

To:

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

*file*

From:

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

Subject:

Abnormal Occurrence Report No. 50-219/74/38

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

Preliminary Approval:

*J. T. Carroll, Jr.* 7/16/74  
J. T. Carroll, Jr. Date

cc: Mr. A. Giambusso

*hail  
50219*

8304080450 740716  
PDR ADDCK 05000219  
S PDR

OYSTECREEK NUCLEAR GENERATING STATION  
FORKED RIVER, NEW JERSEY 08731

Abnormal Occurrence  
Report No. 50-219/74/ 38

IDENTIFICATION  
OF OCCURRENCE:

Violation of the Technical Specifications, paragraph  
4.5.1.2, failure of Main Steam Isolation Valve NS04B to  
close in less than ten seconds.

This event is considered to be an abnormal occurrence as de-  
fined in the Technical Specifications, paragraphs 1.15D and E.

CONDITIONS PRIOR  
TO OCCURRENCE:

<input type="checkbox"/>	Steady State Power	<input type="checkbox"/>	Routine Shutdown
<input checked="" 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		

At the time of the full closure surveillance of the main steam  
isolation valves, the reactor was shut down with all control  
rods fully inserted and a reactor coolant temperature of approxi-  
mately 160°F.

DESCRIPTION  
OF OCCURRENCE:

During the routine full closure surveillance test of the main  
steam isolation valves, performed as part of the routine plant  
startup operation, it was observed that Main Steam Isolation  
Valve NS04B closed in 13.0 seconds. Two subsequent trials re-  
sulted in times of 8.0 and 8.5 seconds. The valve test results  
were as follows:

MSIVFull Closure Time

NS03A	6.5 sec.
NS04A	8.0 sec.
NS03B	4.5 sec.
NS04B	13.0 sec

APPARENT CAUSE  
OF OCCURRENCE:

<input 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)

The cause of this occurrence is under investigation.

ANALYSIS OF  
OCCURRENCE:

The ten second maximum time for full closure of the main steam isolation valves is to provide a safety margin in the event of a main steam line break. Closure of these valves minimizes the radioactive dose to the environs and provides for maintaining a coolant level above the fuel assemblies in the reactor without consideration of coolant makeup systems. The failure of one main steam isolation valve to close in the required time removes the safety system redundancy. If a steam line break had occurred, NS03B would have isolated the system in the required time.

CORRECTIVE  
ACTION:

The four-way valve in the pilot valve assembly was cleaned and relubricated. The valve was retested with satisfactory results.

## FAILURE DATA:

Not applicable.

# Jersey Central Power & Light Company



MADISON AVENUE AT PUNCH BOWL ROAD • MORRISTOWN, N. J. 07960 • 201-539-6111

General



Public Utilities Corporation

July 23, 1974

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  
Bucket No. 50 219  
Abnormal Occurrence Report No. 50-219/74/38

The purpose of this letter is to forward to you the attached Abnormal Occurrence Report in compliance with paragraph 6.6.2.a of the Technical Specifications.

Enclosed are forty copies of this submittal.

Very truly yours,

Donald A. Ross  
Manager, Nuclear Generating Stations

cs  
Enclosures

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

COPY SENT REGION I

*Handwritten:* Inval 50 219

6847

# Jersey Central Power & Light Company



MADISON AVENUE AT PUNCH BOWL ROAD • MORRISTOWN, N. J. 07960 • 201-539-6111



OYSTER CREEK NUCLEAR GENERATING STATION  
FORKED RIVER, NEW JERSEY 08731

Abnormal Occurrence  
Report No. 50-219/74/38

## Report Date

July 23, 1974

## Occurrence Date

July 14, 1974

## Identification of Occurrence

Violation of the Technical Specifications, paragraph 4.5.1.2, failure of the main steam isolation valve NS04B to close in less than 10 seconds. This event is considered to be an abnormal occurrence as defined in the Technical Specifications, paragraphs 1.15D and E.

## Conditions Prior to Occurrence

The reactor was shut down and reactor coolant temperature was approximately 160°F.

## Description of Occurrence

During the routine full closure surveillance test of the main steam isolation valves, performed as part of the prerequisites to a plant startup, it was observed that main steam isolation valve NS04B closed in 13.0 seconds. Two subsequent trials resulted in times of 8.0 and 8.5 seconds.

## Apparent Cause of Occurrence

As a result of installation of the new pilot control system for the main steam isolation valves' air operators, throttling of the hydraulic speed control valves to some degree greater than with the former system appears to be necessary to control the closing speed for the valves. The increased throttling appears to have decreased somewhat the sensitivity of the hydraulic valves themselves. Consequently, repeatability of the closing speeds is not as firm as it has been in the past.

*dupe*  
*810 3040459*

Analysis of Occurrence

The 10 second maximum time for full closure of the main steam isolation valves is to provide a safety margin in the event of a main steam line break. Closure of these valves minimizes the radioactive dose to the environs and provides for maintaining a coolant level above the fuel assemblies in the reactor without consideration of coolant makeup systems. The failure of one main steam isolation valve to close in the required time removed the system redundancy. If a steam line break had occurred, NS03B would have isolated the system in the required time.

Corrective Action

In order to eliminate any question as to the operability of the new main steam isolation valve pilot modifications, the four-way valve in the pilot valve assembly was inspected, cleaned and relubricated. Following reinstallation, the valve was retested but still did not close within the required time. The hydraulic needle valves were then adjusted to give the required closing speed. Action had previously been initiated to purchase more sensitive hydraulic valve stems to permit better throttling characteristics. However, the valve stems purchased were not sized properly for the actual hydraulic valves installed. Since installation of the modified pilot assemblies, new hydraulic valves have been ordered. Current plans are to install these units during the first shutdown (where drywell entry is allowed) following receipt of the new valves.

Failure Data

Not applicable.