts — [illegible] of SG control system [illegible] (?) FMEA — [illegible] single failure —

- [illegible]

... in which they are not classified.

Failure in one unit resulting in the other unit being ... ?

Turbine missiles - How believe 10-7?

... from ... ACRS letter.

E.Q. ... ACRS ... assure this matter is ... will be satisfactory for Midland? Generic ... - ... not adequately ... NTOL's

- Common Cause Failure

... interaction - ...

- TC S.

- ... Equip. qual. to > ... < ... ... instrumentation ... E.Q. ... ... on this matter ... ... by SSE response ... ... > E.Q.

... frequency of ... devices like ... ...

D H R ...

- Bolting - ... ASTM ... adequate ... small bolts? ... confidence -

[illegible] working to CPI's cont. of cause - QA [illegible]

- Fire Protection - [illegible]
  - Combination of air + water [illegible] Cont. Bldg.
  - Staff criteria?
  - [illegible] water [illegible] system
  - Systematic analysis? -
  - Spurious actuations ← Overrides impacts from [illegible] failures

- Habitability.
  - Control Room & ERF's
  - [illegible] - CR [illegible]
  - Farley CR [illegible]
  - CC " "
  - [illegible] CR Rad Monitor
  - Cook CR Emer. air flow.
  - ... - Smoke detection [illegible]
  - QA - W/ HVAC system. [illegible]
  - SAI & reports - (?)

[illegible] Committee X. Grumfill - General discussion - [illegible] plts.
Okrent and [illegible] -- [illegible]
[illegible]
What is the basis of 10^{-7} / [illegible]

Word of caution - [illegible] done differently. [illegible] policy.

Full Committee Agenda -

[illegible]

[illegible]

[illegible] — Staff status of review — ≤ 15 min.
[illegible]

[illegible] QC issues -
[illegible] to sum 15-20 min summary
past exp.
Const. pre [illegible]

Need for [illegible] review -
[illegible] in areas where attention not normal.
[illegible]

[illegible] [illegible] views
[illegible]

[illegible]

[illegible] [illegible] [illegible]
summary of [illegible], [illegible], est.
of SSC + [illegible] [illegible] eq. 10 min.

10 min [illegible]
[illegible]

- [illegible] [illegible] [illegible].
1) Staff - position, [illegible] 15 min.
2) [illegible] [illegible] "
[illegible]

Disc.

1:35 PM List of items to consider Choices

SI Interaction.

ICS

Li Co Weld

Process Scm

ATWS → CP letter, letter [illegible]

KC's

PRA

ATWS R

[illegible]

* [illegible]

[illegible]

Discuss ACRS items.

[illegible]

6/3/92 - Mtg. w/ Reg. II + [illegible]

Discussion w/ CPCo's ability to manage > #2 activities.

Ideas for suggested changes - Largely management problems.

6/4/82 ACRS Meeting w/ Midland

[illegible] [illegible]ments -

[illegible] [illegible]lation -

[illegible] presentation @ Sat. meeting. (Ch. w/ [illegible] re time etc.)

- Turbine missiles -
- SG overfill protection
- Test line w/ SBLOCA.
- H₂ in welds
- AFW Reliability -

Written response re SG overfill position [illegible] priority [illegible] overfill [illegible] w/ Mill Creek -

[illegible] - - failure [illegible]
Stop valve - turbine [illegible] failure [illegible]
control valve failure - [illegible] [illegible] [illegible]

Request for Constr. report [illegible] to adequacy of design - constr. [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] design & constr. in accordance w/ appl.
Adequacy of [illegible] design for plant.

the contract we can get. Leave Q/A out if they want. Everything but [illegible] in.

[illegible] Missile - [illegible] review by contractor not normally provided by NRC.

3/13/82 [illegible] [illegible] to NRR - [illegible] support

ICC & head vents - Will require resolution prior to licensing. Mattson -

Bolting:
151 [illegible] letter

Use of ASTM code ⇒ what are we doing to modify using ineffective code. Recruiting in [illegible] force.

→ Bulletin - requiring [illegible] est.

ASTM spec "inadequate" totally -

Don't need design for delayed failure - ?

Should ASME code include delayed failure?

AC/DC Reliability.
DC Batteries - Extend life of batteries.
? Load Shedding

Turbine Missiles
NRC - P_1 - 10^{-4}
$P_2 P_3$ - 10^{-1} => 10^{-5}
Prior $P_2 P_3$ criteria of 10^{-3} to 10^{-4}
Now considered 10^{-1} ?

Dr. Mark does not understand the discrepancy?

Myer letter + Nat Cir of SBWC...
Opportunity @ Subcommittee -
[illegible]
[illegible] problem &
[illegible] problem.

J.C. Does not feel tech info is available to get a warm feeling re [illegible]

Would rather not go beyond 5% power - come back on Nat Circ + EA!

B+W
[illegible]

16 - Transformer explosion & fire
Con handle design.

Fire protection (remedies) on Transformers -

6-14-82 Telecon w/ Reg III.
Tom Tambling - CPCo + Midland SALP
Continuation of SALP @ CPCo's request
to continue dix. based on their response

Concerns as to what will be discussed
prior to Mtg. w/ CPCo.

Jack Hind / Carl Paperello. Op. Support Sect.

- Mtg. w/ Selby subsequent to SALP continuation.
6/14/82 - Do we wish to amend the 12/79 order to reflect
correctly "Material false statement" issue? - Paton
6/14/82 - Mtg. w/ JK re scheduled
& Additional Q's.

Draft SER Supplement to DL ⟹ July 8 to CPCo July 16
Mtgs. w/ Appl. ⟹ wk of July 19
Site (Ann Arbor) audit ⟹ wk of July 26
Issue SSER ⟹ to DL 8/6 ⟹ Issue 8/20/82

6/15/82 - Mtg W. Schaub - Mooney (CPCo) re schedules.
Propose monthly mtgs. to review new 30 days addition to schedule -

Next date -

{SWPS - July 10.
{UG Piping - July 10.

BWST - July 10. (Foundation Ring).

Φ3 - ~~August~~ July 31 -

* Φ2 - Can not start critical path work w/o staff approval of FIVP proof load test i.e. need to tunnel under FIVP & want to assure overhead support.
Believed covered at an audit in January

FIVP
Addition of rods - June 23 start
Jacking - July 3 ⟹ 11.

Excavation under FIVP ⟹ July 12 -

Expect overall approval June 30 ←
No new technical issues raised -

DGB - CPCo says no new design ∴ 1.5 SSE vs. SSRS not applicable

CPCo wants timely approval w/ conditions.

Info mtg. - June 25 - 8:30 A.M.
Draft SER -
CPCo review -
Mtg. to agree or disagree - Cook to sign off -
Audit mtg. -

Approval based on Draft SER underst'dg.
CPCo proceeds @ their own risk unless they comply w/ the condition.

Audits to be conducted while prelim constr. work goes on -

6/17/82 - Telecon w/ Little, Reg. III

Statement for inclusion in SSER addressing ACRS concern -

Ask CPCo for reports first.

Gilray problems w/ QA program (plan)

Norelius, et al -

6/22/82 - Telecon w/ Sullivan re ACRS letter -

- Lower probability ethqks. Want to talk w/ staff when we reach a decision. (Wolf Creek). Asks that CECo have flexibility if we require a further prgm on E.Q.

- PRA + Systems Interaction prgms.
Want to preserve idea that CECo initiated study. Limerick contentions ~~did not~~ argument relate to lic. process but ~~since~~ some PRA was required it did relate. Want staff to be sensitive to not defining as a lic. decision making.

6-22/82 - Talked w/ Herman re FES comments.
NRC comments have not yet been distributed to the reviewers. I spoke w/ Ballard; Cammill; Faraday; Congel + asked their cooperation in expediting. Also promised the comments by 6-23 AM. They all agreed to do the best they could. Mitchell (AEB) is on AL until 7-7-82.

6-22-82 - Knight telecon - Tax SB questions as mtg. agenda -
@ a min. cover structural - Geotech @ later date next Tu. or Wed. will know better tomorrow -

6/25/82 Mt. w/ Sullivan -

1) Slip in FES issue date.
2) Analysis on Seismic + LOCA in April 83
impact
3) Philo. no Confidence that CP Co (any utility knows what going on -
4) S-3 - Impact on FES.

6/25/82 Mtg. w/ OELD - Paton, Rutberg, Wilcove

Keppler was one to recommend that the Board be notified.

OELD to draft letter to Board.

~~[illegible]~~ Eisenhut's Off. Mon. Conf. call w/ Keppler.

10 AM - Telecon. - We will call Keppler. -

Telecon w/ Novelinsk

GAP called 6/24/82 plng news conf
Tues 9:30 Midland to give their views -
Lay out what they had identified.

Looked @ wider prism. Going coming forward / regarding. Midland sit.

worse than found @ Jemima.

Fed Xpress to Reg. III copies of signed affidavit etc. as soon as they have it.

Delay in PN until info. rec'd from GHP to add more substance!

10/28/82 - Mtg/Telecon W/ DGE, RLT, Keppler, Paton, Wilcox, Hood -

Do we propose to supplement testimony? Yes -

Some of SALP findings in tails areas conflicts W/ testimony.

Non-Committal -
Regmt. Tech. Chgs.
Enforcement act:

Document from DD's in Reg. III. Recommend:
1) Act. to improve reg. perform @ Mid-Co. Aware & emphasized on correcting ident prob.
2) Is it possible to mng. constr. diverse as Mid.
a) Cutback work one unit. Test
b) Separate Mngt Grp => VP

for soils

2) Design / constr. verification.

3) independent reviewer –

Mt. w/ NRR/ERD w/recommendations

7/1/82 – Telecon w/ Myron Fliegel re Gonzales Assignments. Promised call back in 1 hr.

Conflict between FES comments & [illegible] work.

(Telecon) Spoke w/ [illegible] & requested FES comment be given priority on grounds that

1) FES issuance is [illegible] date

2) Gonzales' work on Soils matter not directly related to construction (Tech Spec development)

3) Gonzales' work on soils will be forthcoming 7/23/82 (double checked w/ Fliegel). & would not impact 8/20/82 SSER issuance date.

7-2-82 [illegible] w/ [illegible] – [illegible] in [illegible] [illegible] [illegible].

7-6-82 - Telecon w/ Mooney - (Schaub + S...

Where things are? Problem area: Oak Ave Bo...
Spring count of 30 kcf - asked to use 70 kcf.

June 14 submitted new results. Mtg June 25
Rinaldi agreed w/ way calcs done + results to
questions. Had reviewed submittals
Thurs. Telecon (7-1) w/ Kane disagreed w/
results. Kane/Poulos suggested settlement
criteria based on engr. judgt. Asked
Kane to talk w/ Rinaldi 8:1-2 Heard
from Kane - no internal agreement.
△ Deflection during underpinnings -

do not want draft SER w/ open issue on this.

* Plans Constr. FIVP Mod. in 11 install
piers that require a dift under FIVP -
Landaman disagreed w/ sequence -
Mods. to FIVP first. Rinaldi agreed
w/ constr. & sequence Landaman
wanted Kane's input

Returned Telecon to Mooney - 5:15 P.M.
No answer.

7-7-82 Telecon w/ Mooney ← CPCo ←
told him all communications were to be thru DL. No longer to contact reviewers

Telecon w/ Landsman - informed him of communications w/ CPCo.
Structural steel supports (FIVP) not as in drwgs. Rock anchors may have been installed correctly. May have been over stressed - No QC/QA. Landsman asked for pull test one rock bolts. ←

7/12/82 - Telecon w/ Pagano. Losing people (5 spaces) New Man from Nat lab ← Offered to do what D Con - IP/Shoreham/Byron → Will get back w/ one sometime soon.

7-12-82 - Telecon w/ Lear -

Gonzales time not available to do interrogatories by 7-19 ← SSER by 7-26 both can be done by 7-30.

Called back ← Interrogatories - 7/19/82
SSER by 7/30/82.

7-13-82 Telecon w/ D. Mendy ← not in.

7/13/82 - No depositions from GAP people until Reg has had time to review -
supporting depositions from GAP reps - [redacted] included in list of people [redacted] is an affiant [redacted].

7/13/82 ← Asked him to coordinate his staff's calls & letter ←

7/14/82 - Telecon w/ David Sedgwick (517-752-7171 x182) Saginaw News ←
Evacuation Plans - Saginaw Co. - State Police
to cond. 9/24/81 - EPZ 12/81 response
Extention of 10 mi. EPZ to 5 mi. EPZ
Decision by NRC - NUREG-0654 - Rev. 1.

Have there been any exception to 10-mi EPZ requirement.
Referred to Dagnes

7/16/82 Telecon w/ J. Mooney - re draft SSER

? Hood indicated no open items significant enough in SSER to preclude constr. release -

* BWST foundation ring Crack repair completed
* Instr. Sys. Aux Bldg. in service - middle of next week
7 day baseline of instr. Need deflection points.
Complete baseline by 7-28-82 :. cannot start #2 w/o completing baseline.

Alarm setpoints go into computer prgms

Called Cook to clear up w/ Mooney re constr. release. Do not see authorizing a constr. release on the basis of the draft SSER.

7/20/82 - Telecon w/ Bonnah re AFW Header
Telecon w/ R. Cook / K Ward re AFW Header

7/20/82 - Mtg. w/ Tech. staff re Mtg. w/ CPC for 7/21/82.

Differential settlement - Analysis & Eng. judg.

Analysis of DGB Haseldon displacements HGEB does not agree w/.

Cpy. of Mtg. Minutes.

SEB 25 concerns - Identified in Memos June 15, May 18, ~~July 9~~ June 28.

Recal. pin + plate load tests

HGEB anticipates additional submittal - Schedule for long overdue submittals.

UG piping - 36" pipe - plans for excav. + backfill.

7/21/82 - [illegible]

"Stop limit" - } [illegible] [illegible] ... will [illegible] [illegible] [illegible]

Action limit -

Alert limit - Begin a re-evaluation. No stop work

What I [illegible] [illegible] [illegible] is [illegible] w/a flexible structure, they cannot [illegible] the building + [illegible] [illegible] because [illegible] the building itself moves.

[illegible] 1/3 of work - Building [illegible] [illegible] [illegible]. Following that, contractor can control [illegible] building [illegible] 1/3 allowable.

7-22-82 Telecon w/ Paton
Board comments on Draft SSER
Table 5-3 -

7-22-82 Telecon w/ R Cook + AF [illegible]

7/26/82

- Provide responses to qs
- Schedule for FES print copies
[Return to [illegible] w/ M&B re [illegible] / [illegible] plan
[[illegible] for SER on [illegible] 8/20/82
[[illegible] sched. - [illegible] 10/82
OL 11/82

Appl CCD 7/83 - U2
12/83 U1

[illegible] plants in urban areas. - What extra necessary for [illegible] plant in an urban area? [illegible]
[illegible] LPZ [illegible]
[illegible] planning before -

Why is design [illegible] before emer. plan is completed? It precludes design options.

Different [illegible] for plants in urban areas.

Presidential letter designating FEMA responsible for board. All emergency plans.

[illegible] data on [illegible]
[illegible] in [illegible]
control?

Licensing liability for licensing a plant which exceeds ... Citrus Co. ... a mitigation program

Are zoning aspects apply - to parks & homes?
Not dense enough to ... impact ... ...

Change ... ... rate

Water quality -

Storage of spent fuel

2.1 Site Sect.

Mixing zones
How does NRC consider criticality of mixing zones in this area.

Tritiated water - ... Tritiated compounds
What is to happen in sediment etc?
in the ... -
when do they get info.

Condition for ... ... in the natural environment.

5 mile zone for ingestion for offsite plng.
State would notify [illegible] of releases to the river —

7-27-82 — Telecon w/ Peterson re Keppler mtg 7-26-82
Keppler TDV — [illegible] Novak, [illegible], Peterson.
Mtg w/ CPC — to hire overview QA type.
Keppler to provide write up on what QA overview will be doing.

7-28-82 — Warnick —
Public mtg to discuss SALP report
Aug. 5, Midland, Holiday Inn —

8/2/82 — Telecon w/ Mooney/Schaub/Sullivan

Suggest formal request for early construction release.

Had a problem w/ sending a letter?

Mtg w/ Gilray/Bird re QA revisions
2 1/2 to 3 1/2 wks ago.

Freezewall excavation issue w/ Reg III. Not NRR

5/3/82 - Mtg. w/ [illegible] [illegible] [illegible] [illegible]

re [illegible] [illegible] [illegible] [illegible] on Constr.

+ Discuss w/ Keppler re QA [illegible] implementation & how it goes together w/ Constr. in place.

- Have not finished tech job. No Mngt. [illegible] in approval

- Must mtg. w/ CPCo before approval. (Warnick's reaction?)

+ Telecon w/ Jim Mooney

Steps already defined.

Outline what we think we need for approval

5/4/82. Mtg w/ Budzik -

- Need Mo. mtg. to keep staff informed (?) - progress & chgs. [illegible] mngt. [illegible] - [illegible]

[illegible] [illegible] [illegible] constr. release.

8/5/82 Telecon w/ J. Mooney

Timing on crack mapping – aux. Bldg. + SWPS.

Mooney – @ Site Friday –

[illegible]/7/82 – Mooney wants to meet on approval letter.

· Knight – SSER – [illegible] all input [illegible] this week.
  deflection criteria – resolved.
  [illegible] bldg. [illegible] – [illegible] – [illegible] input –
  [illegible]
  [illegible] approval letter [illegible] week [illegible]
  [illegible].
  [illegible] – ?
  – [illegible]EB – [illegible] SER input – [illegible] 8/20/82.
  – [illegible] – [illegible] CSB [illegible] – [illegible] 8/23 – 9/6.
  [illegible] – [illegible] 8/23. SSER input [illegible] typing
  · [illegible] – [illegible] input telecopied today –

· Mooney – [illegible] to meet w/ the staff.

Telecon w/ CPCo. [illegible] could the staff be ready to meet w/ CPCo.

Anything they [illegible]?

8/11/82 — GMU mtg. 10 AM.
2 PM mtg w/ [illegible]

8/12/82 — Mtg 8/17/82 —

Midland Co. Cons. Manor
517-832-7105 Auditorium
517-631-0510 Ramada Inn

~~517-832-7015 ? Plaza~~

8/16/82 —

Material false statement
Either [illegible] issue or amend order to
state what our real concerns are

[illegible] in [illegible] or [illegible] [illegible]
[illegible] material false statement

Cost/benefit of litigating a [illegible] allegation
[illegible]

Keppler's list

1) Augment NRC inspection next 6-12 mo. [illegible] [illegible] [illegible] Midland [illegible] [illegible] + CPCo [illegible] people reporting to Midland from [illegible] III

2) Hire independent 3rd party. Vertical slice

3) Get Bechtel QC report to MPQAD

✓ 4) [illegible] / Bird must go.

5) All exit interviews will be conducted w/ both [illegible] + QA.

6) All commitments + NRC approvals will be in writing. [illegible] [illegible] to Board re operation.

7) Keppler [illegible] to meet w/ Pres. of Bechtel + [illegible] [illegible] [illegible] ups.

8/17/82 - Mtg. w/ CPCo. Budzik, Murray, Solano Knight, Liaw, Hills, Hood, Hernan,

[illegible] of apparent difference -

[illegible] believes the Applicants request should follow our position (SSER)

Options

1) Deny request. Reference SSER for [illegible] [illegible] interpretation.

2) Revise SSER & detail what they [illegible] to do.

3) Cover letter w/ commitment to [illegible] w/in scope of SSER -

H. Call Knight re procedure for Volume [illegible] of SSER. ([illegible])

8/18/82 - Discussed w/ Murray re letter content. Informed him of [illegible] on what the letter would [illegible] be -

J. Cook in DC [illegible] -

Requested again a chance to review SER

before distribution

Confusion re ability Seiby/Kipple mtg.
CPCo's understanding -
- SDR letter
- Cont. Vult Capacity analysis
& other QA activities that apply
to the total plant.

8-23-82 Telecon w/ D. Budzik

Levels set @ last audit for allowed
for FIVP

8-23-82 - Telecon w/ Bert Davis - Midland

8-24-82 - Mtg w/ [illegible], [illegible],
Sainte, Wiscone, [illegible], ~~[illegible]~~ - Knight -

[illegible] approval before settling @ mngt mtg w/
Reg. III

Mngt. attitude question.
RLT - lack of integrated program - [illegible] -
JPK -

8/27/82 - Selby, Cook, Mooney, Keppler, [illegible], [illegible]

1) Jim K. reviewed last years testimony - [illegible] not yet sufficient

2) CPCo showed new [illegible] org. - Cressman & people proposed -

3) Selby wants builder responsible for QA

4) QA given @ CPCo - Govt - too tightly controlled.

5) Cook [illegible] CPCo come back w/ get well plan [illegible] w/ DOE next Thurs. Cli.

6) Turnaround @ Palisades. Do the same @ Midland.

7) Talk to D. [illegible] to issue SSER. Won't put out until we hear CPCo proposal & agree it'll work.

8) Plant QA/QC's - "things are getting better" CPCo - Selby.

9) ~~Selby~~ Turnovers look good - Testing on Equip - it works

Mines to Knight same c.c.c. as his
memo.

"Nothing out until DOE meeting w/ Dilig-
Kepple again

Discuss w/ Reg. III before issuance

9/1/82 Discuss w/ Lic. Board. Decker is retiring

Board Conference call Fri. 9/10/82
10 A.M.

Mtg. w/ Hood + on Thursday. 9/9/82
Reg. III - Communication.

[illegible] for lic. [illegible]
[illegible] "ready"?

9/7/82 - Mtg. w/ Novak [illegible] re CPCo rating in Cli
[illegible] letter due today.

[illegible] Zeimelstoff, Gucke, Douglas - [illegible]

Discuss w/ Reg. III. - Main Concern - Make sure
proposed criteria the staff for [illegible]
[illegible] @ the plant. Not [illegible]

9-16-82 - Telecon w/ [illegible] Jordner - Reg. III

QA testimony

▽ Reg. III

Request to delay contention relating to Zack.

& GAP affidavits

Begging the question.

NL work Just QZ. Work release [illegible]

to review & evaluate ability to implement QA.

9/24/82 Telecon w/ Wayne Shafer

Oral qual test ~~begin~~ being conducted by CPCo. for ~~QA~~ QC inspectors. Margulis's people doing the testing.

2 cases = Inaccurate + uncontrolled QCI's ~~+~~

~~cert on remedial soils~~

- Tech / programmatic parts of exam (What is the job?)

~~Failed prog.~~ passed tech - Level 2? High up.

- Repeated question several times

Oral cert. prgm. unacceptable
- decertify - (Soils).
- Written exams
- non-compliance or doc. control.
- Why not shut down all safety related activities. 2:30 PM 9/24/82. Response

Keppler in Atlanta - Going thru line

Stds don't require written cert.

9-27-82 - Mtg. w/ Novak -

Schd. mtg. w/ HRB. ?
Prepare bd for. re what report is supposed to
do. Green light from Vollmer Due

Earlier Comments -

eg. Testimony
Hq region
Define Classes.

