



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W.
ATLANTA, GEORGIA 30323

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Report Nos.: 50-338/84-35 and 50-339/84-35

Licensee: Virginia Electric and Power Company
Richmond, VA 23261

Docket Nos.: 50-338 and 50-339

License Nos.: NPF-4 and NPF-7

Facility Name: North Anna 1 and 2

Inspection Conducted: September 17-21, 1984

Inspectors: C.M. Upright for
G. A. Belisle

10/23/84
Date Signed

C.M. Upright for
C. F. Smith

10/23/84
Date Signed

H.C. Whitcomb, III
H. C. Whitcomb, III

10/23/84
Date Signed

Approved by: C.M. Upright
C. M. Upright, Section Chief
Operations Branch
Division of Reactor Safety

10/23/84
Date Signed

SUMMARY

Scope: This routine, unannounced inspection involved 90 inspector-hours on site in the areas of Licensee Actions on Previous Enforcement Matters; QA Program Review; QA/QC Administration; Procurement; Receipt, Storage, and Handling; Design Changes and Modifications; Measuring and Test Equipment; Records; Document Control; and Licensee Action on Previously Identified Inspection Findings.

Results: Of the ten areas inspected, no violations or deviations were identified in eight areas; one apparent violation was found which involved two areas.

REPORT DETAILS

1. Licensee Employees Contacted

C. Baird, Supervisor, Construction Engineering
R. Berquist, Instrument Supervisor
*R. Bilyeu, Licensing Coordinator
*M. Bowling, Assistant Station Manager
L. Carter, QA/QC Training Coordinator
*R. Collins, Supervisor, QA/QC
*S. Eisenhart, Licensing Coordinator
*R. Hardwick, Manager, Nuclear Programs and Licensing
*E. Harrell, Station Manager
K. Hinkle, Project Construction Supervisor
*A. Hogg, Manager, QA
R. Hurd, Staff Engineer
T. Johnson, QA Staff Engineer
P. Knutsen, Supervisor, Nuclear Engineering
F. Miller, QC Supervisor
F. Motley, Lead QC Inspector
*M. Pinion, Engineering Supervisor
P. Quarles, QC Supervisor (M&TE)
J. Smith, QC Supervisor (Inspections, Document Control (QC Logroom) and Warehouse)
D. Snodgrass, Assistant Instrument Supervisor
*F. Terminella, QC Supervisor
D. Thomas, Mechanical Maintenance Supervisor
*J. Waddill, Executive Manager, QA
V. West, Supervisor, Planning and Support Services

Other licensee employees contacted included technicians and office personnel.

NRC Resident Inspector

*J. Luehman

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on September 21, 1984, with those persons indicated in paragraph 1 above. The licensee acknowledged the following inspection findings.

Violation: Failure to provide procedural acceptance criteria required by 10 CFR 50, Appendix B, Criterion V, paragraphs 7 and 10.

Inspector Followup Item: Procedural guidance in determining the requirements for conversion of Engineering Work Requests (EWRs) to Outside Technical Support Requests (Types 1, 2, 3, or 4) has not been delineated in ADM-3.7. Additionally, procedural guidance is not provided in the working level procedures of the group which makes the decision as to whether or not work will be processed under the EWR program, or the integrated design control and document control program, paragraph 9.

The licensee was informed of an unresolved item relating to lack of procedural guidance for completing procurement document reviews. Upon review by Region II management, this item was included in the violation listed above. The licensee was informed by telephone of this action on October 5, 1984.

3. Licensee Action on Previous Enforcement Matters (92702)

(Open) Violation 338, 339/83-01-02: Failure to Establish a System to Evaluate Equipment Failures.

Licensee responses dated March 8, March 17, and May 11, 1984, were considered acceptable by Region II. The inspector reviewed ADM 16.10, Class 1E Equipment Failure Analysis dated March 31, 1984, and ADM 16.16, Equipment Failure Analysis Program dated July 19, 1984. These procedures delineate the licensee failure analysis program. The inspector conducted an interview with the staff engineer responsible for this functional area and was informed that he had been on this assignment for approximately three weeks. This program is not scheduled to be fully implemented until three months after program development. An informational data base is currently under development. The inspector also reviewed a memo from G. Clark to M. Bowling dated August 22, 1984. This memo transmitted Audit N84-34 findings relating to failure to properly implement ADM 16.10 requirements. A response to this memo is under development. This item will be reinspected at a later date to verify full implementation of the licensee failure analysis program.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. QA Program Review (35701)

The references and documents mentioned throughout this report were reviewed. Licensee procedures were verified to be in compliance with referenced documents. Changes to these procedures were also verified to be in compliance with referenced documents.

