4 MAR 1993

MEMORANDUM FOR: Allegation File No. RI-92-A-0050

FROM: Roy Fuhrmeister, Senior Allegation Coordinator

SUBJECT: CLOSEOUT OF ALLEGATION RI-92-A-0050 AT THE OYSTER CREEK NUCLEAR GENERATING STATION

Allegation RI-92-A-0050 concerns staff suspected wrongdoing concerning the industry-wide issue of equipment operator (EO) log falsification at the Oyster Creek Nuclear Generating Station.

Upon identification of weaknesses with EO tours and log keeping practices at Oyster Creek, GPUN initiated a two phase investigation to first look at the specific EO tour and log keeping issues identified and then to take a historic look at security records, log sheet readings, and plant conditions existing at the time the log was completed. Details of the initial phase of the investigation were presented to the NRC in a letter from GPUN on May 5, 1992. Details of the second phase of the investigation were presented to the NRC in a letter to the NRC dated on May 13, 1992. During the second phase of the investigation, GPUN identified five non-licensed EOs who recorded information when security records indicated that the individuals had not entered the areas required to obtain this information. As a result of this second investigation, disciplinary action was taken against these five EOs.

NRC Inspection Report No. 50-219/92-04 (attached) documents inspector accompaniment on several EO tours, and inspector review of log keeping performance expectations and supervisory oversight subsequent to the identification of this issue. Inspection Report 50-219/92-16 (attached) documents inspector review of the licensees corrective action plan and review of the two licensee investigation reports. This inspection report also documented the completion of NRC Temporary Instruction 2515/115, Verification of Plant Records. Inspection Report 50-219/92-25 (attached) documented the inspectors review of the operations quality assurance effort to observe EO tours and log keeping in response to the identified issues.

This staff suspected wrongdoing file is closed based on the following: 1) the completion of all of the allegation panel decisions, completion of TI 2515/115, inspection of EO tour and log keeping practices, and review of the licensee investigation reports; 2) the limited number of non-licensed operators involved; and, 3) no planned enforcement action by the NRC.

Roy L. Fuhrmeister

Roy L. Fuhrmeister
Senior Allegation Coordinator

Enclosures: As Stated

6/80

cc w/o encls:

J. Rogge, DRP
D. Vito, SRI Oyster Creek

OFFICIAL RECORD COPY

RI:DRP	RI:DRP	RI:SAC	RI:DRP
Frye	Rogge	Fuhrmeister	Blough
3/3/93	3/3/93	3/4/93	3/3/93

OFFICIAL RECORD COPY

SAMPLE RECORD OF ALLEGATION PANEL DECISIONS

SITE: Oyster Creek

ALLEGATION NO.: RI-92-A-0181

DATE: 29 FEB 93 (Panel No. 1 (2) 3 4 5)

PRIORITY: High ~~Medium~~ Low

CONCURRENCE TO CLOSEOUT: DD (BC) SC

CONFIDENTIALITY GRANTED: Yes (No)

(See Allegation Receipt Report)

PANEL ATTENDEES:

Chairman - Wiggins

Branch Chief - Blough

Section Chief (AOC) - Rogge

Sr. Allegation Coord (SAC) Fuhrmeister

OI Representative - Letts

(Other) Ruland

IS THERE A HARASSMENT/DISCRIMINATION ISSUE: Yes (No)

IF YES,

1) has the individual been informed of the DOL process and the need to file a complaint within 30 days — Yes No

2) has the individual filed a complaint with DOL — Yes No

3) has a letter been sent to the complainant seeking any safety concerns — Yes No

IS A CHILLING EFFECT LETTER WARRANTED: Yes No

IF YES, HAS IT BEEN SENT Yes No

HAS THE LICENSEE RESPONDED TO THE CHILLING EFFECT LETTER: Yes No

ACTION: (State each specific action, including acknowledgment letter, as well as responsibility and ECD) RESP ECD

1) Close file, referral to ~~FEMA~~ not necessary SAC 28 FEB 93
Resident review sufficient - Bridge was available throughout period of interest.

2)

3)

4) 6/82

5)

copies to: Attendees
McCabe, DESS
site

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

JAN 29 1993

Docket No. 50-219

Mr. John J. Barton
Vice President and Director
GPU Nuclear Corporation
Oyster Creek Nuclear Generating Station
P.O. Box 388
Forked River, New Jersey 08731

Dear Mr. Barton:

SUBJECT: NRC Inspection No. 50-219/93-01

An announced safety inspection of the radiological controls program at the Oyster Creek Nuclear Generating Station was conducted by Messrs. D. Chawaga and L. Eckert on January 4-8, 1993. The inspection findings were discussed with members of your staff on January 8, 1993.

