U. S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-219/92-06

Docket No. 50-219

License No. DPR-16

Licensee: GPU Nuclear Corporation
P. O. Box 388
Forked River, New Jersey 08731

Facility Name: Oyster Creek Nuclear Generating Station

Inspection At: Forked River, New Jersey

Inspection Conducted: March 23 to 27, 1992

Inspector: _____ 4-2-92
P. O'Connell, Radiation Specialist — date

Approved by: _____ 4-2-92
W. Pasciak, Chief, Facilities — date
Radiation Protection Section, DRSS

Areas Inspected: A routine, unannounced inspection of the radiological controls program. Areas reviewed included: the status of previous items, internal exposure controls, training, facility tours, and ALARA.

Results: Within the scope of this inspection no violations were identified. The inspector noted that effective training programs for the radiation protection technician staff were in place. In addition, the programs for implementation of the whole body counters and maintaining and issuing respiratory protection devices were found to be effective. The inspector found the licensee's ALARA initiatives to be commensurate with the radiological environment of the facility.

DETAILS

1.0 Personnel Contacted

1.1 Licensee Personnel

* F. Applegate, Quality Assurance Engineer
* J. Barton, Director, Oyster Creek
E. Boroszkowski, Radwaste Operations Engineer
* W. Cooper, Manager, Radiological Engineering
* B. DeMerchant, Licensing Engineer
E. Gregory, Respirator Maintenance Supervisor
* M. Slobodien, Radiological Controls Director
* K. Wolf, Radiological Engineering Manager
K. Zadroga, Group Radiological Controls Supervisor

1.2 NRC Personnel

J. Nakoski, Resident Inspector
* D. Vito, Senior Resident Inspector

* Denotes attendance at the exit meeting on March 27, 1992.

2.0 Purpose

The inspection was a routine, unannounced inspection of the radiological controls program. Areas reviewed included: the status of previous items, internal exposure controls, training, facility tours, and ALARA.

3.0 Status of Previous Items

3.1 Noncompliance Item (50-219/91-20-01). This item involved a June 1991 event in which the licensee discovered an unsecured gate. The gate was required to be locked for radiation protection purposes. Licensee review of the event determined that the cause of the event was the failure of several individuals to follow licensee procedures. The inspector verified that the licensee had completed their corrective actions described in their response letter of November 7, 1991. The corrective actions included disciplinary actions for the individuals involved. This item is closed.

3.2 Noncompliance Item (50-219/91-20-02). This item involved a July 1991 event involving a radwaste operator making an unauthorized entry into a posted High Radiation Area. The inspector verified that the licensee had completed their corrective actions described in their response letter of November 7, 1991. The corrective actions included the retraining of personnel and the revision of appropriate procedures. This item is closed.

4.0 Internal Exposure Controls

4.1 Air Sampling

The inspector reviewed licensee procedures and records of the evaluation of air samples used to determine personnel intakes of radioactive material. The licensee procedure requires gamma isotopic analysis and gross alpha counting for any sample with a gross beta/gamma result greater than 25% of 9 E-9 uCi/cc. This value is based on the occupational MPC value for insoluble cobalt 60, which is the licensee's predominant and limiting beta/gamma emitter. The licensee evaluates gross alpha count results using an MPC value of 3 E-11 uCi/cc, which is based on insoluble plutonium 238. The inspector discussed with licensee personnel the rational for using the MPC value for plutonium 238 and reviewed recent alpha spectroscopy analysis of various waste streams. The inspector concluded that the licensee was using the most restrictive MPC value for alpha emitters likely to be found at the station in any significant quantities.

The inspector noted that the licensee has a very good program for evaluating the volume of air samples to ensure that the required level of sensitivity is achieved during air sample analysis.

4.2 Operation of Whole Body Counter

The inspector reviewed licensee procedures and records for the operation and quality control (QC) of the two whole body counters (WBCs) used at the station. The licensee conducts QC checks at the beginning, every four to six hours, and at the end of each day the WBCs are used at the facility. The licensee also conducts weekly energy calibrations of the WBCs. The inspector found the operation of the WBCs to be well implemented.

