

# Jersey Central Power & Light Company



MADISON AVENUE AT PUNCH BOWL ROAD • MORRISTOWN, N. J. 07960 • 539-6111

August 31, 1973

Mr. A. Giambusso  
Deputy Director for Reactor Projects  
Directorate of Licensing  
United States Atomic Energy Commission  
Washington, D. C. 20545

Dear Mr. Giambusso:

Subject: Oyster Creek Station  
Docket No. 50-219  
Outside Tank Activity



The purpose of this letter is to report a violation of the Technical Specification, Paragraph 3.6.C.; whereas, the maximum amount of radioactivity, excluding tritium, noble gases, and isotopes with  $t_{1/2} < 3$  days contained in the radwaste storage tanks external to the radwaste building, exceeded 10 curies. This event is considered to be an abnormal occurrence as defined in the Technical Specifications, Paragraph 1.15.B. Notification of this event, as required by the Technical Specifications, Paragraph 6.6.2.a., was made to the AEC Region I, Directorate of Regulatory Operations, on Thursday, August 23, 1973.

A routine analysis of the activity contained in the outside radwaste tanks was made and indicated the total activity to be 11.82 curies with 11.28 curies being contained in the waste surge tank. In reviewing the outside tank activity status sheets and the radwaste logs, an assumption can be made that the activity has been in excess of 10 curies since Friday morning, August 17. The apparent reason for this activity not being detected in samples taken Friday morning, Saturday morning, and Monday morning, was a failure to recirculate the tank for a sufficient period of time to eliminate any stratification which may have been present. This conclusion was reached after a review by the chemical supervisor of Wednesday morning's sample, when he noted that the activity concentration of the water in the waste surge tank was decreasing with no change in tank volume.

Due to an apparent plugging of the waste concentrator tube bundle which became evident Wednesday, August 15, plans were initiated to replace the element. Coincident with this event, some very low pH water from the make-up system floor drains was circulated through the radwaste floor drain processing system and essentially "acid cleaned" the piping. The waste surge tank, which had been drained, was used to accommodate waste input into the radwaste systems while the concentrator was being maintained. In subsequent radiochemical analyses

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August 31, 1973

of the water added to the tank starting on Thursday, August 16, at 2:00 p.m., the activity in the tank was found to be primarily as a result of particulate matter in suspension. A quantity of particulate material had been known to be in the tank from a prior inspection and plans made to have an outside concern clean the tank and dispose of the waste. Due to the length of time required for this job, though, the tank had not yet been made available for cleaning. However, in adding water to the tank on August 16 and 17, it can be shown by comparison of previous analyses of the tank contents, that a quantity of solid or particulate material was added with the water and, consequently, caused a significant increase in the total curie content of the tank. The major constituents in the solids activity are  $^{60}\text{Co}$ ,  $^{58}\text{Co}$ , and  $^{54}\text{Mn}$ . By 10:37 a.m., Friday, August 17, approximately 33,000 gallons of water had been transferred to the tank. No additional water has been added to the tank since that time.

With the return of the waste concentrator to service late Saturday night, August 18, overall water inventory in the various radwaste systems has slowly been decreasing. As sufficient room is made in the tanks internal to the building, waste water from the surge tank will be transferred to reduce the overall activity. The area surrounding the tank has been re-surveyed and reposted accordingly to ensure proper radiation protection. We will keep the regional compliance office advised as to the date the outside tank activity is reduced below 10 curies. Both operators and chemistry technicians have been advised that, in the future, recirculation of the contents of the surge tank should be conducted for a sufficient period of time to insure that proper representative samples and subsequent analysis may be completed.

As noted in the Technical Specifications, limiting the activity stored in the outside tanks to less than 10 curies, assures that in the extremely unlikely event of a rupture of the tanks, the resulting activity discharged to the bay would not be greater than the maximum activity recommended as the limiting condition for operation for the annual total quantity released in effluents given in the proposed Appendix I to 10CFR50. Due, in this case, to the activity being primarily as a result of particulate matter in suspension, it is not felt that the material would be deposited in the bay, but rather would be in the surrounding soil, never to reach the bay, should the tank rupture. This event has not produced a hazard to the public since no release of activity has occurred.

In order to minimize the reoccurrence of this situation, we intend to clean out sediment from the waste surge tank as soon as conditions permit. Further, the company is preparing for submittal to the AEC shortly, a description of significant modification to the existing Oyster Creek radwaste facility.

We are enclosing forty copies of this report.

Very truly yours,



Donald A. Ross  
Manager, Nuclear Generating Stations

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Enclosures

cc: Mr. J. P. O'Reilly, Director  
Directorate of Regulatory Operations, Region I

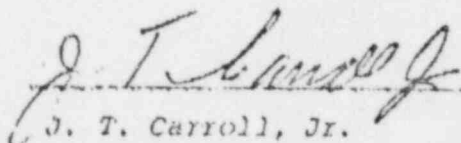
To: James P. O'Reilly  
Directorate of Regulatory Operations  
Region I  
631 Park Avenue  
King of Prussia, Pennsylvania 19406

From: Jersey Central Power & Light Company  
Oyster Creek Nuclear Generating Station Docket #50-219  
Forked River, New Jersey 08731

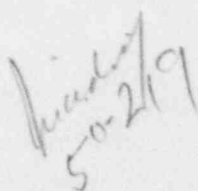
Subject: Abnormal Occurrence Report 73-18

The following is a preliminary report being submitted  
in compliance with the Technical Specifications  
paragraph 6.6.2.