Numerous discussions were conducted with plant personnel during inspection activities in various functional areas referenced by the inspectors. Plant personnel were knowledgeable in their specific disciplines. The inspector conducted an interview with the QA/QC Training Coordinator and determined that QA/QC personnel are being trained in various interdisciplinary functions. This program was comprehensive and well maintained. Personnel records were accurate and easily retrievable.

The QA Department has undergone a reorganization. Reporting to the Department Manager are the training staff; management staff; QA supervisor responsible for QA engineering, auditing, and surveillance activities; QC supervisor responsible for warehousing, design changes, maintenance, and document control activities. The management staff is a technical position being filled by an SRO qualified individual. This person, due to a strong operational background, acts as a technical advisor to QA and also has other job functions as stated in the classification summary for this position.

Implementation was verified by performing inspections in specific areas described in the remainder of this report.

Within this area, no violations or deviations were identified.

6. QA/QC Administration (35751)

- References:
- (a) 10 CFR 50, Appendix B, Quality Assurance Requirements for Nuclear Power Plants and Fuel Reprocessing Plants
 - (b) Regulatory Guide 1.33, Quality Assurance Program Requirements (Operations)
 - (c) ANSI N18.7-1976, Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants

The inspector reviewed the licensee QA/QC administration program required by references (a) through (c) to verify that the program had been established in accordance with regulatory requirements and industry guides and standards. The following criteria were used during this review to determine the overall acceptability of the established program:

- The QA program documents clearly identify those structures, systems, components, documents, and activities to which the QA program applies.
- Procedures and responsibilities had been established for making changes to QA program documents.
- Administrative controls for QA/QC procedures require review and approval prior to implementation, control of revisions, and control of distribution and recall.

- Responsibilities had been established to assure overall evaluation of the effectiveness of the QA program.
- Methods existed to modify the QA program to provide increased emphasis on identified problem areas.

The documents listed below were reviewed to verify that these criteria had been incorporated into QA/QC administration activities:

VEPCO Topical, VEP-1-4A

ADM 2.1, Classification of Systems, Components, and Structures dated July 12, 1984

NPSQAM Section 2, Quality Assurance Program dated February 1, 1984

NPSQAM Section 6, Document Control dated February 1, 1984

NPSQAM Section 16, Corrective Action dated February 1, 1984

NPSQAM Section 18, Audits dated February 1, 1984

QADI 1.0, Quality Assurance Department Organization dated August 25, 1983

QADI 6.0, Preparation and Control of Quality Assurance Department Instructions dated August 25, 1983

QADI 10.1, QA Surveillance/Inspection Activities dated February 23, 1984

QADI 16.0, Corrective Action Audit Program dated October 31, 1983

QADI 18.1, Quality Assurance Audit Program dated February 29, 1984

ADM 2.1 contains a broad list of critical structures, systems, and components (CSSC) but this list does not go into component level specificity. ADM 2.1 is augmented by a more specific Class 1E electrical component list. This additional CSSC listing is planned to be added to ADM 2.1.

The inspector interviewed the Executive Manager QA when he was on site. General QA activities and responsibilities were discussed. The inspector was informed during this interview that the licensee is planning an independent QA review by an outside contractor. This review is tentatively arranged for the latter part of 1984.

Within this area, no violations or deviations were identified.

7. Procurement (38701)

- References:
- (a) 10 CFR 50, Appendix B, Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants
 - (b) 10 CFR 50, Part 21, Reporting of Defects and Noncompliance
 - (c) Regulatory Guide 1.38, Quality Assurance Requirements for Packaging, Shipping, Receiving, Storage, and Handling of Items for Nuclear Power Plants
 - (d) ANSI N45.2.2-1972, Packing, Shipping, Receiving, Storage, and Handling of Items for Nuclear Power Plants
 - (e) Regulatory Guide 1.33, Quality Assurance Program Requirements (Operations)
 - (f) ANSI N18.7-1976, Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants
 - (g) Regulatory Guide 1.58, Qualification of Nuclear Power Plant Inspection, Examination, and Testing Personnel
 - (h) ANSI N45.2.6-1978, Qualification of Inspection, Examination, and Testing Personnel
 - (i) Regulatory Guide 1.123, Quality Assurance Requirements for Control of Procurement of Items and Services for Nuclear Power Plants
 - (j) ANSI N45.2.13-1976, Quality Assurance Requirements for Control of Procurement of Items and Services for Nuclear Power Plants

The inspector reviewed the licensee procurement program required by references (a) through (j) to determine if the program had been established in accordance with regulatory requirements and industry guides and standards. The following criteria were used during this review to determine the overall acceptability of the established program:

- Controls had been established to assign departmental responsibilities for procurement activities.
- Controls had been established to identify safety-related equipment, supplies, consumables, and services to be procured under the QA program.
- Controls had been established to provide measures and assign responsibilities for the preparation, review, approval, and changes to procurement documents.

