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QUALITY ASSURANCE PROGRAM

1.1 POLICY

The Cleveland Electric Illuminating Company's Corporate Nuclear Quality Assurance Program (CNQAP) for the Perry Nuclear Power Plant satisfies the requirements of 10CFR50, Appendix B; ANSI N45.2; and Regulatory Guide 1.28. Implementation of this program is mandatory for all CEI organizations involved in the design, procurement, manufacturing, construction, inspection or testing of safety-related systems, structures or components. Upon acceptance of these systems, structures, and components by the Perry Plant Department for start-up and operations, the Operational Quality Assurance Program shall be in effect.

ANSI N45.2, Regulatory Guide 1.28

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References

The Corporate Nuclear Quality Assurance Program encompasses all equipment, systems and structures, including nuclear fuel, which have been categorized as safety-related as delineated by the Safety Analysis Report (SAR), and Fire Protection Systems as defined by the Fire Protection Evaluation Report. The level of Quality Assurance activity applied to equipment in these classes will depend upon the safety class, equipment complexity, intended function, and other quality, administrative and engineering considerations.

It shall be the responsibility of each division and department manager to ensure that all responsible project personnel are cognizant of the mandatory requirements of this manual and of the procedures which implement the program. The Manager, Nuclear Quality Assurance Department (NQAD) shall also be responsible for confirming that responsible CEI departments, agents, consultants, contractors and vendors comply with the applicable requirements of this program.

CEI retains the responsibility for the development, approval, application, administration, and control of the total Quality Assurance Program for the Perry Nuclear Power Plant. The program provides for accomplishing activities affecting safety under suitably controlled conditions and in accordance with the program elements of procedures, instructions, specifications, and drawings.

1.2 THE CEI QUALITY ASSURANCE PROGRAM REQUIREMENTS

The Corporate Nuclear Quality Assurance Program requires:

- a. Identification of systems, structures and components to which the Nuclear Quality Assurance Program is applicable. (Final Safety Analysis Report (FSAR) Table 3.2).
- Control of the quality of design and engineering activity.
- c. Control of the procurement of materials, components, systems, and services.

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- d. Control of the fabrication of systems and components.
- e. Control of the construction of structures, and the installation of systems and components.
- f. Control of the inspections and tests of components and systems.
- g. Control of quality-related systems, components, structures, and activities as they are turned over from contractors to Nuclear Test Section (NTS) and from NTS to Perry Plant Department.

The objective of these requirements is to provide a high level of confidence to ensure that the items or services provided satisfy safety-related design requirements and the project applicable Nuclear Regulatory Commission regulations.

In order to ensure effective implementation of the program, the following provisions have been established:

- a. A CEI management organization committed to quality, with responsibilities and authorities clearly established and documented.
- b. Qualified consultants and agents to design and assist in the construction and testing of the Perry Nuclear Power Plant.
- c. Competent company technical personnel to develop and administer the necessary procedures for designing, purchasing, manufacturing, constructing, and testing plant systems, structures and components and for monitoring program compliance.
- d. A Quality Assurance organization, with sufficient organizational freedom and authority to inspect, audit, evaluate, and report deficiencies, and initiate corrective actions on activities and items affecting the quality of safety related systems, structures and components.
- e. Contractors and vendors with approved Quality Assurance programs for their contractual scope of work, including that of their subcontractors and subvendors.
- f. A suitable work environment which includes management access, appropriate equipment, and adequate indoctrination and training to perform safety-related activities.

1.3 QUALITY PROGRAM DOCUMENTATION

This Corporate Nuclear Quality Assurance Program Manual is the primary corporate document describing the Nuclear Quality Assurance Program for the construction phase of the Perry Nuclear Power Plant. Each of the eighteen criteria of 10CFR50. Appendix B, and the responsibilities for

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the corresponding safety-related activities are addressed in detail in the eighteen sections which comprise this Manual. The requirements of this program shall be implemented in accordance with detailed procedure and instruction manuals.

All procedures and instructions shall be approved and established, with training accomplished, prior to the start of the activities being controlled. Issuance, distribution, and revisions shall be controlled to preclude the use of obsolete documents.

Reference indexes demonstrating the Corporate Nuclear Quality Assurance Program's address with respect to the guidelines provided by Regulatory Guides and American National Standards Institute (ANSI) are presented in Appendix I.

1.4 MANAGEMENT ASSESSMENT

Management assessment of program effectiveness shall be through regular and documented reporting channels on a month by month basis, and through a Quality Assurance Quarterly Evaluation.

