U. S. NUCLEAR REGULATORY COMMISSION

REGION I

Report No. 50-354/82-11

Docket No. 50-354

License No. CPPR-120 Priority -- Category A

Licensee: Public Service Electric and Gas Company

80 Park Plaza - 17C

Newark, New Jersey 07101

Facility Name: Hope Creek Generating Station - Unit 1

Inspection At: Hancocks Bridge, New Jersey

Inspection Conducted: September 8 - 10, 1982

Inspectors: E H Gray 10/4/82
E. H. Gray, Reactor Inspector date

Approved By: J. P. Durr 10/4/82
J. Durr, Chief, Materials and Processes Section date

Inspection Summary:

Unit 1 Inspection of September 8-10, 1982 (Report 50-354/82-11)

Areas Inspected: Routine unannounced safety inspection by the region-based inspector and section chief of welding related work in progress including pad weld buildup for supplementary seismic core spray support in the reactor pressure vessel (RPV), RPV internal cleanliness control and RPV internals welding. The inspectors also made tours of the site inspecting samples of structural welds, piping fitups, piping welds and handling of pipe components. The inspection involved 27 inspector-hours onsite.
Results: Violations: One violation was identified in the seven areas inspected (failure to follow procedure regarding RPV internal cleanliness during construction).

DETAILS

1. Persons Contacted

Public Service Electric and Gas Company (PSE&G)

*A. Barnabei, Principal Staff QA Engineer
*R. Donges, QA Engineer
*A. E. Giardino, Project QA Engineer
*R. Inverso, Senior Construction Engineer

Bechtel Power Corporation (Bechtel)

*A. J. Bryan, Project QC Engineer
*M. Drucker, Lead Site QA Engineer
W. Goebel, QA Engineer
*M. J. Lombardi, FCE
*R. Mackey, Resident Project Engineer
*G. Moulton, Project QA Engineer
D. Stover, Project Superintendent, Contract Administration

General Electric Installation and Services Engineering (GEI&SE)

*R. Burke, Site Project Manager
*M. Hart, Site QC Supervisor

General Electric Nuclear Energy Business Operation (GENEBO)

*J. Cockroft, Site Engineer
*C. Brinsom, QA Engineer

Branch RT Lab

W. Branch, VP Sales

*Denotes those present at the exit interview.

2. Site Tour

Routine inspections were made to observe the status of work and construction activities in progress. Foreman, technicians and construction workers were observed performing their regular job tasks and those interviewed were knowledgeable about their work activities. Areas inspected included pipe welds both inside and outside of containment, structural steel welds, pipe joint fitups, pipe handling in preparation for fitup, the torus exterior and machine gas tungsten arc welding of control rod drive housings to stubs on the reactor vessel lower head.

No violations were identified.

3. Reactor Pressure Vessel (RPV) Pad Buildup

Welding was initiated on pads for supports to be added for core spray piping on the inside of the RPV. These weld pads are 1/4-3/8" thick stainless steel to be deposited on the vessel internal clad surface. The procedure of UT for clad thickness and soundness, welding, and UT of the final buildup pad was reviewed. Welding of pad buildup with the GTAW (ER308L) was observed in progress.

No violations were identified.

4. RPV Cleanliness

Prior to entering the reactor pressure vessel (RPV), the inspector observed the general condition of the Clean Room change area. It was noted that there was no step off pad for entrance to the PRV and the area floor contained dirt, dust, paper, and debris.

Paragraph 8.2.6 of General Electric Document (GED) Number 160A01203 titled, "Hope Creek Internals," states that, "The shoe covers shall be put on and taken off at the point of RPV (reactor pressure vessel) entry using a step off pad."

Contrary to the above, on September 8, 1982, a step off pad was not in use at the entrance point of the RPV.

This is a Severity Level V violation (Supplement II).
(50-354/82-11-01)

After entrance into the RPV the inspector observed the openings in the bottom head being used for ventilation were not provided with filter media. Paragraph 6.2.1 of GED 160A01203 states that "openings used for ventilation are to be provided with filter media as required. Later discussion with GEI&SE QA confirmed that at the present stage of construction with no fully inaccessible areas that filter media is not actually required. On later observation, the inspector observed filters over the lower head openings that are providing ventilation. The inspector had no further questions concerning this matter at this time.

The inspector observed gritty particulate in the shroud annulus area by the lower portion of the jet pumps. The paragraph 7.1 of GED 160A01203 states that "alloy surfaces shall be metal clean when visually examined with adequate lighting, except that a slight film of light dust is permissible provided it is loose and non gritty." This paragaph also states "It is recognized that when major assembly work is required, it is impractical to require this criteria 100% of the time. Reasonable precautions and periodic cleaning must be exercised to maintain in process cleanliness."

The inspectors observation was made approximately one week prior to a planned cleaning of the area in question. This item is unresolved pending

a review by licensee and contractor of the RPV internals cleanliness requirements and application of the relevant paragraphs of GED 160A01203 to RPV internals installation (354/82-11-02).

The inspector observed one plastic container of B-5J Rust Lick Corrosion Inhibitor in the reactor pressure vessel. Documentation showing this material may be used in the RPV was not available at the site for review. The B-5J material was removed from the RPV prior to completion of the inspection. This item is unresolved pending written confirmation that this material is approved by the General Electric Company for use in the RPV during internals installation (50-354/82-11-03).

5. Unresolved Items

Unresolved items are matters about which more information is required to determine if they are violations, deviations, or acceptable. Unresolved items are discussed in paragraph 4.

6. Exit Interview

An exit interview was held on September 10, 1982, with members of the licensee's staff, denoted in paragraph 1. The inspector discussed the scope and findings of the inspection.