ATTACHMENT 1

Limerick Generating Station
Units 1 and 2

Proposed Change to the Quality Assurance Program Description

15 Pages

f. Significant operating abnormalities or deviations from normal and expected performance of unit equipment and the plant staff that affect nuclear safety. This shall normally be accomplished by review of PORC meeting minutes, special reports, or reports of audits.

g. All Reportable Events.

h. All recognized indications of an unanticipated deficiency in some aspect of design or operation of structures, systems or components that could affect nuclear safety. This shall normally be accomplished by review of PORC meeting minutes, special reports, or reports of audits.

i. Reports and meeting minutes of the PORC.

j. Preventive and corrective maintenance program.

k. Assessment of the effectiveness of the Quality Assurance Program in terms of the scope of the program and processes used.

l. Assessment of the effectiveness of the line safety assessment function (PORC) in terms of its scope of review and processes used.

The NRB will utilize, as necessary, the Operating Experience Assessment Program (OEAP) of the Licensing Section, and the Nuclear Quality Assurance Department to review current plant and industry concerns and perform special studies and investigations.

The NRB Chairman will report directly to the Senior Vice President and Chief Nuclear Officer on a regular basis concerning the requirements for assuring the public and plant personnel of safe operation of the nuclear power plants. A written summary of NRB activities is sent to the Office of the President and Chief Operating Officer of the Company.

Minutes of NRB meetings and reports of actions taken shall be prepared and retained and shall identify documents reviewed, decisions and recommendations made, and actions taken by the NRB. The minutes shall be promptly (normally within 14 days following each meeting) forwarded to the Senior Vice President and Chief Nuclear Officer followed by copies to other members of management as appropriate.

13.4.4 AUDIT PROGRAM

Audits of plant activities in the following areas shall be performed under the cognizance of the NRB:

a. The conformance of unit operation to provisions contained within the Technical Specifications and applicable License Conditions at least once every ~~12~~ 24 months.

b. The performance, training and qualifications of the operating staff at least once every ~~12~~ 24 months.

c. The results of actions taken to correct deficiencies occurring in unit equipment, structures, systems or method of operation that affect nuclear safety at least once every ~~six~~ 24 months.

d. The performance of activities required by the operational quality assurance program to meet the criteria of 10CFR50, Appendix B, at least once every 24 months.

e. The Emergency Plan and implementing procedures at least once every 12 months.

f. The Security Plan and implementing procedures at least once every 12 months.

g. The Fire Protection Program and implementing procedures at least once every 24 months.

h. An independent fire protection and loss prevention inspection and audit shall be performed at least once per 12 months utilizing either qualified offsite PECO Energy personnel or an outside fire protection firm.

i. An inspection and audit of the fire protection and loss prevention program shall be performed by an outside qualified fire consultant at intervals no greater than 36 months.

j. The radiological environmental monitoring program and the results thereof at least once per ~~12~~ 24 months.

k. The Offsite Dose Calculation Manual and implementing procedures at least once per 24 months.

l. The Process Control Program and implementing procedures at least once per 24 months.

m. Any other area of unit operation considered appropriate by the NRB or the Senior Vice President and Chief Nuclear Officer.

n. The performance of activities required by the Quality Assurance Program to meet the criteria of Regulatory Guide 4.15, December, 1977, at least once per ~~12~~ 24 months.

Audits shall include verification of compliance and effectiveness of implementation of programs, procedures, regulations, and license provisions in the areas audited. Written reports of such audits shall be transmitted for appropriate action to the Senior Vice President and Chief Nuclear Officer and management having responsibility in the areas audited within 30 days after completion of the audit by the auditing organization.

Audits shall be performed by the Nuclear Quality Assurance Department or by specially selected groups or individuals who have no immediate responsibility for the activity they audit and do not, while performing the audit, report to a management representative who has immediate responsibility for the activity being audited. Timely follow-up action, including re-audit where appropriate, shall be taken when deficiencies are noted.

The audit program and schedules shall be reviewed semi-annually by the NRB to ensure that the audits are being performed in accordance with the Technical Specifications. The audit program is described in Chapter 17.

13.4.5 INDEPENDENT ~~SAFETY ENGINEERING GROUP~~ TECHNICAL REVIEW PROGRAM

An Independent Safety Engineering Group was established prior to initial fuel load of Unit 1 to perform independent reviews of plant operations. The ISEG examines unit operating characteristics, NRC issuances, industry advisories, Licensee Event Reports, and other sources of unit design and operating experience information, including units of similar design, which may indicate areas for improving unit safety.