- Procedures had been established for qualifying and maintaining approved vendors, suppliers, and contractors.
- Procedures had been established to assure that vendors, contractors, and suppliers conform to procurement and quality assurance document requirements, industry standards and codes, and that nonconformances are properly reported and corrected.
- Controls had been established to provide for audits and surveillances of procurement activities.

The documents listed below were reviewed to verify that the above criteria had been incorporated into the licensee QA program to control procurement of safety-related items and services:

VEPCO Topical, 17.2.4, Procurement Document Control

NPSQAM Section 4, Procurement Document Control, Revision 3

ADM-2.1, Classification of Systems, Components, and Structures dated July 12, 1984

ADM-4.0, Procurement Document Control dated February 22, 1984

ADM-4.1, Purchase Requisition/Order Procedures dated January 18, 1984

ADM-4.2, Repeating Purchase Requisitions dated April 5, 1984

ADM-4.3, VEPCO Local Draft dated March 30, 1984

ADM-4.4, Letters of Authorization dated December 21, 1983

VEPCO Procurement Policy Manual dated June 22, 1984

SOP 8.3.1, Processing Stores Requisitions dated February 14, 1984

POP 2.8.0, Purchasing-Multiple Power Projects dated November 1, 1983

Licensing and Quality Assurance Department VEPCO Vendors List

VEPCO Topical Section 17.2.4 states that policies are established in the Nuclear Power Station Quality Assurance Manual (NPSQAM) to ensure that procurement documents reference all actions required by a supplier in accordance with the applicable codes, specifications, and drawings. These documents are reviewed by the QC staff to confirm accuracy and adequacy of the quality references and requirements. Procurement documents incorporate the design basis technical requirements including the applicable regulatory requirements, component and material identification requirements, drawings,

specifications, codes, industrial standards, test and inspection requirements, and special process instructions. NPSQAM Section 4 delineates responsibilities for licensee personnel relating to purchase requisitions. Section 5.6 requires reviews to be performed by licensee personnel to assure that accurate information is provided for purchase requisitions. ADM 4.0 expands responsibilities for licensee personnel relating to purchase requisitions. The inspector interviewed licensee personnel responsible for purchase requisitions.

The inspector interviewed six construction personnel in the following positions:

- Project Construction Supervisor
- Supervisor, Construction Engineering
- Senior Specialist (2)
- Staff Engineer
- Electrician, Material Control

These personnel translate design change material lists into purchase requisitions. When submitted to the purchasing department, these purchase requisitions are translated into purchase orders for material requisition. Four personnel interviewed represented civil, mechanical, and electrical disciplines. When a design change is formulated and sent to construction, a parts list is included for all material required to complete the design change. This material parts list includes QA categories for equipment to be purchased and applicable specifications for this material. Construction personnel do not classify or specify material to be purchased. If this information is not included in the design package, construction personnel resolve questions with design engineering personnel prior to generating purchase requisitions.

The inspector interviewed a procurement coordinator to determine how QA categories are assigned and specifications are delineated. For repeating requisitions, this information is already established. For non-repeating requisitions, this information is provided by cognizant supervisors or the material coordinator.

The inspector interviewed licensee engineering personnel to determine how purchase requisition cards were evaluated for QA Category assignment and how accurate material specifications were delineated. The inspector also interviewed QA personnel to determine how QA aspects of purchase requisitions were reviewed. In all interviews conducted, licensee personnel were knowledgeable in their task functions. Personnel were assigned in these positions based on previous experience and knowledge. However, in all interviews, procedures could not be produced that described these reviews. The inspector recognizes that due to a large purchase requisition volume (approximately 10-15,000 per year), individual procedures for each different type of material would be impractical. However, a generic type procedure would assure a uniform review by all personnel involved.

Within this area, one item contributing to a violation was identified. 10 CFR 50, Appendix B, Criterion V requires that procedures include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished. The licensee procurement procedures do not contain acceptance criteria relating to the scope, depth, or basis for each group's review of purchase requisitions. This example and others identified in paragraph 10 constitute a violation (338, 339/84-35-01).

