

U. S. NUCLEAR REGULATORY COMMISSION
Region I

Report No. 84-25
Docket No. 50-219
License No. DPR-16 Priority -- Category C
Licensee: 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: August 4 - September 5, 1984
Inspectors: *E. L. Conner for* 3/7/85
C. J. Cowgill, Senior Resident Inspector date
E. L. Conner for 3/7/85
J. Wechselberger, Resident Inspector date
Approved By: *E. L. Conner* 3/7/85
E. L. Conner, Chief, Reactor Projects date
Section 1A, DRP

Inspection Summary: Routine safety inspection performed by the Resident inspectors of licensee action on previously identified items; plant operations (shutdown mode) including tours and reviews of operating records; radiation protection; drywell inspection; physical security; and maintenance. The inspection involved 145 inspector hours.

Results: No conditions adverse to nuclear safety or regulatory requirements were identified.

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DETAILS

1. Action on Previously Identified Items

(Closed) Unresolved Item 81-14-04: Inspection Report 81-14 identified concerns regarding Group Shift Supervisors' (GSS) ability to recognize and correctly interpret technical specification considerations of an event. As a result of these concerns, the licensee developed a technical specification training session to increase the GSS ability to interpret Oyster Creek technical specifications. The initial training session was conducted by the licensing supervisor and was approximately 4 hours in duration. The original lesson plan has been revised and delivered by the operator licensing group in the training department for the last 2 operator requalification cycles. Additional training has been conducted on licensing amendments as they were accepted. The licensing amendment training and modification training have both covered the necessary technical specification training on the recent plant modifications. In addition, the licensee's training records were examined to determine GSS attendance and successful completion. No discrepancies were noted. This item is considered closed.

(Closed) Inspector Followup Item 81-16-02: Personnel errors in Implementing Procedure 610.03.005, "Core Spray System Instrument Channel Calibration and Test" allowed chromated water from the core spray system to flow into the reactor.

The operator had incorrectly mispositioned valves to the open position. The procedure required the valve breakers to be opened with the valve remaining shut. In addition, the operator did not de-energize the core spray injection valve which automatically opens when reactor pressure decreases below 285 psig. (The reactor was in a cold shutdown condition with reactor pressure less than 285 psig.) This improper valve lineup provided a flow path for the core spray system fill pump to discharge to the reactor vessel. The licensee committed to revise the procedure to reduce the chance of misreading the procedural steps. The procedure has been revised to clarify the desired results of each step. The valve and valve breaker manipulations have been separated into 2 distinct steps in the procedure. In addition, the terms "open" and "close" are used to refer to valve manipulations while the terms "on" and "off" refer to breaker movements.

(Closed) Inspector Followup Item 81-12-04: Secondary containment integrity was broken when an operator incorrectly restored normal reactor building ventilation upon completion of a standby gas treatment system surveillance. In restoring normal ventilation flow, the operator failed to start the reactor building supply fans after starting the exhaust fans.

The licensee committed to revising Procedure 329 "Reactor Building Heating, Cooling and Ventilation System" to prevent a recurrence. The procedure has been revised to insure correct operating practices are followed. A caution statement has been included in the procedure immediately prior to starting the exhaust fans. The caution advises the operator to immediately start the supply fans after starting the exhaust fans to preclude damage to the ventilation system ducts and filters.

2. Plant Operations Review

2.1 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;
- Operational Memos and Directives.

2.2 Facility Tours

The inspector frequently toured the following areas:

- Control Room (daily)
- Reactor Building
- Turbine Building

- Rad-Waste 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
- Drywell
- Battery Rooms
- Torus Room
- Maintenance Work Areas
- Yard Areas (including Area Perimeter)

The following were observed:

2.2.1 During daily control room tours, the inspector verified that the control room manning requirements of 10 CFR 50.54 (k) and (i), Technical Specifications, and the licensee's conduct of operations procedures were met. Shift turnovers were observed for adequacy. Selected control room instrumentation needed to support the cold shutdown, conditions were verified to be operable and indicated parameters within normal expected limits. Recorders were examined for evidence of abnormal or unexplained transients. The inspector verified compliance with Technical Specification Limiting Conditions for Operation (LCO's) applicable to the cold shutdown condition, including those relating to secondary containment integrity, and fire protection systems. The inspector closely monitored activities associated with the preparations for hydrostatic testing of the reactor vessel and restoration of systems to operation after maintenance or modifications.

No unacceptable conditions were identified.

2.2.2 The inspector reviewed the lighted annunciator windows with respect to plant operating conditions. During this review, the inspector verified the validity of the annunciators with the control room operators and Procedure 2000 RAP - 3024. 01, NSSS Annunciator Response Procedures. In addition, the inspector reviewed the licensee's progress in

verifying alarm functions. The licensee is in the process of confirming that alarms function as designed. The inspector confirmed that progress is being made and that identified problems are being addressed. The inspector will continue to follow alarm status in future inspections.