The LGS ISEG is composed of at least five dedicated, full-time engineers/scientists, including the Superintendent - ISEG, located on-site. Each ISEG member has a bachelor's degree in engineering or related science and a minimum of two years of professional level experience in their respective fields. The LGS ISEG Manager has a minimum of six years of experience in the nuclear field. The LGS ISEG reports to the Director - Nuclear Quality Assurance.

The ISEG is responsible for maintaining surveillance of unit activities to provide independent verification that these activities are performed correctly and that human errors are reduced as much as practical. The ISEG is not responsible for sign-off functions.

The ISEG is responsible for performing independent reviews of plant operations, reviewing operating experiences which may indicate the need for improvements, recommending needed improvements, and advising management on the overall quality and safety of operations.

Add ATTACHED Information p. 13.4-8, 13.4-9

The LGS ISEG makes detailed recommendations for revised procedures, equipment modifications, maintenance activities, operations activities or other means of improving unit safety. Such recommendations are submitted directly to the affected organizations, with copies to the Director - Nuclear Quality Assurance and the Senior Vice President - Nuclear.

The LGS ISEG performs the functions of an independent safety engineering group as described in Item I.B.1.2 of NUREG-0737. The average years of nuclear-related experience exceed the 1 to 2 years of nuclear-related experience stated in section 13.4 of the SRP.

When members of the LGS ISEG are replaced, the replacements have a minimum of 2 years' experience in their field and 1 year of nuclear-related experience.

Also, because the LGS and PBAPS designs are similar, many of the PBAPS ISEG's assessments, particularly in the areas of design, training, corrective maintenance and, to some extent, operations, may be directly applicable to LGS and vice-versa. The PBAPS ISEG is similar in composition to and has similar responsibilities as the LGS ISEG.

The Manager - ISEG reports to the Senior Vice President - Nuclear through the Director - Nuclear Quality Assurance on matters of both a routine and a safety-related nature.

~~ATTACHMENT 1~~

13.4.5 INDEPENDENT TECHNICAL REVIEW PROGRAM

An Independent Technical Review Program shall be established to satisfy the following:

13.4.5.1 The Independent Technical Review Program responsibilities shall encompass:

a. NRC issuances, industry advisories, Licensee Event Reports, and other sources that may indicate areas for improving plant safety;

b. Internal and external operating experience information that may indicate areas for improving plant safety;

c. Plant operating characteristics, plant operations, modifications, maintenance, and surveillance to verify independently that these activities are performed safely and correctly and that human errors are reduced as much as practical; and

d. Making detailed recommendations to senior management of the affected organizations, with copies to the Director-Nuclear Quality Assurance and the Senior Vice President and Chief Nuclear Officer for revising procedures, equipment modifications or other means of improving nuclear safety and plant reliability.

13.4.5.2 The Independent Technical Review Program shall utilize several on-site personnel who are independent of the plant management chain to perform the reviews. These individuals shall report to the LGS Site Quality Division Manager. The LGS Site Quality Division Manager is responsible to ensure the Independent Technical Review Program is implemented as indicated in section 13.4.5.1. The Site Quality Division Manager shall utilize information obtained as part of this program as input to advise management on the overall quality and safety of operations.

13.4.5.3 The written record of technical reviews shall be reported to, at a minimum, the Senior Vice President and Chief Nuclear Officer, the LGS Station Vice President, the Nuclear Review Board, and the Director-Nuclear Quality Assurance. Records of the activities of the Independent Technical Review Program shall be prepared and forwarded each calendar month to the Director-Nuclear Quality Assurance.

13.4.5.4 Personnel performing reviews pursuant to section 13.4.5.1 shall have at least 3 years of related experience and a bachelor's degree in engineering or a related field; or shall have at least 8 years of related experience. The LGS Quality Division Manager shall meet the requirements of ANSI/ANS-3.1-1978.

