

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-354/85-22

Docket No. 50-354

License No. CPPR-120

Priority --

Category B

Licensee: Public Service Electric and Gas Company

80 Park Plaza

Newark, New Jersey 07101

Facility Name: Hope Creek Generating Station, Unit 1

Inspection At: Hancocks Bridge, New Jersey

Inspection Conducted: April 29, 1985 - May 3, 1985

Inspectors:

F. H. Day (for H. Gregg)

H. I. Gregg, Lead Reactor Engineer

5/31/85

date

J. T. Wiggins for J. Wiggins

J. T. Wiggins, Chief, Materials and
Processes Section, DRS

6/5/85

date

Approved by:

J. P. Durr
J. P. Durr, Chief, Engineering Branch,
Division of Reactor Safety

6/10/85

date

Inspection Summary: Inspection on April 29-May 3, 1985 (Report 50-354/85-22).

Areas Inspected: Routine unannounced inspection of licensee's activities related to the Reactor Pressure Vessel Internals Installation including review of: 1) The licensee's installation and test procedures, QC inspection records and involvement, and QA/QC interface, 2) discussions with cognizant and work force personnel, and 3) direct observations of ongoing and completed work in the reactor vessel. Additionally, the inspection involved a review of the installation status of the Spent Fuel Pool storage racks. The inspection involved 41 hours on site by one region based inspector.

Results: No violations were identified.

DETAILS

1.0 Persons Contacted

1.1 Public Service Electric and Gas Company (PSEG)

- *A. Barnabei, Principal QA Engineer
- *R. Donges, Lead QA Engineer
- F. Foster, QC Inspector
- *A. Giardino, Manager QA Engineering & Construction
- *R. Griffiths, Principal QA Engineer
- *R. Inverso, Construction Contract Supervisor
- M. Kobran, Sponsor Engineer, Spent Fuel Racks
- *S. LaBruna, Assistant General Manager
- *E. Logan, Site Manager
- *M. Metcalf, QA Startup Engineer
- *J. Nichols, Technical Manager
- R. Robinson, QA Engineer

1.2 Bechtel Construction, Inc. (BCI)

- *W. Cole, Lead Site QA Engineer
- *G. Moulton, Project QA Engineer
- M. Gill, QC Engineer
- R. Hamilton, Lead QC Engineer

1.3 General Electric Company (GE-NEBO)

- *C. Brinson, QA Engineer
- J. Cockcroft, Lead Mechanical Engineer

1.4 General Electric Company (GE-A&ESO)

- R. Burke, Project Manager
- A. Giansanti, QC Engineer
- M. Hart, Site QC Manager
- C. Johnson, Welding Engineer

1.5 U.S. Nuclear Regulatory Commission (USNRC)

- R. Blough, Senior Resident Inspector
- S. Chaudhary, Senior Construction Resident Inspector
- *S. Ebnetter, Director Division of Reactor Safety, Region I

*Denotes presence at exit meeting on May 3, 1985.

2.0 Reactor Pressure Vessel (RPV) Internals Installation

The inspector reviewed the licensee's activities related to the RPV internals installation. The inspector observed work being performed and the QC

inspection of portions of the installation. The inspector verified that installation instructions and procedures were in place and followed, QC inspections and QA Surveillances were made, and the General Electric Apparatus and Equipment Support Organization (GE-A&ESO) was effectively in control of the internals installation. During the inspection the inspector also had some involvement with the reactor vessel internals vibration test which had just been completed.

2.1 Work Observations

The inspector made numerous tours to the reactor vessel area to observe work in progress. Activities observed were:

- Detensioning of the reactor vessel head studs
- Reactor head nuts placed in storage crates and lifted out of the reactor area
- Protective covers placed on reactor studs
- QC inspection of top of shroud head and steam separator bolts and QC inspection of tack welds
- Detorquing and unlatching of shroud head bolts
- Lifting of steam separator from reactor vessel
- Placement of steam separator in storage pool
- Cleaning of steam separator and reactor vessel

No violations were identified.

2.2 Independent Verification

The inspector went into the reactor vessel prior to the steam separator removal. The inspector verified that the steam separator shroud bolts were in latched position (with their milled tangs in circumferential position). The inspector also observed several of the shroud bolt collar tack welds and verified they were intact.