8. Receipt, Storage, and Handling of Equipment and Materials (38702)

- References:
- (a) 10 CFR 50, Appendix B, Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants
 - (b) 10 CFR 50, Part 21, Reporting of Defects and Noncompliance
 - (c) Regulatory Guide 1.38, Quality Assurance Requirements for Packaging, Shipping, Receiving, Storage, and Handling of Items for Nuclear Power Plants
 - (d) ANSI N45.2.2-1972, Packaging, Shipping, Receiving, Storage, and Handling of Items for Nuclear Power Plants
 - (e) Regulatory Guide 1.33, Quality Assurance Program Requirements (Operations)
 - (f) ANSI N18.7, Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants
 - (g) Regulatory Guide 1.58, Qualification of Nuclear Power Plant Inspection, Examination, and Testing Personnel
 - (h) ANSI N45.2.6-1978, Qualification of Inspection, Examination, and Testing Personnel

The inspector reviewed the licensee receipt, storage, and handling program required by references (a) through (h) to determine if the program had been established in accordance with regulatory guides and industry guides and standards. The following criteria were used during this review to determine the overall acceptability of the established program:

- Controls had been established for conducting and documenting receipt inspections and reporting nonconformances.
- Controls had been established for item disposition marking, storing, and protection of items during storage.
- Controls had been established for limited shelf life items and for performing audits and surveys of storeroom activities.

- Controls had been established for qualification of inspection personnel.
- Controls had been established for item conditional release.
- Controls had been established for item storage.
- Controls had been established for item handling.

The documents listed below were reviewed to verify that the above criteria had been incorporated into the licensee QA program to control receipt, storage, and handling of equipment and materials:

VEPCO Topical, 17.2.7, Control of Purchased Material, Equipment, and Services

VEPCO Topical, 17.2.13, Handling, Storage, and Shipping

NPSQAM Section 7, Control of Purchased Materials, Equipment, and Services, Revision 2

NPSQAM Section 13, Handling, Storage, and Shipping, Revision 2

ADM-7.0, Control of Purchased Materials, Equipment, and Services - Receipt Phase dated March 31, 1983

ADM-8.0, Identification and Control of Materials, Parts, and Components dated June 7, 1984

ADM-8.1, Control of Consumable Material dated February 29, 1984

ADM-13.0, Handling, Storage, and Shipping dated April 5, 1984

ADM-13.1, Maintenance of Items in Storage dated June 23, 1983

ADM-13.2, Shelf Life Program dated June 7, 1984

ADM-13.3, Use of Operating Station Stores Facilities and Services dated November 2, 1983

ADM-13.4, Field Staging and Control of Category 1 Materials dated February 15, 1984

ADM-13.5, Material Control for Appendix R Repairs dated July 26, 1984

QADI 10.1, QA Surveillance/Inspection Activities dated February 23, 1984

SOP 8.12.0N, Material Control dated December 16, 1983

SOP 8.12.1N, Field Staging and Control for Category I Material dated December 6, 1983

SOP 8.12.2N, Issue of Material dated December 16, 1983

SOP 8.12.3, Inventory Control dated December 17, 1984

SOP 8.12.6N, Material Identification dated February 22, 1984

SOP 8.12.7N, Shelf Life Program dated February 23, 1984

SOP 8.12.8, Material Shipping and Receiving dated June 20, 1984

SOP 8.12.9, Material Storage dated December 16, 1983

SOP 8.12.10, Discrepant Shipment Reports dated January 10, 1984

POP 2.9.2, Inventory Procedure Multiple Power Projects dated August 3, 1981

The inspector conducted a tour of three warehouses (5, 7, and 10) where items are stored for plant use. Warehouse 10 is specifically used by site construction personnel. During the warehouse tour, the inspector randomly selected various material and verified storage requirements. The inspector verified preventive maintenance requirements for several large pumps (electrical elements heated and shafts periodically rotated) for material in storage for Units 3 and 4. This material was awaiting disposition. The inspector verified Level A storage requirements for those items classified Level A by the licensee. Both warehouses 5 and 10 had designated hold areas. The inspector selected five items in the warehouse 5 hold area to determine why the material was on hold. The following five items were selected: PO N 10119, 10143, 09363, 07163, and 07787. These items were on hold due to lack of specified documentation (two were missing Certificates of Conformance, one needed a Certified Material Test Report, and the remaining two were missing shelf life information). These items were being handled in accordance with existing program requirements.

Within this area, no violations or deviations were identified.