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h. Apprise the Senior Vice President and Chief Nuclear Officer; the Vice President, Station Support; the Vice President, Limerick Generating Station; and the Nuclear Review Board periodically of the status of the Quality Assurance aspects of Limerick Generation Station's operations, and immediately of significant problems affecting quality.

i. Control contents and revisions of the Quality Assurance Program Description.

j. Ensure that personnel involved in implementing the NQA procedures are trained and/or qualified, as appropriate.

k. Contract for QA/QV consulting services as necessary.

l. Provide support for QA/QV training and qualification programs, as required, for implementation and execution of the NQA Program.

m. Establish and maintain the Evaluated Vendors List (EVL) of evaluated and qualified vendors in accordance with administrative procedures.

n. Perform assessment/surveillance of vendor activities as appropriate.

o. Establish, administer, and coordinate the Nuclear Quality Assurance Program associated with modifications, and capital equipment installation or renewal.

p. Assess, through NQA Assessments, Surveillances, and Quality Verifications, the adequacy and effectiveness of activities covered by the NQA program.

17.2.1.2.3.1 Limerick Quality Division

The Limerick Quality Division is under the supervision of a Manager who reports to the Director, Nuclear Quality Assurance. The Division is composed of three sections: Assessment, Quality Verification, and Quality Support. The Manager, who meets the requirements of ANSI/ANS-3.1-1978, is responsible for:

a. Providing technical and administrative direction to the Division.

b. Providing single point accountability for all site quality activities.

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c. Reviewing and approving site-generated administrative procedures.

d. Formulating the site Assessment and Independent Technical Review Programs.

e. Conducting assessments, surveillances, and verifications.

f. Identifying specific and programmatic deficiencies, and tracking these items until they are fully resolved, in accordance with Administrative Procedures.

g. Performing trend analysis.

h. Providing periodic reports to the Director, NQA, on the status and adequacy of the nuclear facility Quality Assurance Program and advising of any problems requiring special attention.

i. Approving Stop Work directives.

j. Providing and maintaining a qualified and suitably trained quality assurance staff to carry out required project and staff functions.

17.2.1.2.3.1.1 Assessment Section

The Assessment Section is under the supervision of the site Quality Division Manager. The Manager has the following responsibilities:

a. Provide administrative supervision of the activities of the section.

b. Direct the scheduling, planning, and performance of assessments and surveillances in accordance with written procedures to ensure compliance with the NQA Program and Technical Specifications.

c. Oversee the preparation of NQA assessment checklists.

d. Review and approve results of assessments and surveillances.

e. Ensure that items requiring corrective action are properly identified and documented in accordance with NQA procedures.

17.2.1.2.3.2 ~~Limerick~~ Independent ~~Safety Engineering~~ Group

The Limerick Independent ~~Safety Engineering~~ Group (ISEG) composition and ~~responsibilities~~ are described in Section 13.4.5.

17.2.1.2.3.3 Corporate Nuclear Quality Division

The Corporate Nuclear Quality Division is under the supervision of a Manager who reports to the Director, Nuclear Quality Assurance. The Division consists of two sections: Assessment, and Administration. The Manager, Corporate Nuclear Quality, is responsible for all Corporate Nuclear Quality Division activities. This includes:

a. Manuals and procedures.

b. Vendor assessments and surveillances.

c. Training.

d. Oversight of the quality activities of the Station Support Department.

e. Identification of specific and programmatic deficiencies and tracking of these items until they are fully resolved.

f. Performing trend analysis.

g. Conducting internal assessments at the corporate offices.

17.2.2.12

Information concerning plant conditions and status will be made available to NQA personnel to enable responsible NQA supervision to determine when assessments, surveillances, or verifications should be performed. This information may be in the form of communications with plant management or staff personnel through daily or periodic meetings. In addition, NQA personnel shall periodically review operating logs, maintenance work schedules, fuel handling operations schedule, ISI/IST inspection program, and modification proposals, to ensure that NQA personnel are involved in day-to-day activities that are important to the safe operation of LGS.

17.2.2.13

Personnel performing or verifying quality-related activities shall be:

a. Trained in the purpose, scope, and implementation of quality-related manuals, instructions, and procedures.

b. Trained and certified in the principles, techniques, and requirements of the performed activity and such certification shall delineate the specific area of expertise and criteria used.

17.2.2.14

The training/certification program shall include documentation of the objective, content, enrolled attendees, date of attendance, and examinations given.

17.2.2.15

The training/certification program shall provide for retraining, re-examination, and/or recertification as appropriate.