Areas reviewed during the inspection were important to health and safety and are discussed in the enclosed inspection report. These areas included postings and other in-plant radiological controls, work in progress, housekeeping, internal exposure control, Radiological Incident Reports, qualification of outage personnel, and outage planning.

Good performance was observed in the Radiological Control group's planning for support of outage work. Health physics staffing was sufficient to support work in progress. Posting and other in-plant radiological controls were adequate. Causal analysis and corrective actions documented in Radiological incident reports were acceptable. Housekeeping was good. No radiological safety concerns or violations of regulatory requirements were identified.

No response to this letter is required. Your cooperation with us is appreciated.

Sincerely,

James H. Joyner

James H. Joyner, Chief
Facilities Radiation Safety
and Safeguards Branch
Division of Radiation Safety
and Safeguards

6/84

9302040002 3pp.

Enclosure: NRC Inspection Report No. 50-219/93-01

cc w/encl:
M. Laggart, Manager, Corporate Licensing
P. Czaya, Acting Licensing Manager, Oyster Creek
Public Document Room (PDR)
Local Public Document Room (LPDR)
Nuclear Safety Information Center (NSIC)
K. Abraham, PAO (2)
NRC Resident Inspector
State of New Jersey

bcc w/encl:
Region I Docket Room (with concurrences)
DRS/EB SALP Coordinator
J. Joyner, DRSS
R. Blough, DRP
J. Rogge, DRP
V. McCree, OEDO
A. Dromerick, NRR/PD 1-4
F. Young, SRI, Three Mile Island
L. Rossbach, SRI, Beaver Valley
R. Furhmeister, Allegation Coordinator (See Details 4.0 and 5.0)

U. S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-219/93-01

Docket No. 50-219

License No. DPR-16

Licensee: GPU Nuclear Corporation
1 Upper Pond Road
Parsippany, New Jersey 07054

Facility Name: Oyster Creek Nuclear Generating Station

Inspection Period: January 4 -8, 1993

Inspector: _____ 1-29-93
David J. Chawaga, Senior Radiation Specialist Date
Facilities Radiation Protection Section

Inspector: _____ 1/28/93
Lonny Eckert, Radiation Specialist Date
Facilities Radiation Protection Section

Approved By: _____ 1-29-93
Walter J. Pasciak, Chief Date
Facilities Radiation Protection Section

Areas Inspected: Postings and other in-plant radiological controls, work in progress, housekeeping, self reading dosimeter use, internal exposure control, Radiological Incident Reports, qualification of outage personnel, and outage planning.

Results: Posting and other in-plant radiological controls were adequate. Housekeeping was good. Self reading dosimeter use was acceptable. Good performance was observed in internal exposure controls and the Radiological Control group's planning for support of outage work. Causal analysis and corrective actions documented in Radiological incident reports were acceptable. Health physics staffing was sufficient to support work in progress. No radiological safety concerns or violations of regulatory requirements were identified.

DETAILS

1.0 Personnel Contacted

1.1 GPU Nuclear Personnel

* W. Cooper, Manager, Radiological Engineering
  J. Derby, Radiological Controls, ALARA
  C. Dissinger, Lead General Employee Training Instructor
  A. Judson, Radiological Engineer
  S. Hepfner, Industrial Safety and Health Manager
* S. Levin, Operations and Maintenance
* B. Merchant, Licensing Engineer
  C. Pollard, Radiological Field Operations Manager
* D. Robillard, Manager, Operations - Quality Assurance
* M. Slobodien, Director, Radiological Controls
* R. Sullivan, Emergency Preparedness

1.2 NRC Personnel

* D. Vito, Senior Resident Inspector

* Denotes attendance at the exit meeting.

2.0 Purpose

The purpose of this announced inspection at the licensee's facility was to review the implementation of field controls such as postings, barricades, barriers, shielding, briefings, HP job coverage practices, and housekeeping. Radiological Incident Reports (RIRs), ALARA planning, self reading dosimeter use, and respiratory protection practices were also reviewed. Additionally, the licensee's Emergency Preparedness staff provided a tour of the Oyster Creek Emergency Response Facilities and a demonstration of their capabilities.

3.0 Plant Tours

The inspectors toured all major outage work locations within the Radiologically Controlled Area (RCA). Work was progressing safely from a radiological perspective in all cases observed. Housekeeping was adequate and materials stored within the RCA did not obscure postings, compromise contamination control boundaries or otherwise negatively impact radiological control efforts. Postings and barricades clearly indicated the presence of High Radiation Areas (HRAs). All Locked High Radiation Area (LHRA) doors challenged by the inspectors during plant tours were adequately secured or guarded to prevent entry by unauthorized personnel.

