

## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Waterford 3 Steam Electric Station										DOCKET NUMBER (2) 0 5 0 0 0 3 8 2				PAGE (3) 1 OF 0 4			
TITLE (4) Engineered Safety Features Actuation on Control Room Isolation																	
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 1	1 7	8 5	8 5	0 0 2	0 0	0 2	1 8	8 5	N/A				0 5 0 0 0				
OPERATING MODE (9) 5			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §. (Check one or more of the following) (11)														
POWER LEVEL (10) 0 0 1 0		20.402(b)				20.402(c)				<input checked="" type="checkbox"/> 50.73(a)(2)(iv)				73.71(b)			
		20.406(a)(1)(i)				50.38(a)(1)				<input type="checkbox"/> 50.73(a)(2)(v)				73.71(e)			
		20.406(a)(1)(ii)				50.38(a)(2)				<input type="checkbox"/> 50.73(a)(2)(vii)				OTHER (Specify in Abstract below and in Text, NRC Form 386A)			
		20.406(a)(1)(iii)				50.73(a)(2)(i)				<input type="checkbox"/> 50.73(a)(2)(viii)(A)							
		20.406(a)(1)(iv)				50.73(a)(2)(ii)				<input type="checkbox"/> 50.73(a)(2)(viii)(B)							
		20.406(a)(1)(v)				50.73(a)(2)(iii)				<input type="checkbox"/> 50.73(a)(2)(x)							
LICENSEE CONTACT FOR THIS LER (12)																	
NAME J.R. McGaha, Maintenance Superintendent										TELEPHONE NUMBER 5 0 4 4 6 4 - 3 1 3 8							
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																	
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC							
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)

## ABSTRACT

On January 17, 1985 Waterford 3 Steam Electric Station was in mode 5 when the first of four (4) automatic actuations of the Engineered Safety Features portion of the Control Room Ventilation System occurred. Three (3) of the four (4) actuations were due to electrical spikes and/or spurious actuations of the Control Room Ventilation input instrumentation, and the other actuation was due to a portable light illuminating the scintillation detector of the Control Room Outside Air Intake Radiation Monitor. After each actuation the signals quickly cleared, and the system was placed in normal operation for three (3) of the four (4) actuations.

Each event was reported to the Commission pursuant to 10CFR50.72(b)(2)(ii).

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES 8/31/85

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Waterford 3 Steam Electric Station	0 5 0 0 0 3 8 2	8 5	— 0 0 2	— 0 0	0 2	OF	0 4

TEXT (If more space is required, use additional NRC Form 365A's) (17)

NARRATIVE

Waterford 3 Steam Electric Station was in mode 5 when four (4) actuations of the Engineered Safety Features portion of the Control Room Ventilation System occurred. In each case all initiating inputs quickly cleared, and, with the exception of the event on January, 20, 1985, the system was restored to its normal lineup. A synopsis of the events are described below.

On January 17, 1985 the Control Room Ventilation System transferred to the recirculation mode while plant personnel were performing a functional test of the Toxic Gas Monitoring System as described in procedure MI-03-502, Chlorine Detection System Channel Function Test HVC-IA-5400 A\_\_\_ B\_\_\_. This induced a voltage spike in the Control Room Outside Air Intake Radiation Monitor ARM-IRI-0200.6BS which actuated the Control Room Emergency Filtration Unit.

Actuations of the Engineered Safety Features portion of the Control Room Ventilation System, due to voltage spikes, occurred again on February 1, and 2, 1985. On February 1, 1985 the Control Room Ventilation System transferred to the recirculation mode due to a spurious alarm of the Ammonia Monitor Channel B. This in turn initiated a spike in the Control Room Outside Air Intake Radiation Monitor ARM-IRE-0200.1S, which actuated the Control Room Emergency Filtration Unit. On February 2, 1985 a voltage spike occurred in the Control Room Outside Air Intake Radiation Monitor ARM-IRI-0200.2BS. The resulting condition was similar to that described above.

On January 20, 1985 an Instrument and Controls Technician was installing a wind shield on the Chlorine Monitor, as described in Condition Identification Work Authorization number 14799. The portable light used by the technician illuminated the scintillation detector of the Control Room Outside Air Intake Radiation Monitor causing an actuation of the Control Room Emergency Filtration Unit. Operations Personnel continued to operate the system in this mode until the above mentioned work was completed.

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TEXT (If more space is required, use additional NRC Form 366A's) (1")

In each of the events described above, Operations Personnel immediately verified that atmospheric conditions were within normal tolerances by comparing the reading on the alarming monitor with those of the redundant monitors.

SAFETY CONSEQUENCES AND IMPLICATIONS

Since the equipment involved performed as designed, and since both the Toxic Gas and Control Room Outside Air Intake Radiation Monitors would have performed as designed in the event of a real gas or radioactive release, the health and safety of plant personnel and the general public was not jeopardized.

CORRECTIVE ACTION

As previously mentioned in License Event Report 84-001 (LER-84-001), spurious and/or inadvertent actuation of the Control Room Ventilation System is presently under investigation. As of this writing several observations have been made. A brief synopsis of these observations, along with recommended corrective actions, are as follows:

- o As described in LER-84-001, the voltage spiking problem associated with the Radiation Monitors can be attributed to "noise", in the form of electrical spikes, that is picked up by the signal input to the preamplifier board, and is read as a sudden increase in the radiation level above the alarm setpoints. Most of these spikes are caused by the actuation of relays that are in, or associated with, the Radiation Monitors. At the vendors (General Atomic Technologies) request electrocubes (resistive - capacitive circuits) have been installed to filter noise spikes. An ongoing evaluation of the necessity to shield and/or relocate the preamplifier boards is in progress. On the basis of this evaluation, several of the Radiation Monitors have already been shielded as described in Condition Identification Work Authorization number 15270.

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

CORRECTIVE ACTION (con't)

- o The Control Room Outside Air Intake Radiation Monitors have proved to be sensitive to light. In order to prevent inadvertent actuation of these monitors due to maintenance activities, additional controls will be placed on the entrance to the air intake duct.
- o The Toxic Gas Monitors have proved to be very sensitive to rapid changes in climatic conditions. As a result of this condition, the chlorine sensors are in the process of being replaced. However, since the event on February 1, 1985 only effected the Ammonia Monitor Channel B, climatic conditions have been ruled out as a possible initiating event. Upon evaluation of the conditions on February 1, 1985, the event can be attributed to noise in the power supply. However, this condition quickly cleared, and, as of this writing, has not occurred again.

SIMILAR EVENTS

LER-84-001 reported similar voltage spiking problems.

PLANT CONTACT

John R. McGaha, Maintenance Superintendent, 504/464-3138





**LOUISIANA**  
**POWER & LIGHT**

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February 18, 1985

W3P85-0382  
3-A1.01.04  
C14.03  
A4.05

Director, Office of Nuclear Reactor Regulation  
ATTENTION: Document Control Desk  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Subject: Waterford 3 SES  
Docket No. 50-382  
License No. NPF-26  
Reporting of Licensee Event Report

Dear Sirs:

Attached is Licensee Event Report Number LER-85-002-00 for the Waterford 3 Steam Electric Station. This Licensee Event Report is submitted per 10CFR50.73(a)(2)(iv).

Very truly yours,

K.W. Cook  
Nuclear Support & Licensing Manager

KWC:GEW:sms

Attachment

cc: R.D. Martin, G.W. Knighton, D.M. Crutchfield, NRC Resident Inspectors  
Office, INPO Records Center (D.L. Gillispie), E.L. Blake,  
W.M. Stevenson

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