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June 14, 1983

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

Docket Nos. 50-352
50-353

Subject: Limerick Generating Station, Units 1 & 2
Request for Additional Information from
NRC Quality Assurance Branch (QAB)

References:
(1) Letter, E. J. Bradley to A. Schwencer, dated May 19, 1983
(2) Telecon, J. Gilray, D. Caphton, G. Naputa, M. Conner (NRC) and D. Honan, W. Anderson, V. Lucia (PECO) on May 27, 1983
(3) Letter, S. L. Daltroff to A. Schwencer, dated June 7, 1983.

File: GOVT 1-1 (FSAR)

Dear Mr. Schwencer:

The reference (2) telecon was held to discuss the information transmitted by the reference (1) letter. During the course of that telecon, QAB requested certain additional information to enable it to complete its review of Chapter 17 of the Limerick FSAR.

The reference (3) letter transmitted information responsive to one of these QAB requests. This letter transmits the balance of the information requested by QAB, in the form of draft FSAR page changes.

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The information contained in these draft FSAR page changes will be incorporated into the FSAR, exactly as it appears in the enclosures, in the revision scheduled for July, 1983.

Very truly yours,

Eugene J. Bradley

HDH/gra/33
Enclosures

Copy to: See Attached Service List

cc: Judge Lawrence Brenner (w/o enclosure)
Judge Richard F. Cole (w/o enclosure)
Judge Peter A. Morris (w/o enclosure)
Troy B. Conner, Jr., Esq. (w/o enclosure)
Ann P. Hodgdon (w/o enclosure)
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Mr. Robert L. Anthony (w/o enclosure)
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Mr. Thomas Gerusky (w/o enclosure)
Director, Pennsylvania Emergency Management Agency (w/o enclosure)
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Mr. Joseph H. White, III (w/o enclosure)
David Wersan, Esq. (w/o enclosure)
Robert J. Sugarman, Esq. (w/o enclosure)
Martha W. Bush, Esq. (w/o enclosure)
Atomic Safety and Licensing Appeal Board (w/o enclosure)
Atomic Safety and Licensing Board Panel (w/o enclosure)
Docket and Service Section (w/o enclosure)

the various aspects of the Quality Assurance Plan to determine compliance with the elements of, and effectiveness of the QA Plan.

17.2A.18.4

Audits and surveillances shall be performed in accordance with written procedures to confirm that the QA Program is implemented in accordance with documented instructions, procedures and drawings.

The results of the auditing program shall be documented by the Superintendent, QA Division and distributed to appropriate levels of management having responsibility in the area audited and Department management

17.2A.18.5

Audits shall be regularly scheduled on the basis of the status and importance of the activities. The following activities of the Quality Assurance program shall be audited at least every two years: Training, Health Physics and Chemistry, Fuel Handling, Shift Operations, Surveillance Testing, Maintenance - Instruments, In-service Inspection, Maintenance - Electrical and Mechanical, Stores and Purchasing, Modifications, and Plans. The Plans activity encompasses the LGS Emergency Plans, Physical Security Plan, and Radiological Environmental Monitoring Program.

Regularly scheduled audits may be supplemented by unannounced or unscheduled audits or surveillances as determined by the Superintendent, QA Division.

17.2A.18.6

Audits and surveillances shall be performed by personnel from the Quality Assurance Division, who are independent of any direct responsibilities for the performance of activities which they will audit. The QA Division may request assistance of personnel from other disciplines who are independent of areas being audited.

The Superintendent, QA Division shall establish the auditing program personnel qualifications and the requirements for the use of technical specialists to accomplish the auditing of the quality assurance program. Personnel shall be selected for quality assurance auditing assignments based on experience or training which establish that their qualifications are commensurate with the complexity or special nature of the activities to be audited. In selecting personnel for auditing assignments, consideration shall be given to special abilities,

NUREG-0123, STANDARD TECHNICAL SPECIFICATIONS FOR GENERAL ELECTRIC BOILING WATER REACTORS, Section 6.5.2.8

In addition, those audits delineated by X shall be performed by the QA Division.

