U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report Nos. 50-354/88-19

Docket Nos. 50-354

License Nos. NPF-57

Licensee: Public Service Electric and Gas Company
80 Park Plaza
Newark, New Jersey 07101

Facility Name: Hope Creek Generating Station

Inspection At: Hancocks Bridge and Salem, New Jersey

Inspection Dates: June 13-17, 1988

Inspector: W. Oliveira, Reactor Engineer — date 8/3/88

Approved by: N. J. Blumberg, Chief, Operations Programs Section, Operations Branch, DRS, RI — date 8/3/88

Inspection Summary: Routine unannounced inspection on June 13-17, 1988 (Report No. 50-354/88-19)

Areas Inspected: Non-licensed staff training, quality assurance annual review (procurement, receipt inspection and audits), and licensee actions on previous concerns. The region based inspector reviewed the administrative and technical procedures as well as observed activities related to the inspection areas.

Results: No violations or deviations were identified. The non-licensed training program continues to be in conformance with 10 CFR 50 Appendix B Criterion II. Though the Maintenance Department has been reorganized and the module training has been changed, the licensee expects to receive INPO accreditation by January 1989.

The quality assurance program areas of procurement, receipt inspection and audits are in conformance with their respective criterion in 10 CFR 50 Appendix B. The program areas are well documented and implemented by trained and qualified personnel. Additionally, the procurement engineers are considering developing the capability within the next three years to upgrade commercial grade spare part material to safety related material.

DETAILS

1. Persons Contacted

Hope Creek Generating Station (HC)

R. Beard, Procurement Engineering Supervisor
*R. Beckwith, Licensing Engineer
J. Fisher, Quality Assurance (QA) Supervisor
A. Giardino, QA Manager
*J. Hagan, Maintenance Manager
*R. Hovey, Operations Engineer (Acting)
*S. LaBruna, General Manager Hope Creek Operations
*M. LaVecchia, Principal QA Engineer
J. Lawrence, Licensing Engineer
*J. Nichols, Technical Manager
J. Pardo, QA Senior Engineer
M Rosensweig, Manager QA Engineering and Procurement
J. Rucki, I&C Systems Engineer - Electrical
*M. Shedlock, Maintenance Engineer
W. Schultz, Manager, QA Programs and Audits
C. Vondra, Operations Manager

Nuclear Training Department

R. Edmonds, Assistant Manager
W. Gott, Principal Training Supervisor
H. Hanson, Manager

United States Nuclear Regulatory Commission

*G. Meyer, Senior Resident Inspector, Hope Creek

*Denotes those who attended the exit meeting on June 17. 1988.

Other engineering, maintenance, QA/QC and training personnel were interviewed during the course of this inspection.

2. Non-Licensed Training (41400)

2.1 Requirements

10CFR 50, Appendix B Criterion II, requires in part that a licensee Quality Assurance (QA) program shall provide for indoctrination and training of personnel performing activities affecting quality. The FSAR Chapter 13.2 commits the licensee to train and qualify plant personnel in accordance with ANSI/ANS 3.1-1981 "Selection Qualification and Training of Personnel for Nuclear Power Plants", and Regulatory Guide 1.8, "Personnel Selection and Training", which endorses ANSI N18.1-1971. Additionally, Technical Specification (TS) Section 6.5.2.4.3.b requires training to be audited annually.

2.2 Scope

The inspector assessed the Non-Licensed Training Program by reviewing or observing the following:

- The training progress.
- The training records.
- The work activities.

2.3 Training Progress

Progress was verified in the Non-Licensed Training Program since the last NRC inspection (50-354/87-09) in April 1987 and includes the following.

2.3.1 INPO Accredition Status

The Self Evaluation Reports (SERs) for all ten programs at the Hope Creek Generating Station have been approved by INPO. A subsequent INPO Accreditation Board visit is scheduled in August 1988 and INPO Accreditation is expected in January 1989.

2.3.2 Systems Engineering Training

Formal training has been completed for the systems engineers and they have been performing OJT. Future continuing training will consist of two days of review per year at the Training Center.

2.3.3 Maintenance Department Training

The Maintenance Department has been reorganized Electricians have been separated from the mechan and placed with the instrument and control (I&C) technicians to form the new Controls Technician Section. Subsequently the Maintenance Departmer has developed new modular training which includes the following:

A training period of 4.5 years for Mechanical and Control Technicians which will contain a total 46 weeks training

- A 4 year period of advance training for Mechanics and Controls Technicians which will contain a total of 37 weeks of training for mechanics and 49 weeks for controls technicians.

- Special (bonus) training for Welders (16 weeks) and Machinists (12 weeks).

- 32-42 weeks of Controls and Protection System training.

2.3.4 Non-Licensed Training Effectiveness

The non-licensed training and qualification effectiveness is measured primarily from training critiques and post (three months) feedback from students and supervisors. Secondary means for measuring effectiveness is the Training Center's Project Tracking System, QA audits and QA surveillances. An example of feedback was the submittal by a shift supervisor of a list of responsibilities for his equipment operators (EOs) during a scram caused by main circulation pump shutdown and trip. Training Department is including the feedback into the E curriculum.