Outline - title
Rankout -

10-13-82 - 1. SFSAR does not envelope SSRs - Rinaldi
SSRs is enveloped

10/25/82 - Mtg w/ Region + DE: - Look at work in progress

1) Vertical slice not broad enough.
Should another program on other unit

2) S+W ~~audit~~ assessment of remedial soils work should be expanded to include balance of plant. Time. Gain assurance that we have confidence that the program is being implemented.

3) INPO examination needs to be expanded or made longer (needed?)
- MAC weak in independence

4 Craig's comments.

Biennial Audits: Not appropriate

Eval effectiveness of implementation of QA program/
Adequacy of QA program Performance

P. 8 Statement on audits

CPC to review final report - rules should be established as to any alterations that can be made

Staff should receive interim report

Pg 6 (9 A) 1st ¶ "design elements to include 'samples'"
clarify "samples". Problems with this or other plants.

Vertical slice - need to describe in this letter how they will assess the extent of evaluating the QA program in effect at that time

10/25/82 w/ CPCo - IDVP meeting.
Recent request from NRC
IDVP mtg/final report
2 - 9/17/82 ltrs re implementation program.
Oct 5 ltr re IDVP.
CPCo request for concurrence or redirection.

- Reference to previous assessments - referring to biennial QA audits?
- " Biennial margin review →
- Early '82 commissioned IDV of their own "Couldn't trust most to see if there were something wrong @ Midland" = Bechtel is used them to do the independent (!?) evaluation.
Propose to give to 3rd party consultants

CPCo re: to
Catherine -
- General NRC response - Public Confidence
- Some indication as to start w/ INPO review. Complete in 1982. as a minimum. Construction prog.

CPCo thinks their response (10/5 ltr) is unique. (Doesn't sound too different from Turkey Point to me.)

INPO team will still oversee implementation of INPO program.

MAC presentation: Total Effort 40 man-wks.
INPO study is of work in progress. Is not a historical evaluation.

Will "look" @ whole plant activities includ. soils & turnover as well as other constr. work in progress.
15 people for 2 wks. to gather facts -

ERA Presentation.
Evaluate Quality of Plt. Design.
Effort 50 man-wks

Configuration verification -

Is there any plan to look back to assure that the construction practices now used & reviewed under the INPO program were used in the past? So one can draw some conclusion about the quality of what's already built?

GAP Presentation (Summary)
Lacking discussion on S&W assessment.
Point where they "got" S&W. Ref NA sinking problems.
Suggest rejecting proposal.
Mtg in Jackson / Midland -
single point of accountability.

Midland mtg - Contractors w/ chartered Citizens to comment.

1) LaSalle model - Simultaneously submit reports to all parties. Cook - final report only. Others available. Consulted to NRC policy.

CAP - requested raw data from INPO review be sent to NRC. Independent review does not permit sufficient public oversight.

NRC - Mtg to cover NRC's independence -

DOE - Reg. report'd to provide svc & forum in NRC

CAP - Supplement to letter - by next CECo mtg.

DGE Does it go far enough? Open question in construction. & S+W contract on site - Did NRC "approve"?

Warnick - Reg weighs vertical slice heavier than other aspects. Another system or broad design proposed system.

Feedback to CECo later this week re INPO progress LOE promise -

10/28/82

Telecon w/ Cook -

1) Another system
→ 2) What's going on w/ Construction. (gone on).
3) Ind. 3rd party to do Ongoing Constr. look - QA.
4) Mtg w/ CPCo & STW
5) All communication to NRC @ same time as CPCo. - Mtgs. announced. (public notice mtgs).

@ Mtg. STW talks first.

12/29/82 - Mtg w/ Bagchi, Knight, Johnston, Tatin (?), Hood, [redacted].

Demonstrate ability to shutdown / cooldown w/ E high that meets SSRS.

FSAR commitment -

"Comparison to current NRC criteria" - IEEE-374-1971 w/ 1974.

Each piece equip type in SS sys develop floor response spectra consistent w/ SSRS.

Assuming substantial margin - should show functionality @ SSRS.

Qualification requirement -

11/5/82 Mtg. w/ CPCo re S+W program

Objective To review program to be executed by S+W.
Qualifications + Charter. Scope of review ?

Mtg ? [illegible]
Criteria for independence ?
Everyone reports to S+W ? Independence ?
Who will have final word - Parsons or S+W ? Scope well defined ?
Reg III involvement in S+W / Parsons work ?

S+W - [illegible] ? (Dumb-question) Parsons ?
Has Parsons worked for CPCo before ? Not these areas.

Concrete plant - off-site - Already in place ? Environmental impact ?

S+W effort will attend to resolution of all non-conformances

Kohn - [illegible] -
Questions -
Ltr re S+W [illegible]
Plant sites where Sturm Mimbias -
Lucks - All S+W Geotech work (Cherli, North Anna)
Relation in NA / Midland - No.
Scott - River Bend -
Time when [illegible] are avail. public ?
CPCo [illegible].

11-16-82

Jordan - Keppler, Jordan, Axelrad Conf. call w/ Paton Wed.

QA hearing Jan. 4 - 14.

Rutberg ~~[illegible]~~ to get Board request.

Not to file motion on amending order re material false statement -

Murray, Lieberman, Rutberg, Christenbury directed Paton to not file.

11-17-82 Shafer telecon. Not yet communicated to Keppler.

Field changes w/o clearance. Seismic Cat. I hangers installed non-Q i.e. non-seismic cat. I.

Midland

Stop all further Constr. acts. on BOP. until

1) Requal/recert all QC inspectors

Complete reinspection ident. all problems. Constr. to correct ident. problems first, then go on...

May ^(permit) continue to test. to "inspect"

Release soils work

Investigation re Boos lying to Ron Cook/Landsman.

OELD recommends against pursuing because our "case is weak".

Testimony filed refers to Reg. III concerns re lying. Will probably come out before the

board if we do not pursue. Investigator
believe Boos did lie.

Telecon w/ Reg III - Kepplex - 12/7 availability.
Prefers to go w/ 12/7. - Denton, Dircks I+E.

currence on letters

5-83. Midland hearing 517-631-0570

3-1-83

mtg w/ GAP - Cook, Warnick, Grimsbut, Ford, Novak -
3rd party review of CLP. - Public mtg.
Overall assessment ← How will it be conducted?
100% re inspection vs. Audit sampling.

- TERA / S+W ← Philosophically unacceptable because they are already there.

- CLP flaws + shortcomings -
Awaiting details
1) Starts too late
2) Details QA/QC reptg process ⇒ Staff the same CPC
b) 2nd level of org. - Back to Bechtel,
3) Team concept for QA/QC - Too much a part of the team - not separate enough from team pro
4) MP QAD - Set up to repeat each above.

Expand TERA review to cover a "troubled" system.

Letter to CPCo on 2nd system. DGE to sign out this week.

What debate between NRR + NRC?

3-9-83

QAB - Comment on EG+G report - time to respond.

✓ Check w/ Youngblood re reviewer for acceptability of TERA

4-18-83 - Telecon w/ R. Warnick
INPO report - Review by Reg. III
Like inspection module - look for open items Reg should follow up on.

4/20/83 Telecon w/ Gambling - 384-2548
SALP
Directed to do an abbreviated SALP on Midland in response to Keppler's request.

- areas to cover.
- Soils, QA, any primary (safety-related system that they have continued work on

- Period: July 1, 1981 - March 31, 1983.

- Mtg. w/ lic. committed by June 30, '83 (Keppler's contract).

Board in May. -

Lic. mtg. ~6-27 to 30 time frame -

NRR input by May 6 -

Consumers Power Company

James W Cook
Vice President - Projects, Engineering and Construction

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PRINCIPAL STAFF			
DIR	KGS	T&IS	
D/D		EAO	
A/D		ELD	
DR&PI			
DPS&TI			
DEP&OS		File	KGS

Dupl

May 17, 1982

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

MIDLAND PROJECT
RESPONSE TO DRAFT SALP REPORT
FILE 0.6.1 SERIAL 17485

On April 26, 1982, Mr J G Keppler and members of the NRC Region III staff met with Consumers Power Company personnel in Jackson where the NRC presented the observations and findings of the Midland SALP board for the period July 1, 1980 to July 30, 1981. At the conclusion of that meeting we were informed that we should make written comments to the Region III office within 20 days of that meeting date. This letter transmits Consumers Power Company's response to the draft SALP evaluation report and to other comments made by Mr Keppler at that meeting.

Our general reaction to the SALP evaluation can be summarized as follows: We support the SALP goals and objectives because we believe it is vital to have an active and continuing dialogue with those who have direct regulatory responsibility for the Midland Nuclear Plant. We do believe, however, that the SALP process has not yet reached maturity and there are areas where the process can be made more effective. With regard to the specific contents of the draft SALP report, we are concerned with what we believe is an unnecessarily negative characterization of the inspection results for the period covered by the SALP report. Because of this concern and our belief that the facts do not support the characterization presented by the authors of the draft SALP report, we have spent considerable time reviewing the detailed information on which the draft SALP report was based, and this analysis forms the basis of our attached response. We believe a careful review of this material will enable Region III management to understand the basis for our concern and to gain an appreciation for our perspective in this matter.

In addition to the review of the draft SALP report, Mr Keppler made several comments at the April 26 meeting regarding his own participation in both the NRC team inspection of May 1981 and his subsequent testimony in the ASLB hearings on the soils matter. In order to respond to those comments we have also included additional material and analyses that directly respond to Mr Keppler's comments.

Dupe of ~~8408130255~~

oc0582-2048a102

MAY 18 1982

Our detailed response to the SALP report and Mr Keppler's comments has been divided into three attachments transmitted with this letter. A description of each of the attachments follows.

Attachment 1 is a detailed review of the entire draft SALP report and the inspection results upon which the SALP report was based. We conclude that the details of the SALP analysis support a more positive conclusion than was presented at the SALP meeting. The basis for this suggestion is that there appears to be considerable overstatement of the actual severity of the inspection findings, some factual errors and omissions within the draft SALP report itself, and further, there are some assignments to this SALP evaluation of events that occurred prior to the SALP evaluation period, all of which contribute to an unnecessarily harsh characterization of the Midland Project regulatory performance during this SALP evaluation period. Attachment 1 also contains our comments on the SALP process.

Attachment 2 to this letter is a comparison of Mr Keppler's testimony in the Midland soils hearing with the specifics of the draft SALP report. This detailed comparison concludes that even with the generally negative characterization of the Midland Project by the SALP board, there is still no contradiction of Mr Keppler's prior testimony by the draft SALP report nor any need, in our opinion, for him to modify that testimony.

The third attachment to this letter entitled "Analysis of Current and Future Quality Activities With Regard to Remedial Soils Work," addresses specific questions raised by Mr Keppler at the conclusion of the SALP meeting. This attachment points out that there appear to have been considerable regulatory difficulties experienced by the Midland Project during the past two months, mainly because of the inability of the NRC staff and the Company to finalize the quality assurance program coverage requirements for the soils remedial work, particularly for the underpinning activities. Attachment 3 points out that this difficulty appears to have been generally resolved and that there are numerous reasons for confidence that with the regulatory requirements properly defined, the remaining soils work can be carried out in a fully satisfactory manner.

Consumers Power Company urges the Region III management and staff to carefully consider the information and reasoning contained in this response to the April 26, SALP meeting. We believe that there is ample basis for the Region Administrator to reaffirm his 1981 overall team inspection findings in his overall conclusion to the 1980/1981 SALP evaluation.

Finally, as noted previously, we were disappointed with the negative tone of the draft SALP report. We take very seriously the comments made by the Region III SALP board members and will do whatever we can from the applicant's point of view to engender productive working relationships with the staff and to be responsive to the staff's concerns. Nevertheless, we must disagree with some of the material in the draft SALP report, and we request the opportunity to meet with Mr Keppler and his staff to review the detailed contents of this response.

James W. Cook

JWC/WRB/aat

oc0582-2048a102

Distribution: Keppler (3 copies)

CC: Atomic Safety & Licensing Appeal Board
CBechhoefer, ASLB
MMCherry,Esq
FPCowan, ASLB
RJCook, Midland Resident Inspector
SGadler
JHarbour, ASLB
DSHood
RBLandsman
WHMarshall
BStamiris
MSinclair

CONSUMERS POWER COMPANY RESPONSE TO THE DRAFT SALP REPORT FOR THE MIDLAND NUCLEAR PLANT

Reference: 1. NRC letter; J A Hind to J W Cook; dated April 20, 1982; with Enclosures 1 and 2.

This response is in three parts. The first part provides a general response to the SALP appraisal and SALP process as a whole. The second part provides our detailed response to Enclosure 1 of the reference, the Significant SALP Report Findings. The third part provides a detailed response to Enclosure 2 of the reference, the Preliminary SALP Report, dated March, 1982, covering the assessment period of July 1, 1980 to June 30, 1981.

Part 1 - General Response

A. We are encouraged by the general statements to the effect that the NRC sees progress in Consumers Power Company's overall quality assurance program and in its management. Undoubtedly, there has been improvement in our regulatory performance from the 79/80 assessment period to the 80/81 period and from the 80/81 period to the present. Literally, dozens of actions have been taken in order to achieve this improvement. These actions have been communicated to the NRC.

In May, 1981, Mr Keppler and members of his staff performed an extensive team inspection from which they concluded that ". . . the scope and depth of this NRC inspection was such that the identified noncompliances do not contravene our conclusion that Consumers Power Company has established an effective organization for the management of construction and implementation of quality assurance at the site."

B. We are, however, disappointed by the overall negative tone of the draft SALP Report. Nonetheless, we continue to be dedicated to attaining two goals:

1. First and foremost, to ultimately assure that the as-built configuration of the plant is in conformance with all regulatory and design requirements; and,

2. To continue to improve our regulatory performance.

C. We welcome feedback relative to our regulatory performance--the sooner the better. We have encouraged such feedback in a number of ways, and we shall continue to do so. A number of meetings with Region III management and staff have been at our initiative. On numerous occasions we have proposed the establishment of routine, periodic meetings to exchange information with Region III's home office staff. On our own initiative, we submitted our Preoperational Testing Manual in order to obtain Region III review and comments at an early date. Our specific invitation may have contributed to Mr Keppler's personal participation in the NRC team inspection conducted in May, 1981. We have proposed that an NRC Inspector be on site as much of the time as possible to assess our remedial soils work. Of course, at the completion of NRC inspections, exit interviews with the Inspectors are a routine feedback mechanism.

D. In reviewing how to improve the Company's overall regulatory performance, it becomes evident that the most timely regulatory feedback is that which is received before the accomplishment of the work in question. While both Consumers and the NRC attempt to achieve this objective, we believe both our organizations have fallen short in this area.

It is our recommendation that the NRC consider scheduling seminars for the various ongoing nuclear construction jobs as they approach each major phase. One purpose of these seminars would be to review the detailed quality programs and procedure for each major new activity at each job. This review would verify that all programmatic requirements at the detailed level were in place prior to the work or could be upgraded before the fact to meet Region III expectations. In addition, the NRC inspection specialists could review with the applicant's quality personnel typical detailed inspection plans used by the NRC in their on-site inspections. At the same time, discussions of actual experience from other earlier construction sites could make the Licensees for current construction sites more aware of and responsive to potential problems in the work area about to begin.

We in industry have tried to accomplish this objective with our various regional and industry groups, and by reviewing inspection reports from other jobs. However, these efforts suffer by lack of NRC input at detailed working levels. We urge the NRC to consider this type of an approach to supplement their other inspection programs.

A specific benefit to Midland's future performance has already occurred as a result of this concept. It was mentioned at the SALP meeting that we had submitted our Test Program Manual to Region III some time ago in order to obtain feedback prior to the start of detailed systems testing. Even though some testing has already taken place, we are delighted to report that follow-up from the April 26 meeting has resulted in the scheduling of a detailed NRC review of the Midland test program for later this month.

E. We recognize that the SALP process is a relatively new one and that the NRC is attempting to develop an approach to the SALP reviews that will be timely, fair and based on the best available information. This second SALP Report is a major improvement over the first, National SALP Report which was issued in the fall of 1981. Nonetheless, our review of this SALP Report discloses additional improvements which can be achieved in meeting the objectives of the SALP process.

First, there appears to be no consistent format in characterizing the areas which are being evaluated. The assessment can be made by functional engineering areas such as soils, containment, piping, etc; or it can be made on the basis of discrete engineering activities such as design, procurement, construction, etc. The current SALP Report has both categorizations which leads to an inevitable double counting of deficiencies identified during a reporting period. The report itself recognizes this problem, but discounts it. We appreciate the need perceived by Region III for singling out certain specific activities, such as design control, for separate treatment in the SALP Report. However, the overlap of function and activity categories detracts substantially from the systematic nature of the appraisal. Certainly, there are mechanisms available to

Region III to express its particular concern with a designated activity other than the SALP Report.

Second, the rankings do not appear to be consistent. For example, no items of noncompliance were identified with respect to the Fire Protection, Containment and other Safety-Related Structures, and Preservice Inspection areas. Yet Fire Protection was rated a "Category 1" while Containment and other Safety-Related Structure and Preservice Inspection were rated a "Category 2."

We believe that the major criteria in evaluating licensee performance should be the number and seriousness of items of noncompliance identified by NRC for a given unit of inspection time. We are not suggesting that there is no room for subjective judgment in the appraisals of each area. What seems to occur, however, is a lack of consistency from area to area in applying the factors which shape that judgment. Moreover, we note that most of the specific items discussed were the subject of testimony before the ASLB conducting the soils hearings. Yet no review of that testimony seems to have taken place.

Finally, the time period during which the Licensee's performance is being evaluated is unclear. Part V of the Preliminary SALP Report does indicate that the noncompliances and deviations in the HVAC area were reported also in the first SALP report. However, one item of noncompliance listed in the Piping Systems and Support Performance Evaluation related to an apparent nonconformance that took place in November, 1973, but was identified during an NRC inspection during the SALP evaluation period. In addition, all of the 50.55(e) reports cited in the Preliminary SALP Report represented design deficencies which occurred long before the SALP period. If those are the groundrules for the SALP process, they should be clearly stated. The Licensee and the public will then recognize that the evaluation rests not only on events which occurred during the evaluation process, but also on events identified during the evaluation period, regardless of when they took place.

What follows is a response to specific statements in the Preliminary SALP Report. Those specific statements are either direct quotations from, or characterizations of, items which were included in various NRC inspection reports. We have responded in writing to each inspection report and refer you to those responses for the details of the Company's position regarding each item. However, some of the characterizations of the findings of the inspection reports in the Preliminary SALP Report are incomplete. For your convenience, we have summarized our responses to each of the inspection findings, as well as clarifying the content in which those findings arose, as appropriate.

Part 2 - Response to Enclosure 1, Significant SALP Report Findings

A. General Observations

1. We are pleased that the Preliminary SALP Report noted the "improvements in the overall quality assurance program"; that we have "established an effective organization for the management of QA/QC activities"; and that "the numbers and qualifications of personnel in the QA/QC organization(s)

and the overview and audit functions performed were found to be above that normally found at other construction sites."

2. Also, we are pleased that for the Support Systems (HVAC) area the Preliminary Report recognized our resolution of the problems which existed during the previous SALP period prior to July 1, 1980. This resolution was realized through considerable expenditures of resources. We believe this demonstrates our responsiveness to problems with concrete actions.

3. The general observations relative to the less technical administrative areas are of concern to us. We do not view our past responses as argumentative merely because they provide additional facts or reasoning which may not have been available for presentation to the NRC Inspector at the time of the exit interview or because they provide information with which the NRC Inspector disagrees. The Staff, in at least two instances in the soils hearing, testified that making legitimate appeals is entirely proper, and is part of the normal give and take between the NRC Staff and the licensee. It is disappointing that the Preliminary SALP Report does not embrace the essence of that testimony and also of our management conference on this subject. At that conference, we were told not to be reluctant to appeal on any legitimate issue, but to discuss our differences with Region III prior to submitting any written appeal in order to facilitate its resolution. This suggestion has been adopted.

B. Piping Systems and Supports

1. We agree with the Preliminary SALP Report item relating to the unavailability of Committed Preliminary Design Calculations (CPDCs) to support the drawings for small bore piping. This, in our opinion, was the major quality deficiency that occurred during this SALP period. Upon discovery of the unavailability of the CPDCs, we stopped the design work, began immediate corrective action, and did not resume the work until both we and the NRC Staff were assured that the process had been corrected. Even with the design process deficiency identified, it is heartening to report that not a single pipe segment required rework as a result of this situation.

2. We also note with pleasure that the informal current rating in the Piping Systems and Supports area as of this time is "Category 2" based on Mr R Cook's statements made during the April 26 presentation of the Preliminary SALP Report. This improved rating is, we assume, based upon recognition of our positive and effective corrective actions in this area.

C. Electrical Power Supply and Distribution

1. While we understand that any noncompliance is "less than desired" and also understand the Staff's particular interest in our ambitious cable pulling schedule, we do not understand the apparently negative observations in this area. The implication given is that were it not for the NRC's advice, we would have had an inadequate number of QA/QC personnel available to support the cable pulling schedule. This is an erroneous implication. We believe we have always supported the cable pulling activities with the appropriate

number of QA/QC personnel. In fact, the amount of cable pulling carried out by the Company could not have been completed without adequate QC personnel, because in process inspection is required to verify cable pulling tensions.

2. We also believe that the seven items identified during this period were not excessive and were of relatively low consequence. These items are discussed more fully in the third part of this Attachment.

D. Soils and Foundations

1. We view the finding in this area especially harsh because it is predicated on some relatively minor items of noncompliance, and on misinformation in the Preliminary SALP Report, as demonstrated in the third part of this Attachment.

2. Reference is made to "limited QA/QC coverage." At no time has the QA/QC staff been insufficient to cover the ongoing work. At one time the NRC advised us of the need for additional personnel to cover future work. We were fully aware of and agreed with that need, and we have staffed and are staffing to meet it. Also, in our opinion, there has never been any inadequacy in the qualifications of the QA/QC personnel assigned to the remedial soils work. The QA Engineers so assigned are all degreed civil engineers.

Part 3 - Response to Enclosure 2, Preliminary SALP Report

A. Section I, Introduction

Our comments on this section are found in our general comments provided in Part 1, above.

B. Section II, Criteria

1. Our general comments relating to the manner in which evaluations are made are contained in Part 1, Paragraph E, above.

C. Section III, Summary of Results

1. Our comments on this section are found in our general comments provided in Part 1, Paragraphs A and B, above.

D. Section IV.1, Performance Analysis of Quality Assurance

1. It is gratifying, as noted earlier, that the NRC recognizes our above normal efforts with regard to the Quality Assurance organization and program, with regard to our overinspections and audits, and with regard to our aggressiveness in assuming the primary inspection responsibility for the HVAC installation.

2. Seven of the eight items identified from the May, 1981, inspection and referenced in this section of the Preliminary Report are duplicated elsewhere in the report under the Soils, Piping and Supports, and Electrical

Sections. Therefore, we will address these noncompliances specifically in the other sections.