Appendix 17.2A.II

ELECTRIC PRODUCTION DEPARTMENT APPLICATION
OF INDUSTRY STANDARDS AND NRC REGULATORY GUIDES

Philadelphia Electric Company Electric Production Department Quality Assurance Program will follow the guidance contained in NRC Regulatory Guides and the requirements of Industry Standards as described below. When a Regulatory Guide endorses an Industry Standard, compliance with the recommendations of a guide indicates compliance with the requirements of the standard, and those guidelines modified by the guide. Documents referenced in an ANSI Standard are excluded unless they are addressed separately.

a. Regulatory Guide 1.30, August 1972, "Quality Assurance Requirements for the Installation, Inspection, and Testing of Instrumentation and Electric Equipment"
Endorses ANSI N45.2.4 - 1972.

PECO shall comply with Regulatory Guide 1.30, August 1972, and ANSI N45.2.4 - 1972 for those activities occurring during the operational phase that are comparable in nature and extent, as determined by the ~~Station~~ Superintendent ~~of the PECO organization responsible for the activity~~, to related activities occurring during the initial design and construction phase, except for the following alternates:

Nuclear Generation and Superintendent - QA

1. ANSI N45.2.4, Section 1.1, Scope - PECO's alternate to classification of Class I and IE electric power, instrumentation, and control equipment is to apply the requirements of this standard to PECO "Q-listed" items. (Those instruments, equipment and systems that prevent or mitigate the consequences of postulated accidents that could cause undue risk to the health and safety of the public.)

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 inspections and examination during the storage period. The responsibility within PECO for these inspections rests with the Stores Division. Compliance with these requirements for checking of records is assured through the auditing program conducted by Quality Assurance Division Personnel along with the monitoring of Stores Division Activities by Stores Division Supervision.

criteria for use of items which have been identified as nonconforming.

11. ANSI N18.7 - 1976/ANS 3.2, Section 5.2.6, Equipment Control

    (a.) Temporary modification (5th paragraph) - The need for independent verification of Temporary Modifications will be determined on an individual basis considering the complexity and impact of the modification.

    (b.) (7th paragraph) requires "operating personnel" to place equipment in operation. Equipment may be placed into operational status by personnel not on the operating staff, such as instrument technicians.

12. ANSI N18.7 - 1976/ANS 3.2, Section 5.2.7, Maintenance and Modifications - The requirement concerning original design bases and requirements, material specifications, and inspection requirements is modified to permit approved alternate requirements which are subject to the design review process.

13. ANSI N18.7 - 1976/ANS 3.2, Section 5.2.7.1, Maintenance Programs

    (a.) Emergency maintenance to Q-Listed equipment (work which must proceed immediately to correct a degraded condition) may be performed concurrent with procedure preparation and documentation of steps actually taken. Such maintenance may be performed with the authorization of designated personnel and subsequent procedure approval by the PORC.

    (b.) The cause of repetitive malfunctions should be determined; however, it is not practical, and may not be possible, to determine the cause of every malfunction.

14. ANSI N18.7 - 1976/ANS 3.2, Section 5.2.10, Housekeeping and Cleanliness Control

    (a.) Control measures to prevent contamination with foreign materials will be specified in Administrative Procedures and will include, as appropriate, access control.

(b.) Second paragraph, first & second sentences are taken to mean: "Where needed to prevent contamination . . .".

15. ANSI N18.7 - 1976/ANS 3.2, Section 5.2.11, Corrective Action - The Plant Operations Review Committee ~~or Station Superintendent~~ and/or the Independent Safety Engineering Group (ISEG) determines which items are "significant".

16. ANSI N18.7 - 1976/ANS 3.2, Section 5.2.12, Plants Records Management - Retention periods will satisfy statutory requirements for the record. The significance of the event covered by the record and the contribution of the record to the ability to reconstruct significant events will be considered in establishing retention periods.

17. ANSI N18.7 - 1976/ANS 3.2, Section 5.2.13, Procurement and Material Control - Item (1) - Administrative Procedures shall specify the means for control of procurement of commercially "off the shelf" items. The Administrative Procedures shall describe the receipt inspection, storage, and handling prior to installation and operation. → insert A1

18. ANSI N18.7 - 1976/ANS 3.2, Section 5.2.13.1, Procurement Document Control, (second sentence) - QA program requirements or alternate approved methods will be used to assure quality. Examples of alternates for suppliers without QA programs include: material analysis, sample testing, in-process inspection and monitoring, and design review by PECO.

