



**Entergy  
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**D. R. Keuter**

General Manager  
Plant Operations  
Waterford 3

**W3F1-96-0019**

**A4.05**

**PR**

February 23, 1996

U.S. Nuclear Regulatory Commission  
Attn: 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-96-002-00 for Waterford Steam Electric Station Unit 3. This Licensee Event Report is submitted in accordance with 10CFR50.73(c)(2)(i)(B).

Very truly yours,

D.R. Keuter  
General Manager  
Plant Operations

DRK/DMU/tjs  
Attachment

cc: L.J. Callan, NRC Region IV  
C.P. Patel, NRC-NRR  
D.F. Packer  
J.T. Wheelock - INPO Records Center  
R.B. McGehee  
N.S. Reynolds  
NRC Resident Inspectors Office  
Administrator - LRPD

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## LICENSEE EVENT REPORT (LER)

(See reverse for required number of  
digits/characters for each block)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)

WATERFORD STEAM ELECTRIC STATION UNIT 3

DOCKET NUMBER (2)

05000 382

PAGE (3)

1 OF 5

TITLE (4)

TECH. SPEC. LCO EXCEEDED DUE TO NON-CONSERVATIVE APPLICATION OF THE TECH. SPEC.

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
02	06	94	96	002	00	02	23	96	N/A	05000
									N/A	05000

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more) (11)				
POWER LEVEL (10)	100	20.2201(b)	20.2203(a)(2)(v)	<input checked="" type="checkbox"/>	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)	Specify in Abstract below or in NRC Form 366A
		20.2203(a)(2)(iv)	50.36(c)(2)		50.73(a)(2)(vii)	

## LICENSEE CONTACT FOR THIS LER (12)

NAME

D.W. VINCI, LICENSING MANAGER

TELEPHONE NUMBER (Include Area Code)

(504) 739-6370

## 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 DATE (15)	MONTH	DAY	YEAR

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

A recent concern questioned the need to enter the 72 hour Technical Specification (TS) ACTION (3.7.1.2.a) when either steam supply to the turbine driven EFW pump is either out of service or inoperable. The TS Limiting Condition for Operation (LCO) requires that the pump be "capable of being powered from an OPERABLE steam supply system." Since there are separate steam supplies (one from each Steam Generator) to the turbine driven EFW pump, a literal application of the TS prevented entry into the TS ACTION when one supply was either out of service or inoperable. A review of the equipment out of service (EOS) records for MS-401A & B, the EFW Pump AB Steam Supply Valves, indicates that MS-401B was out of service from 2-3-94 at 1445 hours until 2-8-94 at 1117 hours. During this time, the plant was in Mode 1. This exceeds the LCO for TS 3.7.1.2. The cause of this event was the misleading wording of TS 3.7.1.2.b. A change to OP-100-014, Technical Specification Compliance, now requires entry into the TS ACTION statement if either MS-401A or B is declared out of service. This event did not compromise the health and safety of the public.

**REQUIRED NUMBER OF DIGITS/CHARACTERS  
FOR EACH BLOCK**

BLOCK NUMBER	NUMBER OF DIGITS/CHARACTERS	TITLE
1	UP TO 46	FACILITY NAME
2	8 TOTAL 3 IN ADDITION TO 05000	DOCKET NUMBER
3	VARIES	PAGE NUMBER
4	UP TO 76	TITLE
5	6 TOTAL 2 PER BLOCK	EVENT DATE
6	7 TOTAL 2 FOR YEAR 3 FOR SEQUENTIAL NUMBER 2 FOR REVISION NUMBER	LER NUMBER
7	6 TOTAL 2 PER BLOCK	REPORT DATE
8	UP TO 18 -- FACILITY NAME  8 TOTAL -- DOCKET NUMBER 3 IN ADDITION TO 05000	OTHER FACILITIES INVOLVED
9	1	OPERATING MODE
10	3	POWER LEVEL
11	1 CHECK BOX THAT APPLIES	REQUIREMENTS OF 10 CFR
12	UP TO 50 FOR NAME 14 FOR TELEPHONE	LICENSEE CONTACT
13	CAUSE VARIES 2 FOR SYSTEM 4 FOR COMPONENT 4 FOR MANUFACTURER NPRDS VARIES	EACH COMPONENT FAILURE
14	1 CHECK BOX THAT APPLIES	SUPPLEMENTAL REPORT EXPECTED
15	6 TOTAL 2 PER BLOCK	EXPECTED SUBMISSION DATE

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
WATERFORD STEAM ELECTRIC STATION UNIT 3	05000 382	96	-- 002	-- 00	2 OF 5

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

## REPORTABLE OCCURRENCE

This event involves a component being inoperable in excess of the time specified by the limiting condition for operation (LCO) for Technical Specification (TS) 3.7.1.2. This is reportable as a condition prohibited by Technical Specifications pursuant to 10 CFR 50.73(a)(2)(i)(B). The reportability determination of this event was made on 1-24-96.