17.2.2.16

Quality Division Manager is responsible to ensure the Independent Technical Review Program reviews

The ~~Manager, Independent Safety Engineering Group (ISEG), is responsible for reviewing~~ plant operating characteristics, NRC issuances, and other appropriate resources of plant design and operating experience information that may indicate areas for improving plant safety, and for input and closure of ~~ISEG~~ recommendations in the PIMS database that result from these reviews. The Independent Technical Review Program is described in Section 13.4.5.

c. Date and results.

d. Information related to conditions adverse to quality.

e. Inspector or data recorder identification.

f. Evidence as to the acceptability of the results.

17.2.17.9

NQA and other organizations responsible for record control are defined in the Administrative and Implementing Procedures.

17.2.18 AUDITS

17.2.18.1

Compliance with the requirements and guidance for establishing and implementing the Quality Assurance Program is assured through the NQA assessment program for PECO Energy Company nuclear organizations and vendors.

17.2.18.2

The NQA assessment program shall consist of:

a. Assessments - Documented activities performed in accordance with ANSI N45.2.12 as described in Appendix 17.2.II.

b. Surveillances - Documented activities identical to Assessments except that no formal assessment plan and assessment checklist are generated and no exit interview is conducted if no noncompliances are identified. Surveillances are normally initiated on short notice based on plant conditions and may include observation of work in process.

17.2.18.3

The aspects covered by the assessment program include designing, purchasing, fabricating, handling, shipping, storing, cleaning, erecting, installing, inspecting, testing, modifying, and maintaining LGS Q-Listed structures, systems, and components. In addition, assessments may be performed on non-Q activities that will enhance operational safety as determined by appropriate management.

Any procedures, instructions, drawings, procurement documents (for vendors), activities, work-in-progress, processes, hardware documents, or records that are related to the items above are subject to objective assessment evaluation for compliance with the PECO Energy Company QA Program.

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17.2.18.4

NQA is responsible for the planning, performance, reporting, and follow-up of the assessment program to determine compliance with the elements and effectiveness of the NQA Program.

17.2.18.5

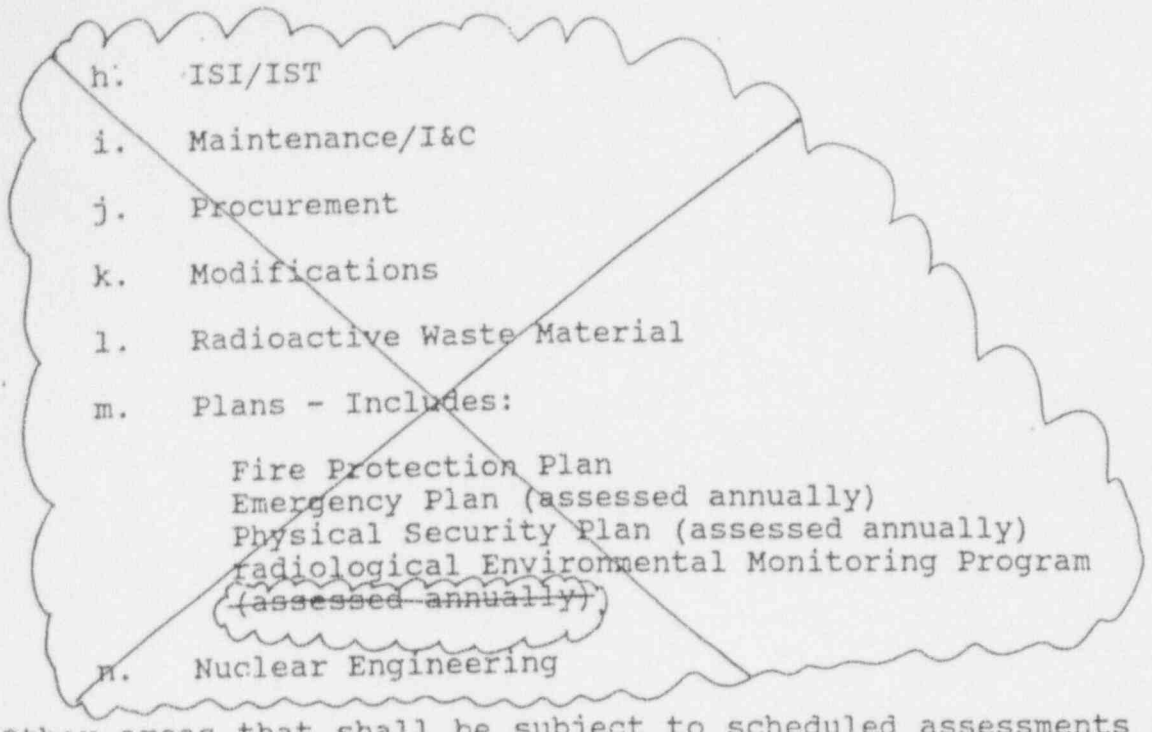
Assessments and Surveillances shall be performed in accordance with written procedures by NQA personnel, who are independent of any direct responsibilities for the performance of activities which they will assess. NQA may request the assistance of personnel from other disciplines or technical specialists who are independent of areas being assessed.

