U. S. NUCLEAR REGULATORY COMMISSION
Region I

Report No. 84-11

Docket No. 50-219

License No. DPR-16 Priority -- Category C

License: GPU Nuclear Corporation
100 Interpace Parkway
Parsippany, New Jersey 07054

Facility Name: Oyster Creek Nuclear Generating Station

Inspection At: Forked River, New Jersey

Inspection Conducted: May 1 - 31, 1984

Inspectors:

O Kowzill III for — 8/6/84
J. Wechselberger, Resident Inspector — date

W. Baunack — 8/10/84
W. Baunack, Project Engineer — date

Approved by:

E L Conner — 8/14/84
E. L. Conner, Chief, Reactor Projects Section 1B — date

Inspection Summary: Inspection on May 1 - 31, 1984.

Areas Inspected: Routine safety inspection by resident and region-based inspectors of licensee actions on previous inspector findings; plant operations (shutdown mode) including radiation protection and repair of leak in the radwaste overboard discharge pipe (allegation followup); physical security; review of LER's; and selected maintenance and surveillance activities. The inspection involved 70 inspector-hours.

Results: No conditions adverse to nuclear safety or regulatory requirements were identified. Overall control of the shutdown plant was good.

DETAILS

1. Persons Contacted

J. Brownridge, Maintenance and Construction Jobs Manager
M. Budaj, Manager, Plans and Programs
R. D. Fenton, Oyster Creek Emergency Preparedness Manager
P. Fiedler, Vice President and Director, Oyster Creek
E. Growney, Safety Review Manager
D. Hollen, Oyster Creek Licensing Manager
M. Laggart, Manager, BWR Licensing
B. Leavitt, Deputy Manager, Radiological Controls
R. Long, Vice President Nuclear Assurance
J. Maloney, Manager Plant Materiel
R. Markowski, QA Oyster Creek Audit Manager
R. Mc Keon, Manager, Plant Operations
J. Molnar, Core Manager
W. Popow, Maintenance and Construction Director, Oyster Creek
W. Smith, Plant Engineering Director
J. Sullivan, Plant Operations Director
C. Tracy, Manager, Oyster Creek QA MOD/OPS
D. Turner, Manager, Radiological Controls

The inspectors also interviewed other licensee personnel during the inspection including management, clerical, maintenance, and operations personnel.

2. Review of Previous Inspection Findings

(Closed) Violation (82-20-03): Physical Security Plan. The licensee took immediate corrective action to gain full compliance. Corrective action was also taken to appropriately discipline the individual involved. No incidents of this kind have reoccurred.

(Closed) Inspector Followup Item (80-CI-21): IE Circular No. 80-21 "Regulation of Refueling Crews" recommended that all licensees review procedures and practices to assure that individuals responsible for, and participating in refueling activities, are in conformance with:

- 10 CFR 50.2(f) and 10 CFR 55 4
- 10 CFR 50 54(i)
- 10 CFR 55.3
- 10 CFR 55.4
- 10 CFR 55.9

In addition:

- The foreman shall have a Senior Operator's License limited to fuel handling duties.
- The foreman shall directly supervise (from the refueling deck) the movement of fuel in and out of the reactor.
- The unlicensed members of the crew shall participate in appropriate facility administered training programs and be certified to perform their duties.
- Direct communication will be maintained with the licensed individual in the control room when fuel movements over the core are being made.
- The foreman will exercise indirect supervision over all other fuel handling operations.

The resident inspectors have observed refueling activities during the present 83-84 refueling outage and have concluded that the licensee is in compliance with Circular 80-CI-21. In addition, a region-based inspector from April 30 - May 4, 1984 (Inspection No. 84-12) found no discrepancies in this area.

3. Plant Operations Review

3.1 Shift Logs and Operating Records

Shift logs and operating records were reviewed to verify that they were properly filled out and signed and had received proper supervisory reviews. The inspector verified that entries involving abnormal conditions provided sufficient details to communicate equipment status and followup actions. Logs were compared to equipment control records to verify that equipment removed from or returned to service were properly noted in operating logs when required. Operating memos and orders were reviewed to insure that they did not conflict with Technical Specification requirements. The logs and records were compared to the requirements of Procedure 106, "Conduct of Operations," and Procedure 108, "Equipment Control." The following were reviewed:

-- Control Room and Group Shift Supervisor's Logs, all entries;

-- Technical Specification Log;

-- Control Room and Shift Supervisor's Turnover Check Lists;

-- Reactor Building and Turbine Building Tour Sheets;

-- Equipment Control Logs;

-- Standing Orders; and

-- Operational Memos and Directives.

