

U.S. ATOMIC ENERGY COMMISSION  
DIRECTORATE OF REGULATORY OPERATIONS  
REGION I

RO Inspection Report No: 50-219/74-17 Docket No: 50-219

Licensee: Jersey Central Power and Light Co. License No: DPR-16

Madison Ave. at Punch Bowl Rd Priority: I

Morristown, New Jersey Category: C

Location: Oyster Creek Station Safeguards Group: \_\_\_\_\_

Type of Licensee: BWR, 640 MWe

Type of Inspection: Routine Health Physics & Chemistry, Unannounced

Dates of Inspection: November 11-14, 1974

Dates of Previous Inspection: October 30, 1974

Reporting Inspector: Robert R. Hyson 12/3/74  
Robert R. Hyson, Radiation Specialist Date

Accompanying Inspectors: \_\_\_\_\_ Date

\_\_\_\_\_ Date

\_\_\_\_\_ Date

\_\_\_\_\_ Date

Other Accompanying Personnel: \_\_\_\_\_ Date

Reviewed By: P. J. Knapp Jan 3, 1975  
P. J. Knapp, Chief Facilities Date  
Radiation Protection Section

B/440

## SUMMARY OF FINDINGS

### Enforcement Action

#### A. Violations

1. Failure to follow requirements of Technical Specifications  
3.6.A.3. - Failure to continuously monitor stack releases while the reactor is in an unisolated condition (JCP&L letters to DL dated October 23, 28 and November 18, Subject: AO 74-53, AO 74-54 and AO 74-57) (Details, Paragraph 15)
2. Failure to properly label containers of radioactive material. (Details, Paragraph 10)

#### B. Safety Items

None

### Licensee Action on Previously Identified Enforcement Items

None

### Unusual Occurrences

The following abnormal occurrence was reviewed:

- A. Failure of the stack gas sampling system to continuously monitor stack releases on three separate occasions while the reactor was in an unisolated condition (JCP&L reports to RO:I dated October 14, 18 and November 11, 1974, Subject: AO 74-53, AO 74-54 and AO 74-57)

### Other Significant Findings

#### A. Current Findings

The plant was in the state of reducing power at 1115 hours, November 11, 1974, due to the presence of an unidentified leak in the drywell. At approximately 1730 hours the inspector observed a team of four plant personnel (2 HP Technicians) make the initial drywell entry in search of the source of leakage. The team identified the probable leakage at a one inch bypass valve around a manual feedwater shutoff valve. The inspector noted that the drywell entry was consistent with the procedures established by the licensee. The stack release rate on November 8, 1974, at a power rating of approximately 655 MWe was 21,450 uCi/sec. This is less than 10% of the Technical Specification

limits. The inspection indicated most areas of the health physics program well controlled.

B. Status of Previously Unresolved Items

None

Management Interview

The following individuals attended the management interview held at the conclusion of the inspection on November 14, 1974.

D. A. Ross, Manager Nuclear Generating Stations (via telephone intercom)  
D. L. Reeves, Chief Engineer  
E. D. Scalsky, Radiation Protection Supervisor  
E. Growney, Technical Engineer  
J. Menning, Engineer  
R. Swift, Maintenance Engineer  
J. Cook, Radiation Protection Foreman  
D. Kauiback, Radiation Protection Foreman

The following subjects were discussed:

- A. The inspector identified the violations observed during the inspection and stated that he had noted that certain corrective actions had been completed. (Details, Paragraph 10)
- B. The inspector stated that the test given to station personnel covering the basic radiation protection orientation course did not contain questions relating to 10 CFR 19. (Details, Paragraph 2.c)
- C. The inspector stated that he had reviewed the Training, Retraining and Orientation Program. (Details, Paragraph 4 a,c)
- D. The inspector stated that he had reviewed a draft of the new Respiratory Protection Manual and accompanying procedures which are consistent with ANSI 88.2. (Details, Paragraph 12)
- E. The inspector stated that a licensee representative had assured receipt of the three new constant air monitors (CAM) by January, 1975 based on vendor information. However, the licensee indicated at this interview that there had been a problem with the actual purchase orders and that at present no definite delivery date could be assured. The status of these CAM's will be further reviewed at the next inspection. (Details, Paragraph 6.a.2)
- F. The inspector reviewed with the licensee the air sampling program which, according to the licensee will be initiated by January, 1975. (Details, Paragraph 6.a.2)