2.4 Training Records

The training records of the instructors, controls technicians, systems engineers and the equipment operator involved in the inspection were reviewed. These records are in compliance with ANSI N45.2.9 QA Records and are automated (computerized), current, complete and readily accessible.

2.5 Observation of Work Activities and Findings

The effectiveness of the implementation of the licensee's non-licensed staff training program at Hope Creek Generating Station (HC) was assessed by reviewing the following activities in the maintenance (mechanical, electrical, and instrument and control), engineering, and quality assurance (QA) areas. The personnel interviewed were trained, qualified and knowledgeable of the administrative controls as well as the technical requirements and procedures.

2.5.1 Controls Technicians

The inspector observed two controls technicians performing a 24 month preventive maintenance (PM), in accordance with procedure MD-PM-ZZ-004, on the Drywell to the Hydrogen Recombiner valve IGS HV-5050B. Though the valve was located 20 feet above the walkway in the drywell and surrounded by instrument lines the PM was performed in a safe manner, indicating knowledge of plant safety rules.

In another activity, three controls technicians were performing a surveillance of the Scram Discharge Valve Water Level switch 1BFLS-N013C-C11 in accordance with procedure 1C-CC.BF-007(Q). The test was performed satisfactorily. Their supervisor however, had submitted a recommendation to the cognizant systems engineer for performing the surveillance more efficiently as part of the feedback process. (See paragraph 2.5.2)

2.5.2 Systems Engineering Activities

The inspector met with the systems engineer who was reviewing the recommendation for the surveillance discussed in paragraph 2.5.1. This recommendation was to build a permanent test rig to perform the Scram Discharge Valve Level surveillances. This test rig would be more efficient in that the control technicians would not have assemble a new test rig each time the surveillance was performed. The systems engineer was knowledgeable of the problem and was acting upon the recommendation.

Another systems engineer discussed a Design Change ALARA Review package DCR 4-HM-0325 with the inspector. The subject was a change to the EHC Reservoir Temperature Controller set point. The drawings reviewed were revised accordingly after the changed was made. The systems engineer was knowledgeable with the technical requirements and the procedures for revising the drawings and removing the obsolete drawings.

2.6 QA/QC Interface With Non Licensed Training Program

An annual QA audit report NN 88-06 addressing training was reviewed. The audit was conducted at the request of the Offsite Safety Review Committee in accordance the Technical Specification paragraph 6.5.2.4. The audit was thorough and comprehensive, and all the findings were corrected in a timely manner.

Twenty QA surveillance reports regarding general plant activities were selected and reviewed with the QA personnel. All of the reports addressed qualifications and training of the personnel observed performing an activity.

2.7 Conclusion

Based on the interviews and documents reviewed, the licensee's non licensed training program continues to be implemented in accordance with NRC requirements and licensee commitments though it has not received INPO accreditation. Even with the reorganization of the Maintenance Department and the introduction of the new training, the licensee expects to be ready for an INPO accreditation visit in August 1988 and be accredited in January 1989.

No violations were identified.

3.0 Quality Assurance Program Annual Review (35701)

3.1 Requirements

The licensee is required to establish a quality assurance (QA) program which complies with the requirements of 10 CFR 50 Appendix B. The Quality Assurance Program is described in the licensee's FSAR and their Nuclear Quality Assurance Department Manual. The Technical Specification Section 6.5, "Review and Audit," requires that the Quality Assurance Program be audited at least once per 24 months.

3.2 Scope

To ensure that the licensee is implementing a QA program that is in conformance with the regulatory requirements and commitments, the inspector reviewed:

- Status of QA Program changes.
- QA Program implementation by selecting three program areas, i.e. Procurement Program, Receipt Inspection Program, and Audit Program implementation.

3.3 Status of QA Program Changes

A licensee representative advised the inspector that there were no QA program changes planned for the next submittal of FSAR changes. The licensee however, is undergoing a Product Service Management (PSM) review to improve the efficiency of each department. When the PSM review is completed, there may be changes to the QA Program Department. Any changes to the QA Program Description will be submitted to NRC in accordance with 10 CFR 50.54, "Conditions of Licenses".

3.4 QA Program Implementation

Procurement Program (38701)

The inspector reviewed the upgrading of commercial graded spare part material to safety related material as implemented by the Procurement Program. The review indicates that the licensee does not have the capability to upgrade commercial graded material to safety related material. They rely on General Electric and other "N" stamp vendors to provide them that service. The Procurement Engineering supervisor stated that the licensee is considering developing the capability in three years to deal with the expected critical shortage of "N" stamp vendors.

The two primary procedures for the evaluation and classification of spare parts for safety related systems are DE-AP-ZZ-0016 (Q) and DE-AP.ZZ-0034 (Q) (draft) which are listed in Attachment I. The inspector and Procurement Engineering supervisor walked down a request for a spare part and verified the applicable portions of the above procedures.

