

U. S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION III

Report of Construction Inspection

IE Inspection Report No. 050-329/75-05
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Licensee: Consumers Power Company
1945 West Parnall Road
Jackson, Michigan 49201

Midland Plants, Units 1 & 2
Midland, Michigan

Licenses No. CPPR-81
and No. CPPR-82
Category: A

Type of Licensee: PWR (B&W) - Unit 1 - 650 MWe
Unit 2 - 818 MWe

Type of Inspection: Special, Announced

Dates of Inspection: July 16-17, 1975

Principal Inspector: I. T. Yin

I. Yin

8/7/75
(Date)

Accompanying Inspector: None

Other Accompanying Personnel: None

Reviewed By: *B. W. Hayes*
B. W. Hayes, Senior Reactor Inspector
Construction Projects

8/8/75
(Date)

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SUMMARY OF FINDINGS

Inspection Summary

Inspection on July 16 and 17, 1975 (75-05): Inspection held at corporate offices of the Consumers Power Company (CP) Jackson, Michigan, to review and discuss the new corporate QA program manual and to review implementation in those areas of significant change from the previous program manual.

Enforcement Items

None.

Licensee Action on Previously Identified Enforcement Items

Not applicable.

Other Significant Items

A. Systems and Components

Not applicable.

B. Facility Items (Plans and Procedures)

This inspection consisted of two parts: An in office review of CP's new QA program manual (Volume I - Policies and Volume II - Procedures for Design and Construction. Volume III - Procedures for Operation was not reviewed) and comparison against the old manual and second discussions at CP's corporate offices on questions raised during the manual review. Implementation of the new program was also reviewed in selected areas.

CP revised their QA manual as a result of a review performed by a consulting firm. The old manual applied only to the Midland project and did not include operations and maintenance. The new manual is better organized and covers all CP nuclear projects and incorporates quality requirements for operations and maintenance.

C. Managerial Items

There is a possible position vacancy of the Director of CP Project Quality Assurance Services Department (PQASD) after August 1, 1975. Discussions were held with CP's vice president on implications and status of seeking a replacement. Subsequent to the inspection this position was filled. (Report Details, Paragraph 1)

- D. Noncompliance Identified and Corrected by Licensee
Not applicable.
- E. Deviations
Not applicable.
- F. Status of Previously Reported Unresolved Items
Not applicable.

Management Interview

- A. The following CP personnel attended the management interview at the conclusion of the inspection:

Consumers Power Company (CP)

S. H. Howell, Vice President
G. S. Keeley, Director of Project Quality Assurance Services
H. W. Slager, Project Quality Assurance Administrator

- B. Matters discussed and comments, on the part of management personnel, were as follows:
1. The inspector discussed his evaluation and comparison on the new and old CP QA Program Manuals. CP representatives had no comments.
 2. NRC comments on the new QA Program were generally accepted by CP, except no commitments were made relative to procedures that identify and establish qualification requirements for personnel involved in quality related activities. Changes, as a result of NRC comments are to be included in the next manual revision.
 3. Midland Project Procedures are in the process of being updated by CP. NRC will review the revisions during a subsequent inspection.
 4. The inspector audited the records for PQASD Procedure No. 14, QA Status Meeting, and concluded that the procedure has been properly implemented and that the Midland QA control was effective in the areas covered.

5. The inspector reviewed the draft review and comments on manual, Volume I - Policies, given by the vice presidents. The review process and record handling are considered satisfactory.
6. The inspector was informed by CP that funding will most likely be obtained and that full construction activities at the Midland site will be resumed in 1976.

REPORT DETAILS

Results of Inspection

1. Appointment of PQASD Director's Position

Recently, NRC was informed by CP that the Midland Project Manager is resigning, and the position is to be filled by the present Director of PQASD effective August 1, 1975. It is NRC's concern that a qualified and able person be appointed in a timely manor as Director of PQASD. Subsequently to the inspection a new director of PQASD was named.

2. Review of CP New QA Program (Design and Construction Phase)

A review has been performed by the inspector relative to CP's new QA program. The questions generated and CP's responses during the meeting are recorded in Appendix A. It is the inspector's opinion, upon implementing IE:III comments, that the program represents corporate QA commitments at all organizational levels.

3. Comparison and Evaluation of CP's New and Old QA Programs (Design and Construction Phase)

Subject comparison and evaluation are recorded in Appendix B. Results indicate that significant improvement in scope and format has been made and that, at the present time, NRC regulatory requirements have been specified throughout.

Attachments:

1. Appendix A
2. Appendix B

APPENDIX A

Review of CP's New QA Program (Design and Construction Phase)

IE:III Questions and CP Responses

1. Should the vice president's and department head's approval initials and dates be included in the manual?

Response

CP QA will use the index register as a method of indicating with initialing by vice presidents or department heads when they have reviewed and approved changes to Volume I or Volume II which have an effect on them.

