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9-83)	LICENSEE EVENT REPORT (LER) TEXT CONTINUATION	APPROVED OMB NO. 3150

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FACILITY NAME (1)

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Date Of Occurrence

The event occurred on February 22, 1989 at approximately 0240 hours.

Identification of Occurrence

A main steam isolation valve (EIIS Code SB, component code ISV) automatic closure signal occurred during transfer of a reactor protection system (EIIS Code JC) power supply. This is considered reportable in accordance with 10CFR50.73(a)(2)(iv).

Conditions Prior to Occurrence

The reactor was in cold shutdown with reactor coolant temperature at 182°F. Preparations were being made to transfer the power supply for Reactor Protection System (RPS) 1 to allow maintenance on a 460 volt electrical supply breaker.

Description of Occurrence

A 460 volt electrical breaker was being removed from service for maintenance. Before the breaker could be deenergized, several components had to be transferred to alternate power sources, including RPS 1. Control room operators proceeded to transfer RPS 1 at 0240 hours from its normal power supply (motor-generator set 1-1) to its alternate power supply (RPS transformer PS-1) in accordance with Procedure 408.6, "Energizing Reactor Protection System Panel 1 from Reactor Protection System Transformer PS-1". The transfer was completed at 0240 hours. At approximately 0400 hours an operator noted a reactor level increase while taking hourly logs. Investigation of the level increase revealed that the main steam line drains, which had been open for a reactor letdown path, were closed. Further investigation revealed that the isolation condenser vent valves were also closed. Both of these closures occur on a main steam isolation signal. Operators concluded that a main steam isolation signal had occurred when transferring RPS power supplies. The main steam line drains and isolation condenser vents were opened.

Apparent Cause of Occurrence

The cause of the main steam isolation signal is attributed to inadequate procedures. A reactor shutdown procedure (203.2, "Plant Cooldown from Hot Standby to Cold Shutdown") was changed in October 1988 to install an electrical jumper intended to bypass the main steam isolation valve (MSIV) low pressure closure signal which would be caused by a loss of RPS power. The jumper was installed in accordance with the procedure, but the procedure incorrectly specified its placement. The intended bypass function was not accomplished by the jumper installation. The originator of the procedure change was directed by his supervisor as to the specific jumper location but was not fully aware of the purpose of the jumper. Consequently, the safety evaluation was not clear as to the purpose of the jumper. Thus the technical and safety reviewers failed to uncover the deficiency.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION APPROVED OMB NO. 3150-0104

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NRC Form 386A

The procedure which covered the transfer of RPS power supplies did not recognize that this evolution would cause an MSIV isolation when shut down unless certain relay contacts were jumpered. There is no Control Room alarm associated with the actuation which took place, since the MSIVs were already closed.

Analysis of Occurrence and Safety Assessment

The MSIV low pressure closure signal is intended to limit the inventory loss from the core and the activity released to the environment upon a main steam line break. It closes the MSIVs, main steam line drains and isolation condenser vent valves. When the plant is in a shutdown condition this protective function is not needed, since the reactor is not pressurized. This function is therefore automatically bypassed whenever the reactor mode switch is in SHUTDOWN, REFUEL or STARTUP and the intermediate range neutron monitors are in ranges 1 through 9 (not bypassed in range 10). However, due to the RPS logic arrangement, this bypass is lost upon a loss of RPS power to either of the two neutron monitoring systems. The installed jumper was intended to prevent the unnecessary protective actuations that would be associated with a loss of RPS power to the neutron monitoring system. Since these actuations took place as required and the actuation wouldn't take place at plant operating conditions, this event has no safety significance.

Corrective Actions

Immediate corrective action was taken upon discovery to reset the isolation signal and open the main steam line drain valves and isolation condenser vent valves. Procedure 203.2 was revised to place the electrical jumper so that it will prevent an MSIV isolation signal upon a loss of RPS power.

The RPS power supply operating procedures will be revised to acknowledge anticipated automatic actuations when either power supply is deenergized.

Long term corrective actions are:

- 1. The communication problems associated with the origination and review of the Procedure 203.2 change will be addressed with the parties involved, emphasizing the need for clear communication of procedure change purpose and the need for interaction between reviewer and originator if any information is unclear.
- Information on this event will be provided to procedure originators and reviewers to demonstrate the importance of clear communication in the procedure change process.

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Similar Events

Although there are no similar events with regard to inadequate communication during procedure revision or review, the following events are considered similar in that they were Engineered Safety System actuations caused by inadequate procedures.

- 1. LER 88-028, "Containment High Range Radiation Monitor Causes Partial Containment Isolation due to Procedure Inadequacy".
- LER 88-026, "Reactor Scram Signal Received While Shutdown During Surveillance Testing due to Inadequate Procedure".
- LER 88-024, "Main Steam Isolation Signal During Surveillance Test Caused by Procedural Deficiency".
- 4. LER 87-023, "Partial Primary Containment Isolation During Testing due to Procedural Iradequacy".
- 5. LER 86-005, "Core Spray and Diesel Generator Initiation Caused by Procedural Deficiency".



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Post Office Box 388 Route 9 South Forked River, New Jersey 08731-0388 609 971-4000 Writer's Direct Dial Number:

March 22, 1989

U.S. Nuclear Regulatory Commission ATTN: Document Control Desk Washington, D.C. 20555

Dear Sir:

Subject: Oyster Creek Nuclear Generating Station Docket No. 50-219 Licensee Event Report

This letter forwards one (1) copy of Licensee Event Report (LER) No. 89-004.

Very truly yours,

Sitypatu

E. E. Fitzpatrick Vice President and Director Oyster Creek

EEF/BDM:aa Att. (0490A:25)

> Mr. William T. Russell, Administrator Region I U.S. Nuclear Regulatory Commission 475 Allendale Road King of Prussia, PA 19406

Mr. Alexander W. Dromerick, Project Manager U.S. Nuclear Regulatory Commission Division of Reactor Projects I/II Washington, DC 20555

NRC Resident Inspector Oyster Creek Nuclear Generating Station Forked River, NJ 08731

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