Preliminary Approval:

 8/23/73  
J. T. Carroll, Jr. Date

cc: Mr. A. Giambusso



SUBJECT: Violation of the Technical Specification, paragraph 3.6.c, whereas the maximum amount of radioactivity, excluding tritium, noble gases, and isotopes with  $t_{1/2}$  < 3 days contained in the radwaste storage tanks external to the radwaste building exceeded 10 curies.

This event is considered to be an abnormal occurrence as defined in the Technical Specifications, paragraph 1.15B. Notification of this event, as required by the Technical Specifications, paragraph 6.6.2.a, was made to AEC Region 1, Directorate of Regulatory Operations, by telephone on Wednesday, August 23, 1973, at 11:00 a.m., and by telecopier at 4:15 p.m.

SITUATION: A routine analysis of the activity contained in the outside radwaste tanks was made and indicated the total activity to be 11.82 curies with 11.28 curies being contained in the Waste Surge Tank. In reviewing the outside tank activity status sheets and the radwaste logs, an assumption can be made that the activity has been in excess of 10 curies since Friday morning, August 17. The apparent reason for this activity not being detected in samples taken Friday morning, Saturday morning, and Monday morning, was a failure to recirculate the tank for a sufficient period of time to eliminate any stratification which may have been present.

CAUSE:

Due to an apparent plugging of the waste concentrator tube bundle which became evident Wednesday, August 15, plans were initiated to replace the element. The Waste Surge Tank, which had essentially been drained, was used to accommodate waste input into the radwaste systems. In subsequent radiochemical analyses of the water added to the tank starting on Thursday, August 16, at 2:00 p.m. the activity in the tank was found to be primarily as a result of particulate matter in suspension. A quantity of particulate material had been known to be in the tank from a prior inspection, and a purchase order has been issued to an outside concern to clean the tank and dispose of the waste. Due to the length of time required for this job, though, the tank had not yet been made available for cleaning. However, in adding water to the tank on August 16 and 17, it can be shown by comparison of previous analyses of the tank contents, that a quantity of solid or particulate material was added with the water. It was this additional material that caused a significant increase in the total curie content of the tank. By 10:37 a.m., Friday, August 17, approximately 33,000 gallons of water had been transferred to the tank. No additional water has been added to the tank since that time.

REMEDIAL ACTION:

With the return of the Waste Concentrator to service late Saturday night, August 18, overall water inventory in the various radwaste systems has slowly been decreasing. As sufficient room is made in the tanks internal to the building, waste water from

the Surge Tank will be transferred to reduce the overall activity. The area surrounding the tank has been re-surveyed and re-posted accordingly. Both operators and chemistry technicians have been advised that in the future recirculation of the contents of the Surge Tank should be conducted for a sufficient period of time to insure proper representative samples and subsequent analysis may be completed.

SAFETY SIGNIFICANCE:

As noted in the Technical Specifications, limiting the activity stored in the outside tanks to 410 curies assures that in the event of a rupture of the tanks, the resulting activity discharged to the bay would not be greater than the maximum activity recommended as the limiting condition for operation for the annual total quantity released in effluents given in the proposed Appendix I to 10CFR50. Due, in this case, to the activity being primarily as a result of particulate matter in suspension, it is not felt that the material would be deposited in the bay, but rather would be in the surrounding soil, never to reach the bay, should the tank rupture. Consequently, the significance of this event is minimal.

Prepared By:

G. H. R. Jones, Jr.

Date

8/23/73



TO (Name and unit)  H. D. Thornburg, Chief, FS&EB	INITIALS  DATE	REMARKS Licensee: Jersey Central Power & Light Company  Docket No.: 50-219  Abnormal Occurrence: AO-73-18
TO (Name and unit)  RO:HQ (5) DR Central Files (1) Regulatory Standards (3) Dir. of Licensing (13)	INITIALS  DATE	REMARKS  The attached report from the subject licensee is forwarded in accordance with RO Manual Chapter 1000.
TO (Name and unit) RO Files ✓ Central Mail & Files	INITIALS  DATE	REMARKS The action taken by the licensee is considered appropriate. Followup will be performed during the next inspection as appropriate. Copies of
FROM (Name and unit) <i>R. T. Carlson</i> R. T. Carlson, Chief Facility Operations Branch	REMARKS	the report have been forwarded to the PDR, Local PDR, NSIC, DTIE and State representatives. The licensee will submit a 10 day written report to Licensing.
PHONE NO.	DATE 8/29/73	

USE OTHER SIDE FOR ADDITIONAL REMARKS

GPO : 1971 O - 445-4

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DIVISION OF COMPLIANCE

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