

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) OYSTER CREEK, UNIT 1										DOCKET NUMBER (2) 0 5 0 0 0 2 1 9										PAGE (3) 1 OF 0 4																																																														
TITLE (4) INADVERTENT INITIATION OF CORE SPRAY SYSTEM DURING REACTOR LOW-LOW SENSOR CALIBRATION																																																																																		
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 NAMES													DOCKET NUMBER(S)																																										
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OPERATING MODE (9) N										THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more of the following) (11)																																																																								
POWER LEVEL (10) 0 0 0										20.402(b)										20.406(a)										90.73(a)(2)(iv)										73.71(b)																																										
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										20.406(a)(1)(iii)										90.73(a)(2)(i)										90.73(a)(2)(vii)(A)																																																				
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LICENSEE CONTACT FOR THIS LER (12)																																																																																		
NAME ROBERT J. MURDOCK, Engineering Assistant Sr. II																				TELEPHONE NUMBER 6 0 9 9 7 1 - 4 8 9 1																																																														
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)																				EXPECTED SUBMISSION DATE (15)										MONTH DAY YEAR																																																				
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)																				<input checked="" type="checkbox"/> NO																																																														

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

On Monday, October 29, 1984, during a calibration of reactor water level instrumentation for Core Spray System II, Core Spray System I was inadvertently initiated and injected torus water into the vessel for approximately 20 seconds.

The procedure used for calibration of the Reactor Low-Low Level Sensors was not adhered to, that is, as steps were being performed out of the as written sequence, a key step was accidentally omitted.

The cause of this event was personnel error. The involved personnel have been debriefed and were instructed of lessons learned by this occurrence.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) OYSTER CREEK, UNIT 1	DOCKET NUMBER (2) 0 5 0 0 0 2 1 9 8 4	LER NUMBER (5)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
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TEXT (If more space is required, use additional NRC Form 388A's) (17)

DATE OF OCCURRENCE

The event occurred on October 29, 1984 at approximately 0203 hours.

IDENTIFICATION OF OCCURRENCE

Core Spray System I inadvertently initiated and injected into the reactor vessel during a calibration of reactor water level instrumentation (Reactor Low-Low Level Sensors) for Core Spray System II.

This event is considered to be a reportable event as defined in 10 CFR 50.73 (a)(2)(iv).

CONDITIONS PRIOR TO OCCURRENCE

The reactor was shutdown for refueling and the temperature was approximately 195°F. The mode switch was in "Refuel".

A test was in progress on reactor level instrumentation for Core Spray System II. In accordance with the test procedure, the breakers for the core spray main pumps in System II had been placed in the tripped position and the idle start of Emergency Diesel Generator No. 2 had been defeated. Core Spray System I and Diesel Generator No. 1 were aligned for normal operation.

DESCRIPTION OF OCCURRENCE

Instrument and Control Technicians, assisted by a Control Room Operator, under the direction of an Instrument and Control Group Supervisor, were performing a calibration of the Reactor Low-Low Water Level Switches (RE02).

- An existing plant procedure, "Core Spray System Instrument Channel Calibration and Test", had been extensively modified to accommodate only the calibration of the reactor level switches and to delete portions of the instruction not needed for this calibration.
- Sensors RE02A and RE02C had been calibrated for System I and sensors RE02B and RE02D were to be calibrated for system II. According to the as written sequence of the procedure, sensor RE02B was to be calibrated first followed by RE02D.
- The Instrument and Controls Group Supervisor directed technicians to calibrate RE02D first, since time would be saved in regard to radiological "frisking" and transferring of the test equipment between instrument racks.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (8)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
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TEXT (If more space is required, use additional NRC Form 366A's) (17)

- Sensor RE02D was calibrated followed by a calibration of RE02B.
- After the calibration was complete on RE02B sensor, the cross-channel Core Spray inhibit switch (Control Panel "1F") was returned to "normal". The next step, according to the procedure, was to place the inhibit switch for RE02D sensor to "inhibit", however, this step was missed by both supervisor and technicians.
- The next step actually performed was to restore the diesel generator idle function. The step after that was to verify the diesel idle function by simulating low-low level with RE02D sensor. The only expected response was the idle start of Emergency Diesel Generator No. 2.
- At this time, the Instrument and Control Group Supervisor made a second error and instructed low-low level to be simulated on sensor RE02B versus RE02D. Upon receiving a low-low trip signal from RE02B, Core Spray System I and both diesel generators started. Core Spray injected torus (demineralized) water into the vessel for approximately 18 to 20 seconds, raising the reactor water level approximately 22 inches before it was stopped by control room personnel.
- In response to the unexpected core spray start, the Instrument and Control Technician returned RE02B to normal which removed the initiating signal. The Control Room Operator reset the core spray logic, secured the core spray pumps and increased letdown to lower reactor level. The reactor water was sampled and chemistry was determined to be within acceptable specifications.

APPARENT CAUSE OF OCCURRENCE

The cause of occurrence is attributed to personnel error. The Instrument and Control Supervisor while performing sections of the procedure out of the as-written sequence, accidentally omitted a key step, and erroneously instructed the technician to perform a step on the wrong instrument.

Two other personnel closely involved with performing the test, did not detect and call attention to the errors. The Instrument and Control Technician on the instrument rack was maintaining the "document" copy of the procedure and had previously read it, but was following the direction of the Instrument and Control Supervisor in the control room. The Control Room Operator failed to recognize that testing the instrument, without re-positioning the Core Spray inhibit switch, would initiate the system which was aligned for normal operation.

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
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Another factor which may have contributed to the event was the extent of the temporary change to the procedure being used. The procedure was changed extensively, primarily to delete steps not needed for the low-low sensor calibration.

ANALYSIS OF OCCURRENCE AND SAFETY ASSESSMENT

The safety significance of this event is minimal. The Core Spray System responded properly to the reactor low-low level signal provided.

Reactor water level was increased by approximately 22 inches, however, chemistry was determined to still be in specification and vessel temperature was reduced by only 3°F.

The water level in the torus was insignificantly lowered by a fraction of an inch.

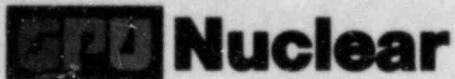
No long term efforts or equipment damage resulted from this event.

CORRECTIVE ACTION

A critique was held immediately following the event and the sequence of actions by involved personnel was discussed in detail. Significant lessons learned are as follows:

1. Guidelines will be developed for determining which procedural sections must be completed in the as written sequence and which sections may be completed in an order other than as written.
2. The individual directing the test must ensure all procedural steps are performed.
3. Control room operators will be instructed to control conduct of tests and calibrations more closely.

Additionally, a written copy of the critique and this report will be assigned as Required Reading for all Control Room Operators, Instrument and Control Supervisors and Technicians.



GPU Nuclear Corporation
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609 971-4000
Writer's Direct Dial Number:

November 29, 1984

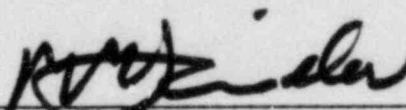
U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

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. 84-025.

Very truly yours,



Peter B. Fiedler
Vice President and Director
Oyster Creek

PBF:dam
Enclosures

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