Many large areas within the RCA were posted as Radiation Areas (RAs). Large portions of some RAs exhibited exposure rates of less than 1 mR per hour, but in some cases, RA postings provided little guidance regarding dose gradients and sources of radiation. Supplemental postings such as "ALARA Caution" and "Low Dose Rate Waiting Area" signs were not widely used to assist workers in lowering their radiation exposure. Radiological information was typically communicated to workers through briefings and by worker review of survey results contained in Radiation Work Permit (RWP) packages. Although little information was available to workers in the field, all workers interviewed had an adequate understanding of radiological conditions in their work locations.

4.0 Self Reading Dosimeter Use

Personnel working in contaminated areas where radiation levels were below 100 mrem per hour did not typically have a Self Reading Dosimeter (SRD) available for their use. The Radiological Controls Staff directed personnel to wear their SRD under their protective clothing. The licensee stated that this practice was implemented to prevent the SRDs from becoming contaminated. Additionally, the licensee stated that it was difficult to read an SRD that had been bagged and taped to outer protective clothing coveralls. In HRAs, workers were typically issued a Digital Alarming Dosimeter (DAD) which provided continuous indication of accumulated radiation dose. The DADs were placed in plastic and were worn on the upper arm outside protective clothing.

The inspectors expressed concern with the practice of wearing SRDs under protective clothing for the following reasons:

- Workers could not closely monitor their radiation exposure for contaminated Radiation Areas work.

- Radiological Control Technicians (RCTs) could not easily determine if personnel were wearing dosimeters in contaminated areas. One incident was recorded (Radiological Incident Report 92002) where a worker failed to wear both a Thermoluminescent Dosimeter (TLD) and a SRD in a HRA. The worker was equipped with a DAD. The DAD reading was taken as the dose of record.

The inspectors reviewed station procedure requirements and General Employee Training lesson plans regarding the use of SRDs. Station practices regarding SRD use were consistent with documented program requirements.

5.0 Internal Exposure Control

The inspectors reviewed station policies and procedures regarding the respiratory protection program, interviewed the Rad Con Director (RCD) and the Industrial Safety and Health Manager, and reviewed selected survey results to determine whether the licensee's internal exposure control program met requirements in 10 CFR 20.103.

Policy Number 1000-POL-4020.01, "Respiratory Protection Policy," and Number 1000-POL-4020.02, "GPU Nuclear Policy for the Wearing of Respiratory Protective Equipment,," were superseded by Policy Number 1000-ADM-4020.01, "Respiratory Protection Program", 6/21/91. No significant changes in station policy were noted.

In October of 1992, Rad Con personnel issued a memorandum which explained station policy regarding the use of respirators and the need to balance internal and external radiation exposures for work when both hazards were present. The memo contained three sample problems which described how the risks from internal radiation exposure could be compared to the risk from external radiation exposure. The RCD assured the inspectors that the memorandum was not intended to partially implement the revised Part 20 regulations. The internal exposures were being accounted for as MPC-hours in accordance with 10 CFR 20.103.

During a review of the licensee's program relative to the NRC concerns documented in NRC Information Notice 92-75, "Unplanned Intakes of Airborne Radioactive Material by Individuals at Nuclear Power Plants", licensee personnel informed the inspectors of a determination they had made regarding the use of respirators for work during insulation removal/installation in the Drywell. In the past, such work had been done using respiratory protection. It was determined that respiratory protection would slow the work process and result in higher external exposures to personnel. It was also determined that intakes would be very small without respirators and as a result, respirators were not used for the work. Inspector review of licensee survey results identified no weakness in this determination and no significant intake of radioactive material resulted during that work. The inspectors had no further questions on this matter.

6.0 Radiological Incident Reports (RIRs)

The inspectors reviewed RIRs in order to determine whether the licensee had an effective program for identifying and correcting radiological problems. The 16 self-identified RIRs generated during 1992 were reviewed with the cognizant Radiological Engineer.

In general, corrective actions taken in response to incidents captured by the RIR system were adequate. At times, licensee personnel were not aggressive in determining the root causes for identified problems and did not perform a detailed follow-up on some issues. For example, one RIR noted galvanic corrosion as the root cause of a leak in a line to a waste surge tank rather than inadequate system surveillance or inadequate system lay-up. Had weaknesses in system surveillance been identified, corrective actions could have been put in place upgrading system surveillance in order to provide early identification of similar problems in the future. In another RIR, a hot particle was not recovered for further analysis.

Overall the work performed during the 14R (fourteenth refueling) outage on the Turbine Building Condenser Bay Reheaters was well controlled by the Rad Con Group. However, a few problems occurred which resulted in unplanned intakes of radioactive material. These incidents were well documented in the RIR system.