The Director, NQA, shall establish the assessment program personnel qualifications and the requirements for the use of technical specialists to accomplish the assessment of the Quality Assurance Program. Personnel shall be selected for quality assurance assessment assignments based on experience or training which establish that their qualifications are commensurate with the complexity or special nature of the activities to be assessed. In selecting personnel for assessment assignments, consideration shall be given to special abilities, specialized technical training, prior pertinent experience, personal characteristics, and education.

17.2.18.6

Assessments shall be regularly scheduled on the basis of the status and safety importance of the activities. The following activities of the Quality Assurance Program shall be assessed at least every 2 years, except as otherwise indicated in Section 13.4.4.

a. Training ~~(Unit staff is assessed annually)~~
b. Health Physics
c. Chemistry
d. Fuel/In-vessel Material
e. Shift Operations
f. Surveillance Testing
g. Maintenance of Instruments



Other areas that shall be subject to scheduled assessments include preparation, review, approval, and control of specifications, procurement documents, instructions, procedures, and drawings; receiving and installation inspections; and vendor activities.

Regularly scheduled assessments may be supplemented by unannounced or unscheduled assessments or surveillances as determined by NQA.

17.2.18.7

Assessment and surveillance procedures shall require that nonconformances which are identified be documented in sufficient detail to assure that required corrective action can be effectively carried out by the assessed organization. Corrective action may be recommended, as appropriate, by NQA.

17.2.18.8

Responsible management shall take the necessary action to correct any identified deficiencies and to report the cause of the deficiency and the corrective action to NQA. Unless justified in writing as not appropriate, corrective action intended to prevent recurrence shall also be taken and reported.

17.2.18.9

When corrective action measures are indicated, follow-ups or re-assessments of applicable areas shall be conducted, to assure implementation and effectiveness of corrective actions.

17.2.18.10

The results of the assessment program shall be documented by NQA and distributed to the appropriate levels of management including the management of the assessed area.

Assessment results shall be analyzed and a statement regarding the effectiveness of the QA Program in the areas assessed shall be included in the Assessment Report.

17.2.18.11

Assessments performed under the cognizance of the Nuclear Review Board are discussed in Section 13.4.

17.2.18.12

The assessment program shall be periodically reviewed and revised as necessary to assure that coverage and schedule reflect current activities.

17.2.18.13

The Director, NQA, is responsible to identify overdue corrective action to the appropriate responsible management.

