

U.S. NUCLEAR REGULATORY COMMISSION  
OFFICE OF INSPECTION AND ENFORCEMENT  
REGION I

IE Inspection Report No: 50-219/75-12 Docket No: 50-219

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

Madison Ave at Punch Bowl Road Priority: I

Morristown, N. J. 07960 Category: C

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

Type of Licensee: BWR, 640 MWe

Type of Inspection: Waste Management Systems (Unannounced)

Dates of Inspection: April 29-May 1, 1975

Dates of Previous Inspection: March 25-27 and April 8-10, 1975

Reporting Inspector: Robert R. Hyson 5/21/75  
Robert R. Hyson, Radiation Specialist Date

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

\_\_\_\_\_ Date

\_\_\_\_\_ Date

\_\_\_\_\_ Date

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

Reviewed By: R. J. Meyer 5/23/75  
P. J. Knapp, Chief, Facilities Date  
Radiation Protection Section

B/1822

SUMMARY OF FINDINGS

Enforcement Action

A. Items of Noncompliance

1. Violations

None

2. Infractions

Failure to calibrate the liquid process radiation monitor during the last quarter, 1974, and the first quarter, 1975, as required by Technical Specification 4.6.A. (Details, Paragraph 2 d & e)

3. Deficiencies

None

B. Deviations

None

Design Changes

Not inspected

Unusual Occurrences

None

Other Significant Findings

A. Current Findings

1. Acceptable Area

a. Liquid Releases

A review of the liquid radioactive releases was conducted. (details, Paragraph 2)

b. Gaseous Releases

A review of gaseous and iodine and particulate releases was conducted. (Details, Paragraph 3)

c. Reactor Coolant Quality

A review of measured parameters in the reactor coolant was made. (Details, Paragraph 6)

d. Filter Testing

A review of the frequency and results of HEPA filters and charcoal adsorbers in the standby gas treatment system was reviewed. (Details, Paragraph 5)

2. Unresolved Items

None

3. Items Identified and Corrected by the Licensee

Infraction

None

Deficiency

None

Management Interview

A management interview was held at the site on May 1, 1975.

Persons Present

Mr. D. A. Ross, Manager, Nuclear Generating Stations  
Mr. J. Carroll, Station Superintendent  
Mr. E. Gowney, Technical Engineer  
Mr. R. Pelrine, Chemistry Supervisor  
Mr. R. Stoudnour, Staff Engineer

Items Discussed

A. Purpose of the Inspection

The inspector stated that this was an in-depth inspection of the licensee's waste management systems for the period from about June 1974 to the present. The areas of specific concern were delineated as follows.

## DETAILS

### 1. Individuals Contacted

J. Carroll, Station Superintendent  
D. Reeves, Chief Engineer  
R. Pelrine, Chemistry Supervisor  
R. Stoudnour, Environmental Engineer  
E. Growney, Technical Engineer  
E. Scalsky, Radiation Protection Supervisor  
C. Konta, Chemistry Foreman  
J. Sullivan, Operations Supervisor  
R. Baran, Engineering Assistant  
D. Wiegler, Engineering Assistant

### 2. Liquid Waste System

- a. A review by the inspector of the licensee's liquid waste releases since the last inspection indicated that the releases were within Technical Specification limits. This review revealed that the licensee's measurements program for specific radionuclides was conducted in accordance with regulatory requirements.
- b. The inspector determined that proper data reduction techniques were being employed by the licensee in obtaining the amounts and concentrations of liquid radioactivity released from the facility.
- c. The inspector determined by discussions with licensee representatives and review of records that the licensee's functional tests of the liquid radwaste monitor were consistent with regulatory requirements.
- d. The inspector noted that the documentation of the last two required quarterly calibrations of the liquid radwaste monitor were inadequate to the extent that they could not be considered actual calibrations. The licensee placed four disc sources of varying source strengths against the detector of each monitor to check detector response. The results were as follows for the two periods noted below:

<u>Date</u>	<u>Source No.</u>	<u>Detection</u>	<u>Desired Reading*</u>	<u>Observed Reading</u>
11/31/74	1	RN02-A	370 cps	380 cps
	2		220 cps	330 cps
	3		693 cps	395 cps
	4		167 cps	359 cps
	1	RN02-D	370 cps	390 cps
	2		220 cps	395 cps
	3		693 cps	345 cps
	4		167 cps	300 cps
2/13/75	1	RN02-A	369 cps	390 cps
	2		211 cps	400 cps
	3		697 cps	400 cps
	4		165 cps	350 cps
	1	RN02-D	379 cps	400 cps
	2		221 cps	410 cps
	3		707 cps	350 cps
	4		175 cps	305 cps

