JCP&L / GPU

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March 7, 1980

Mr. Boyce H. Grier, Director
Office of Inspection and Enforcement
United States Nuclear Regulatory Commission
Region I
631 Park Avenue
King of Prussia, Pennsylvania 19406

Dear Mr. Grier:

SUBJECT: Oyster Creek Nuclear Generating Station
Docket No. 50-219
IE Inspection No. 79-07

This is in reply to your letter of February 12, 1980, regarding the inspection conducted by Mr. D. Neely and Mr. J. White on April 18-20, 1979 and July 19-20, 1979 at the Oyster Creek Nuclear Generating Station. In Appendix A to your letter there are noted several activities which were not conducted in full compliance with NRC regulations and the conditions of the Oyster Creek NRC Facility License. The specific noncompliances identified, all infractions, and our response to each are given below:

1. Infraction - 10 CFR 20.201, "Surveys", states in Paragraph (b), "Each licensee shall make or cause to be made such surveys as may be necessary for him to comply with the regulations in this part." A survey as defined in Paragraph 20.201(a) means, "an evaluation of the radiation hazards incident to the production, use, release, disposal, or presence of radioactive materials or other sources of radiation under a specific set of conditions. When appropriate, such evaluation includes a physical survey of the location of materials and equipment, and measurements of levels of radiation or concentrations of radioactive material present."

a. Contrary to the above, on March 16, 1979, radiation surveys necessary to assure compliance with 10 CFR 20.101, "Exposure of individuals to radiation in restricted areas" were not performed in support of work activities conducted in accordance with Radioactive Work Permit (RWP) No. 062279. RWP No. 062279 was issued based on survey data compiled on March 1, 1979 and indicated that the radiation levels in the work area were 1.0 mrem per hour. Actual radiation levels in the work area measured as high as 200 mrem/hr on March 16, 1979.

b. Contrary to the above, between March 16 and April 26, 1979, no evaluations were made to determine the radiation exposure received as a result of the radiation dose to the skin of three

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individuals who became extensively contaminated with radioactive water (Primary Coolant) while performing activities in accordance with Radioactive Work Permit No. 062279. Initial radiation levels as high as 224 mrads per hour were measured on the skin surfaces of the individuals on March 16, 1979.

Response

a. Radiation Work Permit (RWP) procedure 915.1 now requires current survey data to be available in order to issue an RWP. All radiation protection technicians have received training in collection and documentation of survey data as part of a continuing training program. Planning meetings between job supervisors and radiation protection supervisors are scheduled daily at 0800 and 1500 during normal operations and 0930 during outages. Job preplanning meetings as required are held between the job supervisor, radiation workers, radiation protection technician and the Radiation Protection Supervisor prior to issuance of RWP's. In addition, a newly formed Radiological Engineering Group will be editing installation procedures prior to PORC review. All installation procedures involving radioactive material work are reviewed by the Supervisor Radiation Protection prior to approval.

   Full procedural compliance was achieved July 31, 1979. Additional improvements are parts of a continuing program to improve radiation protection.

b. An outside consultant was contracted to evaluate the radiation dose to the skin of the three individuals on April 26, 1979. A second outside consulting firm has been contracted to provide a more sophisticated analysis. The newly formed Radiological Engineering Group is developing the capability to promptly and fully investigate radiation incidents, evaluate radiation doses and provide engineering controls to prevent reoccurrence.

   Full compliance was achieved April 27, 1979.

2. Infraction - 10 CFR 20.201, "Surveys", states in Paragraph (b), "Each licensee shall make or cause to be made such surveys as may be necessary for him to comply with the regulations in this part." A survey as defined in Paragraph 20.201(a) means, "an evaluation of the radiation hazards, incident to the production, use, release, disposal, or presence of radioactive materials or other sources of radiation under a specific set of conditions. When appropriate, such evaluation includes a physical survey of the location of materials and equipment, and measurements of levels of radiation or concentrations of radioactive material present."

10 CFR 20.103, "Exposure of individuals to concentrations of radioactive materials in air in restricted areas" states in Paragraph (a)(3), for purposes of determining compliance with the requirements of this section the licensee shall use suitable measurements of concentrations of radioactive materials in air for detecting and evaluating airborne radioactivity in restricted areas and in addition, as appropriate, shall use measurements of radioactivity in the body, measurements of radioactivity excreted from the body, or any combination of such measurements as may be necessary for timely detection and assessment of individual intakes of radioactivity by exposed individuals.

a. Contrary to the above, on March 16, 1979, surveys of concentrations of radioactive materials in air were not made to support work which had the potential for subjecting personnel to exposure from airborne radioactive materials in air. Such work was performed by individuals in accordance with the following Radioactive Work Permits (RWPs):

RWP No.	Title
061979	Run Temp Pipe Line, DWEDT Line-Hub Drain in CSHX Area
062279	Cut DWEDT Discharge Line and Cap-SW Corner of Rx Building in Pipe Tun

b. Contrary to the above, for the period between March 16 and April 20, 1979, no evaluations such as measurements of radioactivity in the body, measurements of radioactivity excreted from the body or any combination of such measurements, was made on three individuals performing work in accordance with Radioactive Work Permit 062279, in which the personnel were subject to extensive contamination resulting in a dose rate as high as 224 mrads per hour on the upper portions of the persons head and face.

Response

a. All Radiation Protection personnel were reinstructed in the techniques and necessity of obtaining air samples. Additional air sampling equipment was purchased including lapel and continuous air monitors.

