



A PECO Energy/British Energy Company

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August 16 2000
1940-00-20197

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

Dear Sir:

Subject: Oyster Creek Generating Station
Docket No. 50-219
Licensee Event Report 00-007
Plant Operation Outside of Technical Specifications
Due To A Failed Acoustic Monitor

Enclosed is Licensee Event Report LER 00-007. This event did not affect the health and safety of the public.

If any additional information or assistance is required, please contact Mr. John Rogers of my staff at 609.971.4893.

Very truly yours,

Ron J. DeGregorio
Vice President, Oyster Creek

RJD/JJR

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

IE22

LICENSEE EVENT REPORT (LER)

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.

FACILITY NAME (1)

Oyster Creek Unit 1

DOCKET NUMBER (2)

05000 - 219

PAGE (3)

1 of 4

TITLE (4)

Plant Operation Outside of the Technical Specifications due to a Failed Acoustic Monitor

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
07	17	00	00	-- 007	-- 00	08	16	00	FACILITY NAME	DOCKET NUMBER
										05000
									FACILITY NAME	DOCKET NUMBER
										05000
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)		X		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)				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

Thomas J. Gaffney

TELEPHONE NUMBER (Include Area Code)

609.971.4279

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)

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

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

On July 17, 2000 at approximately 1915 hours while the plant was in the RUN mode, the EMRV NR108A acoustic monitor failed a surveillance test and was declared inoperable. This started a 48 hour Technical Specification action statement.

Immediate corrective action was taken to start the troubleshooting process. Troubleshooting with vendor support concluded that the problem was inside containment and would require COLD SHUTDOWN and containment entry to repair. Therefore, Oyster Creek requested and was granted enforcement discretion related to EMRV NR108A acoustic monitor operability.

Based on industry experience, we suspect that the cause is a loose or intermittent connection between the accelerometer and the hard line cable to the line driver located in the containment. To prevent recurrence, future installations will use the new vendors pin alignment kit to ensure proper connector pin retention. The failed monitor will be repaired prior to restart from the next time the plant is placed in the COLD SHUTDOWN condition. The spare equipment and cables to be used in the next outage have been prepared using the new pin alignment kit.

(4-95)

LICENSEE EVENT REPORT (LER)

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

DATE OF OCCURRENCE

This event occurred on July 17, 2000 at approximately 1915 hours.

IDENTIFICATION OF OCCURRENCE

On July 17, 2000 Electromatic Relief Valve NR108A acoustic monitor failed its monthly surveillance test and was declared inoperable due to no signal being present. This started an action statement. 48 hours later, plant operations were allowed to continue while in this condition by an approved Notice of Enforcement Discretion. This condition is prohibited by Technical Specifications and is considered reportable under 10 CFR 50.73(a)(2)(i).

CONDITIONS PRIOR TO OCCURRENCE

The plant was operating at 100% power with all temperatures and pressures normal for full power operation. The Instrument Technicians were in the process of performing procedure 602.3.008 "Main Steam Line Safety/EMRV Acoustic VMS Test".

DESCRIPTION OF OCCURRENCE

On July 17, 2000, the A EMRV acoustic monitor failed its surveillance test. At 1915 hours, Oyster Creek control room personnel declared the A EMRV acoustic monitor inoperable in accordance with Technical Specification 3.13.A.3. This specification allows 48 hours to return the EMRV acoustic monitor to operability, or "...place the reactor in the SHUTDOWN CONDITION within the next 24 hours...." Trouble shooting commenced, and the vendor was called to the site to assist. Known operable accelerometers were swapped with suspect detectors, bias voltages were verified to be present or missing, and investigation with a spectrum analyzer determined that the failure was in containment. Repair requires shutdown and containment entry. The Oyster Creek acoustic monitors were last verified operable on June 20, 2000.

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APPARENT CAUSE

Operating Experience Report OE10079 revealed connections in similar detectors, located in the accelerometer cable connector, may have been the problem of past acoustic problems. Based on industry experience and the results of the troubleshooting, we suspect that the failure that occurred on July 17, 2000, was an unseated male to female pin connection between the accelerometer (mounted on the valve) and the hard-line cable connected to the line driver (amplifier). The basis for this determination is as follows:

1. The problem was isolated to inside containment.
2. The bias voltage was found to be acceptable which indicates good connection up to the line driver.
3. Recent inspection of a prior failed EMRV monitor removed from the containment revealed a loose pin connection between the accelerometer and the hard-line cable. This inspection was conducted using a new pin alignment tool recently acquired from the accelerometer vendor.
4. While fabricating detector assemblies for the upcoming refueling outage, the connectors were installed using the new vendor pin alignment kit, and tested satisfactorily.

ANALYSIS OF OCCURRENCE AND SAFETY ASSESSMENT

The safety significance of this occurrence is minimal. The purpose of the safety/relief valve accident monitoring instrumentation is to alert the operator of a stuck open safety or relief valve. However, alternate indications of detecting an open EMRV include the following:

- EMRV tailpipe temperatures
- EMRV common discharge header temperatures
- EMRV solenoid open alarm switch
- Open/closed indication of each EMRV DC solenoid is available in the control room
- Suppression pool temperature and level
- Reactor vessel level and pressure
- Steam flow/feed flow mismatch

Additionally, procedure 2000-ABN-3200.40 "Stuck Open EMRV" provides specific proceduralized steps to assist the operators in determining EMRV position after opening. Therefore, sufficient alternate indications are available to allow operators to detect a stuck open relief valve in a timely manner.

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

CORRECTIVE ACTION

Immediate corrective action was taken to enter a 48- hour Limiting Condition for Operation (LCO) per Technical Specification section 3.13.A.3. Troubleshooting was commenced. When it became obvious that the failure was inside containment and could not be repaired in the allowed time, the staff was contacted and a Request for Enforcement Discretion was submitted. The request was approved. Oyster Creek remains at full power operation.

The failed EMRV monitor will be repaired prior to restart from the next time the plant is placed in COLD SHUTDOWN. The root cause of the failure will be confirmed, and additional corrective actions will be implemented as required.

To prevent recurrence of this event, future installations will be made utilizing the new pin alignment kit provided by the vendor.

FAILURE DATA

MANUFACTURER	ENDEVCO INCORPORATED
MODEL NO.	2273AM20
TEMPERATURE RANGE	-65°F to 700°F
HUMIDITY	SEALED BY GLASS TO METAL
STRAIN SENSITIVITY	0.5 equivalent g nominal, at 250μ strain
RADIATION	6.2x10 ¹⁰ rad

SIMILAR EVENTS

None