3. The eighth item from the May, 1981 inspection dealt with the correction of adverse quality trends. Action was taken to provide a procedural change to cause the more timely closeout or verification that correction has been made in response to an adverse trend.

Our trend analysis activity is among the most comprehensive anywhere, in terms of scope and sophistication. Such an activity is not specifically required by NRC regulations or ANSI standards. Should not credit be given for this?

4. This section of the Preliminary Report also refers to another inspection

> "indicating questionable QA managerial control (because) the licensee failed to fully evaluate the technical capability of the principal supplier of services for soil boring activities."

This is an unfair and incorrect summary of what occurred. The original NRC Inspection Report states:

> "The technical capabilities of Woodward-Clyde (principal supplier of services for soil boring activities) were not evaluated prior to commencement of drilling operations on April 2, 1981."

Our original letter of response stated:

> "On March 31, 1981, Consumers Power Company approved Woodward-Clyde consultants as the principal supplier of services for the soils boring and sample program based upon meetings (between March 3 and 11, 1981) with Woodward-Clyde consultants. . . . Woodward-Clyde consultants were considered qualified as documented by letter serial 12134, dated April 8, 1981, N Ramanujam to File B.2.5.4 (Attachment 1). Even though this letter is dated April 8, 1981, it documents steps taken prior to April 2, 1981, in qualifying Woodward-Clyde. Woodward-Clyde consultants were approved by Oral Communication Report serial 11883, R C Hirzel to R C Bauman, dated April 2, 1981, (Attachment 2). Both of these documents (Serials 12134 and 11883) were presented to Dr Ross Landsman of the Nuclear Regulatory Commission on April 9, 1981."

This is not "questionable QA managerial control." This is not "failure to fully evaluate the technical capability of the principal supplier." The documentation was provided to the NRC Inspector.

The actual noncompliance was failure to provide our Procurement Department with the letter documenting the approval of Woodward-Clyde prior to the commencement of activities on April 2.

5. Also, this same paragraph of the Preliminary SALP Report states:

> "The NRC identified 15 deficiencies in the principal supplier's quality assurance program manual indicating that the licensee had not adequately reviewed and approved the procedures prior to preparation of drilling activities."

We are concerned both about the substantive and procedural implications of this comment. The 15 items referred to were generated as a result of our quality assurance programmatic requirements. The NRC Inspector participated with us in the initial and timely review of Woodward & Clyde's quality assurance manual. We welcomed his participation and anticipate that it will continue, at least through the conclusion of the soils remedial work. But it is simply counterproductive and unnecessarily adversarial for the NRC Inspector to "take credit" for having identified these deficiencies. Indeed, he did not do so. In any event, the important point is these items were uncovered in a routine review, in accordance with established quality assurance practices. Had they gone undetected past the review stage, some might have risen to the level of "deficiencies." Our timely handling of these matters is inappropriately characterized as a deficiency in the Preliminary SALP Report, when in fact it represents the proper functioning of the Quality Assurance Program.

E. <u>Section IV.2, Performance Analysis of Soils and Foundations</u>

1. The second paragraph of this section of the Preliminary SALP Report, states:

> "Every inspection involving regional based inspectors and addressing soils settlement issues has resulted in at least one significant item of noncompliance."

The correctness of this statement depends upon how the term "inspection" is defined. It has been customary to define an inspection in terms of the duration of the inspection trip. For example, if an Inspector visits the site for three days in the first week, leaves and does not return until the third week, at which time he visits the site for two days, the practice has been to view these as two separate inspections. However, the practice of the NRC Inspector in this area has been to combine, into a single NRC Inspection Report, the results of two or more inspection trips. If an NRC inspection is defined as the inspection performed during a single trip, this statement in the Preliminary SALP Report is incorrect.

2. The Preliminary SALP Report states:

> "There was a failure to initiate audit corrective action concerning the rereview of the FSAR and references to determine if design documents had modified the FSAR and if so that changes had been made to the FSAR."

This item is duplicated in the Preliminary SALP Report in the section dealing with Design Control. Read carefully, the item reflects a failure to initiate audit corrective action, not a failure to perform an adequate

rereview of the FSAR. The need for the corrective action was, in our view, of minor importance.

The FSAR rereview was an extensive, as well as intensive effort spanning 18 months and involving three companies--Consumers Power Company, Bechtel, Babcock & Wilcox. Bechtel, alone, spent an excess of 10,000 manhours on this effort prior to its completion in September, 1980. This effort resulted in a clarification and upgrading of the content of the FSAR. Two audits were made by the Consumers Power Company Quality Assurance Department to assess the adequacy of the FSAR rereview effort. Both audit teams concurred that the rereview had been accomplished conscientiously and effectively, assuring that design changes had not modified the FSAR or, if so, that such changes had been subsequently reflected in the FSAR.

The item given in the Preliminary SALP Report stems from our audit finding to the effect that all of the design documents which were rereviewed were not listed in block 8 of the rereview form as required by the rereview procedure. The instructions for block 8 indicated that the rereviewers were to list the design documents to be rereviewed, to indicate whether or not any conflicts existed between the design documents and the FSAR, and then to indicate the necessary resolution. The audit showed that some rereviewers had listed only the design documents which contained conflicts, and had indicated the required resolutions. In essence, therefore, these rereviewers did not understand the block 8 instructions to require a complete listing of documents--those which did not contain conflicts as well as those which did.

Nevertheless, the technical correctness of the rereview was validated, as follows: Rereview packages which did not provide a complete list of the reviewed documents were identified, and a large sample of them was selected. The packages selected were those which were most likely to contain design document conflicts. The packages were re-rereviewed. From this re-rereview, it was ascertained that not a single package contained even a single unresolved conflict. At this point, the rereview process was approximately 80 percent complete (recall that it was an 18 month effort). While there appeared to be some misinterpretation of the block 8 procedural requirement, all the rereviewers appeared to understand the intent of the rereview effort and were adequately resolving any conflicts between the design documents and the FSAR. Based on this, it was decided not to rewrite the procedure for block 8 and not to redo the block 8 document listings. It was thought that such actions only would have confused the process at this point in time. After an exchange of correspondence with the NRC on this item, however, we agreed to change the procedure and to provide additional training to the reviewers.

At the completion of the FSAR rereview effort, another sample of packages was re-rereviewed by the audit team with the same results, thus verifying the adequacy of the remaining 20 percent of the effort which had not been subject to the initial audit re-rereview. In essence, then, the two audit re-rereviews confirmed the adequacy of the entire effort.

In testimony before the Soils Hearing Board, Dr Landsman indicated that the block 8 condition did not call into question the technical effectiveness of the rereview, which Dr Landsman specifically found adequate (TR.p-4857, 4930).

3. The Preliminary SALP Report notes:

> "Three examples of failure to translate applicable regulatory requirements and design criteria into design documents."

This item is also duplicated in the Design Control section of the Preliminary SALP Report.

a. The first example given is:

> "Failure to maintain a coordination log of Specification Change Notices (SCNs)."

In response, there are three separate coordination logs in the civil discipline. These logs are maintained by three different people. The Drafting Supervisor maintains the coordination log for drawings and drawing change notices. The remaining documents, including SCNs, are covered by two other coordination logs which are maintained by Discipline Aides.

During the Region III inspection, the Company could not immediately document that all coordination had been included on an SCN log. The problem was made worse by the fact that the NRC Inspector was inadvertently shown the wrong log. Also the NRC Inspector felt that applicable procedures required all revisions of specifications, whether technical or clerical in nature, including those merely incorporating previously approved or coordinated SCNs, be reviewed by Geotech and so noted in the log. Although the Company disagreed with this interpretation, the procedure was modified, making it clear that clerical revisions merely incorporating previously reviewed changes need not be re-coordinated or re-reviewed by Geotech. At the request of the Region III Inspector, the Company also committed to review current revisions of civil, Q specifications to insure appropriate coordination of changes was carried out.

In any event, this is hardly something which can be properly characterized as a "failure to translate applicable regulatory requirements and design criteria into design documents."

b. The second example given is:

> "Failure to correctly translate Specification Change Notice No SCN-9004 as a requirement into Revision 20 of Specification C-208."

This item arose as a result of a slight difference in wording between an SCN and the specification, after incorporation of the SCN into the

specification, relative to the Geotechnical Engineer's responsibilities for establishing the laboratory compaction test frequency. The SCN was issued to describe the responsibilities of the newly assigned on-site Geotechnical Engineer. The specification after incorporation of the SCN, used terms different from and more general than the SCN to describe the geotechnical engineer's responsibility for the establishment of the frequency for laboratory compaction testing. In our view, the intent of both the SCN and the specification was the same, although the NRC Inspector did not agree. Subsequently, any difference in wording was eliminated. Again, this situation appears to be very harshly characterized as a "failure to translate applicable regulatory requirements and design criteria into design documents."

c. The third example given in the Preliminary SALP Report is:

> "Failure of Engineering Department Project Instruction No EDPI 4.25.1, Revision 8 to establish adequate measures for design interface requirements."

In response, the EDPI was revised to state that it is the responsibility of the originator of a design change to coordinate the change with all groups which are affected by, or involved with, the revised portion of the document, regardless of whether the change is technical or editorial. This procedural change was made to eliminate the previous option of the Group Supervisor to waive the need for the coordination or interface when, in his judgment, it was unnecessary. This coordination is now required even for editorial changes. Adequate coordination had been accomplished prior to the EDPI revision.

The need for this added conservatism introduced by the EDPI revision is a matter of opinion and Consumers Power Company has accommodated the NRC's concern in this regard. However, there was never any "failure to translate applicable regulatory requirements and design criteria into design documents" and to characterize this item in that way is erroneous and unfair.

4. The Preliminary SALP Report gives the following item:

> "Failure to establish test procedures for soils work activities."

The NRC Inspector found that US Testing did not previously determine the rheostat setting which produced the maximum density. However, US Testing did previously determine the rheostat setting that produced the maximum amplitude required by ASTM D2049. Tests were reperformed to verify that the maximum rheostat setting yields the maximum amplitude given in the relative density table used for the project. Results were documented and supplied to the NRC. This is far different from a "failure to establish test procedures" as stated in the Preliminary SALP Report. Again, the Report's comments are a gross generalization and a misrepresentation of the factual situation.

In this situation, the NRC Inspector did not accept an ASTM Standard procedure called out in the specification and imposed his own personal preference as to the technical requirement.

5. The Preliminary SALP Report also indicates a:

> "Failure to supply a qualified on-site Geotechnical Engineer."

As part of the original response to soils issues, a Geotechnical Engineer was assigned to be on site. The resumes of the assigned engineer ("the first engineer") and of another applicant to the position ("the second engineer") were reviewed by Mr E Gallagher, then the cognizant NRC Inspector. Mr Gallagher expressed his opinion to our Mr Horn that the second engineer was preferable because of his many years of field experience. We cannot say whether or not Mr Gallagher noticed that the second engineer was not a degreed engineer (although Mr Gallagher reviewed the man's resume). On the basis of Mr Gallagher's opinion, the first engineer was removed and the second engineer was assigned to the site. Subsequently, another NRC Inspector, Dr Landsman, became cognizant in this area. Dr Landsman who was accompanied by Mr Gallagher during this inspection, was advised of the original coordination with Mr Gallagher, but Dr Landsman held an opinion different from Mr Gallagher because the second engineer did not have a civil engineering degree. Dr Landsman then cited the Company with a deviation for failure to provide a qualified Geotechnical engineer for the job. Immediately thereafter, the first engineer was reassigned to the on-site position. Dr Landsman concurred with this assignment. In view of these facts, the citation seems to us unfair.

6. The Preliminary Report also states:

> "It was noted in NRC Inspection Reports No. 50-329/81-12; 50-330/81-12 that a sufficient number of qualified personnel were not available for the complex nature of the remedial soils work. This had previously been identified in NRC Inspection Reports No. 50-329/81-01; 50-330/81-01, referenced previously as a deviation to a commitment."

Inspection Reports No. 50-329/81-01; 50-330/81-01 deal with the deviation relative to the on-site Geotechnical Engineer. This was covered in Paragraph 5, immediately above. By the placement of this item in two different parts of the Preliminary Report, the appearance is given of two different items when, in fact, there is only one.

NRC Inspection Reports No. 50-329/81-12; 50-330/81-12 merely indicated the NRC's advice to the effect that additional QA/QC personnel would be needed to accommodate the forthcoming remedial soils work. We agreed with this NRC observation. We were not cited for any noncompliance on that score in these inspection reports. We now have 8 full time and 2 part time QA/QC persons employed in MPQAD and 27 QA/QC persons employed by both MPQAD and Bechtel Quality Control to cover remedial soils work--appropriate for the current workload, also taking into account the time necessary to assure their adequate training and certification. Five more persons are due on site by

mid May. Additional personnel are being sought to fill the 2 remaining authorized positions. The Preliminary SALP Report gives the impression of an inadequacy with regard to the quantity of personnel when, in fact, quite the opposite situation exists.

7. Finally, another item referenced in this section of the Report is duplicated in the Quality Assurance Section of the Report. Please refer to Part 3, Paragraph D.4, above.

8. In summary, while we find this section of the Preliminary Report inaccurate and overstated, we fully recognize the special sensitivities involved in the remedials soils area, and we are especially dedicated to the implementation of the quality controls and assurances required by law and engineering prudence.

F. Section IV.3, Performance Analysis of Containment and Other Safety-Related Structures

1. The cracks in the BWST foundation are also referred to in the section of the Preliminary SALP Report dealing with Design Control.

G. Section IV.4, Performance Analysis of Piping Systems and Supports

1. Item a(1) of this section of the Preliminary SALP Report states that:

> "Bechtel Purchase Order did not specify applicable codes for purchase of 60,000 pounds of E-7018 electrode."

The original statement of the item, from NRC Inspection Reports No. 329/80-20-01 & 330/80-21-01 was as follows:

> "Bechtel Corporation Welding Standard WFMC-1, Revision 8, dated January 4, 1971, 'Welding Filler Material Control Procedure Specification,' Paragraph 2.1, states, in part, that'. . . welding filler material ordering information shall include the appropriate requirements of the job engineering specification, the applicable Code and this procedure specification. . . .'
>
> 'Contrary to the above, on July 10, 1980, the (NRC) Inspector established (that) Bechtel Purchase Order No. 7220-F-5780, dated November 2, 1973, for 60,000 pounds of E-7018 electrodes did not specify the applicable Code.'"

First, note that the Preliminary SALP Report statement omits any reference to the November 2, 1973, date. The Bechtel Purchase Order for the E-7018 electrode was issued on November 2, 1973. We question whether we should be cited in this assessment period for an event which occurred 7 years prior to the assessment period.

Second, at the time of the procurement, a revision of WFMC-1, dated May, 1973, was applicable, whereas the citation referenced the January 4, 1971

revision of WFMC-1. The procurement was made in accordance with the May, 1973 specification. The procurement documentation reflected complete compliance with the requirements. Although these facts were not available immediately during the period of July 8-10, 1980, when the NRC Inspector was making the inspection, these facts were provided in our original response to the citation on August 25, 1980.

In addition, Consumers Power Company has performed an audit of the procurement documentation for weld filler materials procured from 1973 through 1980. This, too, was reported to the NRC in the August 25, 1980 response.

2. Item a(2) in this section of the Preliminary Report indicates that an Authorized Nuclear Inspector's hold point was bypassed for the pressurizer surge piping.

   This item was detected by the NRC Inspector on September 24, 1980. By September 25, corrective action had been taken and verified by the NRC Inspector.

3. Items a(3) and (4) indicate that large bore pipe restraints, supports and anchors were installed incorrectly and that QC Inspectors did not detect the incorrect installations.

   It is highly unusual to cite a licensee twice for what is essentially a single QA defect (one citation for the construction defect and another for not having detected the defect).

   The NRC Inspector found 7 cases of apparent nonconformances to design requirements. He stated that he was using cursory inspection techniques. Upon our further inspection, we agreed that 3 of the cases were defects, but with more refined inspection techniques our investigation indicated that 2 cases were within tolerance, 1 case was a result of obvious post-inspection damage that would be checked for during walkdown inspection, and 1 case was for work yet to be inspected initially. The 3 real defects were of a relatively minor nature, and none of them impaired the function of the hangers even though they constitute a legitimate basis for the NRC's finding.

   On the basis of these findings, we agreed to make an extensive sampling reinspection of hanger installations which were made prior to 1981. The results of this reinspection have indicated the presence of additional minor defects and may necessitate further reinjection. The results have been made available to the NRC and now are being analyzed by both the NRC and Consumers Power Company.

4. Item a(5) in this section of the Preliminary Report, dealing with the availability of Committed Preliminary Design Calculations for small bore pipe and piping suspension systems, is duplicated in another section of the draft SALP Report dealing with Design Control and Design Changes and is the major contributor to the Significant SALP Report Findings for Piping Systems

and Supports given in Enclosure 1 to the Reference. Correspondingly, our response to this item is covered in Part 2, Paragraph B of this attachment.

5. Item a(6) indicates:

> "Failure to adequately control documents used in site small bore piping design activities."

The original item from NRC Inspection Report No 50-329/81-12 and 50-330/81-12 stated that:

> "An (one) outdated specification was maintained at the small bore piping design group work location and revised calculations were not marked 'superseded' in accordance with the procedural requirements (our emphasis)."

After careful checking, this finding was determined to have been an isolated case.

Nevertheless, the calculations were checked and were found to be correct. Training was conducted of all personnel in this group. An audit was made. A procedure was changed to require that the specific revision number of the specification on which the calculation is based be documented in the calculation package.

6. Item a(7) indicates that Consumers Power Company audits did not:

> "Include a detailed review of system stress analysis and (did not) follow up on previously identified hanger calculation inconsistencies."

In response, the above statement refers to the fact that we did not audit for the availability and correctness of the Committed Preliminary Design Calculations as discussed in Part 2, Paragraph B, and Part 3, Paragraph G.4, above. The audits that were made previously in this area concentrated on the completed calculations, rather than the preliminary calculations. The audit checklist for this area has since been adjusted to reflect a requirement relative to the preliminary calculations.

H. Section IV.5, Performance Analysis of Safety-Related Components

1. As a result of the two original items, from which the two items in this section of the Preliminary SALP Report are drawn, Consumers Power Company issued a formal Stop Work Order to Babcock & Wilcox and a letter to the NRC stating that the work stoppage would remain in effect until the corrective actions had been completed and reviewed by the NRC. Corrective actions were taken, as follows: The installation procedure for this activity was revised to clarify the method of installation and to specify the required dimensional checks. The indoctrination and training of the personnel performing the installation and of the personnel inspecting the work was strengthened. The Consumers Power Company overview inspection plan for this activity was revised. The NRC Resident Inspector verified these actions.

2. Again, it is encouraging that today's rating in this area, as stated by Mr R Cook during the April 26 meeting, is a strong "Category 2," or even, perhaps, a "Category 1," based on the aggressiveness of our overview efforts. We recognize the particular importance of this area, and we intend to continue our agressive overview of this area.

I. Section IV.6, Performance Analysis of Support Systems (HVAC)

1. We appreciate the "Category 1" rating for the period in question and on an informal basis for the current period, as well, as stated by Mr R Cook during the April 26 meeting.

2. It should be noted that the civil penalty was imposed for conditions which existed prior to the assessment period in question.

3. The 17 items referred to were all identified as a result of investigations which were completed prior to June 30, 1980, and, therefore, prior to the start of the assessment period in question. This may be observed by review of the individual items given in NRC Inspection Reports No. 50-329/80-10; 50-330/80-11. Although these Inspection Reports are dated January 12, 1981, they clearly provide findings that were available prior to June 30, 1980. During management meetings held on March 24 and 28, 1980, these investigation findings were discussed extensively.

J. Section IV.7, Performance Analysis of Electrical Power Supply and Distribution

1. Item a(1) in this section of the Preliminary SALP Report indicates a failure to establish procedures for temporary support of cable.

   The four damaged cables were repaired. The procedure was revised to require that coiled cables be properly supported, protected from damage and prevented from violating the minimum bend radius.

2. Item a(2) in this section of the Report indicates that electrical contractors did not verify conformance to Paragraph 3.1 of Project Quality Control Instruction E-5.0.

This item was an isolated incident of two wires violating separation standards inside a control panel. The cable routing was rearranged to provide the required separation, and the separation was verified by inspection. Electrical crafts and inspection personnel were formally reinstructed with regard to the separation requirements. Installation and inspection aids were provided to these personnel.

3. Item a(3) indicates a:

> "Failure to identify and control nonconforming components."

Because of the general nature of this item, we are not sure to what it refers. After a thorough review of the NRC Inspection Reports for this assessment period, however, we believe that it refers to an item from NRC Inspection Reports No. 50-329/81-11; 50-330/81-11, as follows:

> "On April 23, 1981, the (NRC) Inspectors identified 14 instances in which cable tray in the upper and lower cable spreading areas were not installed in accordance with the separation requirements delineated in the Midland FSAR and which had not been identified and controlled to prevent inadvertent use or installation. . . ."

Consumers Power Company documented the nonconforming condition for a few cases on a Nonconformance Report issued in May, 1979, long before the NRC Inspectors' finding. Late in 1979, it was determined that the existing Marinite barriers were not the most suitable separation device for our plant configuration. This resulted, in January, 1980, in the removal of the requirement for the Marinite barriers. In the spring of 1980, a study was conducted to determine which kind of barriers would be more suitable when the required spatial separation is not possible. Two things resulted from this study--first, that barrier installation would be accomplished best after cable pulling was complete; and second, that there was no risk in reworking cable trays after cable pulling to install the barriers, if needed. In August, 1980, a new barrier was chosen and SAR and design changes were made in April and June, 1981, respectively to reflect these changes.

This is a lengthy discourse, we realize, but in essence, the main points are as follows: we were well aware of the condition. At the time, we made a conscious decision not to provide any more inspection to identify additional specific cases where separation was not maintained. We were aware that the design was being changed, that the construction process was being changed, and that the final Bechtel Quality Control inspection for this condition would be carried out at the conclusion of the construction process. The Bechtel Project Quality Control Instruction E-3.0, "Final Electrical Area Completion Activities," was revised to reflect the inspection for separation and, as needed, for the installation of barriers at the completion of the cable pulling activities. Correspondingly, we were holding open our Nonconformance Report to assure that these changes were correctly implemented. There was no inadvertent "failure to identify and control." It was a conscious and knowledgeable decision.

This information was provided to the NRC on July 16, 1981, in our response to the NRC Inspection Report. Considering the explanation supplied to the Staff, we believe that there was no item of noncompliance and that this item should not have been in this Preliminary SALP Report.

4. Item a(4) indicates a:

> "Failure to translate design criteria into drawings and specifications."

This inspection finding related to whether or not the color coding of instrumentation process lines was required. Based on our reading of the applicable codes and standards, it was not, and we stated this position in our original response to the NRC. At least one other licensee has the same position and is maintaining it. However, we have acceded to the NRC concern in this area by agreeing to identify the instrument process lines with a two digit alpha designator, and the specification has been changed to add this new requirement. We are also not clear whether this requirement applies generally or only in Region III, since the Draft Regulatory Guide on this subject makes no mention of the requirement.