2. Is any delegation of establishing or executing the QA program indicated?

Response

Policy 1, Section 3.1(a), first sentence will be changed to the following: "Portions of the establishment and implementation of the Quality Assurance Program are delegated to various Consumers Power Company departments and to principal suppliers. The Project Quality Assurance Services Department, Electric Plant Projects, is responsible to the vice president - Electric Plant Projects, for assuring that Consumers Power Company departments and principal suppliers have established adequate Quality Assurance Programs prior to initiation of the delegated activities and for assuring that these established programs are implemented established requirements."

3. It is indicated that responsibility is retained by the applicant for the QA program?

Response

Policy 1, Section 1, there will be a second sentence added to state: "Consumers Power Company retains responsibility for the Quality Assurance Program, although it may delegate to its principal suppliers the establishment and implementation of certain portions of the program."

4. Policy 15, Paragraph 3.1.1, indicates that "responsibility" is delegated to the A-E, NSSS supplier, etc. It should be clear that licensee "authority" but not "responsibility" is to be delegated to these organizations.

Response

CP will review Volumes 1 and 2 of its QA manual and, in each case where "responsibility" is indicated as delegated to a principal supplier, more appropriate words will be selected in view of CP's responsibility for the QA program.

5. Qualification procedural requirements are to be identified and established for personnel involved in quality related activities including:
 - a. Education
 - b. Experience
 - c. Training
 - d. Are minimum qualifications consistent with the QA program commitments in this regard?

Response

Add a new section to Policy 2, page 3, as follows:

3.2 QUALIFICATION OF PERSONNEL

Qualification requirements for heads of departments who are implementing the quality assurance program are documented by the vice presidents. For personnel within each department, the qualification requirements are documented by the head of the department.

Also, in Procedure 2-2, page 3, add the following section:

5.3 QUALIFICATION OF PERSONNEL (Not yet a CP commitment)

Each department head indicates in his department procedures the qualification requirements for personnel in his department who implement the quality assurance program.

6. Diagrams to show intra- and inter-organizational QA personnel interfaces (only on the Midland Project) with other QA personnel and non-QA personnel.

Response

QA Services for the Midland Project is in the process of issuing a summary of the CP, Bechtel, and B&W programs. The interfaces (intra- and inter-organizational) of the project QA administrator and project QA superintendent will be shown on a project organization diagram.

7. What are the criteria for vice presidents to approve the policies?

Response

The NRC principal inspector was shown documentation showing that vice presidents and personnel working for them had reviewed and commented on the policies by which they had committed to implementation of the quality assurance program.

8. Policy 3, paragraph 3.4: Quality standards are to be "specified" in design documents.

Response

CP will modify Section 3.4 of Policy 3 to read "and specification of quality assurance requirements" rather than "and incorporation of quality assurance requirements."

9. Policy 17: Inspection and test records shall, as a minimum: (1) identify the inspector or data recorder; (2) type of observation; (3) results; (4) acceptability; and (5) action regarding deficiencies noted.

Response

CP will modify Section 1.0 of Policy 17 to add the following sentence to the third paragraph: "Inspection and test records, as a minimum, identify the inspector or data recorder, the type of observation, the results, the acceptability, and action taken in connection with any deficiencies noted."

APPENDIX B

Comparison and Evaluation of CP's New and Old QA Programs

(Design and Construction Phase)

1. New QA Program Structure

- a. QA Program Manual for Nuclear Power Plants, Volume I - Policies.
- b. QA Program Manual for Nuclear Power Plants, Volume II - Procedures for Design and Construction.
- c. Departmental Procedures:
 - (1) Electric Plant Projects QA Services Department (PQASD) Procedures Manual.
 - (2) Midland Projects Procedures Manual, prepared by Project Management Organizations (PMO).
 - (3) Other Department Procedures prepared and issued by the following CP departments:
 - (a) Project Engineering Services
 - (b) Project Control Services
 - (c) Project Construction Services
 - (d) System Protection and Laboratory Services
 - (e) Purchasing Department

