

ENCLOSURE 1

U.S. NUCLEAR REGULATORY COMMISSION  
REGION I

Report No. 50-219/85-18

Docket No. 50-219

License No. DPR-11 Priority - Category C

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

Facility Name: Oyster Creek Nuclear Station

Inspection At: Forked River, New Jersey

Inspection Conducted: June 3-7, 1985

Inspectors: Marie Miller  
M. T. Miller, Radiation Specialist

6/24/85  
date

M. Gaudino Evans  
M. Gaudino Evans, Reactor Engineer

6/24/85  
date

Approved by: W. J. Pasciak  
W. J. Pasciak, Chief, BWR Radiological  
Protection Section

6/26/85  
date

Inspection Summary: Inspection on June 3-7, 1985 (Report No. 50-219/85-18)

Areas Inspected: Routine, unannounced safety inspection of the licensee's Radiological Controls Program including: status of previously identified items, exposure control, Radiation Work Permits, and surveillances. The inspection involved 62 inspector-hours onsite by two region-based inspectors.

Results: One violation was identified: failure to adhere to Radiation Protection Procedures (paragraph 4.2). In addition, apparent false statements were made to NRC inspectors (paragraph 7.0).

## DETAILS

### 1.0 Licensee Personnel

- \*P. Fiedler, Vice President and Director, Oyster Creek
- R. Heward, Vice President and Director, Radiological Controls, GPU
- J. Sullivan, Jr., Plant Operations Director
- \*D. Turner, Radiological Controls Director
- D. Arbach, Radiological Health Manager
- M. Littleton, Radiological Engineering Manager
- P. Scallon, Field Operations Manager
- \*G. Simonetti, QC Audit Manager
- \*T. Snider, Radwaste Operations Manager
- J. Derby, Field Operations Deputy Manager
- E. Buruszkowski, Radwaste Operations Engineer
- P. Calandra, Group Radcon Supervisor
- R. Hurley, Dosimetry Supervisor
- A. Smith, Group Radcon Supervisor
- M. Stearns, Radiological Instrument Specialist
- \*B. Hohman, Oyster Creek Licensing Engineer
- D. Holland, Oyster Creek Licensing Engineer

The inspector also contacted other licensee and contractor employees during the inspection.

### 1.1 Nuclear Regulatory Commission - Region I

- W. Pasciak, Chief, BWR Radiological Protection Section
- \*B. Bateman, Senior Resident Inspector
- \*J. Wechselberger, Resident Inspector

\*Attended the exit interview on June 7, 1985.

### 2.0 Purpose

The purpose of this routine inspection was to review the licensee's Radiological Controls Program with respect to the following elements:

- Status of Previously Identified Items
- Exposure Control and Assessment
- Radiation Work Permits
- Surveillances

### 3.0 Status of Previously Identified Items

- 3.1 (Closed) Inspector Follow-up Item (50-219/85-04-01): Define responsibility of Group Radwaste Supervisor with regard to coordinating with vendor who provides onsite solidification processing. The inspector noted Procedure 106.4, revision 9, "Conduct of Operations: Radwaste and Augmented Off-Gas Facilities" was revised to address the coordination responsibility of the Group Radwaste Supervisor with the senior vendor representative for onsite solidification processing. The procedure revision was issued on May 2, 1985.
- 3.2 (Closed) Inspector Follow-up Item (50-219/85-04-02): Review tagging of inoperative and not-in-use Radwaste Control Room Instrumentation. The inspector toured the Radwaste CR and noted that inoperative and information tags were posted advising Radwaste operators to refer to Administrative Controls for determining tank levels. The practice of recording invalid numbers which had been identified during a previous radwaste inspection was not observed. With regard to the new radwaste building release monitors which are not required, a plant engineering request was issued on January 30, 1985 to physically remove the monitors. The inspector also noted that a Technical Functions Work Request was initiated on May 17, 1985 to remove the monitors and update the P&ID drawings. The licensee stated that Alarm Response Procedure 501, which addressed specific action in response to these monitors will be deleted after the monitors are physically removed.
- 3.3 (Open) Inspector Follow-up Item (50-219/85-04-03): Improve ALARA Program procedures and evaluate the effectiveness of the program. The licensee implemented an improved exposure tracking system by assigning a more descriptive exposure tracking number. In addition, the radiological engineer routinely interrogate the on-line dose assessment system (i.e., REM System) to access current exposure data to perform on-going job reviews. However, the inspector noted the criteria for initiation of this type of review was not defined in the licensee's current ALARA procedures. The inspector noted that the licensee's ALARA planning procedures were in the final review process.

With regard to measuring the effectiveness of the ALARA Program, the licensee conducted an ALARA effectiveness review based on the site's performance during the last outage. The review team consisted of upper level management from multi-disciplines within the GPU Nuclear Corporation. The inspector reviewed the management recommendations which were issued on February 1, 1985. The licensee's implementation of these recommendations will be reviewed during the next pre-outage and outage inspections.