No violations were identified.

2.3 Documentation Review

The inspector reviewed PSE&G QA Surveillance Reports, PSE&G RPV Internals Vibration Test Procedure, and QA Startup Deviation Reports (SDRs), BCI QC instructions for RPV internals installation, contractors Surveillance Inspection Records and Supplier Deviation Disposition Requests (SDDRs), GE-A&ESO Installation Instructions and Travelers for the work installations, and BCI QA audits of RPV internals installation.

Documents reviewed included:

- PSE&G Surveillance Reports of GE-A&ESO RPV Internals work (Reports CC-84-400 CC-84-425, CC-005, CC-85-010, CC-85-017, CC-85-021, CC-85-024, CC-85-028, CC-85-043)
- PSE&G RPV Intervals Vibrations Test Procedure No. PTP-BB-4, Rev. 0.
- Pre-vibration test SDRs Nos. BB-0212, 0213, 0214, and 0220
- BCI QA audits 25.7-P-6 of March 29, 1985 and 25.7/26.5-5 of March 18, 1983
- GE-A&ESO Procedure No. HCH-OPT Rev. 0 of October 18, 1984 for RPV Head Stud Tensioning and Detensioning,
- BCI-QC Instruction No. SM-1.01 for RPV Internals Installation Contract Surveillance
- BCI-QC Contractor Surveillance Inspection Record (PQCI) No. SM-1.01 M 98-HCI-E4-TI dated March 13, 1985, and SM-1.01 M-098-AG-355-II dated April 3, 1985, April 12, 1985, April 15, 1985, April 23, 1985 and April 25, 1985
- BCI completed and dispositioned SDDRs 22, 23, 24, 27, 29, 31, 32, 33, 34, 36, 38, 40
- GE-A&ESO Installation Instruction for Reactor Assembly, GE Specification 22A6639 of April 10, 1979
- GE-A&ESO Installation Procedures HCI-3-P, HCI-3-P1, and HCI-TPT of specific installation requirements
- GE-A&ESO Procedure Qualification Records (PQR) Nos. 8.8.1 Rev. 0 of August 30, 1982 and 8.8.2 Rev. 0 of November 14, 1984
- GE-A&ESO Travelers for RPV internals installations Nos. HCI-E4-TI, HCI-E7-1, HCI-D5-T

No violations were identified.

2.4 Pre-Vibration Test Findings

During the inspector's review of Startup QA's SDR No. BB-0213 concerning drawback scribe line notching of jet pump sensing lines, the licensee provided several GE letters, one of which stated that the subject was discussed and resolved previously. However, the information provided by the licensee did not contain sufficient details or the engineering basis for acceptance of the deviation.

The licensee said there was more information, some of which was requested from GE San Jose but which was not available at the time of the inspector's exit. Therefore, this item is unresolved until the licensee provides satisfactory details with engineering basis for the acceptance of the above listed deviation (50-354/85-22-01).

2.5 QA/QC Interface

As indicated in each of the paragraphs of this section, there was an effective QA and QC involvement with RPV internals installations. GE-A&ESO QC witnessed all work, GE-NEBO QA was involved, Bechtel QC monitored all work efforts, Bechtel QA Performed audits, PSE&G QA performed surveillances, and PSE&G Startup QC performed pre-vibration test inspections.

No violations were identified.

3.0 Spent Fuel Pool Storage Rack Installation Status

The inspector reviewed the status of the Spent Fuel Pool Storage Rack Installation. The inspector determined that seven racks of the high density type were on site and that a receiving inspection NCR 6957 was written listing 29 discrepancies on these racks.

Installation has not been scheduled due to work being performed on the RPV and also due to the NCR which has to be dispositioned.

No violations were identified.

4.0 Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable, violations or deviations. An unresolved item is discussed in paragraph 2.4.

5.0 EXIT MEETING

The inspector met with the licensee's representatives (identified in paragraph 1.0), at the conclusion of the inspection on May 3, 1985, to summarize the findings of this inspection. At no time during this inspection was written material provided to the licensee by the inspector.