



Entergy
Operations

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Ref: 10CFR50.73(a)(2)(i)

W3A90-0415
A4.05
QA

October 2, 1990

U.S. Nuclear Regulatory Commission
ATTENTION: Document Control Desk
Washington, D.C. 20555

Subject: Waterford 3 SES
Docket No. 50-382
License No. NPF-38
Reporting of Licensee Event Report

Gentlemen:

Attached is Licensee Event Report Number LER-90-013-00 for
Waterford Steam Electric Station Unit 3. This Licensee Event
Report is submitted pursuant to 10CFR50.73(a)(2)(i).

Very truly yours,

J.R. McGaha
General Manager - Plant Operations

JRM/LDC/rk
Attachment

cc: Messrs. R.D. Martin
J.T. Wheelock - INPO Records Center
E.L. Blake
W.M. Stevenson
D.L. Wigginton
NRC Resident Inspectors Office

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LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (F-630), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) **Waterford Steam Electric Station Unit 3** DOCKET NUMBER (2) **0 5 0 0 0 3 8 2** PAGE (3) **1 OF 0 4**

TITLE (4) **Unsampled Release From The Gaseous Waste Management System**

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
09	03	90	90	013	00	10	02	90	N/A
								DOCKET NUMBER(S)	
								0 5 0 0 0	
								N/A	
								0 5 0 0 0	

OPERATING MODE (8) **1** THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)

POWER LEVEL (10) 1 0 0	<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.405(c)	<input type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)
<input type="checkbox"/> 20.405(a)(1)(i)	<input type="checkbox"/> 50.38(c)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(c)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
<input type="checkbox"/> 20.405(a)(1)(ii)	<input type="checkbox"/> 50.38(a)(2)	<input type="checkbox"/> 50.73(a)(2)(vi)		
<input type="checkbox"/> 20.405(a)(1)(iii)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(vii)(A)		
<input type="checkbox"/> 20.405(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(vii)(B)		
<input type="checkbox"/> 20.405(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)		

LICENSEE CONTACT FOR THIS LER (12)

NAME **J.G. Hoffpauir, Maintenance Superintendent** TELEPHONE NUMBER **5 1 0 4 4 6 1 4 - 1 3 1 1 3 8**

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) NO

EXPECTED SUBMISSION DATE (15) MONTH DAY YEAR

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

At 0525 hours on September 3, 1990, Waterford Steam Electric Station Unit 3 was at 100% power when plant personnel commenced a batch release of Gaseous Waste Management (GWM) System Gas Decay Tank (GDT) 'B'. Approximately 55 seconds after the release was commenced, the local GWM Effluent Radiation Monitor went into high alarm and automatically secured the batch release.

The most likely cause of this event is internal leakage past discharge isolation valves GWM-305C and 3051C causing a small volume of unsampled gas to be released from GDT 'C' during the gaseous release from GDT 'B'. Technical Specifications (TS) require that representative samples and analyses of gaseous effluents be obtained prior to release; therefore, this event is reportable as plant operation prohibited by TS.

The GWM system is being evaluated to determine which valves are internally leaking and to identify long term corrective measures. Since conservative calculations of the estimated instantaneous dose rates showed that the unsampled release was well within TS limits, there was no safety significance to this event.

**LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION**

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 60.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-630), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) Waterford Steam Electric Station Unit 3	DOCKET NUMBER (2) 0 5 0 0 0 3 8 2	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		9 0	— 0 1 3	— 0 0	0 2	OF 0 4

TEXT (If more space is required, use additional NRC Form 386A's) (17)

At 0525 hours on September 3, 1990, Waterford Steam Electric Station Unit 3 was at 100% power when plant personnel commenced a batch release of Gaseous Waste Management (GWM) System Gas Decay Tank (GDT) (EIS identifier WE-TK) 'B'. Approximately 55 seconds after the release was commenced, the local GWM Effluent Radiation Monitor (PRM-IRE-0648) (EIS identifier IL-MON) went into high alarm and automatically secured the batch release. An alert alarm was also received on both Plant Stack (EIS identifier VL) Effluent Radiation Monitors just prior to the release being secured by the GWM Effluent Radiation Monitor high alarm.

A post-release gaseous sample for Xenon (Xe) and Krypton (Kr) radionuclides was drawn from GDT 'B' and resulted in an activity level of 4.150 E-01 uCi/cc, which corresponded to the pre-release sample activity of 4.773 E-01 uCi/cc from GDT 'B'. A gaseous sample was also taken from GDT 'C' since it was in service and isolated from the GDT discharge header at the time of the release. The activity level from GDT 'C' was 8.601 E-01 uCi/cc, which corresponded with the recorded activity level of 7.14 E-01 uCi/cc from the alarm history of GWM Effluent Radiation Monitor (PRM-IRE-0648).

**LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION**

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 500 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) Waterford Steam Electric Station Unit 3	DOCKET NUMBER (2) 0 5 0 0 0 3 8 2	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		9 0	- 0 1 3	- 0 0	0 0	3 OF 0 4

TEXT (if more space is required, use additional NRC Form 306A's) (17)

The most likely cause of this event is internal seat leakage of the GDT 'C' discharge isolation valves (EIIIS identifier ISV) GWM-305C and GWM-3051C. Internal leakage of the discharge isolation valves could have caused a small volume of unsampled gas to be released from GDT 'C' during the 55 second gaseous release from GDT 'B'. Technical Specification (TS) 4.11.2.1.2 requires that representative samples and analyses of gaseous effluents be obtained prior to release. Since GDT 'C' was not sampled prior to the inadvertent release from GDT 'C', this event is reportable under 10CFR50.73 (a)(2)(i) as plant operation prohibited by TS.

TS 4.11.2.11 requires that the dose rate due to noble gases in gaseous effluents shall be determined to be within the following:

- Dose Rate to the Total Body: 500 mrem/year
- Dose Rate to the Skin: 3000 mrem/year

Conservative calculations were made to estimate the instantaneous dose rates from the noble gases released. The results are as follows:

- Dose Rate to the Total Body: 29.1 mrem/year
- Dose Rate to the Skin: 69.7 mrem/year

The calculations were based on the post release sample activities from GDT 'C' for radionuclides from the noble gases Kr and Xe.

**LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION**

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 500 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20545, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) Water and Steam Electric Station Unit 3	DOCKET NUMBER (2) 0 5 0 0 0 3 8 2 9 0 -	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
			0 1 3 -	0 0	0 4	OF

TEXT (If more space is required, use additional NRC Form 386A's) (17)

Work Authorization 01063948 has been initiated to investigate if GDT 'C' discharge isolation valves GWM-305C and GWM-3051C have internal seal leakage and will be completed prior to the end of Refuel IV (May 1, 1991). All other paths of internal gaseous leakage to the GWM discharge header will be investigated.

Administrative controls are currently in-place which ensure that all GDTs are sampled prior to release. These controls will remain in effect until the GWM system leakage is identified and corrected.

The indicated dose rate calculations show that the estimated dose rates from the unanalyzed radionuclides released from GDT 'C' were well within the dose rate limits established by TS 4.11.2.11 for gaseous effluents released to unrestricted areas, therefore, this event did not result in an increased risk to the health and safety of the public or plant personnel.

SIMILAR EVENTS

None

PLANT CONTACT

J.G. Hoffpauir, Maintenance Superintendent, 504/464-3138.