GPU Nuclear

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

May 15, 1990

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 Revision

This letter forwards one (1) copy of Licensee Event Report (LER) No. 89-025, Rev. 1. The analysis of Occurrence and Safety Assessment section has been revised to clarify the conclusions of the Safety Evaluation which was performed for this event. A bar has been placed in the right side margin indicate the revised wording.

Very truly yours,

E.E. Fitzpatrick
Vice President and Director
Oyster Creek

EEF/JJR:jc
(ler/Covltrs:jc)
Enclosure

cc: Mr. Thomas Martin, 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
Washington, DC 20555

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

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NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/88

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Oyster Creek Unit 1	0 5 0 0 0 2 1 9	1 OF 0 4

TITLE (4)
Inadvertent, Simultaneous Movement of Two Control Rods Due To 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 NAMES	DOCKET NUMBER(S)
										0 5 0 0 0
1 2	1 6	8 9	8 9	- 0 2 5 -	0 1	0 5	1 5	9 0		0 5 0 0 0

OPERATING MODE (9)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10)	20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
	20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
	20.405(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
	20.405(a)(1)(iv)	XX 50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
	20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
	AREA CODE
Roger Cayley	6 0 9 9 7 1 - 4 4 6 1

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	

SUPPLEMENTAL REPORT EXPECTED (14)

XX YES (If yes, complete EXPECTED SUBMISSION DATE) NO

EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
	0 1	1 1	9 1

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

On December 16, 1989, at 0533 hours, a Control Room Operator (CRO) was increasing power with control rods. The CRO inadvertently selected an incorrect control rod, realized the error and selected the adjacent, proper rod. Due to the manner in which the CRO operated the rod select push buttons, two control rods were simultaneously selected. The CRO did not immediately realize that two rods were simultaneously selected and initiated a rod withdrawal. Both selected control rods began to move. Corrective actions were taken immediately to terminate rod movement.

The safety significance of this event is considered minimal. A Safety Evaluation concluded that the simultaneous movement of two control rods with the reactor vessel head in place is within the design basis for the affected transients and does not constitute an unreviewed safety question. A supplemental LER will be submitted when an ongoing evaluation of transients with the reactor vessel head removed is completed.

DATE OF OCCURRENCE

This event occurred on December 16, 1989, at 0533 hours. This event was determined to be reportable on March 22, 1990.

IDENTIFICATION OF OCCURRENCE

Two control rods (EIIS Code AA) were selected and moved simultaneously. This occurred while a Control Room Operator was increasing power with control rods. This event is reportable based on 10CFR50.73(a)(2)(ii).

CONDITIONS PRIOR TO OCCURRENCE

The reactor was in the RUN mode with a reactor coolant temperature of 520°F. Generator output was approximately 380 MWe. The initial positions of the two affected control rods were: rod 14-27 at position 48 (fully withdrawn), and rod 18-27 at position 12.

DESCRIPTION OF OCCURRENCE

On December 16, 1989, at 0533 hours, a Control Room Operator (CRO) was increasing power with control rods. The CRO intending to select control rod 18-27 inadvertently selected an adjacent rod 14-27. Realizing the error, the CRO selected the proper control rod at the same time that the rod select push button for the wrong control rod was being released. This resulted in both rods being inadvertently selected at the same time. The CRO did not realize that two control rods were selected and attempted to withdraw rod 18-27 by taking the rod control switch to the "Notch Out" position. The reactor manual control system (EIIS Code JD) withdrawal sequence momentarily inserts the control rod to unlatch the rod so it can be withdrawn. The CRO immediately recognized that both control rods were moving in and quickly took action to stop rod motion by turning off rod select power. This resulted in both rods returning to their original positions. Plant management was immediately notified.

APPARENT CAUSE OF OCCURRENCE

This event was caused by personnel error. The two control rod select switches 14-27 and 18-27 are adjacent to one another. The CRO depressed the rod select push button for control rod 18-27 at the same time that the rod select push button for the wrong control rod 14-27 was being released.

ANALYSIS OF OCCURRENCE AND SAFETY ASSESSMENT

The Reactor Manual Control System (RMCS) (EIIS Code JD) utilizes relay sequencing to control the operation of solenoid operated valves in the Control Rod Drive Hydraulic System. These valves direct high pressure water to the control rod drive mechanism in order to move the control rod. Various switch contacts, including the rod select push button contacts, and an automatic sequencing timer within the system are utilized in the relay control logic.

Circuitry within the reactor manual control system is intended to prevent the selection of more than one control rod at a time. This circuitry can be defeated if contacts within the rod select push button are not properly made or disconnected when a rod select push button is actuated. This can occur when a rod select pushbutton is held mid position and another rod select pushbutton is depressed such as occurred during this event, or, it could occur as a result of a rod select pushbutton malfunction. There is no single component failure that would cause more than two control rods to be withdrawn at the same time. Therefore, this analysis considers only two control rods being withdrawn at one time due to an operator error or single component malfunction.

A Safety Evaluation was performed to determine whether the simultaneous movement of two control rods was outside the design basis for Oyster Creek and, therefore, might constitute an unreviewed safety question. The following were analyzed with respect to the event: Single Failure Criteria, Rod Worth Minimizer (EIIS Code ID) Operation, Uncontrolled Control Rod Withdrawal from a Subcritical or Low Power Startup Condition, Uncontrolled Control Rod Withdrawal at Power, and the Control Rod Drop Accident. The safety functions of the three systems that could be affected by the event were evaluated. Those systems are the Reactor Manual Control System, the Rod Worth Minimizer and the Reactor Protection System. (EIIS Code JC).

The Safety Evaluation concluded that the simultaneous movement of two control rods while the head is on the reactor vessel is within the design basis of the Oyster Creek Plant for the affected transients at power. To address a rod drop accident possibility or a continuous control rod withdrawal from low power, a second CRO (in addition to the RWM) will be used to assure that no single failure will move two rods simultaneously at startup.

The significance of this event was further mitigated by the fact that one of the two control rods was already fully withdrawn to position 48.

CORRECTIVE ACTIONS

Immediate

Reactor manual control system rod control power was secured. This stopped the rod withdrawal sequence and allowed the affected control rods to return to their original positions.

Rod 18-27 was subsequently withdrawn to its programmed position (Notch 14) to provide a symmetrical rod pattern.

An administrative rod block was initiated which prevented any further withdrawal of control rods.

The operability of the rod select/deselect and control rod positioning functions of the Reactor Manual Control System were tested and were found to be satisfactory. A second licensed operator was stationed at the control panel to verify that only one rod was selected during the withdrawal/insertion of control rods.

Long Term

Plant Procedures will be revised to include provisions to minimize the probability of inadvertent simultaneous withdrawal of two control rods where appropriate.

The event will be studied further to include transients with the vessel head removed to determine if any additional testing, maintenance or modifications are warranted. A supplemental LER will be submitted when the ongoing evaluations have been finalized.

SIMILAR OCCURRENCES

None