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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

9811050145 981028  
PDR ADOCK 05000219  
S PDR

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY INFORMATION COLLECTION REQUEST 50.0 HRS. REPORTED LESSONS LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AND FED BACK TO INDUSTRY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

**LICENSEE EVENT REPORT (LER)**

FACILITY NAME (1)

Oyster Creek Unit 1

DOCKET NUMBER (2)

50 - 219

PAGE (3)

1 of 3

TITLE (4)

Shutdown Cooling (SDC) Isolation Due to Equipment Failure Resulting From Personnel Error

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
09	29	98	98	015	00	10	28	98		05000
										05000

OPERATING MODE (9) N

POWER LEVEL (10) J

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR (1): (Check one or more) (11)

20.2201(b)	20.2203(a)(2)(v)	50.73(a)(2)(i)	50.73(a)(2)(viii)
20.2203(a)(1)	20.2203(a)(3)(i)	50.73(a)(2)(ii)	50.73(a)(2)(x)
20.2203(a)(2)(i)	20.2203(a)(3)(ii)	50.73(a)(2)(iii)	73.71
20.2203(a)(2)(ii)	20.2203(a)(4)	50.73(a)(2)(iv)	OTHER
20.2203(a)(2)(iii)	50.36(c)(1)	X 50.73(a)(2)(v)	
20.2203(a)(2)(iv)	50.36(c)(2)	50.73(a)(2)(vii)	

LICENSEE CONTACT FOR THIS LER (12)

NAME: John Camire  
TELEPHONE NUMBER (Include Area Code): 609-971-4111

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS

SUPPLEMENTAL REPORT EXPECTED (14)

X YES (If yes, complete EXPECTED SUBMISSION DATE).	NO	EXPECTED SUBMISSION	MONTH	DAY	YEAR
			02	15	99

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On September 29, 1998, the Shutdown Cooling System (SDC) isolated due to a failed temperature indicator. The failed indicator generated an erroneous signal that was interpreted by the protective circuitry as a loop temperature in excess of the design temperature. The system isolated as designed. The plant was in cold shutdown for a refueling outage and SDC was required for decay heat removal.

The element failed due to a damaged conduit elbow that had pulled away from the terminal box. When examined, the conduit appeared to have been damaged by personnel error.

Immediate corrective action was taken to install a jumper to bypass the isolation and return the system to service.

Crews entering the drywell were briefed on the event and proper conduct relative to equipment was re-emphasized.

The instrument was later repaired and subsequently the bypass was removed.

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TEXT CONTINUATION**

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Oyster Creek, Unit 1	50-219	98	015	00	2 of 3

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

**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 re-emphasized that standing or stepping on equipment is not acceptable.

The damaged instrument was repaired.

**SIMILAR EVENTS**

None