5. Item a(5) indicates a:

> "Failure to identify during inspection that a nonconforming condition with regard to minimum installed cable bend radius existed."

The condition referred to was discovered by a Consumers Power Company employee who was accompanying the NRC Inspector during his inspection. A Consumers Power Company Nonconformance Report was written to document the condition for the single cable in question. In addition to physically correcting the condition, the Bechtel Quality Control Inspector who originally inspected the cable was given an 8-hour training program in all phases of cable termination.

6. Item a(6) indicates:

> "Failure to take prompt corrective action with regard to the lack of approval of procedures for the rework of electrical raceways."

We agreed that this was an entirely appropriate finding and Bechtel Construction and Bechtel Quality Control developed and issued the necessary administrative guidelines and instructions. Recently NRC Inspectors have conducted a follow-up inspection and determined that the rework controls have been properly implemented and carried out.

7. Item a(7) indicates:

> "Failure to provide adequate storage conditions for (three items)."

The storage conditions for each of the items was immediately corrected. The Bechtel Maintenance Engineers were given additional training in accordance with the requirements of the field maintenance procedure. Consumers Power Company performed a comprehensive audit in this area to assure compliance with the field maintenance procedure.

8. It should be noted that each of the foregoing items is a Severity Level V or VI, relatively low severity levels.

   We are gratified that our informal current rating is "Category 2," as stated by Mr R Cook during the April 26 meeting.

9. In two places in this section of the Preliminary SALP Report reference is made to the quantity of Bechtel Quality Control personnel being employed, with the implication that this quantity may be insufficient. To our knowledge it was not; nor is it now. In addition, in response to NRC concerns we have demonstrated both the qualifications of these personnel and the process by which they are certified.

K. Section IV.8, Performance Analysis of Instrumentation and Control Systems

No comment.

L. Section IV.9, Performance Analysis of Licensing Activities

Comments pretaining to our responsiveness to Staff requests for information regarding the "Soils" issue should certainly be qualified by noting the novelty or uniqueness of this technical review and the evolutionary nature of the Staff's positions. It is useful to note that as this review draws to its conclusion, the Advisory Committee on Reactor Safeguards (ACRS) subcommittee on the Midland soils questions characterized the Staff review as exhaustive and possibly an example of overkill. In addition, the ACRS subcommittee questioned the Staff extensively on whether portions of their review and requirements went beyond what was necessary to protect public health and safety. We are gratified that the Staff finds our more recent replies to be responsive and of high quality. We are striving to maintain this trend and improve communications with the Staff.

M. Section IV.10, Performance Analysis of Fire Protection

We appreciate NRC's "Category 1" rating in this area and its recognition of our efforts.

N. Section IV.11, Performance Analysis of Preservice Inspection

In view of the extensive amount of preservice inspection which was performed during the period corresponding to this SALP Report and continuing into the current period, with no items of noncompliance, we fail to understand why this area is not rated as "Category 1" instead of "Category 2,".

O. Section IV.12, Performance Analysis of Design Control and Design Changes

1. Items a(1)(a) and (b) given in this section of the Preliminary SALP Report are duplicates of items given in Section IV.2. As such, our specific response to these items is given in Part 3, Paragraphs E. 2 and 3, and will not be repeated here.

2. Item a(2) in this section of the Report is a duplicate of an item covered in Section IV.4. As such, our specific response is provided in Part 3, Paragraph G.4 and will not be repeated here.

3. Item a(3) in this section of the Report is a duplicate of an item given in Section IV.7 of the Report. As such, our specific response is given in Part 3, Paragraph J.4 and will not be repeated here.

4. The five 10CFR50.55(e) items listed in this section of the Preliminary Report relate to designs which were completed long before the start of the SALP period in question--in fact, years before. Our identification of these items during this assessment period indicates continuing design reviews, improved design control and our rigid compliance with the reporting requirements of 10CFR50.55(e).

5. We also call your attention to five inspections of Bechtel Power Corporation, Ann Arbor Division, engineering firm for the Midland Plant, conducted between January, 1979 and September, 1981 by the Vendor Inspection Branch of Region IV. The inspection covered a wide variety of design activities. For example, the October 7-10, 1980 inspection encompassed design verification, design interface, and design inspection activities. The March 31-April 3, 1981 inspection covered computer program control, technical personnel background verification, design change control and design corrective action. The two specifically referenced inspections were conducted during the SALP appraisal period. In all five inspections, there were a total of 6 nonconforming items identified, all of a relatively minor nature (nonconformances or deviations rather than violations). In two of the inspections no items of noncompliance were found. In our view, these inspections are indicative of a high degree of compliance within design segments of the Midland Project, and would clearly support a higher rating than the one given in this area.

   (The five inspection reports are documented in letters dated April 16, 1981; October 14, 1981; November 5, 1980; June 15, 1979; and January 19, 1979, to the Bechtel Power Corporation, Ann Arbor Division, from Uldis Potapors, Chief Vendor Inspection Branch.)

6. Considering the nature of Items a(1)(a) and (b) and a(3), and the unfairness of a citation for activities long before the period in question, we are disappointed by a "Category 3" rating in this area.

   We believe that design control is one of the most difficult and important aspects of nuclear power plant projects. Design control has been doubly difficult for the Midland Project mainly because of the duration of the project and the incorporation of a multitude of new regulatory requirements

into the design as it progressed. We do not dismiss for a moment our obligation to monitor and improve our own efforts in this area and we continue to institute our own internal programs to increase our confidence in the quality of the overall design effort. We raise this concern with the preliminary SALP evaluation because the only significant finding in the SALP period that indicates a design control problem was the small bore piping lack of design package cover sheet, which was concluded to be an isolated event. On the other hand, we believe that the Region IV inspection reports and the seven 50.55(e) reports referenced provide strong indications that the design control area is improving.

P. Section IV.13, Performance Appraisal of Reporting Requirements and Corrective Action

1. In this section of the Report, it is stated that:

> "The licensee failed to make a timely determination for the need to submit a 10CFR50.55(e) Report to the NRC based on a 10CFR Part 21 Report from TransAmerica DeLaval, Inc."

Consumers Power Company has always adopted a conservative attitude towards reporting under 10 CFR 50.55(e). We believe the industry practice in this regard varies, depending upon the amount of analysis undertaken and discretion exercised in determining whether a deficiency could have an adverse impact on safety. In the past, Region III has stated that the Company does a "good job" reporting under 10 CFR 50.55(e).

In this specific case, the DeLaval Part 21 Report was sent to Bechtel and was misrouted, such that Consumers Power Company and the appropriate Bechtel personnel were not aware of the Part 21 Report on a timely basis. In the final analysis, the condition was determined not to be 50.55(e) reportable.

Corrective actions were taken. They included issuing letters to suppliers to advise them of the person to whom Part 21 Reports should be submitted, conducting training sessions at the site for key personnel to assure that misdirected Part 21 Reports get correctly redirected, and issuing periodic memos reiterating the information offered in the training session.

2. This section of the Preliminary SALP Report also states:

> "Expeditious resolution of noncompliances is often delayed by inadequate licensee responses. The licensee has a tendency to spend too much time trying to justify why a finding is not a noncompliance rather than devoting the time to correcting the basic problem. Nine of 22 items of noncompliance were contested (excluding HVAC system noncompliances). Two of the contested noncompliances were retracted, but time and effort were lost in timely resolutions. Similar attitudes and responses have been observed regarding Company audit findings. This attitude is reflective of the licensee corrective action system and becomes a detriment to quality."

In response, let's deal with the statistics first. Two of the nine appeals (excluding HVAC) were granted, or 22 percent. Five other HVAC items were appealed, and two of those appeals were granted, or 40 percent. Combined, 14 items were appealed, 4 appeals were granted, or 29 percent. Of those not granted, the merits of the appeal are well documented.

While there may be some unavoidable delay because of appeals, in no instance has an appeal precluded timely corrective action. In addition, the Staff has repeatedly testified in the Soils Hearing that the Applicant should appeal when necessary or appropriate.

During a meeting on October 5, 1981, NRC's Region III management made it clear that NRC's concern was with the administrative process by which appeals were made, not with the appeals themselves. They stated that appeals should be made and dispositioned informally, if possible, prior to the issuance of NRC Inspection Reports or, at the latest, prior to our written response to the NRC findings. We agreed with this suggestion and assured the NRC that such appeals, if any, would be made accordingly. It is disappointing that the substance of this management discussion was not reported in the Preliminary SALP Report.

Q. Section V.A, Noncompliance Data

1. It is important to recognize that the noncompliances and deviations given in the table for Midland Unit 1 are identical to those given in the table for Midland Unit 2 in the large majority of cases. We recognize that this is so stated in the footnote to both tables in the Report.

2. At this point, it is appropriate to reiterate from our response given in Part 3, Paragraph I.3, that the 17 items associated with the HVAC were all identified as a result of investigations which were completed prior to June 30, 1980 and, therefore, prior to the start of the assessment period in question. This can be seen by review of the individual items given in NRC Inspection Reports No. 50-329/80-10; 50-330/80-11. Although these Inspection Reports are dated January 12, 1981, they clearly provide findings that were available prior to June 30, 1980. During management meetings held on March 24 and 28, 1980, these investigation findings were extensively discussed. In conversations with NRC Inspectors, we were advised that these items are included in this SALP Report because they were inadvertently excluded from the earlier Report, and that they have to be covered somewhere. We believe that the earlier SALP Report should be revised to reflect these items. The presence of these items in this SALP Report bears unfavorably and unfairly upon the overall impression offered by the Report for the period in question.

R. Section V.B, Licensee Report Date

1. The twelve 50.55(e) Reports listed herein further demonstrate our cooperative approach with regard to the submittal of 50.55(e) Reports, as stated earlier in our response given in Part 3, Paragraph O. 4 and 5.

S. Section V.C, Licensee Activities

No comment.

T. Section V.D, Inspection Activities

1. The results of the May 18-22, 1981, NRC team inspection evoked the following conclusion, as given in NRC Inspection Reports No. 50-329/81-12; 50-330/81-12:

> "This was an in-depth inspection to examine the implementation status and effectiveness of the current QA Program, to determine whether previously identified quality assurance problems were sufficiently precluded from occurrence in other areas, and to ascertain whether management involvement in the QA Program was sufficient and effective.
>
> Although eight items of noncompliance were identified during this inspection, it is our (NRC) judgment that the scope and depth of this NRC inspection was such that the identified noncompliances do not contravene our conclusion that Consumers Power Company has established an effective organization for the management of construction and implementation of quality assurance at the site."

U. Section V.E, Investigations and Allegations Review

No investigations or allegations were pursued during the assessment period corresponding to this SALP Report, including investigations and allegations for HVAC. This supports our earlier assertions that reference to the 17 HVAC items should be deleted entirely from this Report.

V. Section V.F, Escalated Enforcement Actions

1. The civil penalty was imposed for conditions which existed prior to the assessment period corresponding to this SALP Report.

2. Under the heading of "Confirmatory Action Letter" are two examples of inspection findings that appear to be characterized in an overly harsh manner. We have been told in prior conversations that letters of committment by the licensee with regard to inspection findings and which commit to actions desired by the NRC do not constitute an escalated enforcement action. Obviously, we misunderstood. Not only are these letters categorized under the escalated enforcement heading, but the text directly states that these were in fact the licensee equivalent of an immediate action letter. It was our understanding that Region III agreement to a licensee letter of commitment represented a Region III management decision that the item in question was downgraded in severity and did not represent an escalated enforcement action.

W. Section V.G. Management Conferences

1. Two of these management conferences were at Consumers Power Company's request.

2. We strongly support the need for more management conferences with top and intermediate level NRC management participation, especially focused on attaining mutual understanding as to the standards that will be applicable to Midland inspections.

COMPARISON OF TESTIMONY OF JAMES G KEPPLER BEFORE THE ASLB ON JULY 13-14, 1981 WITH FINDINGS IN THE DRAFT SALP REPORT

Introduction

On July 13-14, 1981, Mr James G Keppler, the Director of the Region III Office of Inspection and Enforcement, testified that the NRC has reasonable assurance that quality assurance and quality control programs at Midland will be appropriately implemented with respect to future soils construction activity, including remedial actions. In March 1982, Region III issued its Preliminary SALP Report on the Midland Plant. Nothing in the SALP Report contravenes Mr Keppler's testimony regarding reasonable assurance. All of the information contained in the SALP Report was known to Mr Keppler at the time he testified.

1. Quality Assurance

a. SALP Analysis

The report notes the creation of the MPQAD and Consumers Power's assumption of responsibility for onsite quality control and quality assurance functions for the installation of the HVAC systems. It also lists the findings of NRC Inspection Report No 81-12. The report concludes:

> The licensee is rated Category 2 in his overall quality assurance capability. Notwithstanding weaknesses identified in specific areas, the licensee has been responsive in establishing an overall effective organization for the management of construction and implementation of quality assurance at the site.

b. Prior Testimony

Mr Keppler testified extensively regarding NRC Inspection No 81-12,[1] the MPQAD[2] and the Zack matters.[3] Mr Keppler initiated NRC Inspection No 81-12 for the purpose of determining the efficacy of the MPQAD.[4] Mr Keppler personally inspected the work of the NRC inspectors at the conclusion of the inspection,[5] participated in drafting the inspection report, and signed the final report.[6] Mr Keppler concurred in the report's conclusion that, although some problems were identified, the MPQAD and the quality assurance program at Midland were working quite well.[7] Mr Keppler also described the corrective actions Consumers Power had taken with regard to Zack, and concluded that the Zack problem did not indicate a broader breakdown in quality assurance.[8]

2. Soils and Foundations

a. SALP Analysis

The SALP Reports lists the soils-related noncompliances and deviations identified in NRC inspections of Midland during the SALP evaluation period (July 1, 1980 to June 30, 1981). The report concludes that:

> The licensee is rated Category 3 in this area. The enforcement history indicates that additional licensee attention is warranted.

b. Prior Testimony

The evidence before the Licensing Board shows that Mr Keppler was thoroughly familiar with the 1980-81 enforcement history relating to soils issues when he made his judgment regarding reasonable assurance at Midland. Mr Keppler was Regional Director of Region III during this period and signed all of the NRC inspection reports listed in the SALP analysis.[9] He testified in detail about many of the soils problems identifed in these reports.[10] He explained that all of the soils problems identified in 1980-81 were carefully reviewed and reassessed, and all pertinent records covering summer 1980, to May 1981 were examined, in arriving at the conclusion of reasonable assurance in May 1981.[11] Mr Keppler specifically noted that the history of soils work at Midland did not contravene his judgment of reasonable assurance. The soils problems, he testified, "can be largely attributed to the failure to fully recognize the importance of the application of quality assurance to soils work (but) the importance of quality assurance to soils work and to consequent remedial actions at the Midland site is now fully recognized" by Consumers Power.[12]

3. Containment and Other Safety-Related Structures

a. SALP Analysis

"The licensee is rated Category 2 in this area. The licensee's performance appears to be satisfactory; no significant strength nor weaknesses were identified."

b. Prior Testimony

Mr Keppler did not testify on this subject.

4. Piping Systems and Supports

a. SALP Analysis

The Report lists seven items of noncompliance identified by NRC Staff inspections during the evaluation period. Based on five of these

items, an Immediate Action Letter (IAL) was issued on May 22, 1981. The report concludes:

> The licensee is rated Category 3 in this area. The enforcement history is indicative of weaknesses in the implementation of the quality assurance program.

b. Prior Testimony

Mr Keppler testified regarding the piping problems identified during NRC Inspection No 81-12 in May 1981.[13] He explained that problems with piping systems are an industry-wide concern that is receiving considerable Region III attention.[14] Problems are being identified in this area at almost every nuclear site inspected.[15] The NRC Staff inspector who identified the piping problems at Midland is at the forefront of knowledge in this area, and did not consider the incidents at Midland to be significant.[16] NRC Inspection No 81-12 confirmed that the methodology of the design, installation and quality control inspection of the piping and support system was acceptable.[17] It was the unanimous view of the inspection team that the problems identified were isolated, and not indicative of any major programmatic weaknesses in the implementation of the program.[18]

5. Safety-Related Components

a. SALP Analysis

The report lists the two items of noncompliance which culminated in Consumers Power's issuance of a letter of understanding on January 22, 1981. The report concludes:

> The licensee is rated Category 2 in this area. The above enforcement was aimed at an isolated instance and may have been directly related to change in NSSS QC personnel changes. The licensee had in the past and since this episode maintained adequate QA control for the assembly of NSSS equipment.

b. Prior Testimony

No testimony was given on this subject.

6. Support Systems

a. SALP Analysis

The report notes the quality assurance deficiencies and the Civil Penalty of the previous SALP evaluation period. It commends Consumers Power's "aggressive action" in taking over complete responsibility for quality assurance and quality control in HVAC installations; this action resulted in significant improvement in control over the installations and in correction of identified weaknesses. The report concludes:

> The licensee is rated Category 1 in this area. Management attention and involvement has been aggressive in accepting full QA/QC responsibility and supporting this organization with an adequate number of skilled personnel.

b. Prior Testimony

Mr Keppler testified that the HVAC problems problem did not indicate a broad breakdown in quality assurance.[19]

7. Electrical Power Supply and Distribution

a. SALP Analysis

The report listed seven noncompliances identified during the evaluation period and concluded:

> The Licensee is rated Category 3 in this area. The enforcement history indicates a lack of management attention and involvement. This is evident by apparent inadequate preplanning and assignment of priorities as activities increased, a poor understanding of procedures for control of activities and minimal QC Staffing for the magnitude of the activities.

b. Prior Testimony

Mr Keppler testified that electrical work was extensively reviewed during the May 1981 NRC Staff inspection of Midland.[20] The inspection team reviewed five areas within electrical work: quality assurance records, quality assurance implementing procedures, quality control personnel, visual inspection of electrical work activities, and Consumers Power's actions on previously identified items.[21] Only four problems were identified.[22] These problems were isolated and not indicative of any major programmatic weaknesses in the implementation of the program.[23] The inspection report also commended Consumers Power for several aspects of their electrical work program. First, the program and its implementation regarding calibration of termination tools was judged to be satisfactory.[24] Second, Consumers Power had taken timely and comprehensive actions to correct areas addressed on previous NRC inspections.[25] Finally, the quality assurance (electrical) organization was found to be strong and capable.[26]

8. Instrumentation and Control Systems

a. SALP Analysis

"The Licensee is not rated in this area because a minimal amount of instrumentation installation and minimal inspection effort during this evaluation period."

b. Prior Testimony

There was no testimony on this subject.

9. Licensing Activities

a. SALP Analysis

"The Licensee is rated Category 2 in this area. Early responses during the evaluation period were lacking in responsiveness. However, the more recent responses tend to be substantive and of acceptable quality."

b. Prior Testimony

Mr Keppler did not testify on this subject

10. Fire Protection

a. SALP Analysis

"The Licensee is rated Category 1 in this area. Management attention has resulted in a high level of performance in this area."

b. Prior Testimony

There was no testimony on this subject.

11. Preservice Inspection

a. SALP Analysis

The Licensee is rated Category 2 in this area. The Licensee's performance appears satisfactory, no specific strengths nor weaknesses were identified."

b. Prior Testimony

There was no testimony on this subject.

12. Design Control and Design Changes

a. SALP Analysis

The report notes four design control related noncompliances identified by NRC inspections and five licensee-controllable Construction Deficiency Reports indicating a lack of quality assurance in design control during the evaluation period. The report concludes:

> The licensee is rated Category 3 in this area. The amount of re-engineering that has transpired in electrical, civil and piping areas and the specific design control weaknesses discussed in

Soils and Foundations, Piping Systems and Supports and Electrical Power Supply and Distribution indicate significant weaknesses in overall design control.

b. Prior Testimony

Mr Keppler did not consider the problems identified in the piping system to be a significant concern.[27] He also testified that noncompliances identified by NRC inspections in the soils area, although of concern, did not contravene his judgment of reasonable assurance.[28] Another NRC Staff witness, Mr Gilray, confirmed that the two soils noncompliances referenced here by the SALP Report were not substantive and did not bring the adequacy of Consumers Powers procedures into question.[29] The May 1981 NRC inspection affirmed the adequacy of the electrical program at Midland.[30] Mr Keppler did not identify design control as a significant quality related problem.[31]

13. Reporting Requirements and Corrective Action

a. SALP Analysis

The report notes that Consumers Power contested several apparent items of noncompliance during the evaluation period, and concludes:

> The Licensee is rated Category 3 in this area. The licensee responses to enforcement items and internal audit findings are often delayed requiring repeated submittal to obtain acceptable resolutions.

b. Prior Testimony

Mr Keppler testified that Consumers Power had responded to all items of noncompliance identified in NRC inspection reports. He noted that Consumers Power agrees with some such items and disagrees with others. Mr Keppler stated that the fact that Consumers Power does not agree with an apparent item of noncompliance is not a sign of poor management attitude. If there is a valid reason to disagree with the item, he added, then they should disagree with it. This is a normal part of the give and take between the NRC Staff and the licensee.[32]

1/ Keppler, Tr 1884-47, 1981-77, 1981-83, 1998-2002, 2004-09, 2076-84.

2/ Keppler, Tr 1973-76.

3/ Keppler, Tr 1935-36, 1964-66, and prepared testimony at p 4, following Tr 1864.

4/ Keppler, prepared testimony at pp 4-7, following Tr 1864.

5/ Keppler, Tr 2078-79.

6/ NRC Staff Exhibit No 1; Keppler, Tr.

7/ Keppler, Tr 1973.

8/ Keppler, Tr 1935-36, 1964-66 and prepared testimony at p 4, following Tr 1864.

9/ NRC Staff Exhibit No 1 (NRC Staff Inspection Report No 81-12); Staff Exhibit No 3 (NRC Inspection Report No 81-09), Gallagher, prepared testimony, Attachment No 3, (NRC Inspection Report No 80-32/80-33), following Tr, 1754.

10/ Keppler, Tr. 1935-36, 1964, 66 1887, 1942, 2002-09, 2013-2017 and prepared testimony at pp 4-5, 7 9, following Tr 1864.

11/ Keppler, Tr 1913-14, 1977, 1982-83, 2083.

12/ Keppler, prepared testimony at p 8, following Tr 1864.

13/ Keppler, Tr 2004-09, 2017, 1942.

14/ Keppler, Tr 2006-09.

15/ Id.

16/ Id.

17/ Id, prepared testimony, Attachment No 2, at p 5, following Tr 1864.

18/ Id, prepared testimony at p 8, following Tr 1864.

19/ Id., at p 4.

20/ Keppler, Tr 2076-78, and prepared testimony at p 7, following Tr 1864.

21/ Id, prepared testimony, Attachment No 2, at p 11, following Tr 1864.

22/ Id, at p 11-12.

23/ Id, prepared testimony at p 8, following Tr 1864.

24/ Id, prepared testimony, Attachment No 2 at p 12, following Tr 1864.

25/ Id

26/ Id

27/ See discussion supra under "Piping Systems and Supports."