#### 4.0 Exposure Control and Assessment

##### 4.1 Radiation and High Radiation Area Posting and Control

The inspector reviewed the adequacy and effectiveness of the licensee's Radiation and High Radiation Area posting and control. The review was with respect to criteria contained in the following:

- 10 CFR 20.203, Caution signs, labels, signals and controls
- Technical Specification 6.11, "Radiation Protection Program"
- Technical Specification 6.13, "High Radiation Area."

The licensee's performance relative to these criteria was determined from interviews with the Director, Radiological Controls, independent radiation surveys by the inspector, observations by the inspector during tours of the Radiation Controlled Area (RCA), and review of selected licensee procedure, including Rad Con Procedures 9300-ADM-4110.01, "Establishing and Posting Areas in the Radiologically Controlled Area, Revision 0" and 9300-ADM-4110.06, "Control of Locked High Radiation Areas, Revision 1."

Within the scope of this review, no violations were identified. The inspector noted that the licensee had identified an occurrence when a locked High Radiation Area was left open. The licensee conducted a critique and reviewed the incident with the staff who were involved. The inspector verified that entrances to High Radiation Areas in excess of one rem per hour were properly posted and locked.

##### 4.2 Personnel Dosimetry and Exposure Records

The inspector reviewed the issuance and use of personnel monitoring devices and the licensee's personnel exposure records program with respect to criteria contained in the following:

- 10 CFR 19.11, Posting of notices to workers
- 10 CFR 19.13, Notification and reports to individuals
- 10 CFR 20.101, Radiation dose standards for individuals in Restricted Areas
- 10 CFR 20.102, Determination of prior dose
- 10 CFR 20.202, Personnel monitoring
- 10 CFR 20.401, Records of surveys, radiation monitoring and disposal
- 10 CFR 20.407, Personnel monitoring reports

- Information Notice 81-26, Part 3, Supplement No. 1: "Clarification of Placement of Personnel Monitoring Devices for External Radiation"
- Information Notice 83-59: "Dose Assignment for Workers in Non-Uniform Radiation Fields."

In addition, the licensee conformance to Technical Specification 6.11, Radiation Protection Program and to selected program procedures was reviewed, including:

- 915.12, Revision 10, "Radiation Work Permit (RWP)"
- ADM-4241.01, Revision 0, "Dosimetry Issue and Handling"
- ADM-4241.07, Revision 0, "Personnel Dosimetry Requirements"
- ADM-4241.05, Revision 0, "Dosimetry Investigative Reports"
- ADM-4241.08, Revision 0, "Personnel Termination"
- ADM-4110.15, Revision 0, "On-Line Dose Assessment and Manual Operation of a Control Point."

The licensee's performance in this area was based on review of selected personnel exposure records, personnel exposure termination reports, Dosimetry Investigative Reports (DIRs) for 1984 and 1985, Personnel Monitoring Report for 1984, issuance of dosimetry, extremity dosimetry logs and exposure assignment, and discussions with cognizant licensee personnel.

Within the scope of this review, the following violation was identified:

Technical Specification 6.11 requires, in part, adherence to radiation protection procedures for all operations involving personnel radiation exposure. Licensee Procedure 915.12 requires, in part, compliance with any condition stated on the RWP by all personnel who sign in on the RWP. Licensee Procedure ADM-4241.05 requires, in part that a DIR be performed for a malfunctioning self-reading dosimeter or for a violation of posting/RWP requirements without proper dosimetry. The RWP for entrance to the Condenser Bay while at power, RWP No. 33485, required, in part that a 0-200 mrem and 0-500 mrem self-reading dosimeter be worn.

- Contrary to the above, a self-reading dosimeter (SRD) in the 0-500 mrem range was not issued to an individual who had signed in on RWP No. 33485 on June 6, 1985.

The inspector noted the apparent violation of RWP No. 33485 when the individual reported to the RWP Office that he had dropped his SRD after exiting the Condenser Bay, which is a locked High Radiation Area. The inspector observed an HP technician read only one SRD and assign a zero



dose after consulting with the Group Radcon Supervisor (GRCS). The GRCS stated that the SRD lined up with zero and therefore had not malfunctioned. The inspector noted that the licensee, at that time, had not questioned the individual concerning his stay time in the Condenser Bay or his movements while in the locked High Radiation Area.

- Also, contrary to the above, the licensee failed to perform a DIR based on the apparent violation of an RWP requirement concerning proper dosimetry and a suspect SRD value. The inspector noted that the Fields Operations Manager stated a DIR was not necessary because a TLD and at least one SRD was worn. However, the Director of Radiological Controls for both Oyster Creek and TMI-2 stated that a DIR was required. The licensee reported that a DIR was subsequently performed after the inspectors had completed the inspection, and that a dose of 7 mrem was assigned for the above entry.

Failure to adhere to the Radiation Work Permit condition concerning personnel dosimetry and failure to adhere to the criteria for performance of a Dosimetry Investigation Report constitutes an apparent violation of Technical Specification 6.11 (50-219/85-18-01).