In addition, a Quality Assurance Advisory Committee (QAAC) has been established as an independent group to conduct regular review and evaluation of the QA Program for the Perry Nuclear Power Plant (PNPP). The committee shall advise the Vice President - System Engineering and Construction on the adequacy of scope, implementation and effectiveness of the PNPP QA Program, and on CEI QA policy matters as they relate to PNPP.

The QAAC shall have an approved charter addressing frequency, membership, and responsibilities.

1.5 RESOLUTION OF PROGRAM IMPASSES

Disputes arising from the interpretation of the Corporate Nuclear Quality Assurance Program shall be resolved at the lowest possible level.

The hierarchy of each project department provides for interfaces from department specialists through various levels of supervision. This organizational consistency should provide ample opportunities for problem resolution through simple escalation.

Those conflicts which cannot be resolved at lower levels shall be referred to the Manager, NQAD. The Manager, NQAD shall attempt to resolve the problem with the manager of the other concerned department, or escalate to the executive level, using the advice of the QA Advisory Committee as appropriate.

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1.6 INDOCTRINATION AND TRAINING

The Nuclear Project Training Section is responsible for the development of an overall Project Training Program and Training Procedures, and shall plan, develop, schedule, conduct and document Training Program activities in coordination with supervisors of individuals to be trained. It is a Supervisory responsibility to ensure that personnel performing quality-related activities are suitably trained and qualified to perform their work. Administration and Special Projects Section through its review process of training procedures, and audits by Nuclear Quality Assurance Department shall provide the assurance that training is meaningful, adequate for the tasks to be performed, consistent, and in accordance with the following project regulatory requirements:

a. Inspection and test personnel shall be qualified to the require- ments of ANSI N45.2.6 as endorsed by Regulatory Guide 1.58.	ANSI N45.2.6, Reulatory Guide 1.58
b. Nondestructive Testing personnel shall be qualified to SNT-TC-1A.	SNT-TC-1A
c. Auditors shall be qualified to the requirements of ANSI N45.2.23 A as endorsed by Regulatory Guide 1.146.	ANSI N45.2.23 Regulator: Guide 1.140

1.7 CONTROL OF THE CORPORATE NUCLEAR QUALITY ASSURANCE MANUAL

This manual was developed under the direction of the Manager, NQAD. It has been reviewed and approved by The Cleveland Electric Illuminating Company's executive officers.

Distribution of this manual shall be controlled by Administration and Specia; Projects Section. All recipients of controlled manuals are responsible for the maintenance of their assigned manual. Proposed revisions shall be directed in writing to Administration and Special Projects Section. All proposed revisions must be reviewed and concurred with by Administration and Special Projects Section prior to submittal for review and approval by the Manager, NQAD.

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MANAGEMENT ASSESSMENT OF QUALITY ASSURANCE PROGRAM EFFECTIVENESS

INTRODUCTION

In order to determine the effectiveness of the Corporate Nuclear Quality Assurance Program it is the expressed commitment of the Illuminating Company to evaluation the adequacy of the program and its compliance with the program.

1.1 PURPOSE

To establish program evaluation measures and reporting channels to the level of management necessary to achieve effective implementation of the Corporate Nuclear Quality Assurance Program, and to insure that the program is achieving the proper quality results.

1.2 RESPONSIBILITIES AND REQUIREMENTS

The Department Managers of Purchasing, Nuclear Engineering, and Nuclear Quality Assurance are responsible for reporting the effectiveness of the Corporate Quality Assurance Program as it applies to their area of responsibility.

The Manager, Nuclear Quality Assurance Department, has the additional responsibility for reviewing, evaluating and reporting on a quarterly basis the overall adequacy, implementation, and effectiveness of the Corporate Nuclear Quality Assurance Program.

The reporting of program effectiveness shall be accomplished through the Performance Analysis Report and Quality Assurance Quarterly Evaluation Report. Additional reports and correspondence, such as a Quality Engineering nonconformance trend analysis, may also be employed; but they are also included in the formal system.

Performance Analysis Reports

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Performance Analysis Reports are a written vertical communication medium for reporting problems, important events and progress toward planning objectives on a regular monthly basis.

Performance Analysis Reports supplement other less formal means of communication and enable managers to maintain contact with operations below their immediate spheres of activity. Top management is also provided with comprehensive summaries of operations which are necessary in modifying and improving overall plans and policies.

Since a monthly departmental quality performance analysis is inherently restricted by scope and a short term data base, Quality Assurance evaluation shall be conducted on a quarterly basis.