28/ See discussion supra under "Soils and Foundations."

29/ Gilray, Tr 3742-43 (testifying regarding the soils noncompliances identified in NRC Inspection Reports No 80-32 and 80-33)

30/ See discussion supra under "Electrical Power Supply and Distribution."

31/ Keppler, prepared testimony at p 4, following Tr 1864.

32/ Keppler, Tr 2083-84

ANALYSIS OF CURRENT AND FUTURE QUALITY ACTIVITIES WITH REGARD TO REMEDIAL SOILS WORK

At the April 26, 1982 SALP meeting Region Administrator, Mr J G Keppler, expressed concern that his staff had informally characterized the ongoing soils and foundation work as only minimally acceptable. Mr Keppler asked CP Co's management to comment on its impression of this characterization and to provide its suggestion as to how this assessment could be improved.

The following consists of a brief analysis of what Consumers Power perceives to be the basis for this informal characterization and a description of some of the current organizational and programmatic features of the soils activities that lead us to conclude that prospects are excellent for the satisfactory execution of the remaining soils and foundation work.

The soils-related activities at the Midland job site are currently at a relatively low level pending completion of the NRC staff's technical review and release, by the NRC, of the major portion of the remedial work still to be undertaken. The work that has been done thus far in 1982 is concentrated in two areas. First, a significant number of wells have been drilled at the site, as part of the plant dewatering systems, as part of the freeze wall associated with the auxiliary building underpinning activity and to support the site drawdown tests. Second, the major contractor for the auxiliary building underpinning work was mobilized; the initial work on the access shaft was completed; and, in parallel the detailed underpinning construction planning and continuing technical review with the NRC staff of subsequent work was carried out. Very little work in the other remedial soils areas has been accomplished during this period.

In responding to Mr Keppler's comments at the SALP meeting, we believe that the basis for the staff's informal negative comments regarding the current soils quality assurance activities can be traced to one specific area of concern and one more broadly-based general concern. A discussion of each of these follows.

A specific area of work which may have been of concern to the staff, and one of immediate concern to Consumers, relates to the controls on the drilling and excavation activities that have been recently carried out. Because the number of NCR's that had been written in this specific area and the severity of the most recent occurrence (drilling into an electrical duct bank), the Company concluded that even with the formal controls that were previously in place, additional controls were required. As a result on April 28, the Company issued a stop work on all drilling. (This Consumers Power stop work direction preceded the ASLB Order of April 30, 1982.) As of May 12, the stop work order had not been removed, nor will it be until a new detailed drilling and excavation control procedure has been fully reviewed and accepted by Consumers Power Company. While there had been other corrective action taken prior to the CP Co stop work order, the Company is confident that the comprehensive revisions to the prior control procedures on drilling and excavation will preclude errors of the type recently experienced, and will assure that future

drilling and excavating work will be carried out in a satisfactory and controlled manner.

The general and considerably more significant area of inferred NRC concern can only be identified as the lack of timely agreement between the Company and the NRC on the specific quality assurance coverage requirements to be imposed on the remedial soils work, particularly those to be imposed on the underpinning work. The lack of timely resolution of this issue, the apparent misunderstanding regarding the Company's commitments, and the contentious atmosphere at the March 10, 1982 meeting on this subject and at the subsequent inspection undoubtedly contributed to the negative rating informally expressed by the staff.

When the auxiliary building underpinning work started with the first partial NRC release for construction of the vertical access shaft, CP Co presented a special quality assurance plan encompassing, in our opinion, appropriate portions of the underpinning work. This plan was initially presented to the staff at a meeting in Region III headquarters on January 12, 1982 and documented in a letter dated January 7, 1982. While the initial staff response to the plan appeared to be favorable, no official NRC conclusion was expressed. It became evident during the time between January and early March that at least one individual within the NRC staff believed that an extensive modification of the program coverage under the QA plan, MPQP-1, should be required. This preference for expanded NRC requirements became an NRC staff working level position, formally expressed to the Company at the meeting on March 10, 1982. As a result of that meeting, the NRC Region III inspector apparently concluded that Consumers had committed to fully accepting the NRC Staff position that essentially all to-go underpinning work should be Q-listed, unless exceptions are agreed upon. The NRC's meeting minutes reflect no such commitment. In fact, no commitment was made. This misunderstanding, and others arising out of follow-up discussions with the staff, has apparently affected Region III's feelings toward our soils quality assurance program and personnel. It is, therefore, not surprising that the NRC Region III staff considers the quality assurance activities in the soils and foundation area to be in need of improvement based on its recent experience. (It should also be noted that the NRC SALP Board held its second and final meeting on March 23, 1982.) The Company also agrees that it is extremely difficult to avoid regulatory difficulties unless both parties have a common understanding and agreement as to the scope of applicable requirements. The major issue with regard to QA program coverage was resolved at the management level meeting held on March 30, 1982 in Glen Ellyn and documented by the April 5, 1982 letter of J W Cook to J G Keppler, in which the Company agreed to "Q" list essentially all of the to-go underpinning work. However, the staff has still not formally acknowledged its concurrence with that letter. This concurrence would be of significant assistance in documenting the conclusion of the staff's review of program requirements and permitting the redirection of resources from program definition to successful program execution.

Resolution of the concerns noted above will make a significant contribution to the remaining soils work. In addition, the following considerations should provide added confidence that excellent results will be obtained in the remaining soils construction activities.

Dedication of a high quality professional staff to the underpinning and other soils work is of paramount importance to its successful completion. Because of the complexity and importance of the underpinning work as the dominant factor in the soils remedial program, a mini-project of dedicated groups has been set up to focus attention on the soils activities, with particular emphasis on the underpinning. The technical qualifications of the individuals staffing these activities emphasize previous related experience. At the site, specific underpinning groups have been formed within Bechtel construction, Bechtel quality control and MPQAD, all staffed with individuals having significant applicable technical experience and academic credentials. Both Bechtel resident engineering and Bechtel engineering in Ann Arbor have dedicated remedial soils groups. The onsite resident engineering office will have four geotechnical engineers and at least two structural engineers dedicated to supporting the field activities. Consumers Power Company home-office soils activities are currently staffed with two experienced geotechnical engineers and several experienced structural engineers who have been active in the design reviews and prior licensing evaluations and who will continue to follow the soils remedial work throughout the duration of the construction. The overall Consumers Power Company project management of soils is also organized as a mini-project, and the senior Consumers Power Company individual has had significant nuclear power plant experience at the project manager level.

In addition to the on-staff individuals for Consumers Power Company, Bechtel and the major subcontractors, significant consulting resources are also integrated into the soils work. The design consulting firm for the auxiliary building underpinning has a staff man onsite to coordinate with his home office personnel. All the major consultants will be asked to periodically review the job progress as the underpinning work proceeds.

To assist some of the technical specialists in fully understanding all of the quality requirements on the job, some additions to the staff are also planned. The Bechtel underpinning construction group leader, who oversees and interacts with the underpinning subcontractors, will have a quality consultant on his staff to assist him in any and all quality-related matters. It is also anticipated that the underpinning quality control organization will be augmented to enhance its breadth of leadership.

We believe that the NRC themselves can significantly assist in the successful completion of the underpinning and other soils remedial activities by expanding the presence of their lead inspector on the site as the work progresses. Specific steps to facilitate this NRC interaction were agreed upon, as documented in the April 5, 1982 letter referenced above, and complemented by day-to-day working agreements.

A second area which should significantly assist in the successful completion of the remedial soils work, particularly the underpinning activities, is the degree of design completion prior to the work entering the major construction phase. Because of the extent and thoroughness of the NRC staff review, there is a more complete design for the underpinning activities than is normally in place for other construction activities. Essential completion of the calculations for the underpinning work before the major construction phase

begins will minimize the kind of major design changes that can occur in nuclear plant structural design process because of calculation revisions. There will, of course, be design changes as the work progresses, but the degree of calculation completeness reached prior to initial drawing release will significantly contribute to the stability and success of the construction process.

In addition to the degree of completeness in the underpinning design activity, the interface review called for by the quality assurance plan for the underpinning activity, MPQP-1, is also substantial. These reviews will also contribute to both the validity of the design and the general understanding of design requirements and quality attributes by all persons participating in the underpinning activities. In addition, MPQP-1 directly inserted quality assurance (and through quality assurance, quality control) comments into the design review cycle, a significant requirement above and beyond the quality assurance program for the balance of the plant.

The number of procedural controls that have been or are being instituted for this work should also engender confidence that the critical underpinning activities will be satisfactorily controlled. Judging from the work to date, there will be more than 50 specific work procedures developed for the underpinning work. MPQP-1 calls for integration of inspection hold points directly in these construction work procedures. As a result of these steps, the procedural controls for the underpinning work will be more extensive than those for any other activities, with the possible exception of NSSS primary loop activities, covered by the QA program for the balance of the project. The extent of the construction procedures automatically increases the scope of the training activities and of the inspection plans which are developed based on the specific work procedures.

Finally, as a result of the extensive discussions with the NRC staff regarding the coverage of the "Q" program, MPQP-1 is being applied to essentially all of the underpinning work still to be done. While this application may or may not be completely consistent with a strict definition of what is "safety-related," it should lend added assurance that the work in total, and the safety-related work in particular, will be carried out successfully.

In light of the foregoing, it is hoped that the Region III management can gain an appreciation of Consumers Power Company's perception of recent events and that both the Region III management and staff can develop added confidence that the to-go soils work, particularly the extensive underpinning activities, can and will be carried out up to the expectations of both the applicant and the NRC.

Attachment 1, pg 1-4, item 3

Vigorous disagreement on whether the licensee is argumentative. I agree that when they provide additional facts, we should certainly take them under consideration. That they wish to present reasoning is material and irrelevent.

Item C, pg 1-4.

Purely argumentative: we stated that the seven IONC indicated a lack of ~~rig.~~ rigorous QC coverage: They feel the seven IONC's were not excessive.

IONC 3 response on pg 1-16 probably represents what these people call reasoning. Having identified the problem in May, 1979, they wrote a NCR and decided not to determine the extent of the problem. They then proceed to justify the existing construction instead of determining why they did not meet their original committments and

specifications. Finally after the problem was identified by the NRC, they revised their SAR and specifications —— the whole explanation sounds like "courts before the ~~horses~~". The last two sentences on pg 1-16 indicate that their failure to identify and control was deliberate

ICNC 4 response on page 1-17 is ~~d~~deliberately argumentative.

ICNC 5 pg 1-17 — Here they want credit because a CPCO employee was present during the NRC inspection.

The bottom line here is that there was no new factual evidence to show that the ICNCs were unwarranted.

Attachment 1, Pg 1-6 Item 3 -

Trend activities are not specifically required

by NRC regulations or ANSI standards
b) Specifically required by Policy Mo 16 #19 (3.0)
← Check ANSI N18.7, 1976

Item 4, 5, Pgs 1-6/7 Get Landsman in on this

15 deficiencies were identified — was this found after the start of activities??

Pg 1-7, E.1 — All I can say is that we will determine when our inspection will start and when it will finish — This is just pure bitching!

Pg 1-7, E.2 We don't give a hoot about your ~~that~~ view that the need for the corrective action was of minor importance

Pg 1-9, Item E.3
These items are not duplicated in section 12, they are referenced!

a-c — There appears to be no substative information that would clarify these issues.

Pg 1-10 Item E.4 Landsman

Pg 1-11, Item E.5
Mr. Gallagher's opinion does not negate the need for you to meet the requirements

Pg 1-11, Item E.6. third paragraph — when did you have 8 FT and 2 PT QA/QC persons in MFGAD and 27 QA/QC ---- was it before IR 81-12?

Pg 1-12, Item G.
1. You are responsible for any noncompliance when so identified, regardless of the date of occurrence.

2. No new information

3. disagree — a citation against QC would be appropiate especially if QC had inspected and approved the work.

Pg 1-13, item G.4
Again item a(5) is not duplicated in section 12; it is referenced.

5. No new information — you did not know if this was an isolated instance until you made a careful check: Obviously, necessitated to determine the cause.

6. no new information

5
6

Pg 1-15, Item #, 1 & 2,

I don't Know what this adds to the SALP report.

Pg 1-15, Item I-1, 2, 3, Hind should handle ✓

Pg 1-15, Item J → done previously – see pg 1/6 of this analysis.

Pg 1-18, Item L.
NO new information

Pg 1-18, Item N
Rated Cat II, because there is nothing exceptional about your program.

Pg 1-19, Item O,

4 - You should have been able to prevent this.

5. We are evaluating the licensee's performance, not the vendors.

6. I don't believe this!!! They seem to indicate that there were no problems in soils & foundation, Piping systems and support. – Are we lying?

6/6

Pg 1-20, Item P,

1. It sounds like CPCO never got the Rev 21 report. The fact that the report was misrouted does not speak well of Bechtels ability to control documents and CPCO's ability to control Bechtel.

Pg 1-20, Item P.

2. Lets play ~~draft~~ statistics

not 2 of ~~2~~ 9 but 2 of 22 or 9%

not 2 of 5 but 2 of 17 or 12%

combined 4 of 39 or 10%

whatever this all means.

It does not address the problem of inadequate licensee response.

My comment

This response, in it's entirety, is representative of your tendency to spend too much time trying to justify!

QUALITY VERIFICATION PROGRAM
MIDLAND NUCLEAR COGENERATION PLANT UNITS 1 AND 2

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QUALITY VERIFICATION PROGRAM

Midland Nuclear Cogeneration Plant Units 1 and 2

1. Purpose: To confirm the quality status of safety related procurement and construction activities completed and inspected by A/E-Constructor quality control personnel prior to December 2, 1982, by assuring the validity of these prior inspections through a verification program under the direction of Consumers Power Company.

2. Scope: This program will include all closed Inspection Reports of inspections performed by A/E-Constructor quality control personnel on safety related material, systems, components and structures of the Midland Nuclear Cogeneration Plant Units 1 and 2 prior to December 2, 1982, except:

   2.1 Remedial Soils Work which has been under the direction of Consumers Power Company quality personnel since it began;

   2.2 HVAC work which has been under the direction of Consumers Power Company quality personnel since the major reorganization in June 1981;

   2.3 Verification of cable routing and identification which is being done on a 100% reinspection basis (for these attributes) under the direction of Consumers Power Company quality personnel; and

   2.4 Verification of ASME hangers which will be done under a separate reinspection program as previously committed to the NRC on November 15, 1982. The detailed plan to accomplish this effort is

under review and NRC will be advised of any changes to the November 15 commitment. This program will be conducted under the direction of Consumers Power Company quality personnel.

3. References: MIL-STD-105D Change Notice 2 (March 1964), Sampling Procedures and Tables for Inspection by Attributes.

Regulatory Guide 1.58, Rev 1, Qualification of Nuclear Power Inspection, Examination and Testing Personnel.

4. Definitions:

Population: The entire quantity of closed Inspection Reports (IR's) relating to a specific PQCI.

PQCI: Project Quality Control Instruction - The document providing specific instructions, acceptance criteria and/or technical references for use by the inspector in conducting his inspection in relation to a specific work activity.

Acceptance Quality Level (AQL) - is the maximum percent defective that, for purposes of sampling inspection, can be considered satisfactory as a process average.

NOTE: When the (AQL) Concept is utilized, the discriminatory power increases as the sample size and acceptance numbers increase.

Time Centered: The ordering of lots, and sampled items within a lot, based upon the time sequence in which an Inspection Report was initiated.

Inaccessible: Items, or attributes of items, which because of their physical location or configuration, cannot be reached for physical reinspection. Examples are rebar in concrete, weld preparations of weldments, items painted or covered by insulation, or items concealed due to the proximity of other components.

Inspection Report: A report that scopes the inspection to be performed, relating it to a specific PQCI and a system, component, structure or portion thereof and which records the results of inspections.

IPIN: In Process Inspection Notice, a form used to record nonconforming conditions on work returned to construction forces for rework prior to completion of inspection activities.

NCR: A report used for reporting nonconforming conditions.

Reinspection: As used in this verification program, reinspection means a physical recheck of all inspection attributes where such attributes are accessible or a review and verification of inspection records and related quality documentation where attributes are not accessible.

Homogeneous - implies that a series of units of product should be alike or similar in nature. Homogenity under this program will be achieved by utilizing specified project Quality Control Instruction (PQCI) Categories.

Inspection by Attributes - inspection by attributes is inspection where the item or component is classified simply as defective or nondefective or the number of defective items or components in the sample is counted with respect to a given set of Sample Acceptance numbers.

Limiting Quality (LQ) - MIL-STD-105 provides single Sampling procedure for assuring the consumer that units of quality equal to the LQ or worse will be accepted with a low probability. Consumers Power has determined the LQ value of 5% defective as the maximum percent allowable. Since the LQ value variation from the 5% criteria is minimal and in most cases more conservative, the use of MIL-STD-105 plan is both reasonable and justifiable, resulting in a 95% confidence that no more than 5% of the critical inspection attributes in the entire population under investigation would be defective.

Lot - a quantity of items, such as completed inspection reports covering the same activity, equal

to or less than the total population and representing a subdivision of that population.

Nonconformance - a deficiency in characteristic, documentation or procedures which renders the quality of an item unacceptable or indeterminate.

Pa - Probability of Acceptance - usually this requirement is stated in terms of the worst quality or limiting quality (LQ), the consumer is willing to accept. Consumer Power has determined that the Pa - 5.0% defective is reasonable and justifiable.

Random Sample - when selecting a sample, each of the items has an equal chance of being selected.

Sample Plan - a sampling plan indicates the number of items or components from each lot which are to be inspected (sample size or series of sample sizes) and the criteria for determining the acceptability of the lot. (Acceptance and rejection numbers)

5. Program Content: As identified in Section 2, Scope, Consumers Power Company (CPCo) will conduct a quality verification program of safety related procurement and construction work in which the prior inspections have been performed under the direct supervision of the Architect Engineer/Constructor. Such inspections were performed in accordance with approximately 100 Project Quality Control Instructions (PQCI) that specified the inspection requirements to be achieved by quality control

personnel. A listing of these PQCI's is included as Appendix A to this program which identifies the scope of this quality confirmation program.

5.1 Detailed Scope: The program will include PQCIs for which Bechtel has a record of completed inspections as documented by closed Inspection Reports (IR). There are approximately 159,000 closed IRs, including approximately 139,000 primary inspections, the balance being reinspections which occurred due to design change, construction rework, etc. Where a reinspection has occurred on a specific commodity, the latest IR will be validated. In addition, prior to the use of PQCI's, Material Receipt Inspections (MRI's) and Field Inspection Plans (FIP's) were used as quality instructions and records. These also will be verified. Where applicable, the results of these inspections may be grouped with like PQCI's. Otherwise they will be treated as separate populations.

5.2 Methodology: The program will assess the validity of prior inspections and provide assurance of the quality of completed work. To accomplish this, reports of completed inspections (IR's) will be evaluated by reinspections of accessible attributes of installed hardware or by reinspection of documentation where attributes are not accessible Such IR's relate to specific Project Quality Control Instructions (PQCI's) organized by discipline and further structured to activities within that discipline, eg, there are separate PQCI's and related IR's for preplacemment, placement and post placement inspections of concrete.

Each of the PQCI's provide a population of like activities. The approach to be followed to assess the validity of completed inspections in each population is to evaluate them by conducting random sampling using statistically valid methods in relation to a predetermined average level of quality. This method will promptly direct management attention to any area where the requisite quality level has not been achieved, provide a basis for evaluating the cause of any nonconformances, expedite actions to correct identified problems and to institute actions to prevent their recurrence. Where sampling discloses that requisite quality levels have not been achieved, screening (one hundred percent reinspection) of the entire lot will be performed for the deficient attribute. This method provides a positive means of identifying any area where quality is deficient and of directing one hundred percent inspection for such deficiencies.

Military Standard MIL-STD-105D (1964) will be used as the basis for sampling based on pre-established confidence and acceptance levels. Items or components will be subjected to an inspection plan with a 95% confidence and a 95% acceptance (5% rejectable) level.

5.2.1 Sampling Plan: Where quantities of closed inspection reports for specific PQCIs are less than required for sampling a 100% inspection will be performed. Sample lots will be based on PQCI categories. The sample plan will be developed using the guidelines contained in MIL-STD-105D and will include a

switching procedure with the capability of going from Single Normal to Single Reduced and Single Reduced to Single Normal.

The following tables indicate sampling information for Single Normal and Single Reduced sampling plans:

SINGLE NORMAL

Population Lot Size N	Sample Size n	Accept Number Ac	Rej No Re
2-50	ALL	0	1
51-500	50	0	1
501-1200	80	0	1
1201-3200	125	2	3
3201-10,000	200	3	4
10001-00	315	7	8

SINGLE REDUCED

2-50	ALL to 20	0	1
51-500	20	0	1
501-1200	32	0	1
1201-3200	50	1	3
3201-10,000	80	1	4
10,000-00	125	3	6

The specific PQCIs and quantities of closed Inspection Reports to which these lot and sample sizes apply are included in Appendix A.

Normally total quantities will not be direct multiples of the lot size. Any residual quantity of the total population over even multiples of the lots may be combined with the last lot, or be treated separately for sampling convenience so long as the sample size is in accordance with MIL-STD-105D. Lots will be time centered. The purpose of this is to identify and isolate conditions which may have occurred in specific time periods during construction of the Midland Plant. Quantities used for determining lot sizes will exclude inspection reports where reinspections have occurred since this will preclude counting the same item twice. PQCI's covering like activities may be grouped to provide a single population. An example of such grouping would be PQCI's E6.1 and RW 1.00, "Modification of Electrical Equipment".

5.2.2 Sample Selection: Samples will be selected by dividing the lot size by the sample size indicated by MIL-STD-105D Tables I and IIA for normal sampling. For example, for a lot of 500, the sample size is 50. Every tenth inspection report would be selected for reverification. This assures randomness, since the manner of filing is totally independent of the person selecting the sample. It also provides a cross section as related to time, since the inspection reports are logged by

the date they were opened. Where there are multiple lots of the same size, the same method will be used, so that each sequential lot is time centered with the preceeding lot and each item sampled is time sequenced within the lot.

5.2.3 Substitution: Where accessibility inhibits inspection of attributes of a specific item intended for sample reinspection, the Executive Manager-MPQAD may direct the selection of a substitute random item for reinspection from the same lot.

5.2.4 Increased or Reduced Sampling: The Executive Manager-MPQAD may direct 100% reinspection at any point where the ability to conduct a valid sample reinspection is determined to be impractical. Reduced, tightened or multiple sampling will be conducted in accordance with MIL-STD-105D when so directed by the Executive Manager-MPQAD.

5.3 Identification of Deficiencies: Any nonconforming condition observed during the implementation of this program other than those previously identified on nonconformance reports, will be identified by a nonconformance report and will be dispositioned in accordance with approved procedures.