19. ANSI N18.7 - 1976/ANS 3.2, Section 5.2.15, Review, Approval and Control of Procedures - The frequency of review of plant procedures is discussed in FSAR Section 13.5.

20. ANSI N18.7-1976/ANS 3.2, Section 5.2.17, Inspections - The results of inspections are not always subject to a further evaluation. For example, evaluation beyond that given by inspection - level personnel is not normally required for go/no-go and pass/fail type inspections.

21. ANSI N18.7 - 1976/ANS 3.2, Section 5.3, Preparation of Instructions and Procedures, (last sentence) - The clarification regarding emergency maintenance in item (m) above, applies. → 13

22. ANSI N18.7 - 1976/ANS 3.2, Section 5.3.10, Test and Inspection Procedures, (first paragraph) - The

clarification regarding test result evaluations in item t, above, applies.

23. ANSI N18.7 - 1976/ANS 3.2, Section 5.3.10, Test and Inspection Procedures, (second paragraph, last sentence) - These procedural aspects will be included when appropriate. For example, "as-found condition" is not applicable to all test and inspection procedures.

c. Regulatory Guide 1.37, March 1973, "Quality Assurance Requirements for Cleaning of Fluid Systems and Associated Components of Water-Cooled Nuclear Power Plants." Endorses ANSI N45.2.1 - 1973.

Decontamination and cleanup of radioactively contaminated systems and components are not included in the scope of this response.

PECO shall comply with Regulatory Guide 1.37 - March 1973 and ANSI N45.2.1 - 1973 for those activities occurring during the operational phase that are comparable in nature and extent, as determined by the ~~Station~~ Superintendent ~~for the PECO organization responsible for the activity,~~ to related activities occurring during the initial design and construction phase except for the following alternate:

= Nuclear Generation and Superintendent-QA

1. ANSI N45.2.1, Section 3.2, Water Quality Requirements - PH measurements are not required for conductivity values of ≤ 1 micromho/cm. PECO utilizes PH limits of 5.2 to 8.6 at 25° C, uncorrected for CO2 and may apply conductivity measurements in place of total dissolved solids.

2. ANSI N45.2.1, Section 3.1.2, Class B - The flushing velocity may be as specified in other approved documents associated with the maintenance or modification, as well as procurement documents.

d. Regulatory Guide 1.38, Revision 2, May 1977, "Quality Assurance Requirements for Packaging, Shipping, Receiving, Storage, and Handling of Items for Water-Cooled Nuclear Power Plants." Endorses ANSI N45.2.2 - 1972.

See discussion under ANSI/ASME N45.2.2 - 1978.

e. Regulatory Guide 1.39, Revision 2, September 1977, "Housekeeping Requirements for Water-Cooled Nuclear Power Plants."
Endorses ANSI N45.2.3 - 1973.

PECO shall comply with Regulatory Guide 1.39, September 1977 and ANSI N45.2.3 - 1973 for those activities occurring during the operational phase that are comparable in nature and extent, as determined by the ~~Station~~ Superintendent ~~or the PECO organization responsible for the activity~~, to related activities occurring during the design and construction phase except for the following alternates:

- Nuclear Generation and Superintendent - QA

1. ANSI N45.2.3, Section 2.1, Planning - Zone II requirements for clean gloves, shoe covers, and head coverings will be determined by health physics personnel under the radiation protection program and specific requirements listed on the Radiation Work Permit for entry in Zone II areas.

2. ANSI N45.2.3, Section 2.1, Planning - Material accountability for Zones II and III shall be controlled by procedural requirements, periodic inspections and surveillance of areas for acceptable housekeeping practices. Implementing procedures for activities such as maintenance and modifications require housekeeping and cleanliness inspections of areas and equipment to eliminate foreign materials that may have a detrimental effect. Post Maintenance or modification inspections for housekeeping and cleanliness shall be conducted and documented in accordance with administrative controls.

