

To:

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

Files

From:

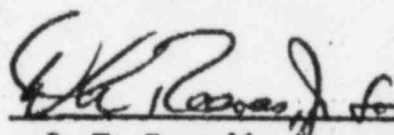
Jersey Central Power & Light Company
Oyster Creek Nuclear Generating Station
Docket #50-219
Forked River, New Jersey 08731

Subject:

Abnormal Occurrence Report No. 50-219/74/46

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

Preliminary Approval:


J. T. Carroll, Jr. 8/27/74
Date

cc: Mr. A. Giambusso

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PDR ADOCK 05000219
S PDR

*50-219
enclosed*

Initial Telephone

Report Date: 8/26/74

Date of

Occurrence: 8/26/74

Initial Written

Report Date: 8/27/74

Time of

Occurrence: 1400

OYSTER CREEK NUCLEAR GENERATING STATION
FORKED RIVER, NEW JERSEY 08731

Abnormal Occurrence
Report No. 50-219/74/ 46

IDENTIFICATION
OF OCCURRENCE:

Failure of one torus to drywell vacuum breaker to demonstrate operability.

This event is considered to be an abnormal occurrence as defined in the Technical Specifications, paragraph 1.15D.

CONDITIONS PRIOR
TO OCCURRENCE:

<input checked="" type="checkbox"/> Steady State Power	<input type="checkbox"/> Routine Shutdown
<input type="checkbox"/> Hot Standby	<input type="checkbox"/> Operation
<input type="checkbox"/> Cold Shutdown	<input type="checkbox"/> Load Changes During
<input type="checkbox"/> Refueling Shutdown	<input type="checkbox"/> Routine Power Operation
<input type="checkbox"/> Routine Startup	<input type="checkbox"/> Other (Specify)
<input type="checkbox"/> Operation	

The major plant parameters at the time of the event were as follows:

Power: Core, 1906 MWt
Electric, 636 MWe
Flow: Recirc., 15.4×10^4 gpm
Feed., 7.17×10^6 lb/hr
Stack Gas: 13,175 μ Ci/sec

DESCRIPTION
OF OCCURRENCE:

On Monday, August 26, 1974, at approximately 1400, while performing surveillance testing on the 14 torus to drywell vacuum breakers, it was found that one vacuum breaker (V-26-13) failed to demonstrate operability. Excessive force had to be applied to effect valve movement when V-26-13 was manually opened and closed. In addition, the valve would not reseal

under the influence of gravity alone. It is noted here that V-26-13 was found to be seated prior to testing, as indicated by the recently installed valve position indicating system. The valve was secured in the closed position soon after this problem was identified.

APPARENT CAUSE
OF OCCURRENCE:

<input checked="" type="checkbox"/> Design	<input type="checkbox"/> Procedure
<input type="checkbox"/> Manufacture	<input type="checkbox"/> Unusual Service Condition
<input type="checkbox"/> Installation/	<input type="checkbox"/> Inc. Environmental
<input type="checkbox"/> Construction	<input type="checkbox"/> Component Failure
<input type="checkbox"/> Operator	<input type="checkbox"/> Other (Specify)

It is believed that this failure is attributed to excess friction in the valve hinge pins.

ANALYSIS OF
OCCURRENCE:

The drywell-torus vacuum breaker system is required to prevent water oscillation in the downcomers due to low steam flow rates in the downcomers and to provide protection against negative pressure conditions in the containment vessel. The significance of this event is minimal in that the bases of the Technical Specifications state that one inoperative valve reduces the total vacuum relief area by 7% and that about 25% of the available vacuum relief capacity is required to provide negative pressure protection.

The drywell-torus vacuum breaker valves are required to be closed during pipe break accidents (particularly small breaks) to ensure proper steam condensation and prevent torus overpressuring. This valve would have performed this function, if required.

CORRECTIVE
ACTION:

An apparent "growing" characteristic has been experienced with vacuum breaker valve teflon bushings at several facilities, including Oyster Creek. The bushing difficulty has been discussed with the valve manufacturer (Atwood & Morrill Company) and a proposal for a long-term solution is expected to be received from the manufacturer within the next month.

It is noted here that the bushings in each torus to drywell vacuum breaker valve were inspected and measured during the 1974 refueling outage. Prior to valve reassembly, bushings in 11 of the 14 valves, including V-26-13, were machined to obtain acceptable bushing I.D. - shaft O.D. clearances.

FAILURE DATA:

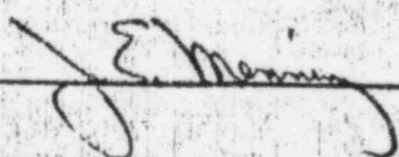
Basic valve data are as follows:

Manufacturer - Atwood & Morrill
Type - Check Valve
Vent Area - 1.75 square feet per valve

Previous abnormal occurrence reports involving these vacuum breaker valves are:

1. Abnormal Occurrence Report No. 73-2.
2. Abnormal Occurrence Report No. 74-11.
3. Abnormal Occurrence Report No. 74-14.
4. Abnormal Occurrence Report No. 74-15.
5. Abnormal Occurrence Report No. 74-16.

Prepared by:



Date:

8/27/74