Full compliance was achieved in July 1979.

b. An on-site whole body counter was leased in December 1979. The bioassay procedure was revised in accordance with Regulatory Guide 8.21 and ANSI Standard N343 in July 1979. The three individuals were whole body counted on April 20, 1979 and compliance was achieved at that time.

3. Infraction - 10 CFR 19.12, "Instructions to Workers", states, "All individuals working in or frequenting any portion of a restricted area shall be kept informed of the storage, transfer, or use of radioactive materials or of radiation in such portions of the restricted area; shall be instructed in the health protection problems associated with exposure to such radioactive materials or radiation, in precautions or procedures to minimize exposure, and in the purposes and functions of protective devices employed". The extent of those instructions shall be commensurate with potential radiological health protection problems in the restricted area. In addition, Health Physics Procedure 902.1, Revision 13, Radioactive Work Permits states in Section 4.1, "Working personnel should be briefed on the work to be performed and the radiological safety procedures applicable to the job".

Contrary to the above, on March 16, 1979, two individuals were directed to perform work in accordance with Radioactive Work Permit No. 062279, "Cut DWEDT Discharge Line and Cap-SW Corner of Rx Building in Pipe Tun" without being informed of the specific radiological hazards associated with this activity, i.e., the personnel were not informed that the pipe they were to cut into contained highly radioactive water and was under at least 22 psi pressure; the quantity of the liquid expected to be released after the pipe was cut, the radiation levels in the area they were working and the procedural specification required by the Job Instruction Procedure 79-7, "Repair of DWEDT Discharge Line". As a result the personnel were not aware of the potential radiological health protection problems associated with the work and were not advised of precautions and procedures to minimize their exposure.

Response - Response 1a. specifies organization and procedural changes implemented to prevent reoccurrence. Additional steps taken include a daily status board at the entrance to radiation controlled areas to inform workers not requiring RWP's of the radiological conditions in their work area.

Full compliance is now achieved.

4. Infraction - Technical Specification 6.11, "Radiation Protection Programs", states, "Procedures for personnel radiation protection shall be prepared consistent with the requirements of 10 CFR Part 20 and shall be approved, maintained and adhered to for all operations involving personnel radiation exposure".

Contrary to the above, on March 16, 1979, the following procedures, written pursuant to this specification were not adhered to in regard to activities conducted as permitted by RWP No. 062279, "Cut DWEDT Discharge Line and Cap":

Procedure	Specifications Not Followed
902.1, Revision 14 - Radioactive Work Permits	3.1, 4.1, 4.2, 5.3.1

Procedure	Specifications Not Followed
905.10, Revision 4 - Personnel Contamination - No Injury	3.2, 5.2.2, 5.2.3, 5.4.1, 5.4.2
905.2, Revision 4, Class II Emergency	3.1.1, 3.1.4, 5.1, 5.2
903.9, Revision 0, Daily Exposure and Access Control Card	5.12
901.6, Revision 1, Considerations in Air Sampling for Respiratory Protection	5.4
903.5, Revision 14, Bioassay Samples and Whole Body Counting	5.1

Response - All radiation workers at Oyster Creek were retrained in 1979 with specific emphasis on compliance to procedures and procedural changes in radiation protection. In February, 1980 the President of JCP&L, Dr. Bartnoff, informed site supervisors personally of our company policy commitment to a high quality, enforced, radiological control program and each supervisor's responsibility in achieving such enforcement regardless of production. February 20, 1980 the Station Manager, Mr. Carroll, issued an action plan for radiation protection improvement. In February, Mr. Carroll and the Supervisor Radiation Protection held a two week series of meetings with JCP&L and contractor employees reemphasizing contamination control techniques, worker responsibility and the disciplinary action that will be taken when procedures are not adhered to.

A radiological deficiency report is being developed to assure procedural non-compliance receives a high level of management attention and is fully documented. In addition, the Radiological Engineering Group will perform frequent internal audits of procedural compliance and external auditors will review procedural adequacy and compliance.

Although we feel we are in full compliance at this time, procedural compliance is a continuing problem and will receive constant and continuing attention and enforcement.

5. Infraction - Technical Specification 6.8.1, "Procedures" states, "Written procedures shall be established, implemented (adhered to), and maintained that meet or exceed the requirements of Section 5.1 and 5.3 of American National Standard N18.7-1972 and Appendix 'A' of the Nuclear Regulatory Commission's Regulatory Guide 1.33-1972..." Procedure 79-7, Revision 0, Repair of DWEDT Discharge Line, written in accordance with this specification, states the following:

"3.0 Prerequisites ... 3.5. Ensure the discharge line is appropriately isolated, drained and tagged prior to cutting into it.

5.0 Instructions ... 5.1.4 Ensure the section of the discharge line to be cut is isolated, drained and tagged. Contact the Group Shift Supervisor for notification".

Contrary to the above, on March 16, 1979, Procedure 79-7, Revision 0, was not adhered to in that the discharge line was not isolated and drained prior to cutting the pipe. Consequently, several persons received extensive radioactive contamination when they were sprayed with the liquid contents (Primary Reactor Coolant) of the pipe which was under an estimated 22 psi of pressure when the pipe cut was made. Radiation levels as high as 224 mrad/hr were measured over the entire skin surfaces of one of the individuals and in various locations of the body of the two other individuals who were exposed.

Response - The response is the same as that for Infraction No. 4.

Very truly yours,

Donald A. Ross

Donald A. Ross, Manager
Generating Stations-Nuclear

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