3. ANSI N45.2.3, Section 2.1 Planning - Personnel accountability for Zone III will be controlled as determined by the administrative controls for locked doors and radiation work permit requirements in lieu of specific access registers.

f. Regulatory Guide 1.58, Revision 1, "Qualification of Nuclear Power Plant Inspection, Examination, and Testing Personnel."
Endorses ANSI N45.2.6 - 1978.

Philadelphia Electric Company will comply with Regulatory Guide 1.58, Rev. 1 and ANSI N45.2.6-1978 except for the following clarification and alternates:

1. Regulatory Guide 1.58, Revision 1, section C.1, and ANSI N45.2.6-1978, subsection 1.2, states that the standard applies to "personnel who perform inspections, examinations, and tests." Philadelphia Electric Company

personnel, who inspect equipment as part of ~~routine~~ plant maintenance, in other than a quality control function, and plant staff personnel (as defined in the Limerick Technical Specifications) who approve test procedures and tests results and direct or supervise the conduct of individual tests, will be qualified in accordance with ANSI ~~N18.1-1971~~ ANS 3.1-1978 in lieu of ANSI N45.2.6-1978.

2. Regulatory Guide 1.58, Revision 1, section C.4 and ANSI N45.2.6-1978, subsection 1.5, discuss the applicability of documents referenced in the standard. In lieu of the latest revision of Regulatory Guides and ANSI Standards, PECo commitments are contained in Section 17.2.

3. ANSI N45.2.6-1978, subsection 3.5, presents experience recommendations for candidates. Experience in maintenance, modification, and operating activities is considered related experience because such experience provides training in the safety aspects of the facility.

g. Regulatory Guide 1.64, Revision 2, June 1976, "Quality Assurance Requirement for the Design of Nuclear Power Plants."
Endorses ANSI N45.2.11 - 1974.

PECO shall comply with Regulatory Guide 1.64, June 1976, and ANSI N45.2.11 - 1974 for those Electric Production Department activities occurring during the operational phase that are comparable in nature and extent, as determined by the ~~Station~~ Superintendent ~~or the PECO organization responsible for the activity~~, to related activities occurring during the initial design phase with the following clarification and alternates:

Clarification -
→ — Nuclear Generation and Superintendent-QA

1. Plant Design changes are categorized into Major and Minor Modifications. Design controls for Major Modifications which are delegated to the Engineering and Research Department are described in Section 17.2B. Major Modifications are defined in LGS Administrative Procedures.

2. Minor Modifications are accomplished under the controls of plant administrative procedures in accordance with the LGS EP Quality Assurance Plan.

Alternate -

Regulatory Guide 1.64, Section C.2 - Due to the nature of Minor Modifications and the size and expertise of LGS staff, when design verification is required, it may be performed by the designer's immediate supervisor if the supervisor is the only technically qualified individual. Additionally, minor modifications are reviewed by the PORC.

h. Regulatory Guide 1.74, Revision 0, February 1974, "Quality Assurance Terms and Definitions."
Endorses ANSI N45.2.10 - 1973.

PECO shall comply with Regulatory Guide 1.74, Revision 0, February 1974 and ANSI N45.2.10 - 1973 except for the following alternate:

The word "examination" also means an exercise to examine progress or status of knowledge or qualification.

i. Regulatory Guide 1.88, Revision 2, October 1976, "Collection, Storage, and Maintenance of Nuclear Power Plant Quality Assurance Records."
Endorses ANSI N45.2.9 - 1974.

See discussion under ANSI/ASME N45.2.9 - 1979.

j. Regulatory Guide 1.94, Revision 1, April 1976, "Quality Assurance Requirements for Installation, Inspection, and Testing of Structural Concrete and Structure Steel During the Construction Phase of Nuclear Power Plants."
Endorses ANSI N45.2.5 - 1974.

PECO shall comply with Regulatory Guide 1.94, April 1976 and ANSI N45.2.5 - 1974 for those activities occurring during the operational phase that are comparable in nature and extent, as determined by the ~~Station~~ Superintendent ~~or the PECO~~ - Nuclear Generation and Superintendent - QA

~~organization responsible for the activity~~, to related activities occurring during the initial design and construction phase.

k. Regulatory Guide 1.116, Revision 0, May 1977, "Quality Assurance Requirements for Installation, Inspection, and Testing of Mechanical Equipment and Systems." Endorses ANSI N45.2.8 - 1975.

