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Power Generation Department

Georgia Power
the south's electric system

April 16, 1980

United States Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region II - Suite 3100
101 Marietta Street, NW
Atlanta, Georgia 30303

REFERENCE:
RII - JPO
50-321/50-366
I&E Bulletin 80-02

ATTENTION: Mr. James P. O'Reilly

Gentlemen:

The Georgia Power Company hereby submits the following information in response to your letter dated January 21, 1980, concerning I&E Bulletin 80-02, "Inadequate Quality Assurance For Nuclear Supplied Equipment".

1a. Reactor feedwater spargers and thermal sleeves manufactured and/or supplied by Marvin Engineering Company are currently installed at E. I. Hatch, Units 1 & 2. Subject spargers and thermal sleeves were supplied by its NSSS supplier, General Electric Company, San Jose, California.

1b. The original Unit 1 feedwater spargers were ordered January 1969 by Georgia Power Company (GPC) purchase order #PEH-2. Replacement spargers for Unit 1 were ordered January 1976 (GPC p.o. #R-19204) and March 1978 (GPC p.o. #C-04525). Original Unit 2 feedwater spargers were purchased January 1969 (circa).

The feedwater spargers are perforated stainless steel headers located in the mixing plenum above the downcomer annulus. A separate sparger is fitted to each feedwater nozzle and is shaped to conform to the curve of the RPV wall. Feedwater flow enters the center of the spargers and is discharged radially inward to mix the cooler feedwater with the downcomer flow from the steam separators before it contacts the RPV wall. The feedwater also condenses the steam in the region above the downcomer annulus and subcools the water flowing to the jet pumps and recirculation pumps. During an accident condition, feedwater piping/spargers are used to deliver water from HPCI and RCIC systems so that water inventory is maintained in the reactor vessel.

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2. History of Unit 1 Feedwater Spargers

Unit I feedwater spargers were received on site from General Electric Company on May 30, 1972. These were part of GPC p.o. #PEH-2, requisition #37002-55. All documentation for these spargers are in the possession of General Electric, San Jose. The documentation received on site was in the form of a Product Quality Checklist, a common document supplied by General Electric. The GPC Hatch MPL number for these spargers is listed as B11-D081.

Inspection reports show these spargers as being installed during the summer of 1973 (Reference Plant Hatch Mech. Inspectors Daily Reports dated June 5, 1973, June 13, 1973, June 18, 1973, June 19, 1973, June 20, 1973, and June 21, 1973).

During the period between the time of original installation and the removal of the originally installed spargers in the spring of 1977, no apparent operational problems were encountered.

In the spring of 1977, the Unit 1 feedwater spargers were removed to facilitate the installation of a new design sparger supplied by GE. This modification consisted of installing a forged tee assembly. This work was performed and documented on GPC Maintenance Request 77-638 and 77-1426. These MR's were used to implement GPC Design Change Request 77-154 which was the licensee's procedure to implement the GE FDI-124/12000.

Upon receipt of these spargers and associated installation materials, inspections were performed on those items. Visual and Liquid Penetrant examinations were performed and as a result, several non-conforming items were discovered. The inspection processes used, results and resolutions of the unacceptable findings were documented and are on file at the plant site.

Installation of these new forged tee spargers was completed in May of 1977, and remained in the system until the spring outage of 1979 (May-June) at which time a new type dual piston sparger assembly was installed. From the period of May 1977 through May 1979, no operational problems occurred involving the feedwater spargers.

At the time of the dual piston-type sparger installation, (May-June 1979) the cladding around the sparger nozzles was removed. During the clad removal process, no significant problems with clad cracking was observed, which was the major reason for the new modification.

This modification was performed under the supervision of General Electric, and is documented on GPC Maintenance Request 1-79-148 and authorized by GPC Design Change Request 1-78-202, Rev. 1.

These type sparger assemblies are currently installed in the Unit 1 Reactor and as of this date, no operational problems associated with these spargers have occurred.

History of Unit 2 Feedwater Spargers

These spargers (Unit 2 MPL #2B11-D081) are original construction components and have not been replaced since the original construction. These spargers were supplied by General Electric and installed by Reactor Controls, Inc.

Upon receipt prior to installation, visual and liquid penetrant examinations were performed on the material. Several nonconforming items were documented during this inspection. These nonconformances were resolved by repairing the nonconforming items. The spargers were installed between the months of March and May of 1977.

Since the time of their initial installation, no operational problems have occurred involving these spargers.

Summary

All documentation associated with the receipt and installation of these spargers for both Unit 1 and Unit 2, and the modifications associated with the Unit 1 spargers is on file at the plant site.

3. During manufacture of feedwater sparger and thermal sleeves, GPC Quality Assurance personnel made inspections at Marvin Engineering Company. Contacts during these inspections included representatives from Marvin Engineering Company, General Electric Company, and CBI Nuclear. Welding and nondestructive testing procedures were reviewed and found to be in good order. Appearance of welds was good and liquid penetrant examination results were satisfactory on the particular welds checked. Jigs and fixtures to hold the spargers while being welded and fitting of the nozzles were adequate. Final inspection, consisting of visual examination of sparger sections, together with the thermal sleeves, and critical dimensions check were satisfactory. Upon receipt of material by the plant site accompanying documentation is checked for completeness by Quality Control personnel per purchase order requirements and is subject to audit by Quality Assurance personnel.

If you have any questions or comments in this regard, please contact my office.

Very truly yours,

W. A. Widner

W. A. Widner
Vice President and General Manager
Nuclear Generation

JAE/DAM/mt

xc: Director of the Office of Inspection and Enforcement
Director of the Division of Operating Reactors, Office of
Nuclear Reactor Regulation