- G. The inspector noted that a new Radiation Work Permit has received PORC approval and will be in use according to a licensee representative by February, 1975. (Details, Paragraph 8.b.)
- H. The licensee indicated that the Radiation Protection Supervisor will become an official PORC member as per Technical Specifications by January, 1975.
- I. The inspector indicated that he had consulted with the authorized worker representative. (Details, Paragraph 14)

## DETAILS

### 1. Persons Contacted

D. Reeves, Chief Engineer  
E. Scalsky, Radiation Protection Supervisor  
J. Cook, Radiation Protection Supervisor  
J. Molnar, Training Coordinator  
D. Arbach, Radiation Protection Supervisor  
J. Maloney, Operations Supervisor  
R. Pelrine, Chemistry Supervisor  
R. Stodonour, Environmental Engineer  
W. Spoulos, Station Helper Foreman

### 2. Organization

- a. A licensee representative stated that the organization at the management level has remained unchanged from that defined in RO:I Inspection Report 50-219/73-14.
- b. Minor changes at the Radiation Protection staff level were reported by a licensee representative as follows:
  - 1.) Two of the Assistant Technicians (Nuclear) have become Radiation Technicians which reduces the former to four persons and increases the latter to six.
  - 2.) The number of permanent station Helpers (Nuclear) has been increased from 12 to 15.
- c. The 3 additional station Helpers received the 4 hour basic orientation radiation protection course and successfully passed their examination according to licensee records. The inspector noted that the tests did not include questions on 10 CFR 19. A licensee representative indicated this would be done by February 1, 1975.

### 3. Audits

- a. Internal Programs- The inspector reviewed the records of the latest GORB Audit of the Radiation Protection Program made on February 26 and 27, 1974. The audit findings primarily were concerned with inadequate record-keeping, revision of survey forms, and omissions made on various survey and data forms. The inspector reviewed a response dated, April 3, 1974, to the GORB Audit, from the Radiation Protection Supervisor and found it to be complete.
- b. Quality Control of TLD Program- The inspector reviewed the licensee's program for auditing the services provided by their personnel dosimetry



vendor. The program consisted of "Spiking" thermoluminescent badges. The calculated doses to the badges were then compared with those doses reported by the vendor and by Oyster Creek Technicians who also readout the "Spiked" badges. The inspector noted that this procedure is followed at least once per month. Records of all the results were found complete.

#### 4. Training

- a.) The inspector reviewed the manual covering orientation, training, and retraining for requalification with the Training Coordinator. He indicated that the training of plant personnel in the area of plant radiation protection would include those items described in RO:I Inspection Report 74-06 with the exception that the basic orientation program would require less than one week to complete. He also indicated that the training manual had received management approval and that the first course outlines in radiation protection for orientation and retraining for requalification would be prepared and ready for implementation by January, 1975.
- b.) The inspector verified that Revision 1 of the Radiation Protection Manual contained a statement of Management's commitment to ALAP.
- c.) Training and retraining records including tests reviewed by the inspector were found to be in accordance with established licensee programs.

#### Changes in Plant Facilities

- a.) A licensee representative indicated that the only major change in Plant Facilities affecting radiation protection was the construction of a locker and change facility at the north end of the plant. This facility will serve the mobile maintenance and contractor personnel primarily during shutdowns. Radiation monitoring services will be provided according to the licensee representative.

#### 6. Records

- a. In-plant Air Sample Program- A review of records for sampling of particulates, halogens and gases by the inspector revealed that the air sampling program appeared to follow established licensee programs. However, the following apparent weaknesses in this program were indicated by the inspector:
  - 1.) Too few air samples were being taken in the Radwaste Building, especially during significant operations, e.g. drum filling, maintenance of contaminated equipment, etc. (See Paragraph 8)
  - 2.) There is no defined frequency for the taking of routine air samples throughout the facility.

With respect to this latter item a licensee representative presented the inspector with a copy of an air sampling survey form which defined frequencies for the routine sampling of air throughout the facility, and indicated that it would be implemented by January, 1975.