PECO shall comply with Regulatory Guide 1.116, May 1977, and ANSI N45.2.8 - 1975 for those activities occurring during the operational phase that are comparable in nature and extent, as determined by the ~~Station~~ Superintendent ~~or the PECO organization responsible for the activity~~, to related activities occurring during the initial design and construction phase, except for the following alternates:

→ Nuclear Generation and Superintendent - QA

1. ANSI N45.2.8, Section 2.2, Procedures and Instructions - FSAR Section 13.5 addresses compliance with ANSI N18.7 - 1976/ANS 3.2 and Regulatory Guide 1.33. These requirements provide adequate controls for the Procedures and Instructions addressed in this Section.

2. ANSI N45.2.8, Section 2.3, Results - PECO's commitment to ANSI 18.7 - 1976/ANS 3.2 provides adequate guidance for the documentation and review of the results of inspections and tests.

3. ANSI N45.2.8, Section 3.4, Physical Condition - PECO's response to ANSI N45.2.1, N45.2.2, and N45.2.13 provide adequate guidance and control for the requirement that mechanical items are in accordance with specified requirements and that the quality has been maintained.

l. Regulatory Guide 1.123, Revision 1, July 1977, "Quality Assurance Requirements for Control of Procurement of Items and Services for Nuclear Power Plants." Endorses ANSI N45.2.13 - 1976.

PECO shall comply with Regulatory Guide 1.123, July 1977, and ANSI N45.2.13 - 1976 for those activities occurring during the operational phase that are comparable in nature and extent, as determined by the ~~Station~~ Superintendent ~~or the PECO organization responsible for the activity~~, to related activities occurring during the initial design and construction phase.

→ Nuclear Generation and Superintendent - QA

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n/. Regulatory Guide 1.146, August 1980, "Qualification of Quality Assurance Program Audit Personnel for Nuclear Power Plants" Endorses ANSI/ASME N45.2.23-1978.

Philadelphia Electric Company will comply with Regulatory Guide 1.146, August 1980 and ANSI/ASME N45.2.23-1978 except for the following alternates:

1. Regulatory Guide 1.146, August 1980, section C.1 and ANSI/ASME N45.2.23-1978, subsection 1.5, discuss the applicability of documents referenced in the standard. In lieu of the latest revision of Regulatory Guides and ANSI Standards, PECo commitments are contained in Section 17.2.

2. ANSI/ASME N45.2.23-1978, subsection 2.3, states requirements for qualification of auditors. In lieu of the stated requirements, PECo will qualify personnel in accordance with requirements presented below. These alternate requirements will provide PECo with sufficient flexibility to qualify competent personnel with initial technical experience in a more effective manner. The proration of credits between initial experience requirements and additional experience gained as an assistant to a Lead Auditor ensures that highly qualified personnel will be available as audit personnel in a more timely fashion.

   Substitute the following for Paragraph 2.3.1 of ANSI/ASME N45.2.23-1978.

   2.3.1 Education and Experience. The prospective Lead Auditor shall have varifiable evidence that a minimum of ten (10) credits under the following scoring system have been accumulated.

   2.3.1.1 Education (4 credits maximum). Associate degrees from an accredited institution score one (1) credit or if the degree is an engineering, physical sciences, mathematics, or quality assurance, score two (2) credits or,

   a bachelor degree from an accredited institution score two (2) credits or if the degree is in engineering, physical sciences, mathematics, or quality assurance, score three (3) credits; in addition score one (1) credit for a master degree in engineering, physical sciences, business management, or quality assurance from an accredited institution.

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m Regulatory Guide 1.144, September 1980, "Auditing of Quality Assurance Programs For Nuclear Power Plants" endorses ANSI/ASME N45.2.12-1977

PECo ~~shall~~ WILL comply with Regulatory Guide 1.144, September 1980, and ANSI/ASME N45.2.12-1977 with the clarification discussed in Item 1 under Regulatory Guide 1.33 and with the following alternates:

1. ANSI/ASME N45.2.12, Section 4.2.4, Audit Notification and Section 4.3.1, Pre-Audit Conference - Pre-Audit notification is given to plant management in an informal manner due to daily contact and communications between Quality Assurance Division personnel and plant personnel.

