

OYSTER CREEK NUCLEAR GENERATING STATION
FORKED RIVER, NEW JERSEY 08731

Abnormal Occurrence
Report No. 50-219/74/ 34

IDENTIFICATION
OF OCCURRENCE:

Violation of the Technical Specifications, paragraph N/A,
Indications of coolant leakage existing in the area of an
incore flux monitor reactor vessel housing located at core coor-
dinate 28-05.

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

CONDITIONS PRIOR
TO OCCURRENCE:

- | | |
|--|--|
| <input 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 checked="" 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 reactor was in the REFUEL mode during a hydrostatic test
at 850 psig pressure and with coolant temperature approximately
155°F.

DESCRIPTION
OF OCCURRENCE:

On Tuesday, May 28, 1974, during a scheduled reactor vessel
hydrostatic test to inspect the pressure boundary following
refueling maintenance activities, leakage was observed in the
vicinity of an incore flux monitor tube located at the bottom
of the reactor vessel. Further investigation conducted on
Wednesday, May 29, 1974, showed evidence of possible leakage
in the area of an incore flux monitor housing penetration

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located in the reactor vessel bottom head. A second hydrostatic test was conducted at a pressure of 850 psig at approximately 7:00 p.m. on May 29, 1974, whereupon, water was observed leaking between the monitor housing and the reactor vessel. The leakage was measured under the conditions of 850 psig with a temperature of 164°F, and calculated to be on the order of approximately 0.02 gallons per hour.

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/ Construction	<input type="checkbox"/> Inc. Environmental Component Failure
<input type="checkbox"/> Operator	<input type="checkbox"/> Other (Specify)

The cause of this event has yet to be determined.

ANALYSIS OF
OCCURRENCE:

As stated in FDSAR Amendment #37, a postulated failure of the flux monitor tube would result in vessel leakage at a rate which would not cause excessive cladding temperatures and for which core reflooding is possible by engineered safety features. This situation is less severe than the design basis accident. To determine the consequences of a weld failure at a housing for an in-core monitor tube, it is assumed that the weld between the housing and the reactor vessel bottom head fails, allowing the housing and the in-core monitor tube to be ejected from the vessel. The hole provided in the bottom head for the housing has a diameter of two inches; this is the assumed break size. The hole has a break area of .0218 ft². Assuming worst conditions, this results in peak clad temperatures less than 1000°F, as updated in FDSAR Amendment #67. This value is well within acceptable limits of the applicable ECCS criteria.

CORRECTIVE
ACTION:

The nuclear steam supply vendor and the reactor vessel manufacturer have been contacted with regard to this condition.

Discussion will ensue as to the proper course of action to be taken to resolve this matter. Recommendations will be forthcoming pending complete review of this event by the Plant Operations Review Committee.

Prepared by:

J. S. Sullivan

Date:

5/30/74