3.2 Facility Tours

The inspector frequently toured the following areas:

-- Control Room (daily);

-- Reactor Building;

-- Turbine Building;

-- Augmented Off-Gas Building;

-- Radwaste Buildings;

-- Cooling Water Intake and Dilution Plant Structure;

-- Monitor and Change Area;

-- 4160 Volt Switchgear, 460 Volt Switchgear, and Cable Spreading Room;

-- Diesel Generator Building;

-- Battery Rooms;

-- Maintenance Work Areas; and

-- Yard Areas (including Area Perimeter).

3.2.1 During daily control room tours, the inspector verified that the control room manning requirements of 10 CFR 50.54(k), Technical Specifications and the licensee's conduct of operations procedure were met. Shift turnovers were observed for adequacy. Selected control room instrumentation needed to support the cold shutdown conditions was verified to be operable and indicated parameters within normal expected limits. The inspector verified compliance with Technical Specification Limiting Conditions for Operation (LCO's) applicable to the cold shutdown condition and refueling activities, including those relating to secondary containment integrity, and fire protection systems. The inspector closely monitored outage activities and verified that operators and supervisors were aware of work in progress and complied with applicable Technical Specification requirements.

No unacceptable conditions were identified.

3.2.2 The inspector examined plant housekeeping conditions including general cleanliness, control of fire hazard materials, maintenance of fire barriers, storage and maintenance of fire fighting equipment, and radiological housekeeping. During routine plant tours, the inspector noted that housekeeping was degraded due to the level of outage activity. The inspector will continue to observe this area in future inspections.

No unacceptable conditions were identified.

3.2.3 On May 10, 1984, the inspector participated in the full scale annual emergency exercise. Region I participated in the exercise and also evaluated the licensee's performance. The exercise activated all levels of the site emergency plan and included participation by the State and local officials. The results of the exercise will be reported in NRC Inspection Report 50-219/84-15.

4. Radiation Protection

During entry to and exit from radiation controlled areas (RCAs), the inspector verified that proper warning signs were posted, that personnel entering were wearing proper dosimetry, that personnel and materials leaving were properly monitored for radioactive contamination and that monitoring instruments were functional and in calibration. Posted extended Radiation Work Permits (RWP's) and survey status boards were reviewed to verify that they were current and accurate. The inspector observed activities in the RCA to verify that personnel complied with the requirements of applicable RWP's and that workers were aware of the radiological conditions in the area.

The inspector observed the movement of a cask from the 23' level to the 119' refueling level in the reactor building. The following discrepancies were noted:

- A screwdriver was obtained from a contaminated area without proper radiological considerations;
- An electrical cable was installed from the cask to a load measuring device without wearing protective gloves;
- Radiological control boundaries were moved to allow cask movement without first verifying the area clean; and
- A coat was placed over the continuous air monitoring system intake blocking the air flow.

No contamination resulted from these actions.

The licensee removed the radiological control technicians from the 119' level and counseled the individual on exercising proper radiological controls. A shift debrief was conducted concerning proper cask movement.

The inspector had no further questions regarding this matter.

During a tour of the radiological control area, several containments were found to be unsuitable to contain airborne activity. The containments were not posted as being unacceptable. No work was performed in the breached containments. Inspection of the containment's acceptability is conducted prior to beginning work and on a weekly basis. This requirement is not documented in a procedure but recorded on each individual work package. The licensee plans to formalize this requirement in a procedure by October, 1984.

5. Allegation Followup

On May 1, 1984, an employee of Jersey Central Power and Light requested an inspection be performed of a maintenance activity involving the repair of a leak in the radwaste overboard discharge pipe. The alleger was concerned that workers were not informed of the radiation hazards involved with the job, air samples were not taken while torch cutting the line, and that certain Oyster Creek procedures were violated.