5.3.1 Deficiencies Found During Reinspection of Accessible Attributes: Reinspections will be conducted in accordance with PQCI's which have been reviewed/revised since implementation of the CCP and in accordance with current

design drawings and specifications. An acceptable reinspection will validate the prior IR. If an apparent deficiency exists between the as built condition of the unit and the referenced design drawing or specification, a further check will be made to determine the design basis against which the sampled IR was originally completed as well as the current stage of construction before a determination will be made as to whether a nonconformance of "as built vs design" exists. Nonconforming workmanship deficiencies will be documented immediately. Any deficiency, other than those previously identified on nonconformance reports as a result of prior inspections, will be identified on a nonconformance report which will be referenced by unique identifier for that attribute in the IR.

5.3.2 Treatment of Reinspection Deficiencies in Verification Sampling Program: Deficiencies identified by reinspections will be noted on a nonconformance report and promptly reported to MPQAD-QA and others for processing per procedure. The party responsible for recommending the initial disposition of the nonconformance will review the intended disposition with MPQAD-AQ prior to further processing of the nonconformance. The purpose of this MPQAD-QA review is to insure proper treatment of the nonconformance in the sampling analysis. Deficiencies determined to be acceptable to "use as is" will be evaluated by project engineering to determine whether the requirement which the attribute failed to meet is a critical

element of the applicable codes, standards, drawings or specifications. For example, in some instances the project specifications may be more restrictive then the applicable code. The decision might be made that code compliance is a satisfactory alternative basis for acceptance. In other instances, deficiencies may be identified as not critical to the safety performance of the items such as, for example a weld that is longer then required by design detail but where the extended portions might not meet weld specifications. Such might not invalidate the original inspection. Disposition of the nonconformance will be documented per procedure. The final decision as to whether the deficiency constitutes a sample defect will be made by the Executive Manager-MPQAD.

5.3.3 Deficiencies Found During Reinspection of Documentation for Inaccessible Attributes: The verification process for inaccessible attributes is discussed in Section 6.5. As noted in that section, any documentation deficiencies will be noted on the sample IR, entered on a nonconformance report and cross referenced to the original IR. The treatment of rejected lots will be determined on a case by case basis and will be largely influenced by the disposition of the nonconforming condition.

5.3.4 Sampling Priorities: The Executive Manager MPQAD will establisb priorities for sampling or for conducting

100% reinspection, based upon an overall assessment of the results of sampling activities and project schedules.

6. Special Program Elements

6.1 Cable Reinspection: As noted in Section 2, Scope, reinspection of routing and identification of installed cables is underway and is being performed 100% for these attributes. Other electrical work, including cable tensioning and terminations, on which inspections have been completed by Bechtel will be handled in accordance with this plan. This includes PQCI's E-1, E1.1, E-1.60, E-2.0, E-2.1, E-3.1, E-4.0, E-5.0, E-6.0, E-6.2, E-6.6 and E-6.6.1. These PQCI's are further defined and affected quantities are shown in Appendix A.

6.2 In Process Inspection Notice (IPIN): In accordance with approved procedures the QC inspection process has used In Process Inspection Notices (IPIN's) rather than Nonconformance Reports (NCR's) to note nonconforming conditions noted by inspectors on work returned to construction for rework inspection. The process required that IPIN's be dispositioned before the Inspection Report could be closed. Because the use of IPINs raises the possibility, however small, that a complete inspection may not have been performed on the IRs with associated IPINs, all such IRs will be treated as a unique population and will be reinspected 100%. (IPIN's are no longer used in the inspection process.)

6.3 Exceptions to this Plan: Exceptions to this plan may be taken where objective evidence is available of a CPCo overinspection of the

A/E-Constructor's inspections and where such overinspection demonstrates effective quality control and provides the basis to validate past IR without further reinspection or verification activities.

Where such exceptions are proposed to be taken, a special report will be prepared by the MPQAD-QA Superintendent for review and approval of the Executive Manager-MPQAD. This report will contain full justification for the exception and documentation of objective evidence to support the exception. The Executive Manager-MPQAD will inform the NRC Resident Inspector staff whenever he has made a decision to allow such an exception to the program.

6.4 Purchased Material: Purchased safety related material and components whether source inspected or inspected upon receipt are subject to this plan. In many cases, purchased items have been installed and are not fully accessible for reinspection; however inaccessible interfaces will have been demonstrated and their functional acceptability proven through installation and subsequent testing. Accessible features relating to safety will be reinspected on a sampling basis in accordance with MIL-STD-105D to verify previously completed inspection. The total number of IR's associated with PQCI R1.00, Material Receiving Inspection, is 12007. In addition, prior to the introduction of PQCI R1.00, 152 MRI's and 20 FIP's were used for receipt inspection, covering 713 items. FIP's were also used for construction activities and will be treated separately under this plan. Based upon further review, receipt inspections covered by

MRI's will either be grouped with like items covered by PQCI R1.00 or be reinspected separately. Where materials such as rebar, certain structural member or features of components are inaccessible for reinspection, documentation will be reviewed in accordance with this plan.

6.5 Inaccessible Attributes: There are 59 PQCI's which cover activities that appear to be inaccessible for reinspection. These include rebar installed in placed concrete, various dewatering and soils compaction activities performed prior to the remedial soils program, containment building tendon reinspection, and PQCI's relating to surveillance of subcontractor actions. A complete listing of these is in Appendix C to this plan. Documentation relating to these PQCI's will be reinspected on a sample basis as indicated in this plan. These PQCI's, either individually or by groups, will be reviewed and justification will be developed to support the verification of completed inspections associated with these PQCI's by a document reinspection only or by a combined document review and reinspection of attributes when accessible. This justification for verification based upon document review or recommendations for additional verification activities will be provided by the MPQAD-QA Superintendent to the Executive Manager-MPQAD for decision and approval prior to initiation of IR sampling to verify documentation acceptability.

Deficiencies in documentation will be reported on nonconformance reports, the disposition of which will determine further actions necessary.

6.6 Special Populations: The Executive Manager may designate special populations of PQCI's or IR's that may be treated as a unique population provided all other elements of this program are applied to this unique population.

7. Documentation and Reports:

7.1 Documentation of Results: Reinspection results will be documented on IR's opened specifically for this purpose. This IR will cross-reference the existing IR that is being verified. A proper notation will be made on the new IR to identify whether the existing IR was validated, rejected or is in an indeterminate status. In addition, the new IR will provide the basis to document the quality status of the items being reinspected or reverified.

7.2 Documentation of Nonconformance: Nonconforming conditions observed during reinspection activities will be documented on a nonconformance report and appropriately trended for management attention. (Note prior discussion in Section 5.3.1 and Appendix E.)

7.3 Reports:

7.3.1 Reports to Executive Manager-MPQAD: A weekly written report will be made jointly by the CPCo Site QC and QA Superintendents to the Executive Manager of MPQAD summarizing

the results of the program. The report will detail results by PQCI and unique lots and samples and will include copies of completed nonconformance reports and any dispositions of previous nonconformance reports.

7.3.2 Reports from Executive Manager MPQAD: The Executive Manager will inform the CPCo Site Manager and the Vice President, Engineering and Construction, of the status of the quality confirmation program on a weekly basis. As appropriate, he will also report on the acceptability of completed work as it may be impacted by nonconformances or rejection of sampled lots.

7.3.3 Reports to NRC: The Executive Manager-MPQAD will provide copies of reports provided to the CPCo Site Manager and Vice President, Engineering and Construction to the NRC Resident Inspection staff.

Summary.RPT

8. Implementation: This program is presently scheduled for implementation on March 21, 1983.

8.1 Organizational Responsibilities: The Executive Manager-MPQAD has total overall responsibility and authority for the development and implementation of all quality related aspects of this verification program. He will be responsible to see that the implementation phase of the program is coordinated with other project departments as required to assure proper support for this plan commensurate with overall project goals and schedules.

8.1.1 MPQAD: QA is responsible for the programmatic elements of the verification program including, but not limited to, procedure development, PQCI review and approval, IR scoping, noncomformance review and disposition, analysis of sampling results, justification for document review and verification for inaccessible attributes, program content modifications and audits of the reinspection activites.

8.1.2 MPQAD: QC is responsible for program implementation including, but not limited to, drawing the IR sample from lots predetermined by MPQAD-QA, conducting the reinspection activities with QC personnel that satisfy Regulatory Guide 1.58, Rev 1, (no person will reinspect activites for which he performed the original inspection); reporting results to the Executive Manager-MPQAD; reporting nonconformances to MPQAD-QA; coordinating with Construction Services and Consumers Site Management Office to establish schedule priorities for reinspection activites; and performing management overview of the reinspection process with appropriate documentation of results.

8.1.3 MPQAD: Site Audit is responsibile for formal audits of the overall verification program implementation.

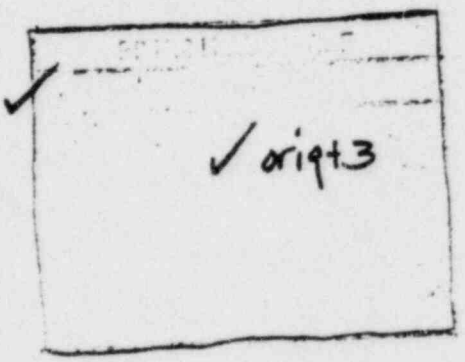
82-239
82-497

Consumers Power Company

James W Cook
Vice President - Projects, Engineering and Construction

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

January 10, 1983



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

MIDLAND NUCLEAR COGENERATION PLANT
MIDLAND DOCKET NOS 50-329, 50-330
CONSTRUCTION COMPLETION PROGRAM
FILE 0655 SERIAL 20428

REFERENCE LETTER TO J W COOK, DATED DECEMBER 30, 1982, FROM NRC REGION III REGARDING CONSTRUCTION COMPLETION PROGRAM

On December 2, 1982, Consumers Power Company met with Mr Warnick and other members of your staff to discuss the general concept of our proposed Construction Completion Program. The enclosure to this letter documents in detail the Construction Completion Program, as requested at the meeting and in your follow up letter (Reference).

Since our meeting, the program has undergone considerable development and evolution. Details have been supplied and more specific objectives and implementing methods have been established. Further details are still being developed. While the Company expects the Program, as presently constituted, to be a workable and sufficient framework for future action, revisions may be necessary as future needs and experience dictate.

The Construction Completion Program is a positive step in the overall advancement of Project goals. It represents the best efforts of Project management, support and quality assurance personnel. We believe it will produce an improvement in Project installation and inspection status, systems construction and QA implementation. The quality verification effort should provide increased confidence of the NRC that the plant has been properly built. Other aspects of the Program, including the measure to improve ongoing inspections and scheduling interfaces, should contribute to that result. This Program, together with recent Consumers Power Company commitments regarding quality assurance and remedial soils work, can establish a basis for improved relations between the Company and the NRC Region group assigned to inspect Midland. The Construction Completion Program demonstrates the Company's responsiveness to both NRC concerns and the particular needs of this Project. It is our expectation that the Program, created out of a desire to enhance the

orderliness and quality of construction, will achieve its intended purpose and lead to the successful "completion of construction" of the Midland Plant in accordance with regulatory requirements.

We hope that this submittal fulfills your request for written information regarding the Construction Completion Program. Consumers Power Company is prepared to support the public meeting proposed for January 26, 1983 in Midland, Michigan.

James W. Cook

JWC/DMB/ci

CC Atomic Safety and Licensing Appeal Board
CBechhoefer
FPCowan, ASLB
JHarbour, ASLB
DSHood, NRC
MMCherry
RWHernan, NRC
RJCook, Midland Resident Inspector
FSKelley
HRDenton, NRC
WHMarshall
WDPaton, NRC
WDShafer, NRC
RFWarnick, NRC
BStamiris
MSinclair
LLBishop

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

Letter Serial 20428 Dated January 10, 1983

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

CONSUMERS POWER COMPANY

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

Sworn and subscribed before me this 10th day of January, 1983

Patricia A Puffer
Notary Public
Bay County, Michigan

My Commission Expires 3-4-86

oc0183-0308a100

Construction Completion Program
Executive Summary

The Construction Completion Program has been formulated to provide guidance in the planning and management of the design and quality activities necessary for completion of the construction of the Midland Nuclear Cogeneration Plant. Construction completion is defined in this Plan as carrying all systems to the point they are turned over to Consumers Power Company for component checkout and preoperational testing. The Construction Completion Program does not include the Remedial Soils Program which is treated in separate interactions between Consumers Power Company and the Nuclear Regulatory Commission.

Background

The Construction Completion Program was developed in response to a number of management concerns that have been identified during the period preceding the initiation of the Program. The Midland Project had been proceeding at a high level of activity as it approached completion. The final transition from area construction to system completion, using punch lists, has been difficult for most nuclear projects. The Midland Project has not escaped these difficulties which have been compounded due to the congested space and the continuing numerous design changes, both generally attributable to the age of the Project. These factors lead to the need for improved definition of work status, increased emphasis on overall Project objectives as well as continued focus of construction and inspection resources on completion of systems for short-term milestones and increased effort to complete engineering ahead of field installation.

The Midland Project has been criticized by the NRC regional office as not having met their expectations for implementation of the Project's Quality Assurance Program. The result has been that the Project management has too often, during the past few months, been in a reactive rather than proactive posture with regard to quality assurance matters.

In recognition of these conditions, management has concluded that a change in approach was needed to effectively complete the Project while maintaining high quality standards. higher

Objectives

The development of the Program has considered the Project's current status and recent history and attempts to address the underlying or root causes of the problems currently being experienced. In order to develop the Program the following overall objectives were established under three general headings. The Program must:

Improve Project Information Status By:

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

- Bringing inspections up-to-date and verifying that past quality issues have been or are being brought to resolution.

- Maintaining a current status of work and quality inspections as the Project proceeds.

Improve Implementation of the QA Program By:

- Expanding and consolidating Consumers Power Company control of the quality function.

- Improving the primary inspection process.

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

Assure Efficient and Orderly Conduct of the Project By.

- Establishing an organizational structure consistent with the remaining work.

- Providing sufficient numbers of qualified personnel to carry out the program.

- Maintaining flexibility to modify the Plan as experience dictates.

Description

The Construction Completion Program entails a number of major changes in the conduct of the final stages of the construction process and can be described in summary as a two-phase process.

First, after certain necessary preparations, the safety-related systems and areas of the plant will be systematically reviewed. This first phase will be carried out on an area-by-area basis, but will be accomplished mainly by teams organized with systems responsibility and a separate effort to verify the completed work. The product from this phase of the program will be a clear status of remaining installation work and a current inspection status which provides quality verification of the existing work. The teams organized to carry out this first phase will continue to function in the second phase as the responsible organizational units to the complete the work.

In order to achieve its complete set of objectives, the Program contains a number of activities and elements that support and are linked to the two major phases described above. The major components of the Plan, which are discussed in more detail in more detail in the balance of this report, can be described as follows:

- A significant reduction in the construction activity in the safety-related portion of the plant, material removal and a general cleanup will be carried out in preparation for installation and inspection status assessment and quality verification activities.

- A review will be made of equipment status to assure that the proper lay-up precautions have been implemented to protect the equipment until the installation work is completed.

- The integration of the Bechtel QC function into the Midland Project Quality Assurance Department (MPQAD) under Consumers Power Company management will be completed.

- The Consumers Power Company is carrying out recertification program of Bechtel QC inspectors, and a review of the inspection procedures to be utilized.

- The system completion teams will be organized, staffed and trained according to procedures developed to define the team's work process.

- The systems completion teams will 1) accomplish installation and inspection status assessment, 2) perform systems construction completion and construction quality performance and 3) determine that all requirements have been met prior to functional turnover for test and operation.

- Quality verification of completed work will be carried out in parallel with installation and inspection status activities of the system completion teams.

- A series of management reviews will be carried out to carefully monitor the conduct of the Program and to revise the plan as appropriate.

- Review and resolution will proceed on outstanding issues related either to QA program or QA program implementation as raised by the NRC or third party overviews of the Project.

- Third party reviews will be undertaken to monitor Project performance and to carry out the NRC's requirements for independent design verification.

Schedule Status

The Program was initiated on December 2, 1982 by limiting certain ongoing safety-related work and starting preparations for the phase-one work of status assessment and quality verification activities. Since the Program also has incorporated a number of commitments made to the NRC during the past few months, activities in support of these commitments such as QC integration into MPQAD and the recertification of QC inspectors, had been initiated prior to December.

Status and schedules for each element of the Plan are enumerated in the text. In general, preparation for the Phase 1 activities are underway and will continue through January. A pilot team to develop the procedures and training requirements will be initiated during January. It is expected that the first

areas to undergo Phase 1 status assessment will be defined and teams mobilized during March.

Quality verification of completed work will start in late January or early February.

The Program provides for the Phase 1 results on a system or partial system to be reviewed and evaluated prior to initiating Phase 2 system completion work on that system or partial system. Management will monitor both process readiness and Phase 1 evaluation results.

The major areas of continuing safety-related work are NSSS construction as performed by B&W Construction Co, HVAC work under the Zack subcontract, the Remedial Soils Program and post-turnover punch list work released to Bechtel construction by Consumers Power Company. The Zack work is currently limited until a recently identified question on welder certification is resolved.

During the implementation of the Program in 1983, the NRC Resident Inspectors can use the Plan to monitor safety-related construction activities at the site. Since a substantial portion of the Plan directly relates to commitments made to NRC management, Consumers Power Company intends to schedule periodic reviews of Program status and progress with the NRC.

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1.0 INTRODUCTION

The Construction Completion Program has been formulated to provide guidance in the planning and quality activities necessary for completion of the construction of the Midland Nuclear Cogeneration Plant. Construction completion is defined in this Plan as carrying all systems to the point they are turned over to Consumers Power Company for component checkout and preoperational testing. The Construction Completion Program does not include the Remedial Soils Program which is treated in separate interactions between Consumers Power Company and the Nuclear Regulatory Commission. The Construction Completion Program will be referred to as the Program in this document which contains the Plan for Program development and implementation.

Background

The Construction Completion Program is being developed in response to a number of management concerns that have been identified during the period preceding the initiation of the Program. The Midland Project had been proceeding at a high level of activity as it approached completion. The final transition from area construction to system completion, using punch lists, has been difficult for most nuclear projects. The Midland Project has not escaped these difficulties which have been compounded due to the congested space and the continuing numerous design changes, both generally attributable to the age of the Project. These factors lead to the need for improved definition of work status, increased emphasis on overall Project objectives as well as continued focus of construction and inspection resources on completion of systems for short-term milestones and increased effort to complete engineering ahead of field installation.

The Midland Project has been criticized by the Nuclear Regulatory Commission regional office as not having met their expectations for implementation of the Project's Quality Assurance Program. The result has been that the Project management has too often, during the past few months, been in a reactive rather than proactive posture with regard to quality assurance matters.

In recognition of these conditions, Consumers Power Company has concluded that a change in approach is needed to effectively complete the Project while maintaining high quality standards.

Objectives

The development of the Program has considered the Project's current status and recent history and attempts to address the underlying or root causes of the problems currently being experienced. In order to develop the Program, the following overall objectives were established under three general headings. The Program must:

Improve Project Information Status By:

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

- Bringing inspections up-to-date and verifying that past quality issues have been or are being brought to resolution.

- Maintaining a current status of work and quality inspections as the Project proceeds.

Improve Implementation of the QA Program By:

- Expanding and consolidating Consumers Power Company control of the quality function.

- Improving the primary inspection process.

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

Assure Efficient and Orderly Conduct of the Project By:

- Establishing an organizational structure consistent with the remaining work.

- Providing sufficient numbers of qualified personnel to carry out the Program.

- Maintaining flexibility to modify the Plan as experience dictates.

PLAN CONTENTS

The Program was initiated on December 2, 1982 by limiting on-going work on Q-systems to pre-defined tasks and preparing the major structures housing Q-systems for an installation and inspection status assessment and verification of completed work. The relationship of the major elements of the Plan is shown in Figure 1-1. The sections of the Plan address the following major activity areas:

PREPARATION OF THE PLANT (Section 2.0)

The buildings are being prepared for a status assessment and verification of completed work.

QA/QC ORGANIZATION CHANGES (Section 3.0)

A new QA organization that integrates the QA and QC functions under a Consumers Power Company direct reporting relationship is being established. As a part of this transition, the Bechtel QC inspectors are being recertified to increase confidence in the quality inspection performance.

PROGRAM PLANNING (Section 4.0)

The overall Plan for the Program is being developed in two major phases.

The first phase includes:

- A team organization assigned on the basis of systems is being developed to determine present installation and inspection status. The inspection status assessment includes performing inspections on completed work to bring them up to date. A closely coordinated effort involving the construction contractor and Consumers Power Company (QA/QC, testing and construction) will improve quality performance.

- The quality verification of completed work will be based, in part, on a sampling technique using re-certified inspectors as described in Section 3.0.

The second phase includes:

- Following installation and inspection status assessment the team organization will retain responsibility for systems completion work.

- The QC inspection process of new work will be integrated with the systems completion work to ensure adequate quality performance.

PROGRAM IMPLEMENTATION (Section 5.0)

The first phase implementation of the Program will be initiated with a review of the process, procedures and team assignments that will be used. The plan for verification of completed work will be reviewed separately. The teams will conduct the installation and inspection status assessment; verification of completed and inspected work will proceed, as planned, in coordination with the team effort. Following phase 1 completion of the first work segment, a manzgement review of the plan effectiveness will be made.

In second phase Program implementation, the assigned team will plan and schedule the remaining work needed for completion including QC inspections.

QUALITY PROGRAM REVIEW (Section 6.0)

The adequacy and completeness of the quality program will be reviewed on an ongoing basis, taking into consideration questions raised by NRC inspections and findings by third party reviewers.. The results of these reviews will be considered as part of the management review that are a part of the Program implementation (Section 5).

THIRD PARTY REVIEWS (Section 7.0)

Independent assessments of the Midland Project will provide management and NRC with evaluations of Project performance.

SYSTEM LAY-UP (Section 8.0)

The on-going work to protect plant equipment and systems will be augmented as necessary to provide adequate protection during implementation of this Plan.

CONTINUING WORK ACTIVITIES (Section 9.0)

Work on Q-Systems has been limited to specific activities. This limitation permits important work to proceed while allowing building preparation for status assessment and verification activities.