9. Design Changes (37702)

References: (a) 10 CFR 50, Appendix B, Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants

(b) Regulatory Guide 1.64, Quality Assurance Requirements for the Design of Nuclear Power Plants, Revision 2

(c) ANSI N45.2.11-1974, Quality Assurance Requirements for the Design of Nuclear Power Plants

- (d) Regulatory Guide 1.33, Quality Assurance Requirements (Operations), November 1972
- (e) ANSI N18.7-1976, Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants
- (f) Technical Specifications, Section 6, Administrative Controls
- (g) Regulatory Guide 1.120, Fire Protection, Guidelines for Nuclear Power Plants, Revision 1

The inspector reviewed the licensee design change program required by references (a) through (g) to determine that the program had been established in accordance with regulatory requirements, industry guides and standards, and approved Technical Specifications. The following criteria were used during the review to determine the overall acceptability of the established program:

- Procedures have been established to control design changes which include assurance that a proposed change does not involve an unreviewed safety question or a change in technical specifications as required by 10 CFR 50.59.
- Procedures and responsibilities for design document control have been established including responsibilities and methods for conducting safety evaluations.
- Administrative controls for design document control have been established for the following:
 - . Controlling changes to approved design change documents
 - . Controlling or recalling obsolete design change documents such as revised drawings and modification procedures
 - . Release and distribution of approved design change documents
- Responsibilities have been assigned in writing to assure implementation of the release and distribution of approved design change documents.
- Administrative controls and responsibilities have been established commensurate with the time frame for implementation to assure that design changes will be incorporated into:
 - . Plant procedures
 - . Operator training programs

- . Plant drawings to reflect implemented design changes and modifications
- Design controls require that implementation will be in accordance with approved procedures.
- Design controls require assigning responsibility for identifying post-modification testing requirements and acceptance criteria in approved test procedures and for evaluation of test results.
- Procedures assign responsibility and delineate the method for reporting design changes to the NRC in accordance with 10 CFR 50.59.
- Controls require review and approval of temporary modifications in accordance with Section 6 of the Technical Specifications and 10 CFR 50.59.

The documents listed below were reviewed to verify that these criteria had been incorporated into the licensee design change program:

VEPCO Quality Assurance Topical Report, VEP-1-4A, Quality Assurance Program Operations Phase, through Amendment 4

Nuclear Power Station Quality Assurance Manual (NPSQAM).

Section 3.0, Design Control, Revision 3
Section 16.0, Corrective Action, Revision 3

Station Administrative Procedures

ADM-3.1, Control of Design Change Implementation dated May 23, 1984

ADM-3.7, Engineering Work Request dated May 29, 1984

ADM-3.8, Design Input Procedure dated February 22, 1984

ADM-3.9, Evaluation for Potential Unreviewed Safety Questions dated May 17, 1984

ADM-1.1, Station Nuclear Safety and Operating Committee dated April 5, 1984

ADM-1.2, Safety Engineering Staff

VEPCO Nuclear Design Control Interface Manual (NDCIM)

NDCIM-1, PO-PSE&C Project Interface Procedure, Revision 1

NDCIM-2, Standard Instructions for Design Change Packages, Revision 1

NDCIM-3, Integrated Design Control and Document Control Program for VEPCO Nuclear Power Stations, PO-PSE&C Interface Procedure, Revision 1

NDCIM-4, Processing of Design Control Documents, Revision 1

NDCIM-5, Nuclear Operations - Engineering and Construction Document and Drawing Control Interface Procedure, Revision 1

NDCIM-6, NOD-PSE Interface Procedures for Drawing Update Program, Revision 1

Engineering and Construction Nuclear Design Control Program Manuals, Volumes I and II.

Section 1.0, Organization, Revision 1

Section 2.0, Program Plan, Revision 1

Section 3.0, Design Input, Revision 1

Section 4.0, Design Process, Revision 1

Section 5.0, Design Verification, Revision 1

Section 6.0, Document Control, Revision 1

Section 7.0, Design Change Control, Revision 1

Section 8.0, Interface Control, Revision 1

The inspector reviewed licensee administrative and design control procedures and conducted interviews with licensee management to determine the status of the design change program. The inspector determined that responsibility for providing design engineering support to the operating stations has been assigned to Power Station Engineering (PSE). A Site Engineering Office (SEO) provides design engineering support within the limit of its resources and acts as an interface with Power Operations for outside technical (architect/engineering) support. Nuclear Design Control Interface Manual procedure NDCIM-1 delineates the requirements for the provision of design engineering support by PSE and categorizes the levels of support as follows:

- Type 1 - Engineering assistance from PSE as requested by Power Operations. It may include specific tasks, problem evaluation, or feasibility study.
- Type 2 - A potential station project requiring evaluation and conceptual engineering.
- Type 3 - A defined and approved station project requiring engineering, procurement, and/or construction.
- Type 4 - A project requiring Power Station Construction (PSC) procurement and/or construction support only.