\*Background included

The inspector noted that the space allotted on the calibration documentation sheet for final observed reading was not completed. Normally, if the initially observed readings vary significantly (+20%) from the desired readings; then the monitor is adjusted to respond correctly to the desired readings of the check source so as to be in calibration. The inspector informed the licensee that the failure to adjust his monitor to the desired check source readings appeared to constitute a failure to calibrate his liquid radwaste monitors for the last quarter of 1974 and the first quarter of 1975. The licensee agreed to calibrate his liquid radwaste monitors, immediately, and to determine the cause of their failure to respond properly upon detector stimuli. The inspector further noted that for two years previous to the 11/31/74 calibration attempt the monitor responded appropriately.

3. Gaseous Waste Systems

- a. The inspector reviewed the records of the gaseous waste release since the last inspection and found that the releases were within Technical Specification limits.
- b. The inspector determined that proper data reduction techniques were being employed by the licensee in obtaining the amounts and concentrations of gaseous radioactivity released from the facility.

- c. The inspector determined by discussions with licensee representatives and review of records that the licensee's calibration and functional tests, effluent monitor calibrations, and alarm and isolation settings of the offgas monitor were consistent with regulatory requirements.

4. Containment and ventilation systems

The inspector determined by reviews of records and discussions with licensee representatives that periodic surveillance filter testing on the standby gas treatment system was conducted as per Technical Specification requirements.

5. Filter Systems Testing

The inspector reviewed the test procedures and results of tests and determined that the filter systems (HEPA and charcoal absorbers) were periodically tested as required by Tech Specs, and, that the test results were consistent with requirements.

6. Reactor Coolant Quality

- a. The inspector determined from discussions with licensee representatives and review of records that the frequency and results of analyses of the reactor coolant were consistent with Tech Spec requirements.
- b. The inspector noted that the reactor coolant iodine activity since the last inspection was maintained at less than 20% of the Tech Spec limit of 8.0  $\mu\text{Ci/ml}$ .
- c. The inspector noted that the licensee could not provide adequate documentation to establish that the disc sources used for the liquid radwaste monitor calibration are referenced to the original calibration curves; although the licensee felt that this had been done historically. The inspector noted that the original curves were available. The licensee agreed to properly recalibrate the liquid radwaste monitors using a calibrated liquid standard and a mock-up of the liquid radwaste monitor spool piece. The monitor would then be checked with the disc check sources to establish a documented reference to the newly generated calibration curves. The licensee representative indicated that this liquid calibration would be performed at the next calibration.



- d. The inspector noted that much confusion existed among licensee representatives as to the basis for the liquid radwaste monitor alarm setpoints. In response to the inspector's expressed concern about this confusion, the licensee agreed to reevaluate the alarm setpoint basis following the monitor recalibration and to distribute the results of the reevaluated basis to the plant personnel who are expected to be cognizant of the basis.

The inspector noted that the primary basis for evaluating liquid releases made to the environs is an isotopic gamma, gross beta and gross alpha analysis of a liquid sample from each waste sample tank or laundry drain tank prior to its release of contents. The liquid process effluent monitor's function is to serve as an added assurance against releasing an amount of liquid radioactivity in excess of regulatory requirements, in the case of an occurrence such as an improperly analyzed sample, the lack of homogeneity of the sample analyzed, etc.

- e. The inspector noted that the licensee had not made any liquid releases between September, 1974, and April, 1975. During April, 1975, 17 releases were made which included approximately 290,000  $\mu\text{Ci}$  of gross gamma activity and 20,000  $\mu\text{Ci}$  of  $^3\text{H}_2\text{O}$ . The licensee representative indicated that these releases were made in conjunction with the refueling outage operations which took place in April.

## 7. Procedures

The inspector noted that several of the chemistry procedures being used for procuring and analyzing radiochemical samples were still in the draft stage and that some procedures for sample analyses were in neither a draft nor a formalized stage. The licensee stated that all chemical and radiochemical procedures involving sampling and analysis would be formalized and appropriately reviewed and approved by August 15, 1975.

The licensee indicated that there had been no changes in procedures related to waste management since the last inspection.

## 8. Personnel Exposures

- a. The inspector through discussions with the cognizant licensee representative noted that the personnel exposures since IE:I inspection 50-219/75-09 were consistent with regulatory requirements.
- b. The inspector noted through discussions with the cognizant licensee representative that extremity badges were continuing to be used and evaluated for operations requiring them, as per the licensee commitment made during IE:I Inspection as discussed in Report No. 50-219/75-09.