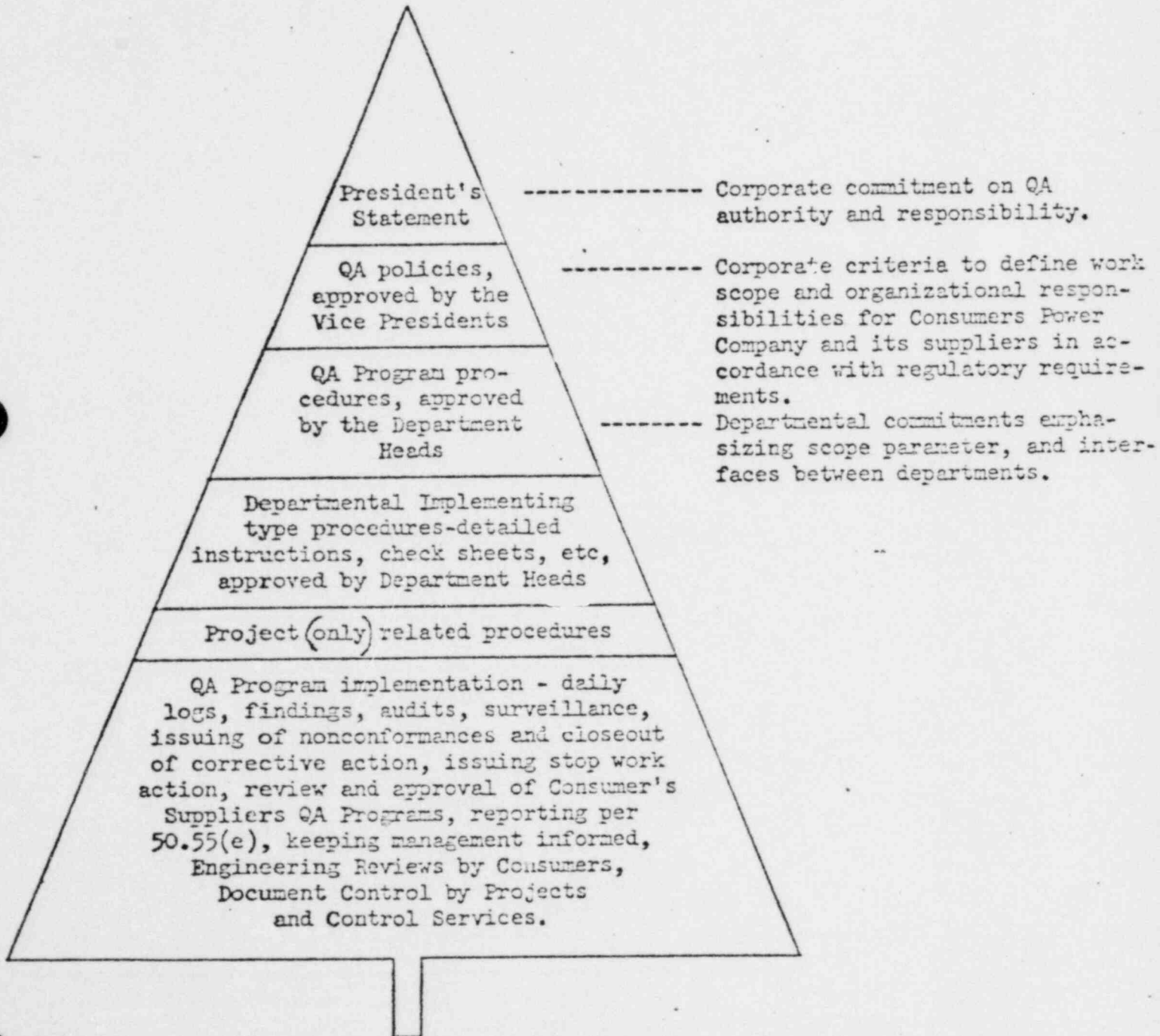
2. Old QA Program Structure

- a. CP QA Manual containing the Midland Plant - Units 1 and 2 QA Program for the Design, Procurement, Construction, and Preoperational Testing Phases (replaced by the new manual).
- b. Departmental Procedures:
 - (1) Electric Plant PQASD Procedures Manual (prepared in new format and procedures added).
 - (2) Midland Project Procedures Manual (being updated).

(3) Electric Plant Projects - Policies and Procedures Manual

(eliminated under the new QA program structure).

3. The new manual represents more systematically controlled QA commitment and implementation, with the following "Tree" implication:



4. The new manual responds to the Regulatory Guides (QA related) and the ANSI N45.2 Series Standards and these are readily identifiable in the new manual, with similar (10 CFR Part 50, Appendix B) sequential order. The question of applicability and specific commitments to the Regulatory Guides and ANSI N45.2 series standards is currently under discussion between RL and the licensee.
5. The old manual was prepared specifically for the Midland Project, approved and issued by the PQASD director. The new manual is applicable to all nuclear power plant construction, operation, maintenance, and modification and is committed by the corporate president, vice presidents, and department managers and directors.
6. In the old manual, CP delegates significant authority to the A-E's, the NSSS suppliers, and the contractors relative to the QA functional activities, with little indication on inter- and intra-organization work interface control commitments.
7. The new manual consists of expanded coverage on departmental authorities, responsibilities, and interfaces, document preparation and procedures control and implementation.
8. In addition to the 18 chapters, the new manual had included policies and procedures in: (1) Program Reviews, and (2) Program Reporting.