NRC Form 366 19-83)			LIC	ENSEE EVER	T RE	PORT	(LER)	U.S. N	JCLEAR REGULAT APPROVED OMB EXPIRES 8/31/88	TORY COMMISSION
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LICENSEE EVENT RSPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO 3150-0104 EXPIRES 8/31/88

FACILITY NAME (1)	0	OCK	ETN	UME	BER	(2)					LI	ERN	NUMBER (6			PAGE (3)			15
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Introduction

AC Form 366A

On 5/30/86 at approximately 1520 CDT, an Auxiliary Feedwater Actuation (1) (AFAS) occurred as a result of the trip of the "B" Main Feedwater Pump (MFP) with the "A" MFP secured. During startup after this actuation, the Engineered Safety Features Actuation System (ESFAS) circuitry which provides an AFAS when both MFP's trip was rendered inoperable for approximately thirteen hours. This condition resulted from inadequate procedural controls and constituted a condition prohibited by the plant's Technical Specifications (T/S). This Licensee Event Report is being submitted to report the unplanned ESFAS actuation and the condition prohibited by the plant's T/S's as required by 10 CFR 50.73(a)(2)(iv) and 10 CFR 50.73(a)(2)(i)(B).

Background

On 5/30/86 at approximately 0910 CDT, a load reduction from 100% reactor power began due to overheating of the generator "B" phase isophase bus duct. ⁽²⁾ In the process of reducing the load, the turbine, the "A" MFP, and the "C" Condensate Pump were secured.

Event I (Unplanned Auxiliary Feedwater Actuation)

At approximately 1509 level fluctuations began in the High Pressure Condenser and at approximately 1520 a low-low hotwell level alarm was received. This indicated low level caused the "A" and "B" Condensate Pumps to trip immediately. With the "C" Condensate Pump secured, the "B" MFP tripped on a 3/3 Condensate Pumps trip logic. With the loss of Main Fredwater, an AFAS occurred at approximately 1520. At the time of the AFAS, the plant was in Mode 1 (Power Operation) at 6% reactor power and normal operating temperature and pressure.

Root Cause

At the time of the event, the steam sparging system was being cut in to increase the hotwell temperature. Vaporization of water in the area of the hotwell level tap caused excessive turbulence near the tap allowing steam bubbles into the sensing line thereby giving an erroneous low-low level indication in the hotwell.

Actions Taken to Stabilize Plant Conditions

The operators took the following actions to stabilize the plant:

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TEXT (If more space is req	uired, use	additional NRC Form 366A's) (17)		1-1-		-1-1-			1-1-					
	1.	Reduced reactor powe	r to 2%.											
	2.	Performed the Off No Feedwater.	rmal Operating Procee	lures	fo	r a los	SS	of Ma	in					
	3.	Started the Turbine approximately 1522 C	driven Auxiliary Feed DT.	lwate	r P	ump (Tl	DAF	P) ⁽⁴⁾	at					
	4,	Started the "B" Cond approximately 1546 C	ensate Pump and secu DT.	red t	he	TDAFP a	at							
	5.	Started the "B" MFP	at approximately 1945	5 CDT	•									
	6.	. Reset the AFAS and secured the "A" and "B" motor driven Auxiliary Feedwater Pumps (MDAFP) at approximately 1951 CD".												
	Act	ion to Prevent Recurr	ence											
	1.	Union Electric Nucle line design relative	ar Engineering (UENE) to the level indicat) wil tion.	1 e	valuat	e t	he sı	pargi	ng				
	2.	Appropriate operatin added where necessar	g procedures will be y.	revi	ewe	d and p	pre	cauti	lons					
	Saf	ety Significance												
	The too thi	appropriate safety f k necessary actions t s event from endanger	eatures responded per o stabilize plant con ing the public healt	r des nditi h and	ign ons sa	and there fety.	he by	opera preve	ators entin	g				
	Eve	ent II (Block of AFAS	initiated by trip of	both	MF	P's)								
	Pri and by rea the exi The	or to starting the "B I "B" MDAFP's at 1951, the trip of both MFP' actor operator (RO) at RO knew that, after sted to trip and rese block switches were	" MFP at 1945 on 5/3 the ESFAS block swi s were placed in the 1743. This was don starting the MFP, pro t the MFP which would not returned to the	0/86 "blo e to ocedu d hav "perm	and (5) pre ral e i it"	secur for t posit vent a requi nitiat posit	ing he ion n A rem ed ion	AFAS by b FAS an Al unt	"A" init the since FAS . i1 06	iat	ed			

