



**Entergy
Operations**

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

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D. F. Packer
General Manager
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Waterford 3

W3B5-92-0134
A4.05
QA

June 5, 1992

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-92-004-00 for Waterford Steam Electric Station Unit 3. This Licensee Event Report is submitted pursuant to 10CFR50.73 (a)(2)(i) and 10CFR50.36 (c)(3).

Very truly yours,

*TR Leonard for DFP
per telecon*

D.F. Packer
General Manager - Plant Operations

DFP/WEF/rk
Attachment

cc: Messrs. R.D. Martin
G.L. Florreich
J.T. Wheelock - INPO Records Center
E.L. Blake
N.S. Reynolds
NRC Resident Inspectors Office
Administrator - LRPD

050072

9206110065 920605
PDR ADOCK 05000362
S PDR

TR Leonard

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-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 1 8 2 1	PAGE (3) 1 OF 0 8
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TITLE (4)
Failure to Fully Implement Technical Specification Requirement due to Inadequate Procedure

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		
0 5	0 6	9 2	9 2	0 0 4	0 0	0 6	0 5	9 2	N/A		
									DOCKET NUMBER(S)		
									0 5 0 0 0		
									N/A		
									0 5 0 0 0		

OPERATING MODE (9) 1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5. (Check one or more of the following) (11)									
POWER LEVEL (10) 1 1 0 1 0	20.402(b)		20.405(c)		50.73(a)(2)(iv)		73.71(b)			
	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)(vi)		OTHER (Specify in Abstract below and in Text, NRC Form 366A)			
	20.405(a)(1)(iii)	X	50.73(a)(2)(i)		50.73(a)(2)(vii)(A)		50.36(c)(3)			
	20.405(a)(1)(iv)		50.73(a)(2)(ii)		50.73(a)(2)(vii)(B)					
	20.405(a)(1)(v)		50.73(a)(2)(iii)		50.73(a)(2)(viii)					
20.405(a)(1)(vi)		50.73(a)(2)(iv)		50.73(a)(2)(ix)						

LICENSEE CONTACT FOR THIS LER (12)

NAME D.W. Vinci, Plant Operations Superintendent	TELEPHONE NUMBER 5 1 0 1 4 4 6 1 4 1 - 3 1 1 7 1 8
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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)

YES (If yes, complete EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR

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

On April 24, 1992, while the Nuclear Regulatory Commission Senior Resident was performing an Engineered Safety Features (ESF) walkdown on the Emergency Diesel Generators (EDG), the Senior Resident noted that Operations Surveillance Procedures OP-903-115, Train A Integrated Emergency Diesel Generator/Engineered Safety Features Test and OP-903-116, Train B Integrated Emergency Diesel Generator/Engineered Safety Features Test, did not fully implement the Technical Specification (TS) Surveillance Requirement 4.8.1.1.2.d.12a for testing the EDG interlock feature for preventing EDG start with the turning gear engaged. OP-903-115 and OP-903-116 do not specify physically engaging the turning gear to ensure that the Turning Gear Engaged annunciator is alarmed indicating that the interlock feature is operational.

The cause of the TS Surveillance Requirement not being fully implemented was inadequate procedure. Waterford 3 is revising procedures to ensure that the turning gear is engaged to fully implement the TS Surveillance Testing requirement. The EDG operability status was deemed unaffected as a result of not fully implementing the TS surveillance requirement; therefore, this event did not result in an increased risk to the health and safety of the public or plant personnel.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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-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.

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

Reportable Occurrence

Technical Specification (TS) Surveillance Requirement 4.8.1.1.2.d.

12a requires that Waterford 3 verify that the Emergency Diesel Generator (EDG)(EIIS Identifier-DG) interlock feature prevents the EDG from starting when the turning gear (EIIS Identifier-TGR) is engaged. Waterford 3 surveillance testing procedures did not fully implement TS 4.8.1.1.2.d.12a. This event is reportable under 10 CFR 50.73(a)(2)(1) and 10 CFR 50.36(c)(3).

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.

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TEXT (If more space is required, use additional NRC Form 388A's) (17)

Initial Conditions

Plant Power: 100%

Mode: 1

Procedure Being Performed:

Surveillance Procedures OP-903-115, Train A Integrated Emergency Diesel Generator/Engineered Safety Features Test and OP-903-116, Train B Integrated Emergency Diesel Generator/Engineered Safety Features Test.