Within the scope of this review, the inspector verified that personnel exposure records and personnel exposure termination reports were completed, as required by applicable regulatory requirements and by the licensee's procedures. In addition, the inspector noted agreement between the exposure data and the Annual Personnel Monitoring Report submitted to NRC, and that no individual received an exposure greater than the allowable regulatory limits during 1984.

#### 4.3 Internal Exposure Control

The internal exposure control program was reviewed against the criteria contained in the following:

- 10 CFR 20.103, Exposure of individuals to concentrations of Radioactive Material in air in Restricted Areas
- 10 CFR 20.201, Surveys
- Selected licensee procedures, including:
  - 915.22, Revision 1, "Air Sampling Procedure"
  - ADM-4020.02, Revision 1, "Description and Selection of Respiratory Protective Equipment"
  - ADM-4025.01, Revision 1, "Bioassay Procedure"
  - ADM-4330.02, Revision 1, "Monitoring for Personnel Contamination."

The licensee's performance in this area was based on review of a sampling of RWPs and the RWP requirements concerning air sampling and respirator selection; MPC-hours Tracking Log for 1985; personnel contamination events and associated whole body counts; and observations by the inspector.

Within the scope of this review, no violations were identified.

The inspector also reviewed the bioassay results for the five workers contaminated while performing venting and filling operations on the TN-9 spent fuel shipping cask on April 30, 1985. Whole body counting results indicated that no regulatory personnel intake or exposure limits were exceeded. In addition, the inspector noted that the licensee had critiqued the event and issued a temporary procedure change to ensure that a leak from the vent fitting would not reoccur.

#### 5.0 Radiation Work Permits

The issuance, adherence to and adequacy of the licensee's Radiation Work Permits (RWPs) were reviewed against the following criteria:

- 10 CFR 20.201, Surveys
- Technical Specification 6.11, "Radiation Protection Program"
- ANSI N18.7-1976, "Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants"
- Licensee Procedure 915.12, Revision 10, "Radiation Work Permit"

Performance relative to these criteria was determined by a review of selected Standard, Go With, and Extended RWPs issued between June 1984 and June 5, 1985 and their supporting surveys. In addition, direct observations of work in progress were made by the inspector.

Within the scope of this review, no violations were identified except as previously discussed in Section 4.2 of this report. However, the inspection noted that survey information was not readily available for personnel entering on RWP No. 33485. "Observation and Inspection of Condenser Bay Areas While Plant is at Power." RWP No. 33485 required an individual to contact Radcon for survey information. The inspector observed that personnel performing a fire watch surveillance in the Condenser Bay had not requested this information, and HP technicians responsible for the RWP access control were not providing this information unless requested. The inspector noted that two HP technicians stated they would have to contact their GRCS to get updated survey information. The inspector observed that personnel entering the Condenser Bay were provided a survey instrument to provide dose rate information and to control their movements in the High Radiation Area. However, the inspector requested that approved survey results be made readily available. The licensee stated that for RWPs that required personnel to contact Radcon for survey information, docu-

mented survey results would be discussed with the individual(s) before allowing entry. This area will be reviewed during a subsequent inspection (50-219/85-18-02).

#### 6.0 Surveillances

The licensee's procedures and calibration facility for calibrating survey instrumentation, portal monitors and self-reading dosimeters were reviewed against ANSI N323-1978, "Radiation Protection Instrumentation Test and Calibration," and ANSI N322-1977, "Inspection and Test Specification for Direct and Indirect Reading Quartz Fiber Pocket Dosimeters." The licensee's conformance with Technical Specification 4.11 for performing sealed source leak tests surveillances, and with Technical Specification 6.10 for retaining records of sealed source leak tests was reviewed against ANSI N5.10, 1968, "Classification of Sealed Radioactive Sources," and licensee procedures 901.4, Revision 7, "Source Leak Test," and 901.5, "Use and Inventory of Licensed Sources."

Performance relative to this criteria was determined by review of calibration records and verification of calibration due date stickers, and review of sealed source leak tests results and inventory records, as well as discussions with cognizant licensee individuals.

Within the scope of this review, no violations were identified. The inspector noted that the licensee had computerized its records for instrumentation calibration and licensed source inventory.

#### 7.0 Apparent False Statements to NRC Inspectors

The inspectors discussed their findings, as described in section 4.2 of this report, with a Group Radcon Supervisor on June 6, 1985. On the following day, statements were made by this individual and an HP technician that were contrary to the inspectors observations. Preliminary investigation by the licensee found that their statements were apparently false. Licensee management completed their investigation on June 12, 1985 and presented their results during an Enforcement Conference on June 13, 1985. (A summary of this meeting is documented in Enforcement Conference Meeting 50-219/85-21 which is enclosed).

#### 8.0 Exit

The inspectors met with licensee representatives (denoted in section 1.0) on June 7, 1985. The inspector summarized the purpose, scope and findings of the inspection. In addition, the inspector's understanding of the events related to the apparent false statements were described.



Management telephone conversations between Mr. T. Martin of my staff and Mr. Fiedler before and after the exit interview discussed the licensee planned investigation. We also requested that the results of the investigation be provided to the NRC.

At no time during the inspection was written material provided to the licensee by the inspector.