T/S 3.3.2, ESFAS Instrumentation, requires the AFAS initiated by the trip of both MFP's to be operable in Modes 1 and 2. During the time interval from placing the block switches in the "block" position until the block switches were placed in the "permit" position (approximately

U.S. NUCLEAR REGULATORY COMMISSION

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FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)	PAGE (3)		
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Callaway Plant Unit 1					
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TEXT /// more space is required, use additional NRC Form 366A's) (17)

AC Form 366A

thirteen hours), the plant operated in a condition prohibited by T/S 3.3.2. The plant was in Mode 2 (Startup) at 3% reactor power when the AFAS was blocked and in Mode 1 (Power Operation) at 30% reactor power when the AFAS was unblocked.

Root Cause

Initially placing the switches in the "block" position was a result of Final Safety Analysis Report (FSAR), Safety Evaluation Report (SER), and T/S inconsistencies and an absence of effective procedural controls. Leaving the switches in the "block" position was the result of Operations personnel error and inadequate procedural controls.

Immediate Action

The immediate action taken upon discovery of the block switches being in the "block" position was to place the block switches in the "permit" position.

Actions to Prevent Recurrence

- 1. Use of the block switches in Modes 1 and 2 has been prohibited on an interim basis by Operations Department Night Orders.
- A T/S amendment request will be considered to clarify use of the block switches.
- 3. The applicable operating procedure will be revised to address transfer of feedwater between the Auxiliary Feedwater System and the Main Feedwater System, including guidance on the use of the block switches.
- 4. Operations personnel have been briefed on the liabilities of taking action outside of procedures.
- 5. Operations personnel have been instructed to take prompt action to bring procedure deficiencies to the attention of their supervisor.
- 6. A letter to all Operations personnel concerning attention to control board indication has been issued.

Safety Significance

The only ESF actuation affected by placing the subject ESFAS block switches in the "block" position is the AFAS initiated by the trip of

NRC Form 366A (9-83)	LICENSEE EVENT REP	ORT (LER) TEXT CONTINU	U.S. NUCLEAR REGU UATION APPROVED OM EXPIRES 8/31/8	ULATORY COMMISSION B NO. 3150-0104 B						
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1. J. C.										
1.4	both MFP's. The purpose	of the block switche	es, as allowed by the							
2 A 1 1 1	SER and the FSAR, is to permit use of the Startup Feedwater Pump and									
	testing of the MFP's wit	hout initiating an un	nnecessary AFAS.							
	As described in the SER, considered an "anticipat	the AFAS initiated b ory signal" for which	by the trip of both MFP n no credit is taken in	's is the						

accident analysis. The AFAS's which are taken credit for in the accident analysis were operable during this event (i.e., manual AFAS, AFAS initiated by a Safety Injection Signal, AFAS initiated by a loss-of-offsite-power, and AFAS initiated by two out of four low-low level signals in any one steam generator).

Based on the above, the Auxiliary Feedwater System remained operable to provide its analyzed safety functions. Therefore this event did not endanger the public health and safety.

Previous occurrences: none

Footnotes

The component codes listed below are from IEEE Standard 803A-1983 and the system codes are from IEEE Standard 805-1983.

- (1) Component P; System SJ
- (2) Component DUCT; System EL
- (3) Component P; System SD
- (4) Component P; System BA
- (5) Component HS; System JE



Callaway Plant

June 30, 1986

U. S. Nuclear Regulatory Commission Document Control Desl Washington, DC 20555

ULNRC-1335

Gentlemen:

DOCKET NUMBER 50-483 CALLAWAY PLANT UNIT 1 FACILITY OPERATING LICENSE NPF-30 LICENSEE EVENT REPORT 86-018-00 UNPLANNED AUXILIARY FEEDWATER ACTUATION AND TECHNICAL SPECIFICATION VIOLATION

The enclosed Licensee Event Report is submitted pursuant to 10 CFR 50.73(a)(2)(iv) and 10 CFR 50.73(a)(2)(i) concerning an unplanned Auxiliary Feedwater Actuation and a condition prohibited by the plant's Technical Specifications.

Ad Randoph G. L. Randolph

G. L. Randolph Manager, Callaway Plant

WRB/WK/drs Enclosure

cc: Distribution attached

IE22 11/ cc distribution for ULNRC-1335

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