## INITIAL CONDITIONS

On 2-3-94 at 1445 hours, the EFW Pump AB Steam Supply Valve MS-401B (EIS identifier SB-ISV) was declared out of service while the plant was operating in Mode 1 at approximately 100% power. There was no major equipment out of service specific to this event. No Technical Specification LCOs were in effect specific to this event. These conditions remained unchanged through 2-8-94 at 1117 hours when MS-401B was returned to service.

## EVENT DESCRIPTION

The NRC recently questioned the need to enter the 72 hour TS ACTION (3.7.1.2.a) if either steam supply to the turbine driven EFW pump (EIS identifier BA-P) is out of service or inoperable. Condition report (CR-96-0035) was generated to address this concern. The TS LCO requires that the pump be "capable of being powered from an OPERABLE steam supply system." Since there are separate steam supplies (one from each Steam Generator) to the turbine driven EFW pump, a literal application of the TS may have prevented the entry into the TS ACTION when one supply was either out of service or inoperable. In conversations with Operations personnel, it was determined that when one MS-401 valve was out of service, the turbine driven EFW pump would remain operable as long as the second valve was operable.

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

The above application of the TS did not consider an event where a Main Steam or Main Feedwater Line break occurs on the steam generator feeding the remaining steam supply valve and the single active failure involves a motor driven EFW pump. In this event, only one motor driven EFW pump would be available. The accident analysis in Chapter 15 of the FSAR assumes an available EFW flow of 700 gpm (i.e., one turbine driven EFW pump or two electrical driven EFW pumps).

Given that this literal TS application was non-conservative, Waterford 3 may have been in past violation of TS action statement 3.7.1.2.a. To determine this, a search of the Equipment Out of Service (EOS) data base was performed over the past 3 years for MS-401A & B, EFW Pump AB Turbine Steam Supply Valves. The times these components had been out of service were reviewed to determine whether the 72 hour LCO had ever been exceeded when the TS was applicable.

The review of the EOS records indicated that MS-401B was out of service from 2-3-94 at 1445 hours until 2-8-94 at 1117 hours; a total of 116 hours and 32 minutes. During this time, the plant was in Mode 1. This exceeds the LCO for Technical Specification 3.7.1.2. An EOS records search was also performed for this period to determine the status of the motor driven EFW pumps and motors. A review of EOS records and the control room daily log sheets for 2-3-94 through 2-8-94 has shown that the two motor driven EFW pumps were operable during this time.

Based on the information above, it was determined that between 2-6-94 at 1445 hours and 2-8-94 at 1117 hours Waterford 3 exceeded the LCO for Technical Specification 3.7.1.2. That condition is reportable under 10 CFR 50.73(a)(2)(i)(B). The reportability determination for this event was completed 1-24-96.

## CAUSAL FACTORS

The root cause of this event was the misleading wording in the present TS. This event was the result of a literal application of the Technical Specifications. TS 3.7.1.2.b requires one feedwater pump capable of being powered from an OPERABLE steam



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supply system. Since there are separate steam supplies (one from each generator) to the turbine driven EFW pump, a literal application of the TS would be that if either steam supply were available, then the turbine driven EFW pump would have had an operable steam supply.

## IMMEDIATE CORRECTIVE MEASURES

Change 1 to OP-100-014, Technical Specification Compliance, added specific guidelines in step 5.2.21 for the EFW Pump AB Steam Supply. These guidelines state that both steam supplies are required to be Operable for EFW Pump AB. If one steam supply is declared inoperable, then declare the EFW Pump AB inoperable and take the required Actions of Technical Specification 3.7.1.2.

## ACTIONS TO PREVENT RECURRENCE

In the future, Waterford 3 plans to adopt an EFW Technical Specification similar to that in NUREG 1432, Standard Technical Specifications for Combustion Engineering Plants. This will clarify the wording of this TS. Until this TS change is made, training on Change 1 to OP-100-014, Technical Specification Compliance, will be provided to Operations personnel during Operator Requalification Training.

## SAFETY SIGNIFICANCE

A review of the safety significance of this event was performed by Safety & Engineering Analysis. The effects of MS-401B being out of service in excess of 72 hours were evaluated by considering Station Blackout and accidents which cause the increase or decrease in heat removal by the secondary system. In support of this evaluation, the control room daily logs were reviewed to determine whether any plant transients had occurred during the time the valve was out of service. No precursor to these accidents occurred during the post 72 hour period. There was, therefore, no nuclear safety significance to the extra out of service time for MS-401B.

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

In addition to the above, the realistic analysis described in the Chapter 10 of the FSAR has determined that any one EFW pump can supply adequate flow for decay heat removal to one or both steam generators. This is addressed in table 10.4.9A-1.

## SIMILAR EVENTS

There have been no similar events reported as LERs at Waterford 3.