Information was requested regarding the availability of the three constant air monitors (CAM) which, according to a previous statement by the licensee,\* were to arrive at any time. The licensee representative stated that the CAM's had not yet arrived.

- b. Personnel Dosimetry - A review of personnel dosimetry records for all employees covering the time since the last inspection showed no exposures in excess of regulatory limits.
- 1.) Forms AEC-4 reviewed for those individuals who exceeded 1250 mrem since the last inspection were found to be complete and in accordance with regulatory requirements.
  - 2.) One individual's TLD badge report indicated that he had received a 2990 mrem dose thus far in the fourth quarter. Upon receipt of this report from the dosimetry vendor, the licensee conducted an investigation which indicated a much lower dose (1600 mrem). The inspector reviewed the licensee's investigation report and interviewed the individual and several radiation protection personnel. After the inspector's review, he indicated to the licensee that in his opinion the licensee's investigation report was not conclusive enough to warrant discounting the results of the exposed TLD badge. On this basis the licensee transferred the individual from all radiation zones for the present time to avoid a possible overexposure.

Additional investigation efforts by the licensee on this matter were reviewed by an inspector and reported on in RO: I Inspection Report 50-219/74-18.

- 3.) The inspector reviewed the whole body counting results conducted during the second quarter of 1974 after the last major shutdown. No significant amounts of radioactivity were reported during the counting of essentially all assigned station personnel.

#### 7. Radiation Surveys

The inspector reviewed the radiation survey results for the restricted area boundary since the last inspection and found them to be in accordance with regulatory requirements.

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\* RO: Inspection Report 50-219/74-06

8. Work Authorization Records

- a.) A review of numerous Radiation Work Permits (RWP) by the inspector revealed that established licensee procedures were being adhered to in this area. The inspector raised a question regarding the following RWP:

Extended RWP #2237-74, 10/24/74

Job: Drumming Filter sludge in operating Galley

Respiratory Requirements: Filter respirator when centrifuge running

According to a licensee representative this job is performed once per week.

The RWP did not specify that breathing zone air samples be taken while the operator performed the job in a filter respirator during centrifuge operation; nor were there any records present which indicated that such samples had been taken. A cognizant licensee representative stated that the operating galley air concentration during centrifuge operation for filter sludge dewatering have been greater than 10 CFR 20, Appendix B, Table I, Column 1, limits. The inspector questioned the prudence of not taking air samples at any time during the performance of the job, and stated that the matter would be further reviewed at the next inspection.

- b.) The licensee representative gave the inspector a copy of a revised RWP which has received PORC approval and will be in use by February, 1975, according to the representative. The revised RWP is more comprehensive than the one now in use and, therefore, would appear to be an improvement over the present RWP from the standpoint of "ALAP."

9. Solid Wastes

The inspector reviewed the licensee's solid waste program as it applies to the following:

- a. Storage location
- b. Evaluation of isotopic quantities before transfer
- c. Types of containers
- d. Frequency of transfers
- e. Isotopic quantities and volumes transferred
- f. Records

The program as reviewed was found to be in accordance with the licensee's established procedures and regulatory requirements.



10. Posting and Labeling

- a. During a tour of the facility the inspector determined by observation and measurement that posting of radiation areas and high radiation areas was in accordance with the requirements 10 CFR 20.203(b) and (c). With respect to containers of radioactive materials, the inspector determined, by measurements, observations and discussions with licensee representatives, that certain drums were not labeled and, therefore, were not in accordance with the requirements of 10 CFR 20.203(f)(1) and (2). These drums are identified below:
- (1) Two 55 gallon drums on the 75' level of east side of the Reactor Building. These two drums contained control rod drive filters and were creating a local high radiation level as posted.
  - (2) Fifteen to twenty 55 gallon drums of solid rad waste stored in Storage Bay #5 of the Rad waste Building (one of these drums most accessible to the inspector measured in excess of 100 mr/hr @ 3 cms.)
  - (3) Three drums of Low Specific Activity material which were measured in excess of 10 mr/hr at 3 cm. located directly outside (east side) the Radwaste Building awaiting loading.
- b. A return visit by the inspector the day following his tour of the area noted in a(1) and (3) above revealed that these drums had been properly labeled in the interim period.