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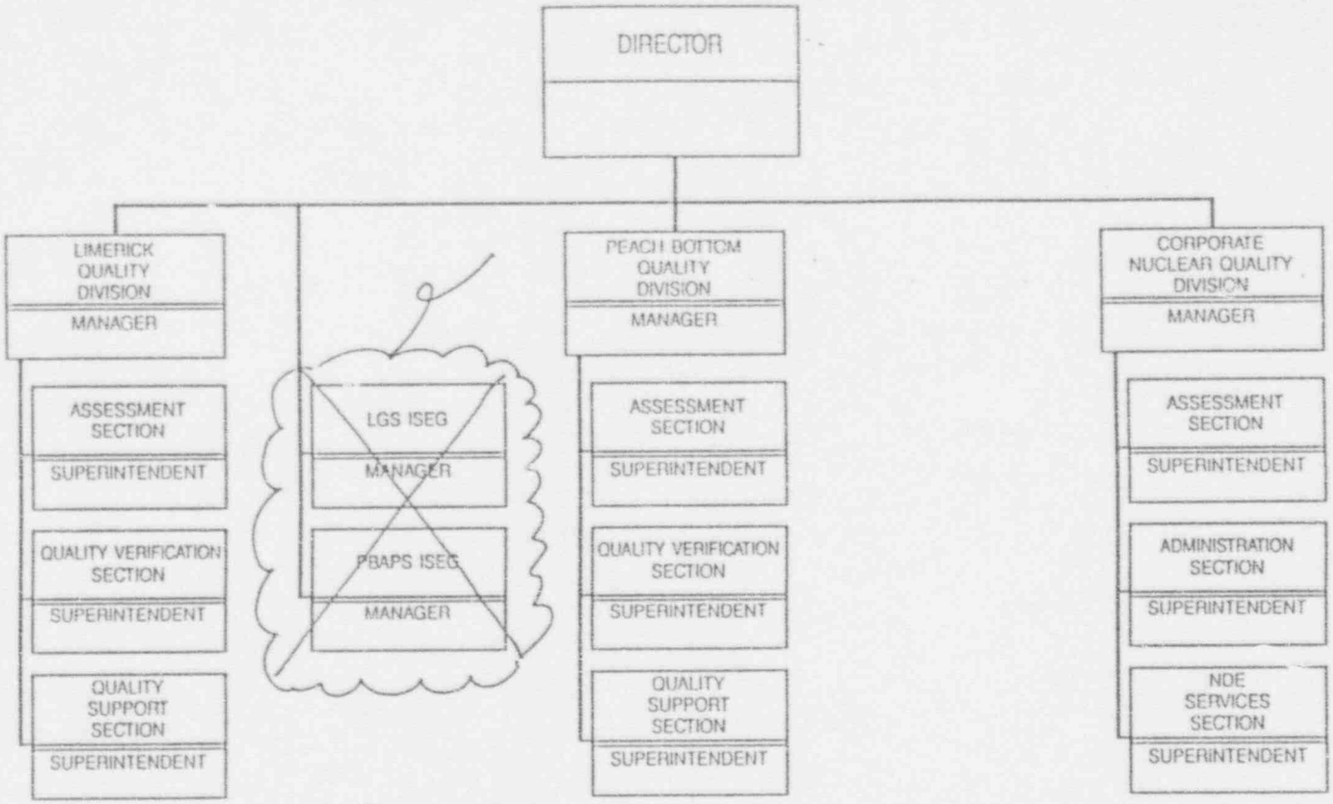

REVIEWER'S NOTE: the change to the PBAPS organization is being addressed in a separate submittal on the PBAPS docket

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ECK 9410005

LIMERICK GENERATING STATION
UNITS 1 AND 2
UPDATED FINAL SAFETY ANALYSIS REPORT

ORGANIZATION CHART
NUCLEAR QUALITY ASSURANCE
PHILADELPHIA ELECTRIC COMPANY

FIGURE 17.2-4 ~~REV. 0 NOV. 1983~~

2. ANSI N45.2.4, Section 3, Preconstruction Verification - Subsection (3) requires the checking of records of protective measures maintained during storage for conformance to storage requirements. ANSI N45.2.2-1978, Section 6.4, Control of Items in Storage, requires inspection and examination during the storage period. The responsibility within PECO Energy Company for these inspections rests with Materials Management. Compliance with these requirements for checking of records is assured through the auditing and quality verification programs conducted NQA Department personnel along with the monitoring of Materials Management activities by Materials Management supervision.

3. ANSI N45.2.4, Section 7, Data Analysis and Evaluation - A program for processing, reviewing, and analyzing electrical equipment and instrumentation inspection and test data for acceptability is provided in the administrative procedures which govern the repair, maintenance, and testing of electrical equipment and instrumentation. Maintenance is controlled through the use of a work request form that has provisions for cognizant personnel sign-off after completion of the work. Functional testing and calibration procedures, include provisions for review, analysis of data, and approval by signature of cognizant personnel.

4. ANSI N45.2.4, Section 6.2.1, Equipment Tests - Installed items requiring calibration are controlled through the preventive maintenance computer tracking system. Tags or labels are not affixed to the item to indicate calibration status.

c. Regulatory Guide 1.33, Revision 2, February 1978, "Quality Assurance Program Requirements (Operations)." Endorses ANSI N18.7-1976/ANS 3.2.

PECO Energy Company shall comply with Regulatory Guide 1.33, Revision 2, February 1978 and ANSI N18.7-1976/ANS 3.2 during the operational phase except for the following clarifications or alternatives:

1. Regulatory Guide 1.33, Section C.4 and ANSI N18.7-1976/ANS 3.2, Section 4.5, Audit Program - The assessment program carried out by the Nuclear Quality Assurance Department shall be performed in such a manner that individual activities in Section 17.2.18.6 are investigated within a period of two (2) years. This investigation shall consist of either assessments or surveillances. See Section 17.2.18.

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