No unacceptable conditions were identified.

2.2.3 The inspector examined plant housekeeping conditions including general cleanliness, control of material to prevent fire hazards, maintenance of fire barriers, storage and maintenance of fire fighting equipment, and radiological housekeeping. The inspector noted that due to outage activity, housekeeping conditions had degraded. The inspector discussed conditions with operations management and was told that increased effort was being made to remove work materials in preparation for startup. The inspector noted that station managers routinely toured the plant looking for degraded conditions. The inspector will continue to closely monitor this area.

2.2.4 Equipment control procedures were examined for proper implementation by verifying that tags were properly filled out, posted, and removed, as required, that jumpers were properly installed and removed, and that equipment control logs and records were completed. Selected active tagouts were independently verified by the inspector. Cleared tagouts were reviewed to determine that system alignments had been properly restored and safety systems returned to service had been properly tested. Selected locked valves were examined for proper position and installation of locking devices. The inspector monitored outage related activities including erection of scaffold and work platforms, installation of temporary hoses and cables, and the setup of radiological control barriers, to ensure that these activities did not block or otherwise impair the operability of components important to safety, and were controlled in accordance with the equipment control procedures when required.

No unacceptable conditions were identified.

3. Drywell Inspection and Hydrostatic Test Observation

The inspector observed portions of the Post Outage Reactor Vessel Hydrostatic Test. The inspector reviewed applicable procedures and licensee preparations for the test as well as direct observations of activities from the control room and inside the drywell. The inspector noted that

all personnel performing activities were knowledgeable of test requirements. The inspector also confirmed that reactor vessel pressure was being monitored by this gauge and that the individual monitoring pressure had direct continuous phone communications with control room operators. The test consisted of pressurizing the reactor vessel to 1000 pounds in stages and holding for 4 hours and observing for leakage. The licensee stopped at 500 pounds pressure to perform an initial evaluation. The inspector observed activities in the drywell and accompanied test personnel on their inspections. The inspector noted several leaks and confirmed that licensee personnel had identified these leaks for correction. The inspector inspected selected welds and noted no leakage from them. Only mechanical leakage was observed.

During the inspection, the inspector observed that outage work had significantly degraded drywell cleanliness. There was debris throughout, decking had not been replaced in some areas and there was still a significant amount of scaffolding material in the drywell. The inspector expressed concern for drywell cleanliness to supervisory personnel. Subsequently, the inspector noted that laborers were assigned to improve housekeeping conditions. At the end of the inspection, progress had been made towards improving drywell cleanliness. The inspector will continue to closely monitor the licensee's effort to improve housekeeping conditions in preparation for reactor startup following refueling.

4. Radiation Protection

During entry to and exit from radiation controlled areas (RCA), the inspector verified that proper warning signs were posted, 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 (RWPs) 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 RWPs and that workers were aware of the radiological conditions in the area. During the period, the inspector closely monitored control point activity at both the drywell and torus room entrances including period log reviews. The inspector observed suiting and unsuiting and periodically verified adherence to RWP requirements. The inspector also confirmed that respiratory issue procedures were adhered to. No unacceptable conditions were identified.

5. 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 of 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. Periodically, the inspector observed activities in the Central Alarm and Secondary Alarm stations. Operators were knowledgeable of requirements. No unacceptable conditions were identified.

6. Maintenance

The inspector observed maintenance activities to verify that activities were properly approved, operations department was aware of activity in progress, appropriate procedural controls were in place, appropriate radiological controls were in place, proper supervisory control was being exercised and system alignments were proper to support the activity. Portions of the following activities were observed:

- Cable spreading room project;
- Control room alarm function verification;
- Limitorque valve testing and repair;
- Torus modification and system restoration;
- Dilution pump overhaul;
- Torus vent valve inspection;
- Core spray booster pump impeller inspection;
- Condensate and feedwater system maintenance; and,
- Replacement of B 125 volt battery cells.

a. Limitorque Motor Operated Valve Testing

The licensee is testing and repairing as necessary selected Limitorque motor operated valves. The test was performed in accordance with Procedure A15B-51693, "Limitorque Valve Calibration and Test Using M.O.V.A.T.S." The inspector reviewed the procedure and identified no inadequacies. The inspector also reviewed selected test records and observed selected testing in progress. The inspector noted that deficiencies identified during the testing were documented and maintenance requests for repairs were issued. The inspector identified no unacceptable conditions.

b. Containment Torus to Drywell Vacuum Breakers

The inspector reviewed records associated with vacuum breaker inspections including applicable maintenance and surveillance procedures, quality control inspection records and completed surveillance check sheets. In addition, the inspector discussed the job with appropriate supervisory personnel and observed portions of the maintenance activity. All personnel involved were knowledgeable of work in progress and associated requirements. No unacceptable conditions were identified.

7. 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.