These quarterly performance analyses are performed by Perry Project Departments and shall provide the basis for an analysis of the entire program by

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the Nuclear Quality Assurance Department. Attachment 1 delineates the reporting measures necessary for the Quarterly Quality Assurance Program Evaluation Report.

1.3 EVALUATION PROCEDURE

Quarterly Performance Analysis Report Evaluation

structions.

Department Each quarter, includes as an attachment in the Department Per-Managers formance Analysis Report the data and summary analysis required by Attachment 1 entitle "Quality Assurance Program Measures of Effectiveness".

> The Nuclear Quality Assurance Department shall assist in the data accumulation by providing printouts of (Audit) Action Request, Nonconformance Report, and Corrective Action Request and other information deemed pertinent by Perry Project Departments.

> Submit to the Manager, Nuclear Quality Assurance Department, one copy of the attachment and copies of any other pertinent Quality Program performance analyses contained with the report.

Manager Review the submitted materials for compliance with reporting Nuclear requirements and adequacy of content. Contact submitting Quality organization for clarification or additional details as re-Assurance quired. Compare and evaluate the submitted performance analybepartment ses. Include in the evaluation, any specific analysis reports from Quality Assurance Units, such as contractor nonconformance trend analysis, and the reviews and evaluations provided by the Quality Assurance Advisory Committee. Consider in the analysis

> Procedures and instructions are designed to provide a high visibility of various trend indicators. Document control logs for drawings, specifications, procedures, Field Questions, surveillance/inspections, audits and noncompliance documents delineate quantities and system implementation efficiency. Computer coding systems for Action Requests and nonconformances allow for rapid sorting by several variables including the cited organization, applicable Appendix B Criteria, cause codes and nonconformance codes.

process the data available from the project procedures and in-

Miscellaneous information such as yards of concrete, tons of steel, linear feet of installed piping or cable, number of purchased parts and components are available in detail from Engineering, Construction and Purchasing elements for meaningful comparisons.

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Prepare a summary report for submittal to the Vice President, Systems Engineering and Construciton and Vice President of Administrative Services, and to the project department managers.

The summary report is to consist of:

- -- An assessment of the adequacy of Departmental Quality Program Effectiveness.
- --- A highlighting of those reported items considered to be of greatest significance and those requiring immediate action.
- --Recommendations on actions to be taken for those items of significance.

In addition, the quarterly reports for the second quarter shall include special emphasis on the qualifications and certification status of project personnel. This emphasis at this time compliments the CEI annual personnel evaluations and the annual Quality Administration review of inspection and auditor certifications.

Vice Review the Quarterly Report, consult as necessary with project Presidents management, and determine a course of corrective action for System reported problem areas. Engineering & Construc- These actions may consist of: tion & Adminis- --further study and analysis trative Services --issuance of noncompliance documents

--initiating special inspection, surveillance or audit activity

--initiating program revisions

Results of actions taken in response to evaluation report items are to be addressed in subsequent Performance Analysis Report.

1.4 CCRRECTIVE ACTION

ManagerSolicits management responses and suggested corrective actionsNuclearto the evaluation and recommendations of the report. Responses,Qualityincluding specific assignments and due dates, are documentedAssuranceand distributed to responsible supervisory personnel. A recordDepartmentcopy is maintained for status tracking measures.

Resolution is documented by the responsible supervisor assigned to each corrective action and returned to the NQAD Manager for close out. Status of these corrective actions are reported in the NQAD monthly Performance Analysis Report. Distribution is made to the recipients of the original report.

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PERFORMANCE ANALYSIS REPORT

QUALITY ASSURANCE PROGRAM MEASURES OF EFFECTIVENESS

NUCLEAR ENGINEERING DEPARTMENT

Report Item Coverage 1. Procedure development/revision status Procedures for: Design Engineering Section Nuclear Construction Section -Nuclear Test and Start-Up Section Procedures and Records General program status and effectiveness 2. evaluation by the Procedures and Records Section. Include tabulation of data for: No. of procedures and instruction submitted No. reviewed and approved No. reviewed and rejected Turn around time for review cycle Report on significant audit findings with re-Audit Findings spect to Nuclear Engineering Department and their contractors and vendors. Report on significant site housekeeping Housekeeping problems and progress. Tabulate numbers of violations and resolution status for the month. Evaluate overall site housekeeping conditions and the effectiveness of the housekeeping programs of the site and site contractors. Tabulate FVA's, ECN's and specification revisions. FVA Evaluate and report any significant changes ECN which are related to quality and variations which may indicated an adverse quality trend. Report on significant vendor engineering 1. Receiving problem resolution. Inspection Evaluate current adequacy of lay down 2. areas, warehousing maintenance, and inventory control. Tabulate numbers and types of receipt 3. problems (deficiency reports) for safety and non-safety items.