The inspector determined that design engineering activities for the nuclear power stations are conducted under the Integrated Design Control and Document Control Program. The requirements of this integrated program are delineated in the NDCIM which provides a single source reference and means of control for procedures which govern design control and document control interfaces of licensee organizations.

The inspector reviewed the Engineering and Construction Nuclear Design Control Program Manuals, Volumes I and II, to assure that design activities are carried out in a planned, controlled, orderly, and correct manner. The inspector verified that program procedures have been prepared which addresses the requirements of ANSI N45.2.11-1974. Additionally, requirements for the preparation of working level implementing procedures; i.e., departmental design control and document control procedures, have been delineated in writing.

The inspector reviewed the programmatic controls applicable to activities performed in the preparation of an Engineering Work Request (EWR). Administrative procedure ADM-3.7 is the controlling procedure for these activities and defines the purpose of the EWR program as follows:

- Documentation by Power Operations of requests for Engineering Services support

- Prioritization of the request

- Documentation of a controlled resolution to the request.

Depending on the nature of the request for engineering support, an EWR can result in plant activities that do not require the support of PSE or it could conceivably result in a request to PSE for either types 1, 2, 3, or 4 engineering support. The Engineering Design Control group is assigned responsibility for the review and determination of whether an EWR is adequate or if a Design Change, a Setpoint Change, or Engineering Study is required.

The inspector interviewed licensee management concerning the updating of drawings impacted by design changes and reviewed the following documents:

- Memorandum from E. W. Harrel to Mr. W. L. Stewart dated May 26, 1983, Subject: Backlog of Design Change Package Completion

- Memorandum from E. W. Harrel to Mr. W. L. Stewart dated September 14, 1984, Subject: Design Change Close-Out Status

The inspector determined that the SEO provides drafting support necessary for updating drawings impacted by design changes. Based on the inspector's observations and discussions with licensee management, the drawing update program appears to be adequately implemented.

Within this area, an inspector followup item was identified involving procedural guidance for converting EWRs to requests for outside technical support. Administrative procedure ADM-3.7 is the controlling procedure for processing EWRs and delineates programmatic controls applicable from the recognition of a condition which requires engineering services support to the final disposition of the request as documented by the EWR. ADM-3.7 states that the EWR is the specific task that is to be accomplished to create or to establish the condition of a predetermined goal. It further adds that the intent can be defined as follows:

The demonstration of operability or level of operability by establishing system or component performance acceptance criteria

The proper sequencing of activities that would affect the satisfactory completion of the task

The specific actions that must be accomplished to assure satisfactory completion of the task

Depending on the nature of the condition for which engineering services support is required, an EWR can result in a design modification. The integrated design control program assigned PSE the responsibility for providing "Outside Technical Support." This support consists of any outside services related to or in support of Design Engineering and has been categorized as type 1, 2, 3, or 4 support.

ADM-3.7 fails to delineate programmatic controls which provide adequate quantitative and/or qualitative guidance in the determination of when an EWR should be converted to a Type 1, 2, 3, or 4 support request to PSE. Additionally, quantitative or qualitative guidance is not delineated in working level procedures of the group assigned responsibility for making this decision.

Licensee management agreed that a programmatic deficiency exists and informed the inspector that this problem had been previously identified by VEPCO personnel. Corrective action is currently being developed to resolve this deficiency. Until the licensee provides appropriate instructions or procedures which ensure that EWRs are correctly converted to Outside Technical Support Request (Types 1, 2, 3, or 4) for work performed under the Integrated Design Change program, this is identified as an Inspector Followup Item (338, 339/84-35-02).

10. Measuring and Test Equipment (61724)

References: (a) 10 CFR 50, Appendix B, Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants

(b) Regulatory Guide 1.33, Quality Assurance Requirements (Operations), Revision 2, February 1978

(c) ANSI N18.7-1976, Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants

(d) Technical Specifications (TS)

The inspector reviewed the licensee measuring and test equipment (M&TE) program required by references (a) through (d) to verify that the program had been established in accordance with regulatory requirements, industry guides and standards, and Technical Specifications. The following criteria were used during this review to determine the overall acceptability of the established program:

- Criteria and responsibility for assignment of the calibration/adjustment frequency have been established.
- An equipment inventory list has been prepared which identifies equipment used on safety-related structures, systems, or components and calibration frequency of each piece of equipment.
- Requirements exist for marking the latest calibration date on each piece of equipment or otherwise identifying the status of calibration.
- A system has been provided for assuring that equipment is calibrated before the date required.
- Requirements have been established which prohibit use of equipment which has not been calibrated within the prescribed frequency and describes controls to prevent the inadvertent use of such equipment.
- Calibration controls have been established which require evaluation of the cause and the acceptability of items calibrated when a piece of M&TE fails calibration.
- New equipment will be added to the inventory list and calibrated prior to being placed in service.

