



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W.
ATLANTA, GEORGIA 30303

Report No.: 50-395/84-28

Licensee: South Carolina Electric and Gas Company
Columbia, SC 29218

Docket No.: 50-395

License No.: NPF-12

Facility Name: Summer

Inspection Conducted: September 10-13, 1984

Inspector: J. L. Mathis
J. L. Mathis

9/26/84
Date Signed

Approved by: F. Jape
F. Jape, Section Chief
Engineering Branch
Division of Reactor Safety

9/26/84
Date Signed

SUMMARY

Scope: This routine, unannounced inspection involved 26 inspector-hours on site in the areas of spent fuel pool activity (86700) and independent inspection effort (92706).

Results: No violations or deviations were identified.

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REPORT DETAILS

1. Licensee Employees Contacted

- *O. S. Bradham, Director, Nuclear Plant Operation
- *J. G. Corneily, Deputy Director, OPS and Maintenance
- *A. R. Koon, Associate Manager, Regulatory Compliance
- *B. G. Croley, Group Manager, Technical and Support Services
- *M. D. Quniton, Manager, Maintenance
- *H. C. Fields, Regulatory Compliance Engineer
- *J. K. Todd, Engineer, Nuclear Engineering
- F. D. Summer, General Foreman, Construction
- A. J. Ginyard, Supervisor, Receiving QC
- K. W. Woodard, Manager, Operation
- M. N. Browne, Manager, Technical Support

Other licensee employees contacted included two construction craftsmen and one operator.

NRC Resident Inspector

C. Hehl, Senior Resident Inspector

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on September 13, 1984, with those persons indicated in paragraph 1 above. The licensee acknowledged the finding contained herein without significant comment.

3. Licensee Action on Previous Enforcement Matters

Not inspected.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Independent Inspection Effort (92706)

The inspector conducted plant tours periodically during the inspection interval to verify that monitoring equipment was recording as required, equipment was properly tagged, operations personnel were aware of plant conditions, and plant housekeeping efforts were adequate. The inspector also determined that appropriate radiation controls were properly established, critical clean areas were being controlled in accordance with procedures, excess equipment or material was stored properly, and combustible material and debris were disposed of expeditiously. During tours, the inspector looked for existing fluid leaks, piping vibrations,

pipe hanger and seismic restraint settings, various valve and breaker positions, equipment caution and danger tags, component positions and status, adequacy of fire fighting equipment, and instrument calibration dates. Two tours were conducted on backshift.

Within the areas inspected, no violations or deviations were identified.

6. Spent Fuel Pool Activity (86700)

During the inspection period, the licensee was in the process of installing high density spent fuel pool racks. The licensee amendment authorizing the modification had not been approved by NRR; however, the licensee had proceeded with the removal of existing racks and was installing the new high density racks in anticipation of amendment approval.

The inspector verified that the licensee had a procedure in place that contains the requirements for lifting, handling, and installation of the fuel storage racks. On September 12, 1984, the licensee unloaded two modules from the rail car. The inspector observed the modules for signs of physical damage to see that none of the parts were broken, cracked, missing, deformed, or misaligned. Before the modules were lifted or handled, the licensee inspected lifting equipment for signs of deterioration or damage. This included rigging items such as hooks, shackles, and thimbles.

In addition to above, the inspector verified that QC involvement was present from a receipt and erection standpoint, and Health Physics was involved in all phases of new rack installation to avoid spread of contamination.

The following procedures were reviewed regarding the rerack of the spent fuel pool:

GMP-100.003	"Material and Tool Control (in/around) NSSS and Critical Components"
GMP-100.012	"Crane Operations - Fuel Handling Building"
MMP-165.005	"Static and Dynamic Load Testing of Miscellaneous Hoist, Cranes and Lifting Devices"
MMP-500.012	"Installation of High Density Spent Fuel Racks"
GTP-309	"Testing Spent Fuel Racks Prior to Installation"

These procedures, along with Maintenance Request Form (MRF)-20334 and Work Request No. 20337, were reviewed to determine whether the licensee was adequately preparing, reviewing, and maintaining quality records reflecting work accomplished during this modification. The inspector reviewed samples of completed receipt inspection records to verify:

- a. The spent fuel racks were receipt inspected as required by the QA program.

- b. The licensee confirmed that boraflex was installed.
- c. Dimensional checks of storage cells were satisfactory.
- d. QC involvement in the receiving aspects of the new racks.

On September 13, 1984, the licensee had installed four racks. Prior to installation of the racks, the licensee "dry drag tested" the rack in the decontamination pit in accordance with GTP-309, which provided the prerequisites, precautions, and acceptance criteria necessary for drag testing. The results of the review have been satisfactory with the following exception. Since a detailed procedure had not been generated to control "drag testing" of the new racks, a temporary procedure was originated for "drag testing" the spent fuel storage racks prior to installation. This temporary procedure was implemented and "drag testing" began on August 24, 1984. The resident inspector cited the licensee (see Report 84-25) as a result of not performing a safety evaluation of the procedure prior to approval. As a result of the violation, the licensee corrective action to the violation was to perform a safety evaluation and develop GTP-309, "Testing Spent Fuel Racks Prior to Installation." The inspector reviewed the new procedure for installing the new racks. The licensee's purpose of developing GTP-309 was to demonstrate that the spent fuel storage racks will meet the requirements of PTP-103.003 prior to installation in the spent fuel pool. At the time of the inspection, PTP-130.003 had not been fully developed for implementation. Until PTP-130.003 is developed, this item will be an IFI (84-28-01).

On September 13, 1984, the inspector held discussions with the Manager of Operation regarding administrative controls that will be implemented by procedures to avoid the inadvertent placing of discharged fuel assemblies in the incorrect regions. The single accident condition that could potentially exceed the limiting reactivity is the inadvertent loading of a new fuel assembly (4.3% enrichment) into Region 2 or Region 3 storage cells, with the simultaneous occurrence of a loss of soluble poison. It is the NRC's position, that administrative procedures will be necessary to preclude the possibility of simultaneous occurrence of these two independent accident conditions. At the conclusion of the inspection, the licensee did not have in place administrative controls to preclude the possibility of the accident condition mentioned above from occurring.

7. Followup on Inspector Identified Problems and Unresolved Items (92701B)

(Closed) Open Item 395/79-28-03, Testing results indicated that the inflatable seals on the Spent Fuel Pool Gate were unacceptable due to the presence of visible bubbles when checked for leaks. The seals were repaired and locally tested with a soap solution. However, the Spent Fuel Pool Gate was not retested for leaks with the seals inflated due to the presence of new fuel in the spent fuel pit. The inspector reviewed the documentation of the

retesting of the inflatable seal to determine whether test data met the acceptance criteria of FH-01, Fuel Handling Building Pool Liner Leak, whether the procedure was examined or analyzed for embodiment of the necessary test prerequisites, preparations, instructions, and sufficiency of technical content. The retesting of the inflatable seal met the acceptance criteria of FH-01; therefore, the inspector considers this open item closed.