

GPU Nuclear, Inc. U.S. Route #9 South Post Office Box 388 Forked River, NJ 08731-0388 Tel 609-971-4000

1940-98-20628

October 28, 1998

U. S. Nuclear Regulatory Commission Attn: Document Control Desk Washington DC 20555

Dear Sir:

Subject: Oyster Creek Nuclear Generating Station Docket No. 50-219 Licensee Event Report 98-015: Shutdown Cooling (SDC) Isolation due to Instrument Failure Resulting From Personnel Error

Enclosed is Licensee Event Report 98-015. This event did not affect the health and safety of the public.

If any additional information or assistance is required, please contact Mr. Dennis P. Kelly of my staff at 609.971.4246.

Very truly yours,

Michael B. Roche Vice President and Director Oyster Creek

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MBR/JJR

cc: Administrator, Region I NRC Project Manager Senior Resident Inspector

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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

#### DATE OF DISCOVERY

The event occurred at approximately 1:19 a.m. on September 29, 1998.

#### **IDENTIFICATION OF OCCURRENCE**

The "B" reactor recirculation loop temperature instrument failed causing the shutdown cooling (SDC) isolation valves to isolate. This event is reportable under 10 CFR 50.73 (a)(2)(v)

## CONDITIONS PRIOR TO DISCOVERY

The plant was in cold shutdown for Refueling Outage 17R.

#### DESCRIPTION OF OCCURRENCE

Shutdown Cooling (EIIS-BO) isolated at 1:19 a.m. on September 29,1998 due to the failure of an inlet temperature indicator (EIIC-TE). The indicator that failed is located on the B Recirculation loop. The Group Shift Supervisor contacted the Drywell Coordinator and inquired about any ongoing work activities in the vicinity of the instrument.

The Drywell Coordinator determined that there were no personnel working in the immediate vicinity of the instrument. It was evident, however, that the conduit elbow to the instrument had been damaged. The sensor was jumpered out in accordance with station procedures for temporary modifications and shutdown cooling system was restored to service.

When the I&C technicians assessed the damage to the temperature indicator, they reported that the instrument conduit elbow was damaged and had separated from the terminal box. It appeared that the conduit had pulled away from the terminal box causing the indicator to read erroneously. The technicians were unable to determine when the damage occurred.

#### APPARENT CAUSE OF OCCURRENCE

The cause of this event was determined to be the failure of the temperature indicator.

The root cause was determined to be human performance. At some point the instrument conduit elbow had been bumped or stepped on causing it to separate from the terminal box and provide an erroneous indication.

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# ANALYSIS OF OCCURRENCE AND SAFETY ASSESSMENT

This temperature indicator is one of five that monitor temperatures of the five reactor recirculation loops. The purpose of these temperature devices is twofold. They provide the operators with indication of the temperature in the recirculation loops, and provide input to the permissive circuitry for opening the Shutdown Cooling system isolation valves, V-17-19 and V-17-54. These valves must be open to remove decay heat. The system has a temperature interlock which prevents initiation of the system when conditions are above the design temperature of 350 degrees F. All of the temperature indicators must be below 350 degrees F for the interlock to clear. If any one is above the setpoint, the valves will isolate.

During this event the temperature of the reactor water rose from 117 degrees F to 134 degrees F which is well below the limit of 212 degrees F.

There was no safety significance to this event. Although the normal decay heat removal system was out of service for a time, it was returned quickly. If it were not possible to return the system to service, the plant configuration at the time would have supported alternate decay heat removal methods. Those methods are controlled by plant procedure and would have provided ample time to recover before reaching any temperature limit.

### **CORRECTIVE ACTIONS**

The immediate corrective action was to bypass the isolation by installing a jumper in accordance with the station procedure governing temporary modifications, returning the shutdown cooling system to normal operation.

Information about the event was added to the briefings for crews entering the drywell and it was reemphasized that standing or stepping on equipment is not acceptable.

The damaged instrument was repaired.

#### SIMILAR EVENTS

None

NRC FORM 366A (4-95)