The following documents were reviewed to verify that these criteria had been incorporated into the licensee's administrative procedures for M&TE activities:

ADM-5.14, Calibration Procedure Format dated January 11, 1984

ADM-12.0, Control of Measuring and Test Equipment dated August 23, 1983

ADM-12.1, Measuring and Test Equipment Calibration Program dated July 12, 1984

ADM-6.18, Control of Vendor Manuals, Vendor Files, and Interface dated August 2, 1984

ADM-2.1, Classification of Systems, Components, and Structures dated July 12, 1984

NPSQAM Section 12, Control of Measuring and Test Equipment, Revision 2

QADI 2.4, Attachment 6.3, Training Plan and Qualification Record: Measuring and Test Equipment Evaluation, Revision 0

QA Audit N-83-24, Measuring and Test Equipment dated April 12, 1983

Quality Control Inspection Report IR-N-84-506 dated July 6, 1984

NQC Test Equipment Listing dated June 19, 1984

Mechanical NQC Instruments - October Recall List dated September 19, 1984

VEP-1-4A, Topical Report - QA Program Operations Phase, Amendment 4

The inspector reviewed the licensee NQC test equipment list (dated June 19, 1984) which identifies all M&TE by NQC number, equipment description, model number, serial number, calibration frequency, and the current calibration status. The following 16 individual items were evaluated to ensure that the current status was accurately indicated, equipment in the "restricted" or "no calibration required" categories were appropriately labeled, and that approved calibration procedures were written in the format prescribed by licensee administrative procedures.

<u>NQC #</u>	<u>NQC #</u>
003	542
028	584
106	1044
150	1094
197	1188
244	1204
445	6288
498	6402

The inspector interviewed the Instrument Supervisor responsible for the M&TE program to verify that the program was being implemented in accordance with the Measuring and Test Equipment Calibration Program (ADM-12.1). Interviews were also conducted with QC supervisory personnel assigned specific responsibilities in the M&TE program. Based on this programmatic review and interviews with licensee representatives, the existing procedural guidelines specified in licensee administrative procedures do not fully comply with the requirements of an M&TE program as required by references (a) through (d).

Within this area, several items contributing to a violation were identified. 10 CFR 50, Appendix B, Criterion V states that procedures shall include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished. Acceptance criteria have not been specifically delineated in ADM-12.1 in the following areas:

- a. Paragraph 3.1 states that the calibration interval of measuring and test equipment may be varied, based on experience and failure rate of like devices, with the concurrence of the Supervisor-Quality Control and the cognizant Supervisor. The criteria by which the Supervisor-QC or the cognizant Supervisor arrives at their concurrence is not specifically described in this procedure.
- b. Paragraph 5.1 of ADM-12.1 states that devices whose calibration interval is designated as prior to use and are in continuous use will be calibrated every 30 days or less as determined by the Supervisor-Quality Control. Due to the absence of specific procedural guidance, interviews with supervisory personnel in both the quality control and instrument departments indicate that each group would control items in this category by different methods.
- c. Paragraphs 8.6 and 9.1 collectively require the Supervisor-Quality Control to review the notice of instrument restriction and cause an evaluation to be performed concerning the validity of tests and measurements conducted since the last calibration for instruments whose calibration was not within the established limits when presented for calibration. Qualitative or quantitative acceptance criteria used as the basis for this evaluation is not specifically described in this procedure. In the event that an evaluation is made to repeat tests with questionable validity, specific guidance is not prescribed which requires an evaluation of the safety significance or reportability of the problem.
- d. Paragraph 9.3 requires that for instruments consistently found out of calibration (two of the past three calibrations), an attempt will be made to determine the cause of the failures and appropriate action taken. Qualitative or quantitative acceptance criteria to be used as the basis for this determination, the corrective action, and the plant group responsible for this action are not specifically described in this procedure.

These examples of failure to include appropriate quantitative or qualitative acceptance criteria as discussed above and in similar examples discussed in paragraph 7 constitute a violation (338, 339/84-35-01).