11. Disciplinary Program

The inspector reviewed documented disciplinary action, taken by the licensee against those individuals who failed to conform to company requirements in the area of radiation protection. These types of disciplinary actions appear to be a positive approach in demonstrating managements commitment to "ALAP."

12. Respiratory Protection Program

The inspector reviewed a draft of the new Respiratory Protection Manual which incorporated ANSI 88.2 recommendations for procedures. Implementation of the program is expected after incorporation of certain facets of WASH-1287 and PORC approval according to a licensee representative.

13. Plant Tour

- a.) The inspector made two tours of the plant which covered primarily the Reactor Building, Turbine Building and Radwaste Building. During these tours surveys were made by the licensee representative and the inspector. These areas were consistent with regard to good housekeeping practices. The inspector noted that most of the floors in all of the areas toured were recently painted which will aid in their decontamination in the future should such need arise. The inspector also noted an inventory of less than 30 drums of radwaste in the Radwaste Building.

14. Worker Representative

- a. The inspector interviewed the authorized worker representative as per his request. The worker representative expressed concern in the following areas:

- 1) Worker Representative's rights to consult with Commission inspectors during inspections as discussed in 10 CFR 19.

The inspector resolved this problem with the representative in a telephone conversation with him on November 27, 1974.

- 2) Justification of the alleged practice of routinely excluding the beta dose from the whole body dose during the calculation of all worker doses. The worker representative contends that in at least two cited cases that workers had received significant beta doses which were not included in their whole body dose, despite the fact that they were, at no time during the period of exposure, required to wear any form of eye protection against beta radiation. The worker indicated that previous to June, 1974, the instances of such cases were wide-spread and expressed concern about the situation prior to th's date.

The representative has expressed satisfaction in the calculation of worker doses since June, 1974. The inspector indicated that in view of the fact that the problem was corrected in June and because of the time required he would examine the allegations of past practices at his next inspection.

15. Stack    Sampling System Failures\*

The corrective actions identified in the November 18, 1974 letter from JCP&L to DL (which included replacement of the present circuit breaker and thermal overload breaker with larger breakers and provisions for a redundant stack sample pump) will be reviewed during a future inspection.

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\* Referred to in Unusual Occurrence section

215 519 3311

DATE Nov. 6, 1974

INSPECTION PLAN

Oyster Creek  
(FACILITY)

RADIATION PROTECTION - TI 3200/2  
(Power Operation - Once Per Year)

Insp. Rpt. No. 50-219/74-17  
Insp. Rpt. No. \_\_\_\_\_

Date(s) 11/11-11/14  
Date(s) \_\_\_\_\_

INSPECTION ITEMS

Outstanding Items (See Attached List)

Follow-up  
Required

Completed  
Insp. Rpt. No.

- a. Organization - Items 7a.(1)-(3) None 50-219/74-17
- a. Licensee Audits - Items 7b.(1)-(5) None 50-219/74-17
- a. Discussions with Management - Items 7c.(1)-(3) None 50-219/74-17
- a. Training - Items 7d.(1)-(5) None 50-219/74-17
- Rad-Chem Procedures - 7e.(1)-(2) None 50-219/74-17
- a. Records, Radiation Safety - Items 7f.(1)-(6) None 50-219/74-17
- ~~a.~~ Waste Storage & Transfer - Items 7g.(1)-(3) 7g.2.c.&f.
- Respiratory Protection - Items 7h.(a)-(e) ✓
- Materials Inventory - Items 7i.(1)-(5) ✓
- a. Receipt & Transfer - Items 7j.(1)-(5) ✓
- Shipping Accidents - Items 7k.(1)-(3) ✓
- a. Facilities & Equipment - Items 7l.(1)-(2) 50-219/74-17
- Notifications & Reports - Items 7m.(1)-(2) ✓
- ~~a.~~ Posting of Notices - Items 7n.(1)-(6) None 50-219/74-17
- Independent Measurements - Items 7o.(1)-(2) None 50-219/74-17
- a. Management Interview - Item 7p None 50-219/74-17

Approved [Signature]  
(Senior)

[Signature]  
(Reporting Inspector)