4.3 Use of Respiratory Protection Devices

The inspector toured the respirator maintenance facility and discussed the respirator maintenance program with the Respirator Maintenance Supervisor. Overall, the inspector found the licensee to have a good program for maintaining and issuing respiratory protection devices. Program improvements have corrected past weaknesses noted during the last inspection of this area (50-219/90-02). A noted improvement has been the qualification of and continuing training provided to the Respirator Maintenance Supervisor.

The inspector reviewed the licensee's procedures and records for respirator fit testing of individuals. In determining whether an individual has an adequate fit, the licensee uses a fit factor acceptance criteria of 1000 for a full face negative pressure respirator and 100 for a half face negative pressure respirator. Inspector review of recent fit tests showed no discrepancies in the respirator fit testing program.

The inspector reviewed the licensee's program for ensuring the quality of the supplied air breathing system. Licensee records indicated that the licensee was satisfactory implementing their six month air quality determination verification. The licensee was also implementing their thirty day contamination survey which is implemented only when the system is operating.

5.0 Training

The inspector reviewed selected procedures, lesson plans, qualification records, and training and periodic retraining records for the following job categories:

Respirator Maintenance Supervisor
Respirator Maintenance Technician
Radiological Controls Field Operations (RCFO) Technician
Radiological Health Support Technician
Radiological Controls Instrument Technician

The inspector found the licensee's program to be consistent with Technical Specification requirements, respiratory protection equipment vendor requirements, and consistent with applicable American National Standards Institute standards. Inspector review of selected records indicated that the licensee was appropriately implementing the various training programs.

NRC inspection report 50-219/91-12 discussed weaknesses in the licensee's implementation of their program for evaluating the previous experience of contractor RCFO Technicians. T licensee revised the qualification/training standard for RCFO Technicians in o er to address these concerns. The inspector reviewed the revision and noted that the revision addressed the weaknesses noted in the inspection report. The implementation of the revised qualification/training standard will be reviewed during the next refueling outage inspection.

6.0 Facility Tours

The inspector conducted several tours of the reactor building and the turbine building. The inspector noted that areas were properly locked and/or posted as required by 10 CFR Part 20 and licensee procedures.

7.0 ALARA

The inspector discussed with licensee representatives various licensee initiatives to reduce the station cumulative personnel exposure. The licensee has a comprehensive ongoing source term reduction program which includes: a cobalt reduction program, recirculation system chemical decontamination, and the replacement of the condensate backwash system to provide increased particulate removal from the condensate demineralizes. Other licensee ALARA initiatives include the use of permanent drywell scaffolding, implementation of hydrogen water chemistry, and the planned reduction in the number of main steam line safety relief valves.

The inspector reviewed the licensee's breakdown of the 1991 station cumulative personnel exposure of 1185 person-rem. This value compares favorably with the 1991 original ALARA go f 1500 person-rem and the 1991 revised ALARA goal of 1225 person-rem. The licensee attributed 1017 person-rem to refueling outage related activities with 665 person-rem related to work activities inside the drywell.

The inspector reviewed the manner in which the licensee derived their ALARA goal for 1992, a non-r ing outage year. The 1992 ALARA goal is 275 person-rem with the majority of the 1992 personnel exposure projected to come from routine operations. Reactor vessel sand bed removal, replacement of the condensate backwash system, and preparation for the next refueling outage, scheduled for early 1993, are the only scheduled non-routine work activities with significant personnel exposure.

The licensee tracks the cumulative exposure monthly. To date the station exposure of 58 person-rem compares favorably with the predicted 62 person-rem. A review of the yearly dose breakdown at the station shows a declining trend in the cumulative station exposure over the last six years.

The inspector read several recent completed ALARA reviews and found the reviews to be well written with appropriate ALARA considerations being implemented for the work activities.

The licensee discussed with the inspector a recent licensee staffing upgrade with the designation of a Radiological Engineer as the station ALARA Coordinator. The licensee also has dedicated one full time Radiological Engineer position, to be staffed by individuals from Radiological Engineering on a cyclic basis, to work for the ALARA Coordinator. The effectiveness of this upgrade will be reviewed during future inspections.

The inspector found the licensee's ALARA initiatives and overall program to be commensurate with the radiological environment of the facility.

## 8.0 Exit Meeting

The inspector met with licensee representatives at the end of the inspection, on March 27, 1992. The inspector reviewed the purpose and scope of the inspection and discussed the findings.