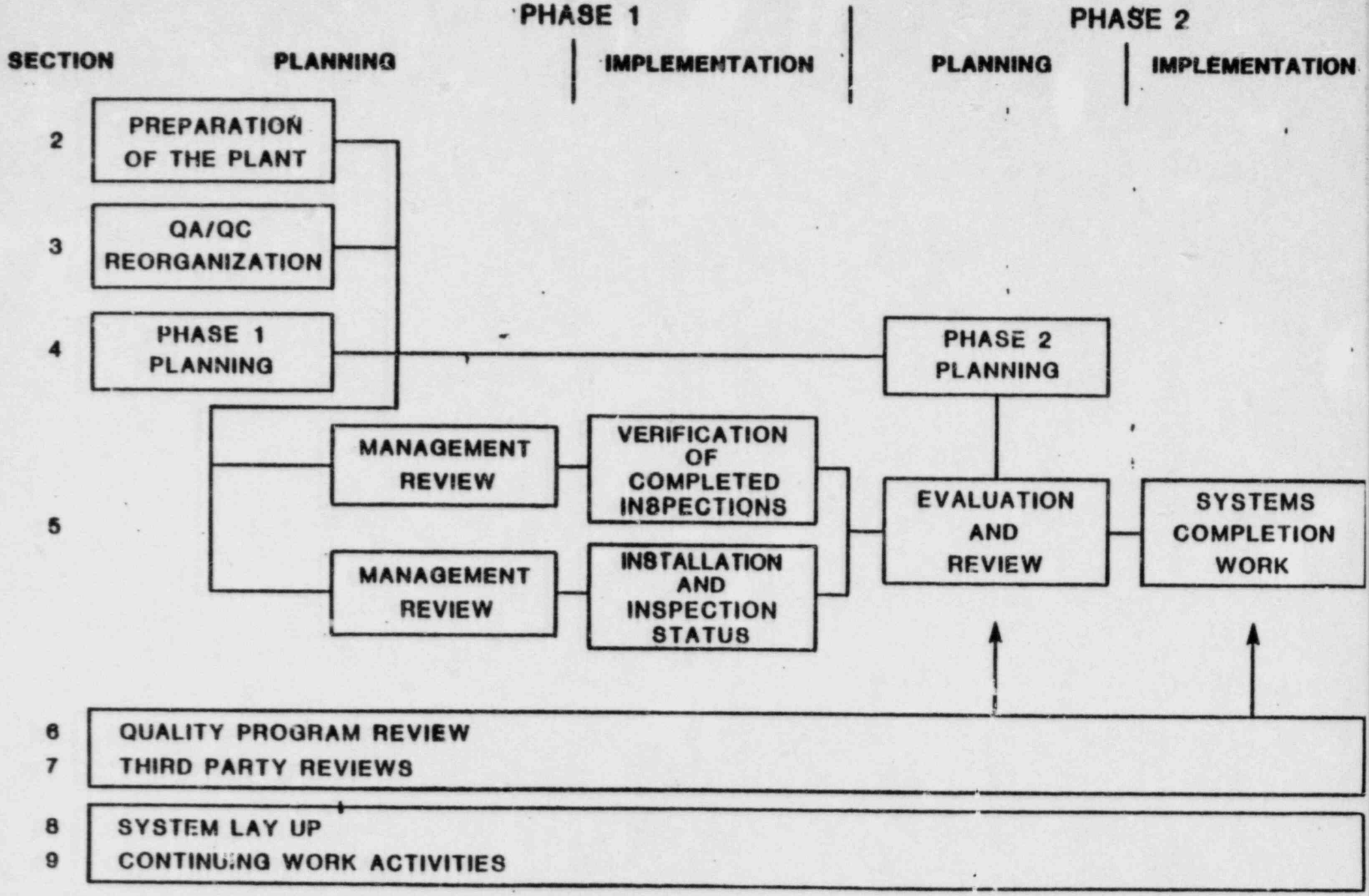
SUMMARY

Each section of this Plan presents detailed objectives, a description of the activity involved, and a schedule for achieving major milestones. The Program, however, is still in an evolutionary state and revisions to the Plan may be necessary as Consumers Power Company gains experience in the implementation of Program elements.

Should we have an outside audit of this effort?

FIGURE 1-1

CONSTRUCTION COMPLETION PROGRAM SCHEMATIC



2.0 PREPARATION OF THE PLANT

2.1 Introduction

The preparation of the Plant will clear the auxiliary, diesel generator and containment buildings and the service water pump structure of materials, construction tools and equipment and temporary construction facilities.

2.2 Objective

To allow improved access to systems and areas for the Program activities.

2.3 Description

The preparation activities minimize obstacles and interferences for the Program activities. This is being accomplished through the following steps.

1. Limitation of Q-work to activities and areas defined in Section 9 resulting in substantial work force reduction.

2. Removal and storage of construction tools and equipment, and temporary construction facilities (scaffolding, etc) from the buildings identified in Section 2.1.

3. Removal, control and storage of uninstalled materials from the buildings identified in Section 2.1.

4. Appropriate housekeeping of all areas following material and equipment removal.

The preparation for each area will be complete before initiating further Program activity. The on-going work described in Section 9 will continue as scheduled during the preparation.

2.4 Schedule Status

The preparation of the Plant began on December 2, 1982. It will be complete by January 31, 1983.

3.0 QA/QC ORGANIZATION CHANGES

3.1 Introduction

The Consumer Power Company's Midland Project Quality Assurance Department (MPQAD) is being expanded to assume direct control of Bechtel QC activities. The new organization and the plan for the transition are described below. The transferred QC Inspectors will be recertified as part of this transition.

3.2 Objectives

Establish New QA/QC Organization

Establish an integrated organization which includes the transition of Bechtel QC to MPQAD while accomplishing the following objectives:

1. Establish direct Consumers Power Company control over the QC inspection process.

2. Establish the responsibilities and roles of the QA and QC Departments in the integrated organization.

3. Use qualified personnel from existing QA and QC departments and contractors to staff key positions throughout the integrated organization.

Recertify QC Inspectors

Ensure that those Quality Control inspection personnel transferring to MPQAD from Bechtel will be trained and recertified in accordance with MPQAD Procedure B-3M-1.

3.3 Description

Establish New QA/QC Organization

A new organization will be implemented under Consumers Power Company and will be described in appropriate Topical Reports (CPC-1A and BQ-TOP-1) and quality program manuals (Volume II, BQAM and NQAM). Changes to these documents will be submitted to NRC.

Features of the new organization include:

1. Lead QC Supervisors report directly to a QC Superintendent who reports to the MPQAD Executive Manager. Any required support from Bechtel Corporate QC and QA functions (except ASME N-Stamp activities) is provided at the level of the MPQAD Executive Manager.

2. The MPQAD Executive Manager will review the performance of lead personnel in his department.

3. QA will develop and issue Quality Control inspection plans and be responsible for the technical content and requirements of such plans. QC will be responsible to implement these plans.

4. QA will continue to monitor the Quality Control inspection process to insure that program requirements are satisfactorily implemented.

5. MPQAD will continue to use Bechtel's Quality Control Notices Manual (QCNM) and Quality Assurance Manual (BQAM) as approved for use on the Midland Project.

6. ASME requirements imposed upon a contractor as N-Stamp holder will remain with that contractor. MPQAD QA will monitor the implementation of ASME requirements.

An organization chart (Fig 3-1) showing reporting relationships in the new organization is attached.

Recertify QC Inspectors

The training and recertification process for QC inspectors has been revised to include commitments made during the September 29, 1982 public meeting with the NRC. Those inspectors transferred from Bechtel to MPQAD will be trained and examined in accordance with MPQAD Procedure B-3M-1. Upon satisfactory completion of the training and examination requirements, inspection personnel will be certified for the Project Quality Control Instruction(s) (PQCI(s)) they are to implement. Inspection personnel will be certified on a schedule which supports ongoing work and system completion team activities.

3.4 Schedule Status

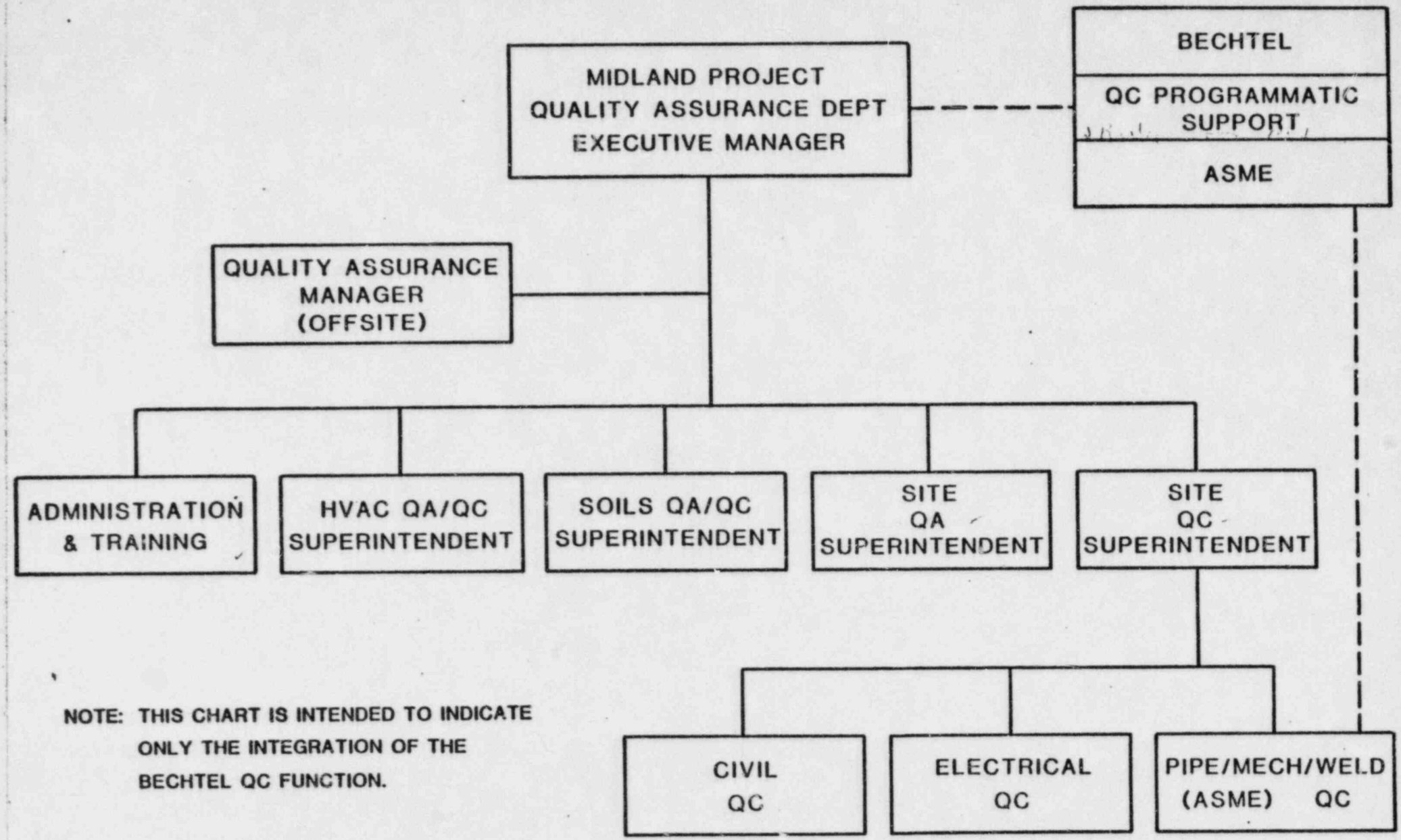
Establish New Organization

Advise NRC of the structure of the integrated organization.	12/15/82
Transfer the Bechtel QC Organization to MPQAD.	1/17/83
Submit changes to Topical Reports and quality program manuals to NRC.	2/17/83

Recertify QC Inspectors

Specify the revised training and examination requirements for certification (B-3M-1).	10/25/82
Complete recertification	4/01/83

FIGURE 3-1
MPQAD ORGANIZATION



NOTE: THIS CHART IS INTENDED TO INDICATE ONLY THE INTEGRATION OF THE BECHTEL QC FUNCTION.

4.0 PROGRAM PLANNING

4.1 Introduction

The detailed planning for the major portion of the Construction Completion Program is described in this section.

Planning in support of Phase 1 consists of the activities to set up a team organization to assess the installation and inspection status of Q-systems within major structures (Section 4.2) and to verify the adequacy of completed inspection effort (Section 4.3).

The Phase 2 planning effort covers the process and procedures that will be used by the team organization for systems completion work (Section 4.4). The procedures to integrate the quality program requirements with continuing systems completion work will be developed (Section 4.5).

4.2 Team Organization (Phase 1)

4.2.1 Introduction

Organize and train teams and prepare procedures for an installation and inspection status assessment.

4.2.2 Objective

1. Establish and implement a team organization ready to inspect and assess systems for installation and inspection status.

2. Develop the organizational processes and procedures necessary to implement the team approach for status assessment.

3. Provide training to ensure required inspection and installation status assessment activities are satisfactorily performed.

4.2.3 Description

1. The team organization structure will vary depending upon the assigned scope of work. The organization will consist of a team supervisor and personnel as appropriate from field engineering, planning, craft supervision, project engineering, MPQAD and Consumers Power Company Site Management Office. The team may be augmented by procurement personnel, subcontract coordinators and turnover coordinators.

   Teams will be assigned a specific scope of work and held accountable for status assessment and overall completion within this scope. The scope includes the requirements

to develop a viable working schedule and insure early identification and resolution of problem areas. Project processes and procedures will be reviewed and modified to incorporate the team organization. The team MPQAD representative is responsible for providing the QA/QC support for the team. He receives scheduling direction from the Team Supervisor and technical direction from MPQAD. For his team's work, he analyzes the quality requirements and plans the QC activities to integrate them with the team effort. He assures the necessary PQCI's and certified inspection personnel are available for performing the inspections. He maintains cognizance of the quality status of the verification activities.

The Washington Nuclear Plant #2 (WNP-2) team organization will be used as a starting point for a Midland specific approach.

A pilot team or teams will be utilized to develop and test processes and procedures during the development stage to assure that Program objectives can be met. This will also provide practical field input to assure that efficient and workable methods are used.

Team members will be physically located together to the extent practicable to improve communication, status assessment, problem identification and problem resolution.

2. Training for inspection and installation status assessment will be provided to team members. It will include responsibilities, reporting functions, indoctrination of project processes and procedures and familiarization with the project quality program to ensure effective implementation.

3. A separate organization of design engineers (presently existing) will coordinate spatial interaction, review and examination with the activities of these teams.

4.2.4 Schedule Status

. Designate pilot team.	1/21/83
. Complete grouping of systems for assignment to teams.	2/28/83
. Complete assignment of team supervisors and members to designated systems.	3/31/83

4.3 Quality Verification (Phase 1)

4.3.1 Introduction

The verification program is the activity undertaken to determine, using a variety of methods, that the inspections performed on completed work were done correctly.

4.3.2 Objectives

The objectives of the verification program are to:

. Review existing PQCI's and revise as necessary to assure that:

a. Attributes important to the safety and reliability of specific components, systems, and structures are identified for verification.

b. Accept/reject criteria are clearly identified.

c. Appropriate controls, methods, inspection and/or testing equipment are specified.

d. Requisite skill levels are required per ANSI N45.2.6 or SNT-TC-1A.

Develop and implement verification inspection plan for completed work which considers:

a. Re-inspection of accessible items.

b. Review of documentation for attributes determined to be inaccessible for re-inspection.

c. Sampling techniques using national standards.

4.3.3 Description

PQCI's will be revised as necessary to meet the objectives in Section 4.3.2. Verification of the quality of accessible completed contruction, which has been previously inspected will be performed by use of sampling plans based on MIL-S-105D (1963) or other acceptable methods. Attributes determined to be inaccessible for direct re-inspection due to embedment or the status of completed construction or installation (eg, weld preparation of completed welds, reinforcement in placed concrete, installed anchor bolts, etc) will be verified as appropriate, by examination of records.

4.3.4 Schedule Status

- Complete review and revision of PQCI's. (Date to be determined.)
- Establish verification inspection plan for completed work. (Date to be determined.)

4.4 System Completion Planning (Phase 2)

4.4.1 Introduction

Establish the processes for system completion, prepare procedures and expand training to cover systems completion work.

4.4.2 Objective

The objectives of the systems completion planning are as follows:

- Establish processes and interfaces for system completion.
- Prepare procedures defining tasks of each system completion team.
- Train team members by expanding upon training received previously for inspection and status assessment.
- Establish scheduling methods to be used during system completion activities.

4.4.3 Description

The team organization (developed in Section 4.2) and the processes and procedures will be extended to accomplish the systems completion work.

- Training will be conducted to assure that supervisors understand the team objectives and their role. Emphasis will be placed on completion of all work in accordance with the design requirements, the change control process used when the design must be modified, and changes to the established team processes and procedures.

4.4.4 Schedule Status

- Complete team preparation for systems completion work. (Date to be determined.)

4.5 QA/QC Systems Completion Planning (Phase 2)

4.5.1 Introduction

The QA/QC systems completion activity covers the planning to support of system completion work.

4.5.2 Objectives

describe this program

Establish in-process inspection program and complete review and modification of PQCIs.

4.5.3 Description

The QC in-process inspection program will be directly coordinated with future installation schedules to insure that inspection points, identified by MPQAD QA in the PQCI's, are integrated with the installation schedule. The identification of applicable PQCI's and required inspection points will be used by system completion teams to insure that QC inspections are adequately scheduled into the process. The system completion team quality representative will be responsible for providing the link between the system completion team and MPQAD to insure that quality requirements are satisfied.

??

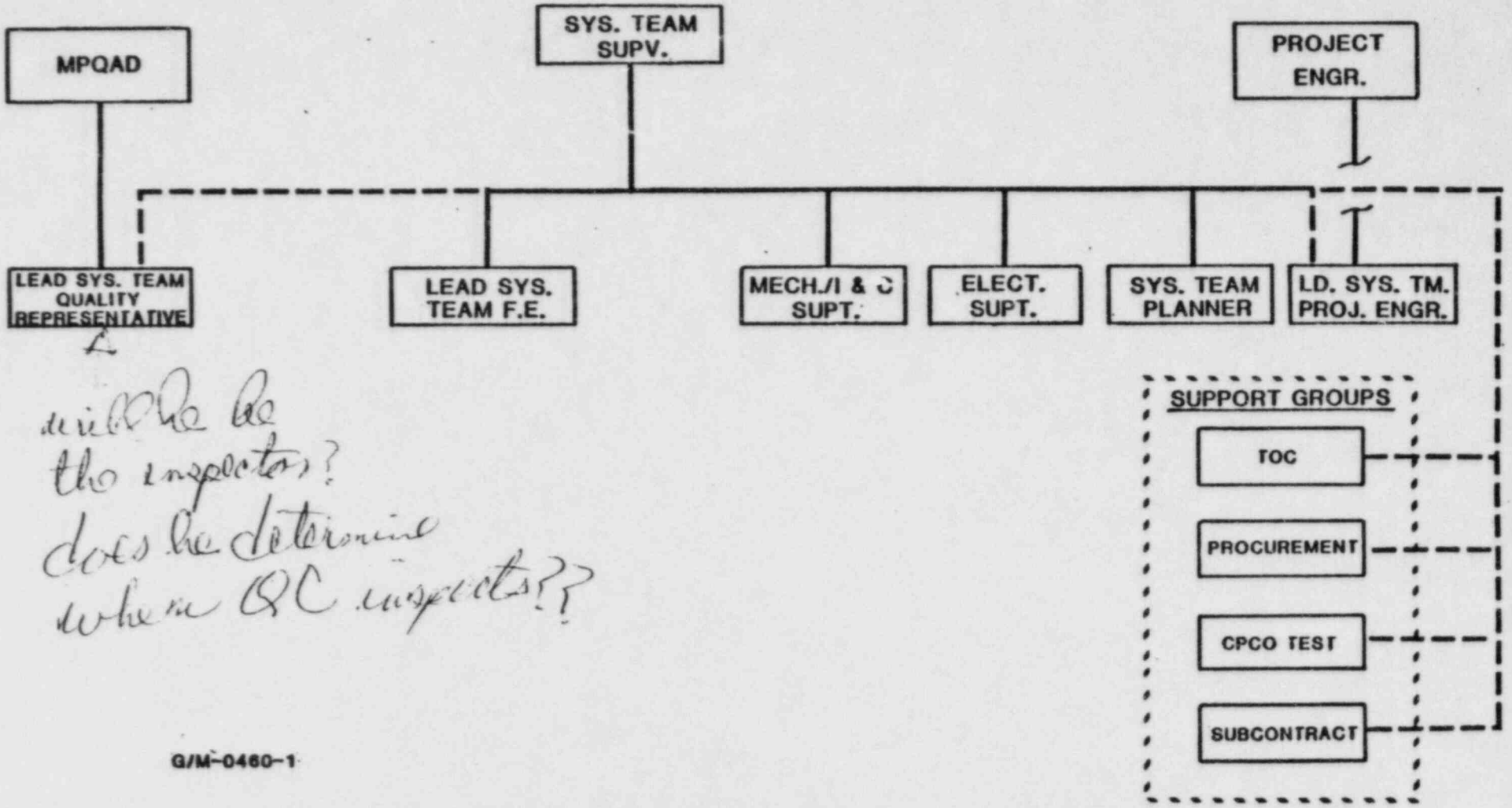
PQCI's will be reviewed, and modified as necessary, to insure that proper attributes are being inspected, that inspection plans are clear and concise, that inspection points are specifically scheduled with installation activities and that inspection results are properly documented. MPQAD QA will be responsible for the PQCI review activity and will obtain assistance, as required, from other project functions, such as Project Engineering and Quality Control. Revised PQCI's will be used to conduct inspection of future installation activities.

4.5.4 Schedule Status

Issue procedure for integrating inspection points into the construction schedule. 2/22/83

FIGURE 4-1

CONCEPTUAL TEAM ORGANIZATION



will he be the inspector? does he determine when QC inspects??

G/M-0460-1

5.0 PROGRAM IMPLEMENTATION

5.1 Introduction

The implementation of the Phase 1 Construction Completion Program activities will be initiated after a management review of the overall process insures that Project performance and quality objectives have been addressed. The Phase 1 work will then be carried out by the various teams in accordance with the procedures described in the preceding sections. The installation and inspection status assessment of a system or partial system will be followed by a review of results by MPQAD and a second management review before initiating the Phase 2 systems completion work. The Phase 2 work will then be initiated on that system or partial system.

5.2 Objectives

The objectives to be met are:

- Establish the present installation completion and quality status.
- Integrate the construction and quality activities for all remaining work.
- Improve performance in demonstrated conformance to quality goals in all system completion work.

5.3 Description

Management Reviews

Project management will conduct formal review of the plans for implementation activities prior to initiation of team activities for the Phase 1 work. These reviews will ensure that identified project management and quality issues have been adequately addressed by specific actions and that Program objectives are met. The reviews will cover the process for both 1) the verification of completed inspection activity and 2) the installation and inspection status activity.

The installation and inspection status assessment will be performed on a system and/or area basis. Phase 2 is initiated after a formal Project management review of the first status assessment results to evaluate implementation effectiveness. After completion of this review, a work segment will be released for systems completion. Subsequent status assessment results will be reviewed by site management prior to initiation of additional systems completion segments. Reports will be made to Project management at regularly scheduled meetings.

Phase 1 Implementation

The existing installation and inspection status will be established in accordance with the plan presented in Section 4.

Evaluate Phase 1 Results

MPQAD will review the status assessment results to determine if any programmatic or implementation changes must be made. Verification scope will be adjusted, as necessary, based on evaluation results. Also, the evaluation will check for reportability to the NRC (as required by 10 CFR 50.55(e)) and Part 21.

Phase 2 Implementation

This activity starts systems completion for turnover. Work will be scheduled as installation and inspection status assessments are completed and reviewed. Correction of identified problems will be given priority over initiation of new work, ~~as appropriate~~, and the system completion teams will schedule their work based on these priorities.