During the 13R Outage in 1991, the tubes in one Turbine Building Condenser Bay Reheater were inspected using water to pressure test tube integrity at a cost of 4 person-rem. Air pressure testing was used during the 14R outage which was much faster than water testing and respirators were not used which allowed workers to communicate more efficiently. In addition, the internal surfaces of the reheaters were decontaminated which reduced dose rates in the work area. As a result of these combined efforts, the total dose incurred to test the three remaining reheaters totaled approximately 1.2 rem.

A review of the RIRs found two instances concerning unplanned intakes of radioactive materials during the 14R Outage Turbine Building Condenser Bay Reheater tube inspection.

- RIR Number 92014 detailed the first incident. In this incident, one of the reheater tubes was not properly plugged. When this tube was pressurized with air, water blew out from the lower tube sheet hole, hit a worker's protective clothing, and deflected into that worker's face. The resultant facial contamination was measured at 2,000 net counts per minute with a frisker. The worker had not worn a lapel air sampler. The immediate corrective actions taken by the licensee were to: decontaminate the worker, whole body count the worker, and restrict the worker from the RCA; stop work until an investigation was performed; and initiate an RIR. A whole body count on 12/23/92, at 1809, showed 254 nCi of Mn-54 and 185 nCi of Co-60. A second whole body count on 12/24/92, at 1024, showed 17 nCi of Mn-54 and 20 nCi of Co-60. A third whole body count on 12/26/92, at 0936, showed minimum detectable levels of Mn-54 and Co-60. This quick elimination of the radioactive material led the licensee to conclude that this incident was an ingestion of radioactive material rather than a inhalation of radioactive

material. The worker was assigned 4.9 MPC-hours for this intake. Causal analysis concluded that there was inadequate assessment of potential radiological problems for the lower tube sheet worker. Long-term corrective actions included development of a splash guard, inclusion of the event in the required reading material for RCTs, and RWP modification to require Full-Face Negative Pressure (FFNP) respirators for the worker performing tube testing on the lower tube sheet.

- RIR Number 92016 detailed the second incident. In this incident, improper use of a High Efficiency Particulate Air (HEPA) filter led to an unplanned intake of radioactive material. This incident occurred because the HEPA hose was not placed inside the Condenser Bay Reheater which was the location of the worker who received the unplanned intake. Additionally, the Radiological Engineer stated that the tube sheets had dried out which increased the airborne contaminants. The worker was assigned 27.5 MPC-hours for this intake. Corrective actions included inclusion of the event in the required reading material for RCTs and increased Rad Con inspections for future reheater tube inspections.

7.0 Training and Qualification of Outage Personnel

The inspectors reviewed Technical Specifications (TS), ANSI Standard 18.1, station procedures, and RCT resumes to determine whether RCTs have sufficient knowledge in order to work unsupervised as Senior RCTs.

TS 6.3.2, Amendment 134, states in part, "in the case of radiation protection technicians, they shall have at least one year's continuous experience in applied radiation protection work in a nuclear facility dealing with radiological problems similar to those encountered in nuclear power stations..."

The inspectors reviewed 10 of 106 resumes for contract RCTs employed to augment the normal plant staff during the outage. The inspectors noted that station policies and procedures allowed full credit for shipyard and/or tender health physics work. In some cases, RCTs were given senior RCT status based exclusively upon time spent working in a shipyard and/or a tender. Further inspection is required to evaluate this area.

8.0 Outage Planning

The inspectors reviewed the station's program for planning and preparation for outage work. The systematic approach to ALARA planning was described in NRC inspection report Number 50-219/92-15. No significant changes were noted in the implementation of this program since that inspection. Computer tools were effectively used to search plant records and help anticipate the radiological challenges.

The ALARA planning personnel accessed the General Maintenance System 2 {(GMS2) the Maintenance Department's job order and component data base} to determine if there were any changes in work scope which might necessitate RWP modification. This was done on a daily basis prior to the 9:00 a.m. morning meeting. In summary, the licensee's program for planning and scheduling health physics support remained strong.

The 14R Outage exposure estimate was 544 person-rem. The licensee also provided an additional 20 person-rem for contingency exposures. As of January 3, 1993, the outage exposure was 317 person-rem. This represented approximately 70 percent completion of the projected outage tasks with expenditure of about 58% of the estimated exposure.

9.0 Exit Meeting

The inspectors met with licensee representatives at the end of the inspection, on January 8, 1993. The inspectors reviewed the purpose and scope of the inspection and discussed the findings. The licensee stated that they would evaluate the findings and institute corrective actions as appropriate.