2. ANSI/ASME N45.2.12, Section ~~4.[illegible]~~ 4.2.6, Reporting - The Audit report shall be issued within thirty working days ~~after, Monday - Friday~~ after the post-audit conference.

2.3.1.1 a) Initial Experience Prior to Assignment (6 credits maximum). Technical experience in engineering, manufacturing, construction, operation, maintenance, or quality assurance related to the aforementioned activities, score one (1) credit for each full year with a maximum of five (5) credits for this aspect of experience.

If two (2) or more years of this experience have been in the nuclear field, score one (1) additional credit.

2.3.1.2 b) Additional Experience (after assignment) (4 credits maximum). Experience in quality assurance, score one (1) credit for each full year (2 credits maximum) or,

Experience in auditing, score two (2) credits for each full year (3 credits maximum) or,

Experience in nuclear quality assurance, score one (1) credit for each full year (3 credits maximum) or,

Experience in nuclear quality assurance auditing, score one (1) credit per every six months (4 credits maximum).

2.3.1.3 Other Credentials of Professional Competence (2 credits maximum). Certification of competency in engineering, science, or quality assurance specialities issued and approved by a State Agency, or National Professional or Technical Society, score two (2) credits.

2.3.1.4 Rights of Management (2 credits maximum). The Lead Auditor's employer may grant up to one (1) credit for other performance factors applicable to auditing which may not be explicitly called out in this standard such as leadership, sound judgment, maturity, analytical ability, tenacity, and past performance, plus one (1) credit for satisfactory completion of Lead Auditor training program.

n. ANSI/ASME N45.2.12 - 1977 "Requirements for Auditing of Quality Assurance Programs for Nuclear Power Plants."

PECO shall comply with the requirements of ANSI/ASME N45.2.12 - 1977 with the clarification discussed in Item a.1 under Regulatory Guide 1.33 and with the following alternate:

ANSI/ASME N45.2.12, Section 4.2.4, Audit Notification and Section 4.3.1, Pre-Audit Conference - Pre-audit notification is given to plant management in an informal manner due to daily contact and communications between Quality Assurance Division personnel and plant personnel.

o. ANSI/ASME N45.2.2 - 1978 "Packaging, Shipping, Receiving, Storage, and Handling of Items for Nuclear Power Plants."

PECO shall comply with the requirements of ANSI/ASME N45.2.2 - 1978 except for the following alternates:

1. ANSI/ASME N45.2.2, Section 2.7, Classification of Items - Philadelphia Electric Co. does not classify items into the four (4) levels described in this standard. However, the specific guidance and recommendations which are appropriate to each class are applied to those items packaged, shipped, received, stored, and handled through the use of procedures, original specifications instructions and drawings as applicable.

2. ANSI/ASME N45.2.2, Section 3, Packaging and Section 4, Shipping - Philadelphia Electric Co. utilizes the packaging and shipping requirements delineated in the original equipment specifications as part of our procurement requirements to suppliers or manufacturers. Those requirements and recommendations of Sections 3 and 4 are included in the original specifications as appropriate for the item being procured. Receipt inspection activities are in accordance with Section 5 of this standard and are sufficient to identify packaging and shipping nonconformities.

3. ANSI/ASME N45.2.2, Section 6, Storage - Philadelphia Electric Co. does not classify items into four (4) levels for storage purposes as delineated in Section 6.1.2. Stored items are placed in limited access controlled areas, and are segregated with respect to the Q-list classification of the item(s). The specific guidance and recommendations which are appropriate to each class are applied to those items stored through the use of procedures, specifications and manufacturers recommendations and instructions.

4. ANSI/ASME N45.2.2, Section 6.4.2 (7), Care of Items - The rotating of certain electrical motors in storage, which must be energized to release a electrical brake, will be stored and maintained in accordance with manufacturers recommendations. Other motors, which can be rotated without energizing, will be maintained in

Components installed in Light-Water-Cooled Nuclear Power Plants.