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PURCHASING DEPARTMENT

Report Item

Procedures

Audit Findings

<u>Coverage</u> Report Purchasing procedure development and

revision status.

Report on significant audit findings with respect to the Purchasing Department and their affected contractors and vendors.

NUCLEAR QUALITY ASSURANCE DEPARTMENT

Report Item

Procedures

Audits

Coverage

- Procedure development status for:

 Program Quality Section
 Construction Quality Section

 CQS tabulation of contractor procedures reviews and status
 PQS tabulation of vendor procedures reviews and status
 PQS tabulation of project procedures reviews and status
 PQS tabulation of project procedures reviews and status
- mitted, approved, rejected and turnaround time.
- Assessment of Program Development & Maintenance Adequacy
- Internal audit program evaluation and reporting of implementation adequacy, significant findings, and problem resolution status.
- GAI Design Control audit program summary and status as in number 1 above.
- Contractor audit program summary and status as in number 1 above.
- Vendor preaward survey and audit summary and status as in number 1 above.
- Quality Assurance agent audit program summary and status as in number 1 above.
- NSSS audit program summary and status as in number 1 above.

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NUCLEAR QUALITY ASSURANCE DEPARTMENT (cont.)

Report Item

Receiving Inspection

Contractor Program

Coverage

- Report significant receiving inspection problems.
- Report significant storage, maintenance or turnover problems.
- Tabulate receiving inspection nonconformance reports and their resolution status.
- Evaluate receiving inspection, storage and maintenance program effectiveness.
- Report significant contractor quality items.
- Tabulate number of Nonconformance Reports by contractors Quality Control and Quality Assurance and their resolution status.
- Tabulate contractor Action Request's and their resolution status.
- Tabulate contractor CAR's and their resolution status.
- 5. Report Stop Work Notices and their status.
- 6. Perform evluation of each contractors quality program effectiveness. Include numbers and types of nonconformances and Action Requests, perform trend analysis on these items and include such factors as procedure development/revision status and trends, problem resolution adequacy and timeliness and other observations and trends.

Vendor Program

- Report significant vendor quality items.
- Tabulate number of vendor requests for deviations and their status.

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NUCLEAR QUALITY ASSURANCE DEPARTMENT (cont.)

Report Item

Coverage

- Tabulate vendor Corrective Action Requests and their resolution status.
- 4. Report Stop Work Notices and their status.
- Identify reportable deficiencies and their status.

Perform evaluation of long term vendor's quality program effectiveness.

For those vendors whose actual manufacturing time is short (i.e., 1-6 months) report final evaluation of vendors quality performance after completion of contract.

 Tabulate or summarize numbers and type of vendor surveillance activities, discuss implementation status vs. schedule.

QA Record

- Report on vendor record package general status and special problems.
- Report on contractor record package turnover and acceptance status.

NRC Inspection Summary Provide quarterly summary analysis of NRC inspections, their findings, and CEI responses. Summarize trends, special problems, reportable deficiency status and general CEI-NRC liaison conditions, favorable or unfavorable.

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Dalwyn R. Davidson MCE PRESIDENT SYSTEM ENGINEERING AND CONSTRUCTION

September 22, 1982

Mr. A. Schwencer, Chief Licensing Branch No. 2 Division of Licensing U. S. Nucl ar Regulatory Commission Washington, D. C. 20555

> Perry Nuclear Power Plant Docket Nos. 50-440; 50-441 Corporate QA Program

Dear Mr. Schwencer:

The enclosed copy of Cleveland Electric Illuminating Company's (CEI's) revised Corporate Quality Assurance Program is being submitted for your review and approval. The original Corporate Quality Assurance Program, Section 17.1 of the Perry Preliminary Safety Analysis Report (PSAR), was reviewed and approved by the Office of Nuclear Reactor Regulation (NRR) and has subsequently changed. A NRR review of CEI's revised Corporate Quality Assurance Program was recommended by NRC Office of Inspection and Enforcement, Region III.

If you have any questions, please let us know.

Very truly yours,

eliza R. Davitan

Dalwyn R. Davidson Vice President System Engineering and Construction

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DRD:mb

cc: Jay Silberg, Esq., w/o attachments John Stefano, w/o attachments Max Gildner, w/o attachments John Sprahl, w/attachments B. Walrath, w/o attachments

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