GPU NUCLEAR

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November 25, 1996
6730-96-2360

Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

Dear Sir:

Subject: Oyster Creek Nuclear Generating Station
Docket No. 50-219
LER 96-008: Manual Scram Due to a Main Generator Runback

Enclosed is Licensee Event Report 96-008. This event did not impact the health and safety of the public.

If any additional information or assistance is required, please contact Ms. Brenda DeMerchant, Regulatory Affairs Engineer, at 609-971-4642.

Very truly yours,

Michael B Roche

Michael B. Roche
Vice President and Director
Oyster Creek

MBR/BDe/gl

Attachment

cc: Administrator, Region I
NRC Project Manager
NRC Sr. Resident Inspector

IE22

NRC FORM 366 (4-95) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104
EXPIRES 04/30/98
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-

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
OYSTER CREEK, UNIT 1	50-219	1 OF 4

TITLE (4)

Manual Scram Due to a Main Generator Runback

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
Month	Day	Year	Year	Sequential Number	Revision	Month	Day	Year	Facility Name	Docket Number
10	25	96	96	-- 008	-- 0				FACILITY NAME	DOCKET NUMBER

OPERATING MODE (9)	N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)			
POWER LEVEL (10)	100	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)	X 50.73(a)(2)(iv)	OTHER
		20.2203(a)(2)(iii)	50.36(c)(1)	50.73(a)(2)(v)	Specify in Abstract below or in NRC
		20.2203(a)(2)(iv)	50.36(c)(2)	50.73(a)(2)(vii)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
Michael Barbaretta	609-971-4390

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

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

On October 25, 1996 at approximately 1159 hours a manual scram of the reactor was initiated in accordance with plant procedures due to a confirmed Main Generator Runback. Plant response to the generator runback and manual scram was normal. All control rods inserted fully, and plant response was as designed. Initial troubleshooting did not identify the initiating component. However, subsequent monitoring identified an invalid temperature switch actuation, which were then disconnected pending further analysis. Corrective actions include continued fault analysis on the existing temperature sensing switches. New temperature sensing devices will be evaluated and tested prior to returning the temperature portion of the main generator runback circuit to service.

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

DATE OF OCCURRENCE

The event occurred on October 25, 1996, at 1159 hours.

IDENTIFICATION OF OCCURRENCE

On October 25, 1996, at 1159 hours the reactor was manually scrammed in accordance with plant procedures as the result of a confirmed main generator (CFI-TG) runback. This event is reportable under 10CFR50.73(a)(2)(iv).

CONDITIONS PRIOR TO OCCURRENCE

The reactor was in the RUN mode at 1917 MWth (99.3% of full power) operating at a reactor pressure of 1019 psig.

DESCRIPTION OF OCCURRENCE

A main generator runback was initiated by invalid actuation of temperature sensing switches (CFI-TS) in the main generator runback circuit (EIIS-TA). At approximately 1158 hours the Stator Cooling (EIIS-TJ) Trouble Alarm was received in the control room. Operators confirmed there was a main generator runback in progress. In accordance with plant procedures, upon a confirmed main generator runback above 30% power, a manual scram was inserted. Plant response to the generator runback and resulting manual scram was normal. All control rods inserted fully, and plant response was as designed.

APPARENT CAUSE OF OCCURRENCE

The main generator runback resulted from an invalid actuation of the runback circuitry as confirmed by local alarm, Turbine Runback, control valve (CFI-FCV) and bypass valve motion during the event and final location of the Speed Load Changer (CFI-SC) indication.

Review of local and control room data confirmed that no valid runback initiation event, either high temperature or low generator inlet pressure, was present at the time of the runback. A complete functional test in accordance with plant maintenance procedures was completed satisfactorily.

Based on this testing, the plant was restarted.

To assist data collection for troubleshooting the entire circuit was instrumented including the three temperature sensing and three pressure sensing switches (CFI-PS), and the system returned to service. On November 14, 1996, approximately 8 days after returning the plant to operation, the monitoring system identified an invalid actuation of a single temperature switch. After confirming there was no valid high temperature condition, the actuated switch was disconnected in accordance with approved plant processes. One day later the monitoring system identified a second invalid actuation of a temperature switch. After confirming there was no valid high temperature condition the temperature portion of the generator runback circuit was disconnected in accordance with approved plant processes.

Detailed analysis and testing continues on these switches and the replacement devices to fully characterize the behavior of the temperature sensing switches.

ANALYSIS OF OCCURRENCE AND SAFETY ASSESSMENT

The main generator runback circuit provides no nuclear safety function. It provides equipment protection only and has no impact on nuclear safety. During this event, plant systems operated as designed with all control rods fully inserting. Following the manual scram reactor level decreased below the reactor low level scram setpoint, as expected, and a reactor low level scram signal was initiated. Reactor level was quickly restored to normal. Based upon the above discussion, the safety significance of the scram event is considered to be minimal.

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

CORRECTIVE ACTIONS

The following corrective actions were taken in response to this event:

IMMEDIATE ACTIONS

- The plant was brought to a Hot Shutdown condition.
- Troubleshot the entire runback circuit including initiating devices.

PRIOR TO RESTART

- The generator runback circuit was instrumented down to the individual switch status.

AFTER RESTART

- The existing temperature sensing switches were disconnected based on an invalid actuation

LONG TERM

- Continue fault analysis on the existing temperature sensing switches.
- Evaluate and test new temperature sensing devices for returning the temperature portion of the main generator runback circuit to service.

FAILURE DATA

None

SIMILAR EVENTS

LER 95-08, Reactor Scram on High RPV Pressure Due to a Main Generator Runback