

U. S. ATOMIC ENERGY COMMISSION  
DIVISION OF COMPLIANCE  
REGION I

CO Inspection Report No. 50-219/71-03

Subject: Jersey Central Power & Light Company  
Oyster Creek 1 License No. DPR-16

Location: Forked River, N. J. Priority \_\_\_\_\_  
Category C

Type of Licensee: BWR

Type of Inspection: Special, announced

Dates of Inspection: October 7 & 8, 1971

Dates of Previous Inspection: June 22-25 & July 2, 1971

Principal Inspector: T. Young, Jr. 11/18/71  
T. Young, Jr. Reactor Inspector (10/7/71 only) Date

Accompanying Inspectors: R. J. Meyer 11/5/71  
R. J. Meyer, Radiation Specialist Date

\_\_\_\_\_  
Date

Other Accompanying Personnel: None \_\_\_\_\_  
Date

Reviewed By: R. T. Carlson 11/8/71  
R. T. Carlson, Senior Reactor Inspector Date

Proprietary Information: None

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Section I

Enforcement Action - None

Licensee Action on Previously Identified Enforcement Matters - Not inspected.

Unresolved Items - None

Status of Previously Reported Unresolved Items - Not inspected.

Unusual Occurrences - None

Persons Contacted -

T. McCluskey, Station Superintendent  
D. Ross, Technical Supervisor  
D. Reeves, Technical Engineer  
E. Riggle, Maintenance Supervisor  
D. Kaulback, Radiation Protection Supervisor  
R. Stoudnour, Radiation Protection Supervisor  
J. Sullivan, Assistant Technical Engineer  
J. P. Zilinskas, Manager, GE  
W. L. Swanson, Shift Supervisor, GE  
A. Grimes, Radiation Monitor Supervisor (GE)

Management Interview -

The following subjects were discussed by Mr. Young with Mr. McCluskey on October 7, 1971:

- A. The inspector expressed concern for the lack of nuclear experience and nuclear knowledge of the GE fuel handlers. It was pointed out that the inspector witnessed the loading of four fuel handling tools onto a hook (built for one) and the hook straighten out enough to allow two of the tools to fall into the spent fuel pit (SFP). The two tools landed in one of the spent fuel storage racks; fortunately, no fuel was stored in that particular rack. Mr. McCluskey stated that this was also a concern of Oyster Creek (OC) management and that the OC checker had orders to report any unsafe operations to management. He also stated that the GE fuel handlers were given some training (approximately two weeks) and were gaining experience. (Paragraph 9)
- B. The inspector stated that there were no items of noncompliance or unsafe practices (other than that discussed above) noted by the inspector in the refueling operations observed.

The following items were discussed by Mr. Meyer with Messrs. McCluskey and Ross on October 8, 1971:

- A. Air balance problem noted in the drywell area in which the air flow was from the drywell rather than into the drywell. The air flow was corrected. Air balance problem noted in the turbine building in which air flow was from the control valve area to the turbine floor area. Mr. McCluskey stated that they were still investigating the problem in the turbine building and would correct it. Mr. Ross stated that he was working with Operations to maintain proper air balance. (Paragraph 10)
- B. Lack of continuous air monitoring capabilities. Mr. Ross stated that they were looking for money in the 1972 budget to develop this capability and he was currently reviewing the needs. (Paragraph 11)
- C. Bioassay program. Mr. Ross stated that in light of their outage experience they were not going to develop one. He stated that after the outage they would have selected individuals whole body counted. (Paragraph 12)
- D. Training of off-site personnel. Mr. McCluskey agreed that training was important and thought that they had provided enough, but they would review this and provide what was needed. (Paragraph 13)

## Section II

### Additional Subjects Inspected, Not Identified in Section I, Where No Deficiencies or Unresolved Items were Found

#### 1. General

There are 24 new fuel bundles at the site which will be placed in the reactor around the periphery of the core. Forty-four leakers were identified in the sipping operation, 20 of which will be reconstituted and placed in the high flux region of the core.

#### 2. Logs and Records

- a. Radiation monitoring logs, September 18, 1971 - October 7, 1971
- b. Survey records, September 18, 1971 to October 7, 1971
- c. Air sample records, September 18, 1971 to October 7, 1971
- d. Film badge reports, January 1971 through August 1971
- e. Pocket dosimeter results, September 1, 1971 to October 7, 1971
- f. Exposure histories, off-site personnel
- g. Drywell entry logs

#### 3. Facility Procedures

- a. General information, fuel rod inspection and bundle reconstitution
- b. Fuel reconstitution procedure
- c. Reactor fuel examination and reconstitution procedure
- d. Radiation Work Permits
- e. Radiation and contamination control procedures
- f. Instructions to personnel
- g. Exposure control procedures
- h. Emergency notification procedures
- i. Routine survey procedures

4. Fuel bundle movement from core to fuel preparation rack.

5. Fuel bundle dechanneling.

6. Fuel rod cleaning and inspection.

7. Administrative control of fuel.

#### 8. Major Outage Work Areas - Radiation Protection Program

- a. Access control
- b. 10 CFR 20.103 posting requirements
- c. Radiation and contamination levels
- d. Remote radiation monitoring systems
- e. Available radiation monitoring and detection instruments
- f. Availability of RWP's and instructions
- g. Air sampling locations

Details of Subjects Discussed in Section I

9. Fuel Inspection

During the fuel inspection process, the inspector observed a GE fuel handler load a hook (tied to the SFP railing) with four fuel handling tools. The hook was designed to hold one tool. The shank of the hook straightened out under the excessive load allowing two of tools to fall into the SFP. The two tools landed in an empty SFP storage rack.

10. Air Balance

On October 7, 1971 the inspector noted that the air flow was out of the drywell to the adjacent area. This was verified by hanging a tattle-tail in the doorway. Mr. Kaulback agreed that the air flow should be into the drywell. Mr. Kaulback made an immediate report to Mr. Ross, corrective action was initiated and the proper air balance restored. According to Mr. Ross, the air flow had been adjusted to assure an adequate air flow down and across the vessel head during vessel head removal on September 23, 1971 and had apparently not been changed. Mr. Ross stated that ventilation system procedures would be reviewed and provisions made to prevent recurrence.

On October 7, 1971, the inspector noted that in the turbine building, air flow was up from the lower level control valve area to the turbine room area, through an access opening in the floor. Considerable repair work was being done on valves directly below the opening. The radiation technician covering the area stated that he was aware of the direction of air flow and had taken air samples for activity determinations. He further stated that contamination levels in the control valve area were low. Mr. Ross stated that the air balance would be corrected.

11. Continuous Air Monitoring

Currently the licensee has no capability for continuously monitoring air activities, and depends on continuous sampling and grab vacuum sampling, with after the fact determinations of air concentrations. The philosophy as noted during the inspection was to use respiratory protection during work where the potential for airborne activity was evident. Mr. Ross stated that air monitoring needs were currently being reviewed and budget requirements submitted for 1972 procurement.

12. Bioassay Program

Mr. Ross stated that in light of the air concentrations experienced to date, no bioassay program had been established. He stated that personnel contamination events had been infrequent and of a minor nature. No nasal contamination has been experienced, or other indicators of possible ingestion. Mr. Ross stated that after the outage selected individuals would be whole body counted, with the results determining how extensive the program should be.

13. Training and Instructions

As evidenced during the inspection, personnel contamination events and losses of contamination control apparently resulted from poor work practices and poor step off pad conduct by inexperienced help. Mr. Ross stated that all off site people had been given training and demonstrations relative to radiation zone conduct. He stated that radiation zone conduct would be reviewed, and personnel re-instructed.