Technical Specification LCOs in Effect Specific to this Event:

NONE

Major Equipment Out of Service Specific to this Event:

NONE

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

Event Sequence

Waterford 3 TS Surveillance Requirement 4.8.1.1.2.d.12a requires that the EDG turning gear engaged interlock feature prevents the EDG from starting when the turning gear is engaged. The EDG has two independent banks of cranking/control air (EIIS Identifier-LC), a left bank and a right bank. In order to allow control air, which is supplied by the starting (cranking) air system, to open the starting air control valves (EIIS Identifier-PCV) and start the EDG, the turning gear must be disengaged and a start signal must be present opening the starting air solenoid valves (EIIS Identifier-FSV). With the turning gear disengaged, control air is allowed to pass through to the starting air solenoid valves, enabling an EDG start upon receipt of a start signal. When the turning gear is engaged, control air is vented from both the left and right control air banks preventing an EDG start; both the right and left bank must be vented, as sensed by a pressure switch (EIIS Identifier-PS) in each bank, to generate the alarm and prevent an EDG start. The air header for each bank of starting air has an isolation valve (EIIS Identifier-ISV), Right Bank Cranking Air Shutoff Valve and Left Bank Cranking Air Shutoff Valve; when the Cranking Air Shutoff Valve for each bank is placed in the "OFF" position, control air is vented from the control air header, preventing an EDG start. Refer to the attached diagram on the Control Air Circuit for the Emergency Diesel Generator Starting Air System. Waterford 3 performs the TS Surveillance Requirements for the turning gear by placing to "OFF" the Left and Right Bank Cranking Air Shutoff Valves to vent both banks, thereby simulating the venting which would be experienced if the turning gear was engaged. Once the control air header is vented, a start of the EDG is attempted.

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.

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

Chronology of Major Events

On April 24, 1992, while the Nuclear Regulatory Commission (NRC) Senior Resident was performing an Engineered Safety Features (ESF)(EIIIS Identifier-JE) walkdown on the EDG, the Senior Resident noted that Surveillance Procedures OP-903-115, Train A Integrated Emergency Diesel Generator/Engineered Safety Features Test and OP-903-116, Train B Integrated Emergency Diesel Generator/Engineered Safety Features Test, did not fully implement the TS Surveillance Requirement 4.8.1.1.2.d.12a.

As the Senior Resident noted, the TS Surveillance Requirement was not met because the turning gear was not physically engaged, and instead, the Left and Right Bank Cranking Air Shutoff Valves were operated to vent air from the left and right control air banks to activate the interlock feature and generate the Turning Gear Engaged annunciator.

On May 6, 1992 at 1300 hours, Potential Reportable Event (PRE) 92-013 was generated after notification was made to Waterford 3 Plant Management from the NRC Senior Resident concerning TS Surveillance Requirement 4.8.1.1.2.d.12a. As immediate corrective action, both turning gear units (for EDG A and EDG B) were danger tagged in the disengaged positions and a procedure change request was generated to correct the deficiencies that would ensure full implementation of the TS Surveillance Requirement.

Causal Factors

The cause of the TS Surveillance Requirement not being fully implemented was inadequate procedure. Waterford 3 tests the turning gear interlock by placing in the "OFF" position the Control Air Shutoff Valves for the right and left banks.

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.

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*TEXT (if more space is required, use additional NRC Form 305A's) (17)

Verification is made that the Turning Gear Engaged annunciator on the Diesel Engine Control Panel (EIIIS Identifier DG-CSL) alarms. Waterford 3 believed that this method of performing the TS Surveillance on the EDG turning gear interlock feature was in compliance with TS. The NRC Senior Resident noted that in order to fully implement the TS surveillance requirement, the turning gear should be fully engaged to exercise the Turning Gear Interlock Valves (EIIIS Identifier TGR-V) and generate the Turning Gear Engaged annunciators. Both Waterford 3 and the Nuclear Regulatory Commission Senior Resident Inspector concur that it would not be prudent to engage the turning gear and attempt an EDG start due to the risk of damaging the EDG if the turning gear interlock feature did not function.

Corrective Measures

1. Immediate corrective action was to remove from service and danger tag both turning gear units (EDG A and EDG B) in the disengaged position.
2. Procedure Changes to OP-903-115 and OP-903-116 will be performed to add steps to ensure that the turning gear is engaged to generate the Turning Gear Engaged annunciator. To ensure appropriate overlap, the procedures will continue to vent the control air header by placing the Control Air Shutoff Valves to "OFF", with the turning gear disengaged, and attempt an EDG start.

Safety Significance

It has been determined that the EDGs were not inoperable as a result of testing the EDG turning gear interlock feature by venting off both air banks by use of the Cranking Air Shutoff Valves, as opposed to physically engaging the turning gear. The health and safety of the public and site personnel were not jeopardized as a result of the surveillance testing deficiency.

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.

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

Previous Events

LER-91-012 and LER-89-021 concerned TS Surveillances for the EDG that were not performed in the required time.

LER-92-001-01 concerned a failure to fully implement TS Surveillance requirements for testing the alarm functions associated with the Core Operating Limit Supervisory System (EISS Identifier-ID) for Azimuthal Power Tilt, Departure from Nucleate Boiling Ratio, and Linear Heat Rate. LER-92-001-01 and the event discussed here, in LER-92-004, have been determined to be unrelated.

The TS Surveillance identified in LER 92-001-01 was the result of implementing a test methodology based on guidance from the NSSS vendor.