On May 2, 1984, an inspection was conducted of the circumstances associated with the radwaste overboard discharge pipe repair. Inspection findings show:

-- On March 14, 1984, indications of an underground leak were noted at the old radwaste building.

-- Following licensee investigation, the source of leakage was determined to be the radwaste discharge line beneath the old radwaste building.

-- The line was excavated to the pipe penetration in the floor of the building.

-- Prior to and during the excavation of the pipe, water and soil samples were taken. Also, the dirt and exposed pipe were surveyed for contamination. Some activity was noted. However, no activity above applicable station posting limits was identified. Also, no criteria that would require a Radiation Work Permit (RWP) existed. The Radiation Control Department was aware of the work being performed and was monitoring the activity.

-- On Friday, March 16, 1984, prior to cutting the leaking pipe, the Maintenance and Construction Department Area Supervisor requested a Radiological Engineering Review (RER) for determining which radiological requirements would be imposed for the work. No RWP was submitted at this time.

-- Radiological Control personnel did not complete the RER on Friday night believing no work was planned on the pipe until Monday. On Monday, the RER was completed by Radiological Controls not knowing the line had been cut on Sunday.

-- On Sunday, March 18, 1984, work consisting of cutting the pipe was continued. The job site had not been posted since no radiological conditions which would have required posting existed. Since the job site was not posted, maintenance personnel assumed work could be continued without an RWP.

-- After cutting the pipe and removing it from the excavation, a frisker alarmed indicating contamination. Following identification of contamination, radiological controls was notified, surveys were performed, and some worker glove and shoe contamination was identified. Work was stopped and appropriate corrective action was promptly taken. Workers involved were whole body counted with negative results.

-- Immediately after identifying the contamination, an Unusual Incident Report was prepared by the Group Radiological Controls Supervisor. In accordance with facility procedures, a critique of the unusual incident was held on March 27, 1984.

-- On Monday, March 19, 1984, an RWP/RER was issued and work was completed without incident.

By letter dated May 10, 1984, as additional followup to the incident, the NRC requested from the licensee an evaluation of the incident, appraising in particular certain specific points including the licensee's perspective as to the need for an RWP, and the reasons why or why not, including potential interface difficulties between various GPUN Divisions (i.e., Maintenance and Construction, Plant Operations, and Radiological Controls). The licensee provided the requested information by letter (P. Fiedler, GPUN to R. Starostecki, NRC) dated June 6, 1984.

Results of the NRC evaluation are that we concur with the licensee's description of the incident and the corrective actions taken. We also find the incident to be an isolated occurrence which is not indicative of a programmatic problem caused by inadequate procedures. Also, the numerous surveys which were performed, both before and after cutting of the line, indicate the potential for worker exposure to contamination was minimal.

A violation of a facility procedure "Radiation Work Permits" did occur. However, the violation was identified by the licensee, was a Severity Level IV violation, was reported to the NRC, was promptly corrected, and was not a violation that could reasonably be expected to have been prevented by corrective action for a previous violation. Consequently, in accordance with 10 CFR, Part 2, Appendix C, Section IV-A, no enforcement action will be taken.

6. Physical Security

During daily entry and egress from the protected area, the inspector verified that access controls were in accordance with the security plan and that security posts were properly manned. During facility tours, the inspector verified that protected area gates were locked or guarded and that isolation zones were free from obstructions. The inspector examined vital area access points to verify that they were properly locked or guarded and that access control was in accordance with the security plan.

No unacceptable conditions were identified

7. Review of Licensee Event Reports (LER's)

The inspector reviewed LER's submitted to NRC:RI to verify that the details were clearly reported, including the accuracy of the description and corrective action adequacy. The inspector determined whether further information was required, whether generic implications were indicated, and whether the event warranted onsite followup. The following LER was reviewed:

LER 50-219/84-007: On April 2, 1984, Diesel Generator No. 1 (DG-1) was declared inoperable as a result of a failure to fast start during the monthly surveillance. This resulted in the Standby Gas Treatment System No. 1 (SGTS-1) being declared inoperable, since DG-1 is the emergency power supply for SGTS-1. Technical Specifications (TS) 3.5.B.3.b(1) requires demonstration of the operability of the redundant SGTS (in this case SGTS-2) within 2 hours. This test had been performed 23 hours before the failure.