11. Records (39701)

- References:
- (a) 10 CFR 50, Appendix B, Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants
 - (b) Regulatory Guide 1.88, Collection, Storage, and Maintenance of Nuclear Power Plant Quality Assurance Records, Revision 2, October 1976
 - (c) ANSI N45.2.9-1974, Requirements for Collection, Storage, and Maintenance of Quality Assurance Records for Nuclear Power Plants
 - (d) Regulatory Guide 1.33, Quality Assurance Requirements (Operations), Revision 2, February 1978
 - (e) ANSI N18.7-1976, Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants
 - (f) Technical Specifications (TS)

The inspector reviewed the licensee records program required by references (a) through (f) to verify that this program had been established in accordance with regulatory requirements, industry guides and standards, and Technical Specifications. The following criteria were used during this review to determine the overall acceptability of the established program:

- Requirements and provisions have been established to maintain the QA records required by references (a) through (f).
- Responsibilities have been assigned to assure that these records will be maintained.
- Record storage controls have been established which describe the record storage facility, designate a storage facility custodian, describe a filing system to be used in the retrieval of records, describe a method for verifying that records received are in agreement with the transmittal document or a pre-established record checklist, describes provisions for governing access to files, and establishes methods for correcting or filing supplemental information including the designation of required reviews and approvals.
- Retention periods for required QA records have been established.
- Responsibilities have been assigned for establishing the retention periods of records not covered by references (a) through (f).
- Authority, responsibility, and methods for disposal of superceded records has been specified.

The following documents were reviewed to verify that these criteria had been incorporated into licensee administrative procedures for the established records programs:

ADM-6.5, Completing and Forwarding Documents to Station Records dated June 21, 1984

ADM-17.4, Record Control and Retrieval dated March 31, 1983

ADM-17.3, Filing System dated August 9, 1984

NPSQAM Section 17, Records

The review of the licensee administrative procedures indicates that sufficient programmatic measures have been established to satisfy the requirements specified by references (a) through (f). Although the inspector's review was primarily concerned with assessing the programmatic adequacy of the established program, interviews with several licensee representatives indicate that the actual implementation of the program closely follows the established station administrative guidelines. Based on this review, the established records program appears to be adequate.

Within this area, no violations or deviations were identified.

12. Document Control (39702)

References: (a) 10 CFR 50, Appendix B, Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants

(b) Regulatory Guide 1.33, Quality Assurance Requirements (Operations), Revision 2, February 1978

(c) ANSI N18.7-1976, Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants

(d) Technical Specifications (TS)

The inspector reviewed the licensee document control program required by references (a) through (d) to verify that the program had been established in accordance with regulatory requirements, industry guides and standards, and Technical Specifications. The following criteria were used during this review to determine the overall acceptability of the established program:

- Administrative controls have been established which require current as-built drawings to be provided to the plant site in a timely manner, provide for the control of obsolete drawings, ensure that discrepancies found between as-built drawings and the as-constructed facility are handled as design changes, and assign responsibilities to ensure that these activities are implemented.

- Master indices are being maintained for drawings, manuals, Technical Specifications, FSARs, and procedures which indicate the current revision.
- Measures are established that provide a mechanism for the issuance and distribution of controlled documents, require periodic reviews, and assign responsibility to ensure that these activities are implemented.

The following documents were reviewed to verify that these criteria had been incorporated into the licensee's administrative procedures for the established document control program:

ADM-6.1, Document Control dated March 31, 1983

ADM-6.2, Controlled Documents dated July 26, 1984

ADM-6.3, Control Levels for Distribution of Controlled Documents dated March 31, 1983

ADM-6.4, "Controlled Document" Holders Responsibilities dated March 31, 1983

ADM-6.5, Completing and Forwarding Documents to Station Records dated June 21, 1984

NPSQAM Section 6, Document Control

DCM-75, Manufacturer Technical Manuals and Drawing Control

The inspector reviewed the established measures to ascertain that the document control administrative procedures satisfy the criteria specified in references (a) through (d). Based on this review, it appears that sufficient controls have been established to meet regulatory requirements.

Within this area, no violations or deviations were identified.

13. Licensee Actions on Previously Identified Inspection Findings (92701)

(Open) Inspector Followup Item 338/84-14-01, 339/84-13-01: Clarification of Valve Tests and Inspection Requirements.

The inspector discussed this item with the cognizant maintenance supervisor. Immediate corrective action for several inspector concerns had been taken but all concerns were not addressed. Long term corrective action was scheduled by the licensee for completion by the end of September 1984. This item will be reinspected upon completion of the long term corrective action.