5.4 Schedule Status

- Complete Management review and initiate implementation of plan for verification of completed inspections. (Date to be determined.)
- Complete Management review and initiate implementation of plan for status assessment. (Date to be determined.)
- Complete Management review of initial installation and inspection status results and initiate systems completion work. (Date to be determined.)

6.0 QUALITY PROGRAM REVIEW

6.1 Introduction

The adequacy and completeness of the quality program is reviewed as part of the ongoing Project management attention to quality. These reviews consider any questions raised by NRC inspections or findings raised by third party evaluations.

6.2 Objective

Address issues raised by internal audits, NRC inspections and third party assessments. Program changes, if needed, will be evaluated and, as findings are processed, will be factored into the Project work.

6.3 Description

Consumers Power Company believes Midland QA program is sound. From time to time, questions arise on detailed aspects of the program or program implementation. The normal process of addressing these issues ensures that all necessary information is provided to NRC and that internal confidence in the program is maintained.

The recent inspection of the diesel generator building has raised several issues of programmatic concern. These are in the areas of material traceability, design control process, Q-system related requirements, document control and receipt inspection. Project management has directed that MPQAD provide an expeditious evaluation of these issues to be considered as part of the management review prior to initiation of Phase 2. Once the NRC inspection report is received and specified items are identified, these items will be addressed and resolved through the normal process of closing the inspection findings. Any corrective action or program changes will be implemented as appropriate in Project work on a schedule provided in the inspection report response.

The Project will also receive, from time to time, findings from third party assessments (Section 7). These findings or recommendations may also result in program modification or adjustments. Corrective action taken by the Project will be implemented on a schedule stated in the response to these findings.

Who will trend findings and what actions to take based on trend findings?

7.0 THIRD PARTY REVIEWS

7.1 Introduction

This section describes third party evaluations and reviews that have been performed and are planned to assess the effectiveness of design and construction activity implementation. Third party reviews being conducted as part of the Remedial Soils Program are not included in this activity.

7.2 Objectives

To assist in improving Project implementation and assessment of Midland design and construction adequacy, consultants will be utilized in order to:

- Achieve a broad snapshot of current Project practices and performance in relation to a national program.
- Provide continuous monitoring and feedback to Management of Project performance.
- Identify any activities or organizational elements needing improvement.
- Improve confidence (including the NRC's and the public's) in overall Project adequacy.

7.3 Description

The use of consultants to overview Project design and construction activities with particular emphasis on construction is part of the effort to improve the Project's implementation of the quality program. Specifically, the plan overview employs the use of consultants for three separate functions: (1) To carry out a self-initiated evaluation (SIE) of the entire Project under the INPO Phase I program, (2) to utilize a third party overview of ongoing site construction activities to provide monitoring of the degree of implementation success achieved under the new program and (3) to conduct a third party Independent Design Verification (IDV) Program.

1. The INPO self-initiated evaluation was planned as part of an industry commitment to the NRC in response to concerns over nuclear plant construction quality assurance. For the Midland SIE, the evaluation was contracted to be carried out entirely by third party, experienced personnel from the Management Analysis Company.

   The evaluation was performed by a team of 17 consultants familiar with the INPO criteria and evaluation methodology. Over a period of a month they interviewed Project personnel at various locations and observed work in progress. The initial results of their evaluation have been presented to the Company

and a Project response to each finding will be prepared and included as part of the evaluation report to be submitted first to INPO and then to the NRC Region III Administrator, together with the INPO overview.

2. A third-party installation implementation overview is being undertaken using, as a model, the program developed specifically for the underpinning portion of the soils remedial work. The overview will be initiated by retaining an independent firm, having considerable experience and depth of personnel in the nuclear construction field. The consultant's overview team will be located at the Midland Plant site and will observe the work activities being conducted in accordance with this Plan on safety-related systems. The overview will continue for a period of six months, after which the Project's cumulative performance will be evaluated. Based on the overview team's findings, a determination will be made by the Company's top management on what modification, if any, should be made to the consultant's scope of work. Findings identified by the installation overview team will be made available to the NRC in accordance with the procedures established for the conduct of independent verification programs.

3. An Independent Design Verification (IDV) is being conducted by Tera Corporation.

   The IDV is directed at verifying the quality of design and construction for the Midland Plant. The approach selected is a review and evaluation of a detailed "vertical slice" of the Project design and construction. The design and as-built configuration of two selected safety systems will be reviewed to assure their adequacy to function in accordance with their safety design bases and to assure applicable licensing commitments have been properly implemented. The field work done in support of this activity will not take place until after Phase I implementation (Section 5) has been completed on the systems being reviewed.

   The Unit 2 Auxiliary Feedwater System (AFW) plus another system to be selected with NRC concurrence, will be reviewed to fulfill the requirements of the IDV.

7.4 Status/Schedule

1. INPO Construction Project Evaluation

Select consultant and conduct evaluation	Complete
Submit report to INPO	Jan 20, 1983

2. Independent Construction Overview

Define scope	Dec 30, 1982
Select consultant	Jan 31, 1983
Mobilize assessment team	(Date to be determined)
Receive assessment team report	(Date to be determined)

3. IDV

Select 2 Systems	
.AFW System	Complete
.Obtain NRC concurrence for second system.	(Date to de determined)
Complete Evaluation	(Date to be determined)

8.0 SYSTEM LAYUP

8.1 Introduction

Perform system lay-up activities to protect plant equipment.

8.2 Objectives

Expand the protection of completed and partially completed plant systems and components until plant start-up, to take into account any special considerations during the status assessment.

8.3 Description

Procedures and instructions are provided in the Testing Program Manual to protect equipment during the on-going installation and test work. These will be extended to cover special considerations associated with the Program implementation. Both the pre- and post-turnover periods are covered. System and component integrity is ensured through existing programs and implementation of control and verification procedures.

In summary, these procedures and instructions require: Test Engineers to complete walkdowns of Q-Systems (in the auxiliary, diesel generator and containment buildings and the service water pump structure), paying particular attention to systems/components that are open to the atmosphere (eg open ended pipes, open tanks, missing spools, disconnected instrument lines, etc). Systems that have been hydrotested but are not currently in controlled layup require action to place the system in layup. Layup will vary from system to system but in general will consist of air blowing to remove moisture and closing the system from the atmosphere.

8.4 Schedule/Status

. Start extended layup activities	1/15/83
. Issue walk down schedules	1/15/83
. Complete the layup preparation walkdown	2/28/83

9.0 CONTINUING WORK ACTIVITIES

9.1 Introduction

This section describes the activities that are proceeding in accordance with previously established commitments during the implementation of the Program.

9.2 Objectives

- Maintain installation and support effort on work that will alleviate work interference in congested portions of the plant and facilitate completion and protection of equipment on systems turned over to Consumers Power Company.

- Meet previous NRC commitments on activities which do not impede the execution of the Program.

- Provide design support for orderly system completion work and resolution of identified issues

- Establish a management control to initiate additional specified work that can proceed outside of the systems completion activities

9.3 Description

Those activities that have demonstrated effectiveness in the Quality Program implementation will continue during implementation of the Construction Program.

These are:

1. NSSS Installation of systems and components being carried out by B&W Construction Company.

2. HVAC Installation work being performed by Zack Company. Welding activities currently on hold will be resumed as the identified problems are resolved.

3. Post system turnover work, which is under the direct control of Consumers Power Company, will be released as appropriate using established work authorization procedures.

4. Hanger and cable re-inspections which will proceed according to separately established commitments to NRC.

5. Remedial Soils work which is proceeding as authorized by NRC.

6. Design engineering which will continue for the Midland Plant as will engineering support of other project activites.

Additional activities related to the systems completion effort, may be initiated, as appropriate, to support orderly completion of the overall Project. Any activities in this category that are initiated prior to release of an area for systems completion work will be reviewed with the NRC Resident Inspector before initiation.

9.4 Status Schedule

These activities are proceeding with schedules that are independent of this Plan.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

April 9, 1982

MEMORANDUM FOR: Darrell Eisenhut, Director, Division of Licensing, NRR

FROM: R. L. Spessard, Director, Division of Project and Resident Programs

SUBJECT: RECOMMENDATION OF BOARD NOTIFICATION (MIDLAND)

Recognizing the Atomic Safety and Licensing Board's keen interest in matters impacting on Consumers Power Company's quality assurance activities in connection with Midland, Region III believes that the Board should be made aware of two issues being pursued by Region III relative to the remedial soils work. These are:

1. Members of the Region III staff who participated in recent meetings with the applicant concerning the application of quality assurance in the underpinning activities have expressed concern that information provided by the applicant's staff regarding the status of instrumentation work completion was misleading. While the technical issues related to this matter are being resolved to our satisfaction, I plan to initiate a more in-depth look into the concerns expressed by the NRC staff members.

2. The applicant is experiencing problems with QA program implementation as they restart work in the underpinning area. While our experience tells us that some problems will occur in the restart of any activity that has been suspended for a long period of time, we believe certain problems should not have occurred (e.g., performing work without adequate implementing procedures; selective application of QA program requirements to work activities). We are continuing to monitor closely the licensee's activities in this area. If we conclude that the program is not being well managed, we will not hesitate to stop the work and take appropriate enforcement action.

The results of our investigation into the possible misleading statements and any continuance of problems with the implementation of the quality assurance program will be brought to the Board's attention promptly.

R. L. Spessard, Director
Division of Project and
Resident Programs

cc: V. Stello, DEDROGR
R. C. DeYoung, IE
H. R. Denton, NRR
J. G. Keppler, RIII
K. L. Jordan, IE
W. Paton, ELD
J. Lieberman, IE
E. G. Adensam, NRR
W. P. Haass, NRR
R. Cook, BNI, Midland

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While the investigation failed to provide conclusive evidence that a material false statement was made with respect to the status of the underpinning instrumentation, several members of my staff believe they were misled ~~in this regard~~ by remarks made by Consumers Power Company and Bechtel employees during the meeting in Washington, D.C., on March 10 and the subsequent telephone call on March 12, 1982. When I look at the fact that cable pulling did not commence until March 11, 1982, the day before the phone call, and our inspectors were told that "instrumentation is essentially well underway," I can appreciate why our inspectors believe they were misled. On the basis of that statement, the NRC decided not to treat that work as safety related. -

As you know, the NRC regulatory program is based on the premise that information provided by licensees and their contractors is factual and complete. The review, evaluation, and inspection processes involved in the regulatory program rely on that premise. ~~In~~ that inaccurate or incomplete information could result in decisions which adversely affect the health and safety of the public, it is imperative for licensees to exercise the utmost care in providing information to the NRC. While no enforcement action is being taken for this ~~"near miss"~~ situation, I urge you to stress this burden of accuracy throughout your organization and the organizations of your principal contractors. Where ~~substantive~~ material false statements are clearly identified, strong enforcement action will be taken.

With respect to any possible misunderstanding ~~with respect~~ to ~~NRC~~ enforcement of noncompliance with the quality assurance activities related to the remedial soils work, the NRC staff will enforce the quality assurance requirements

April 30 MAY 7, 1982 Board Order requires

) will be accomplished under the R-3 Q Prog.

for all ~~safety related~~ work ~~in~~ this area. Although Consumers Power Company intends to apply its QA program to non-safety related remedial soils work as well, the NRC would not enforce violations of the program for non-safety related work. However, you must recognize that because of the complex nature of the remedial soils program, we will be very conservative in our definition of non-safety related work. ~~Therefore, Consumers Power Company~~ should attempt to define those portions of the work that meet this classification as early as possible.

CPCo page 1-1

The NRC did not state there was progress in the management of CPCo's QA program. In fact, an analysis of what was originally proposed for this section indicates the converse (Read DRAFT of General Statement). In fact, the demonstrated inability of CPCo to manage the project has culminated in the NRC forming a separate section.

Page 1-1, paragraph 1-C

#2 Streeter asked for the start up procedures at the Cycle 1 SALP.

Page 1-1, paragraph 1-C

#3 CPCo has a difficult time discerning between consultation and regulation.

Page 1-2, paragraph D

#4 This is a false statement. The NRC has continually explained what the licensee is required to do. CPCo told to get "geared up for aggressive cable pulling", CPCo was told what QA/QC requirements needed for soils (I can't find particulars when CPCo was forewarned about piping - <u>BUT</u>) there were indicators plus <u>already</u> established regulations which would cover piping. NRC found things not good with piping at team inspection and came back 1½ months and found things still not good. Although we have a policy of preventive inspection - CPCo chooses to abuse this at various times - up to and including the present. (Aux Feed Ring, Soils, Electrical Mis-route) The NRC did not fall short of obligations they do not have - when the benevolence of the NRC recommends means of improving the licensee's performance - the NRC finds the licensee's hearing is fine, but the listening is not keen enough to avoid regulatory difficulty - and when it is keen enough, CPCo argues about our benevolence.

Page 1-2, paragraph D

#5 This is pure crap. They consistantly want to know exactly what we are going to look at - just so those areas the NRC addresses look good - no matter what the rest of the job is like and then attempt to argue with us as to whether we are <u>allowed</u> to look in those areas.

We do supply the licensee information that could impact their plant in the form of the numerous daily reports, bulletins, PNs, etc. which I personally supply to them. Pity CPCo does not know how to use our good advice - i.e. - "Q-ness" of soils.

Even had meeting in Jackson to describe Davis Besse construction difficulty.

Page 1-2, paragraph D

#6 The Resident Inspector continually has contact with your working level personnel and supplies them information which has transpired at other sites - any of which, if harbored by the NRC inspectors at Midland could culminate in stronger enforcement than you have heretofore been subjected. I might add that this is done with considerable expenditure of time (estimate 10 hrs/wk) to scan the copious amount of literature assimilated by the Resident Office. The statement used by CPCo - "these efforts suffer by lack of NRC input at detailed working levels" is indicative to the NRC of CPCo managerial inability to notice the communications which have transpired between NRC/CPCo at the detail level - and also CPCo's management's inability to acknowledge those findings brought forth by the personnel in the trenches which indicate CPCo is headed on a disastrous path.

Page 1-2, paragraph D

#7 The NRC inspectors were already scheduled to come before the SALP meeting of April 26. To have come earlier would have resulted in a purely consultant role. As it was, their visit was very premature.

Page 1-2, paragraph E

#8 The fact that issues are mentioned in different places in the SALP report does not mean that CPCo has been put in double jeopardy - in fact, one of the prime functions of the board was to discern that double jeopardy had not occured. NRC would expound upon CPCo to give an explicit example (Read top of SALP P4 under Criteria).

Page 1-3

The NRC has used other mechanisms - i.e. noncompliances, IAL - - - to express particular concerns. The SALP is an appraisal of the information/record as it had transpired during the period.

Page 1-3, paragraph E

#9 Containment was rated as Category II because: (Ref. Rpt. 80-25/26) 1) The number of NCRs generated indicates the CPCo is not all that good at prestressing; because "it was noted that the stressing sequence has been modified a number of times - - - which indicates that CPCo does not really know what they are doing. This changing of prestressing sequence required a FCR which is used to cover other than ordinary situations. Preservice Inspection area was rated Category II because: 1) Our inspectors have noted that excessive amounts of solvent were being used to clean the excess penetrant and "perhaps" remove die from indicator locations, and because our inspectors have noted that CPCo attempted to use UT calibration blocks which were not within the temperature requirements for the piece under examination - there are other examples of this type of sloppiness in your technique.

During the April SALP, I explained to you that the reason for a Category 2 in the Preservice Inspection area was because of a lack of rigor in your technique. The fact that you made this comment in your response to the SALP report indicates: 1) You do not listen well to the NRC - as stated earlier, you are prone only to strong enforcement action.

Because of the consternation that granting a Category I in Fire Protection has caused - the "Additional improvement" you suggested is to never offer a Category 1 unless it can be demonstrated that only the most profound activity had transpired to rate that Category 1. If the NRC were to be faulted in the assignment of Category classification - it would be in granting a Category 1 when a Category 2 would have been more consistent - as you eloquently pointed out.

Page 1-3, paragraph E

#10 After your response to the SALP report, it is agreed that the number and seriousness of enforcement actions should be a major criteria. Therefore, the inspectors <u>are encouraged</u> to avoid any grey area zones and envoke enforcement action no matter how slight the violation of the regulation may seem.

Page 1-3, paragraph E

#11 On page 4 of our SALP report, seven criteria for evaluation are listed. Your performance at ASLB hearing is <u>not</u> listed as one of the criteria.

Page 1-3, paragraph E

#12 An analysis of the SALP report will indicate that those things addressed were those things and actions which transpired during the SALP period.

Page 1-4, paragraph A.3

#13 Your response is argumentative in nature.

Page 1-4, paragraph B.1

#14 If CPCo had stopped the work prior to the NRC focusing attention in this area, the NRC would have stated the CPCo's audit programs and QA were effective. However, this is not the case and CPCo opted to stop work after the NRC identified the discrepancies and prior to the NRC issuing an order. The fact that piping did not require rework is because of luck and happenstance - not because of the rigor of the quality related programs.

Page 1-4, paragraph B.2

#15 Again, another indicator of CPCo's inability to listen to the NRC. At the April 26, 1982 SALP I said: that today the piping area would be considered a Category 2 - but without benefit of I. Yin's inspection efforts which were ongoing at the time of the SALP. However, I. Yin 's inspection showed that you had "diluted" the trend program to the point that CPCo could not identify that approximately 47% of the installed hangers had some uncorrected deficiency. Had this information been fully known at the time of the SALP, CPCo would have remained in a Category III state.

Page 1-4& 1-5, paragraph C.1

#16 The implication - more clearly stated is that in spite of NRC's advice to have an adequate number of QC/QA personnel available prior to embarking on an ambitious pulling schedule, the record shows that you (CPCo) did not heed this advice. Obviously, another case of inadequate listening.

The number of QC personnel and what constitutes an adequate number could be extensively discussed. However, the NRC's concerns also addressed the quality of the individuals - the qualifications and the ability of these people to do quality work commensurate with the job. CPCo's response to the SALP did not address the quality of the QC/QA personnel, BUT the record does - AND, the record shows that the QC personnel on the site could not handle the ambitious

pulling schedule without getting into regulatory difficulties.

You made the statement in your response that "process inspection is required to verify cable pulling tensions." How can this be when you have not been able to address how to install instrument cables with low tension requirements - and indeed confirm that the limiting tensions have not been exceeded.

Page 1-5, paragraph C.2

#17 If the seven items of identified noncompliances are considered by CPCo to be "not excessive and were of relatively low consequence" then CPCo has a much greater tolerance for mediocrity than the NRC - and with this attitude, it is of little wonder that there are regulatory difficulties at Midland Site. This statement would support removal of the license until such time as a complete purge of CPCo management has transpired and an attitude re-alignment has occurred to the extent that CPCo enjoys a tolarance for mediocrity commensurate with the NRC.

Page 1-5, paragraph D.1

#18 If the comments of item 17 above were not convincing enough, then apply the same logic and comments to this item - and there are now two excellent reasons why all construction should be stopped at the Midland Site - assuming, of course, that CPCo tolerance for inadequate performance is as implied in their response.

Page 1-5, paragraph D.2

#19 If indeed the QA/QC staff is sufficient as stated, then the reason for your continued regulatory difficulties in the soils area - including an ASLB order - is that this "adequate staff" is not managed - or is not permitted to do their job. The fact that your opinion states there has never been any inadequacy in qualifications of the personnel further supports the concept of CPCo to manage the underpinning work. Since the time of the SALP through the present, there has been one mishap after another which is identified by NRC - and still these adequate QC/QA personnel do nothing while the NRC AND your production side of the house attempt to control gross inadequacies in the soils area - in spite of QC and continual arguments over the Q-ness.

file Midland

8-6-82
RBL

During a discussion during the public meeting on August 5, 1982 in Midland, I was asked by Mr. Paton to jot down the story of the deep Q duct bank excavation. Here it is.

When Darl Hood and Joe Kane were in Midland for the ACRS hearing, I asked for a meeting to be held on site between NRR, Bechtel, the licensee and myself. The meeting took place on a Thursday afternoon in the Remedial Soils Trailer (May 20, 1982). The purpose of the meeting was to discuss numerous concerns that I had about ongoing work and future work.

May 20, 1982 meeting

One of the concerns discussed was a monitoring pit for what has come to be known as the deep Q duct bank. During that meeting both Joe and I expressed our concerns that what the licensee was planning was not approved, that is: to excavate below the duct bank. Joe only approved an excavation down to a duct bank approximately 22 feet deep. This is documented in Tedesco to Cook letter dated February 12, 1982, which references a Mooney to Denton letter dated January 6, 1982.

Since the licensee usually doesn't know what's in the ground, where it's at, as usual the 22 foot duct bank was approximately found at 35 feet. It also wasn't in the right location as evidenced by the sheet piling hitting one side of the duct. In addition, while drilling the dewatering well, they inadvertently drilled through the duct bank, emptying the drilling fluid into the turbine building.

I had no problem with the licensee taking the excavation pit down to 35 feet instead of the approved 22 feet, since the methodology of the approved hole remained the same. Joe and I did have a problem with them wanting to excavate below the duct bank down to impervious clay to seal off the water flow without first informing NRR of their plans.

All of this was discussed during the meeting and the licensee was told that they could not excavate below the deep Q duct bank. The licensee indicated that they would submit something formal to Joe for approval. (1)

The following day, I reiterated this during the normal exit meeting and again during the summary at the end of that meeting. I asked if everyone understood what I was saying and they acknowledged. (2) (3)

The following week, during my inspection to allow the licensee to activate the freeze-wall, I told them that they could not dig below the deep Q duct bank. (4)

Subsequently, after the activation of the freeze-wall, the licensee decided that they had to seal off the water flow beneath the duct bank and proceeded to dig below the duct bank without any NRC approval. I'm not sure when excavation began, but I was on site July 28 when I discovered the excavation in progress. The license, when informed of my concern, issued a Stop Work Order on July 29, 1982. I wondered why they were so agreeable until I found out that

they already had the excavation down to where they wanted it (the clay).

I informed the licensee during my exit on July 30 that they were in direct violation of the Board Order and their Construction Permit. To make matters worse, the licensee during the exit said that they discussed this with Mr. Hood and Kane in Ann Arbor earlier that morning and had gotten "approval" for what they're doing. I informed the licensee that they missed the point (basis of concern). My concern dealt not with the adequacy of what they were doing, but rather with their requirement to notify and receive prior approval before proceeding below the duct bank. Subsequently, Mr. Kane indicated to me that they never even talked to him about this, and Mr. Hood indicated that they talked to him about something concerning the deep Q duct bank, but he in no way had given approval.

They appeared to wait for me to leave the site, when they began another unapproved fire protection line excavation in Q dirt which was discovered by me on August 4, my next inspection. This excavation is along side the SWPS. I have not had time to look into it to better define the details, but as pointed out to you and Darl, they have undermined a duct bank and an unidentified pipe thrust block and appear to be along side a safety-related duct bank.

In summary, the licensee's attitude appears to be: their construction schedule comes first, by the time the NRC finds out about it, we'll be done with what we want and argue about whether we had approval later.