The Engineering and Research Department follows the guidance of Regulatory Guide 1.143, July 1978, exclusive of other documents referenced therein.

→ insert B2

Regulatory Guide 1.146, August 1980, "Qualification of Quality Assurance Program Audit Personnel for Nuclear Power Plants" Endorses ANSI/ASME N45.2.23-1978.

Philadelphia Electric Company will comply with Regulatory Guide 1.146, August 1980 and ANSI/ASME N45.2.23-1978 except for the following alternates:

1. Regulatory Guide 1.46, August 1980, section C.1, and ANSI/ASME N45.2.23-1978, subsection 1.5, discuss the applicability of documents referenced in the standard. In lieu of the latest revision of Regulatory Guides and ANSI Standards, PECo commitments are contained in Section 17.2.

2. ANSI/ASME N45.2.23-1978, subsection 2.3, states requirements for qualification of auditors. In lieu of the stated requirements, PECo will qualify personnel in accordance with the requirements presented below. These alternate requirements will provide PECo with sufficient flexibility to qualify competent personnel with initial technical experience in a more effective manner. The proration of credits between initial experience requirements and additional experience gained as an assistant to a Lead Auditor ensures that highly qualified personnel will be available as audit personnel in a more timely fashion.

   Substitute the following for Paragraph 2.3.1 of ANSI/ASME N45.2.23-1978.

   2.3.1 Education and Experience. The prospective Lead Auditor shall have varifiable evidence that a minimum of ten (10) credits under the following scoring system have been accumulated.

   2.3.1.1 Education (4 credits maximum). Associate degrees from an accredited institution score one (1) credit or if the degree is in engineering, physical sciences, mathematics, or quality assurance, score two (2) credits or,

   a bachelor degree from an accredited institution score two (2) credits or if the degree is in

engineering, physical sciences, mathematics, or quality assurance, score three (3) credits; in addition score one (1) credit for a master degree in engineering, physical sciences, business management, or quality assurance from an accredited institution.

2.3.1.2 a) Initial Experience Prior to Assignment (6 credits maximum). Technical experience in engineering, manufacturing, construction, operation, maintenance, or quality assurance related to the aforementioned activities, score one (1) credit for each full year with a maximum of five (5) credits for this aspect of experience.

If two (2) or more years of this experience have been in the nuclear field, score one (1) additional credit.

2.3.1.2 b) Additional Experience (after assignment) (4 credits maximum). Experience in quality assurance, score one (1) credit for each full year (2 credits maximum) or,

Experience in auditing, score two (2) credits for each full year (3 credits maximum) or,

Experience in nuclear quality assurance, score one (1) credit for each full year (3 credits maximum) or,

Experience in nuclear quality assurance auditing, score one (1) credit per every six months (4 credits maximum).

2.3.1.3 Other Credentials of Professional Competence (2 credits maximum). Certification of competency in engineering, science, or quality assurance specialities issued and approved by a State Agency, or National Professional or Technical Society, score two (2) credits.

2.3.1.4 Rights of Management (2 credits maximum). The Lead Auditor's employer may grant up to one (1) credit for other performance factors applicable to auditing which may not be explicitly called out in this standard such as leadership, sound judgment, maturity, analytical ability, tenacity, and past performance, plus one (1) credit for satisfactory completion of Lead Auditor training program.

q. ANSI N45.2.12-1977, Requirements for auditing of Quality Assurance Programs for Nuclear Power Plants.

The Engineering and Research Department follows the guidance of ANSI N45.2.12-1977 exclusive of other documents referenced therein.

Insert B1

PECo will comply with Branch Technical Position CMEB 9.5-1 as described in the LGS Fire Protection Evalvation Report

Insert B2

p. Regulatory Guide 1.144, Revision 1, September 1980, Auditing of Quality Assurance Programs For Nuclear Power Plants. Endorses ANSI/ASME N45.2.12-1977.

The Engineering and Research Department follows Regulatory Guide 1.144, Revision 1, September 1980 and ANSI/ASME N45.2.12-1977 exclusive of other documents referenced therein.