Receipt Inspection Program (38702)

The inspector reviewed the Receipt Inspection Program with the responsible QA supervisor. The program's principal procedures are QAP 3-1 and 4-1 (see Attachment I). The inspector toured the facilities and observed a Quality Control (QC) inspector performing receipt inspection on two items in accordance with QAPs 3-1 and 4-1. The well documented Receipt Inspection Program is in conformance with Regulatory Guide 1.38 and is being implemented by trained and qualified personnel.

Implementation of the Audit Program (40703)

A selected sample of six audits (see Attachment 1) dealing with non licensed training, procurement and material control, and maintenance were reviewed. Also reviewed were several corrective action requests and QA requests related to the audits, a Cooperative Management Audit Program Report and the Nuclear QA Audit Log. The audits were thorough and all findings were corrected in a timely manner.

3.5 Conclusion

Based on the interviews and documents reviewed, the QA program is being implemented in accordance with regulatory and Technical Specification requirements. The programs are well documented and personnel are knowledgeable of the requirements and administrative procedures.

No violations were identified.

4.0 Licensee's Action on Previous NRC Concerns

(Closed) Unresolved Item 50-354/87-21-01: The Master Equipment List MEL was not capable of listing more than nine vendors manuals that would be required to maintain each system/component listed in the MEL.

The MEL was updated and is in the Managed Maintenance Information System (MMIS). The inspector verified that the MEL/MMIS was updated and is capable of listing all the vendor manuals required to maintain each system/component listed in the MEL/MMIS. This item is closed.

(Closed) Unresolved Item 50-354/87-21-02: Licensee did not have information regarding the proposed method to control vendor manuals until completion of the MEL revision.

Licensee submitted a proposed method to control manuals until completion of MEL revision in their letter of October 1, 1987. As discussed in the above unresolved item 50-354/87-21-01, the MEL has been updated and the manuals are under the MMIS control. This item is closed.

5.0 Management Meetings

Licensee management was informed of the scope and purpose of the inspection at the entrance interview on June 13, 1988. The findings of the inspection were discussed with the licensee representatives during the course of the inspection and presented to licensee management at the exit interview on June 17, 1988. (see paragraph 1 for attendees).

At no time during the inspection was written material provided to the licensee by the inspector. The licensee did not indicated proprietary information was involved within the scope of this inspection.

ATTACHMENT I

DOCUMENTS REVIEWED AND REFERENCED

2.0 Non Licensed Training (41400)

Regulatory Guide 1.8, "Personnel Selection and Training" (Paragraph 2.1)

Requirements

Technical Specifications Section 6.5, Review and Audits (Paragraph 2.1)
10 CFR 50, Appendix B, (Paragraph 2.1)
Institute of Nuclear Power Operations (INPO), (Paragraph 2.3.1)
ANS/ANS 3.1-1981, "Selection Qualification and Training of Personnel for Nuclear Power Plants, (Paragraph 2.1)
ANSI N45.2.6, QA Records, (Paragraph 2.1)
FSAR Chapter 13.2, "Training", (Paragraph 2.1)

Plant Procedures (Paragraph 2.5.1)

MD-PM.ZZ-004(Q), "Limitorque Valve Operator Inspection and Lubrication", Rev 4.
IC-CC.BF-007(Q), Channel Calibration CRD Hydraulic Div 3 Channel C11-N013C, Rev 7.

Miscellaneous

Design Change Request (DCR) 4-HM-0325, ECH Reservoir Temperature Controller Set Point. (Paragraph 2.5.2)

3.0 Quality Assurance Program Annual Review

Requirements

10 CFR 50 Appendix B (Paragraph 3.1)
Technical Specification 6.5, "Review and Audit" (Paragraph 3.1)
Nuclear Quality Assurance Department Manual (Paragraph 3.1)
10 CFR 50.54 "Condition of Licenses" (Paragraph 3.3)
Regulatory guide 1.38, March 16, 1973, Quality Assurance Requirements for Packaging, Shipping, Receiving, Storage, and Handling of Items for Water-Cooled Nuclear Power Plants. (Paragraph 3.4)

Administrative Procedures (Paragraph 3.4)

DE-AP.ZZ-0016(Q), Procurement Classification Guidelines, Rev. 1.
DE-AP.ZZ-0034(Q), Class Code Interchangeability, Rev. 0.

QA Procedures (Paragraph 3.4)

QAP 3-1, QA Planning For Procurement, Rev. 6.
QAp 4-1, Receiving Inspection, Rev. 7.

QA Audits and Surveillances (Paragraph 3.4)

Nuclear QA Audit Log
QA Audit Reports NM-86-014 & 014A, 87-05 & 16, 88-06.
Cooperative Management Audit Program
Surveillance Reports 87-433, 555; 88-008, 044, 134, 135, 222, 237, 248, 259, 272, 273, 276, 334, 335, 360, 361, 380, 385,

QA Requests (QARs) and Corrective Action Requests (CARs) (Paragraph 3.4)

QARs MA-86-Q-043-047, CARs HA-87-C018 and MA 86-C006,7, and 8