The TS Surveillance test deficiency identified in LER 92-004 was the result of a misunderstanding of intent during original development of the surveillance test procedure.

The adopted methodology improperly focused on verification that the Turning Gear Engaged annunciator would alarm and the EDG would not start with the control air header vented. The intent of the TS Surveillance requirement is that the test methodology should focus on verification that the control air header would vent and the Turning Gear Engaged annunciator would alarm when the turning gear was engaged.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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.

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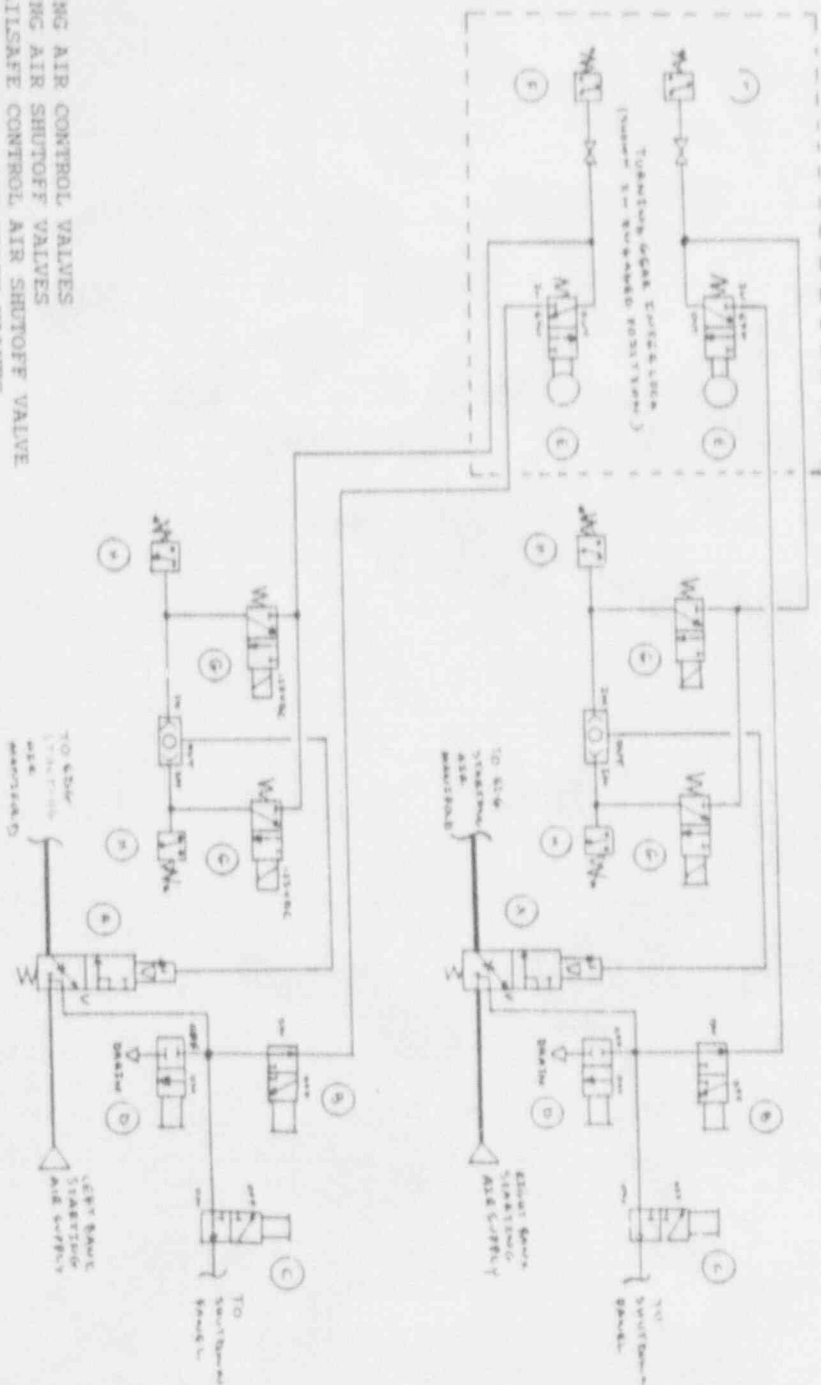
Waterford Steam
Electric Station Unit 3

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TEXT (If more space is required, use additional NRC Form 366A (1-17))

- LEGEND
- A. STARTING AIR CONTROL VALVES
 - B. CRAMMING AIR SHUTOFF VALVES
 - C. NON-FAILSAFE CONTROL AIR SHUTOFF VALVE
 - D. CRAMMING CONTROL AIR DRAIN VALVES
 - E. TURNING GEAR INTERLOCK VALVES
 - F. TURNING GEAR ENGAGED PRESSURE SWITCHES
 - G. STARTING AIR SOLENOID VALVES
 - H. STARTING AIR PRESSURE SWITCHES



CONTROL AIR CIRCUIT
for the
EMERGENCY DIESEL GENERATOR STARTING AIR SYSTEM