At the time of DG-1 failure, two operations relating to TS requirements for the SGTS were in process; torus painting and rechanneling fuel assemblies. The torus painting operation was stopped but the SGTS operability tests was delayed for 10 hours in accordance with procedures. This delay was to prevent degradation of the charcoal filters due to absorption of paint fumes. An irradiated fuel assembly was moved from its spent fuel pool storage location to the fuel preparation machine for channeling and then back to the storage location during the 10 hours before SGTS-2 was confirmed operational.

The SGTS and diesel surveillance testing was conducted immediately prior to conducting the diesel preventive maintenance and monthly surveillance. Subsequently, DG-1 and, therefore, SGTS-1 was declared inoperable as a result of the DG-1 failing its surveillance test. Since the SGTS surveillance was conducted immediatel prior to the DG-1 surveillance failure, no Limiting Condition for Operation (LCO) violation occurred. TS 3.5.B.3.b.1 was not exceeded due to the surveillance testing of SGTS conducted immediately prior to SGTS being declared inoperable. Therefor, the LCO of TS 3.5.B.3.b.1 was satisfied and no violation occurred.

This LER is considered resolved.

The inspector's review of the applicable TS showed the requirements for the particular situation are unclear in regards to surveillance requirements and backup power supply. The licensee's staff, in the person of Mr. M. Laggart, has committed to submit a proposed TS change by November 15, 1984, to clarify the identified inconsistencies in the TS.

8. Maintenance

The inspector observed maintenance activities to verify that activities were properly approved, operations personnel were cognizant of activities in progress, proper procedural controls were in effect, redundant systems and components were available when required, test instrumentation was calibrated, activities were performed in an acceptable manner by appropriately qualified personnel, and appropriate radiological precautions were taken. Portions of the following activities were observed:

-- Refueling;

-- IRM/SRM dry tube replacement;

-- Isolation Condenser;

-- Emergency diesel;

-- Cask shipment;

-- Condensate and feedwater system; and

-- Torus pitting repair.

On May 16, 1984, the inspector made an entry in the torus to examine the epoxy paint coating prior to the heat curing process. The inspector was accompanied by the licensee's project manager and two quality control inspectors. Three minor discrepancies were discovered and recorded in the Incomplete Work List. The walk-through included a close examination of all bays in the suppression chamber, the vent header and vents, and the downcomers from the drywell to the vent header.

The inspector examined the IRM/SRM dry tube replacement plans and analysis. Video tapes of the surrounding fuel channels were reviewed to determine structural integrity of the channels that were adjacent to the cracked dry tubes. At the end of the period, the licensee has made the decision to replace all IRM/SRM dry tubes. This item will be reviewed in a future inspection (50-219/84-11-01).

Throughout the report period, the inspector followed the repair and analysis of the isolation condenser piping. Frequent discussions were held with the licensee to review ultrasonic and radiography testing results, and the formulation of appropriate repair plans. NRR visited the site to discuss repair plans and analysis and to select the pipe sample for NRC analysis. At the

end of the report period, the licensee was engaged in the repair of the isolation condenser piping. This will be accomplished by a combination of weld overlay and pipe replacement. These repairs will continue to be reviewed in future inspections (50-219/84-10-01).

9. Surveillance Testing

The inspector reviewed the following surveillance tests to determine if the tests were included on the master surveillance schedule, the tests were technically adequate, and have been performed at the required frequency.

620.4.004 - Source range monitor test and calibration (front panel test), Revision 8, 4/20/84.

620.4.005 - Fire pump operability test, Revision 16, 4/27/84.

No unacceptable conditions were identified.

10. Review of Periodic and Special Reports

Upon receipt, periodic and special reports submitted by the licensee pursuant to Technical Specification 6.9.1 were reviewed by the inspector. This review included the following considerations: the report includes the information required to be reported to the NRC; planned corrective actions are adequate for resolution of identified problems; and that the reported information is valid. The April 1984 Monthly Operating Report was reviewed by the inspector.

11. Unresolved Items

Unresolved items require more information to determine their acceptability and are discussed in Detail 8.

12 Exit Interview

At periodic intervals during the course of this inspection, meetings were held with senior facility management to discuss the inspection scope and findings.

A summary of findings was presented to the licensee at the end of this inspection.