

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Waterford Steam Electric Station Unit 3 DOCKET NUMBER (2) 050003812 PAGE (3) 1 OF 03

TITLE (4)
Surveillance Procedure Error Resulted in the Hot Leg Temperature Accident Monitoring Instrument Operability (Not Accuracy) to be Suspect

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
03	18	86	86	005	00	04	16	86	N/A
									DOCKET NUMBER(S) 050000

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 8: (Check one or more of the following) (11)

OPERATING MODE (8) <u>5</u>	20.402(b)	20.406(c)	80.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10) <u>01010</u>	20.406(a)(1)(i)	80.38(c)(1)	80.73(a)(2)(v)	73.71(c)
	20.406(a)(1)(ii)	80.38(c)(2)	80.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 365A)
	20.406(a)(1)(iii)	X 80.73(a)(2)(i)	80.73(a)(2)(viii)(A)	
	20.406(a)(1)(iv)	80.73(a)(2)(ii)	80.73(a)(2)(viii)(B)	
	20.406(a)(1)(v)	80.73(a)(2)(iii)	80.73(a)(2)(ix)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
<u>L.W. Myers, Operations Superintendent</u>	AREA CODE <u>5104</u> NUMBER <u>41641-131118</u>

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS
X	A B D E T	W	108	Y					

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE) NO

EXPECTED SUBMISSION DATE (15) MONTH 05 DAY 09 YEAR 86

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

At 1800 hours on March 18, 1986 Waterford Steam Electric Station Unit 3 was in mode 5 (cold shutdown) (as a result of a scheduled surveillance/maintenance outage which began on March 7, 1986) when engineering personnel observed that procedure OP-903 13, "Surveillance Procedure Monthly Channel Checks", was changed on January 30, 1986 such that the instrument loops being used to satisfy the surveillance requirements of Technical Specification 4.3.3.6 were changed. The change was made when RC-ITE-0122HB, Wide Range Reactor Coolant System (AB) Hot Leg Outlet Temperature Resistance Temperature Detector (RTD), failed (due to connection embrittlement). This in turn rendered the B Train of hot leg temperature Accident Monitoring inoperable. The revised procedure required operations personnel to read loops RC-ITI-0122HB and RC-ITI-0122HA. To accomplish this, recorder RC-ITR-0122/1 and 2 (a dual pen recorder being fed by the above loops) was used to satisfy the operability requirements for both trains of Accident Monitoring Instrumentation. Since the above recorder does not meet the single failure criteria specified in the Accident Monitoring Instrumentation design basis, Waterford did not prove the operability of two acceptable channels of hot leg temperature Accident Monitoring Instrumentation from January 30, 1986 to March 8, 1986.

The investigation of this event is ongoing; however, it appears that the review of OP-903-013 was unsatisfactory. It is difficult, at this point, to qualify the scope and nature of any corrective action; therefore, a supplemental report will be submitted by May 9, 1986. The RTD and cable were replaced during the outage.

This event did not affect the health and safety of the public since other means of measuring hot leg temperature were available.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) Waterford Steam Electric Station Unit 3	DOCKET NUMBER (2) 050038286	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		86	005	0	02	OF	03

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

At 1800 hours on March 18, 1986 Waterford Steam Electric Station Unit 3 was in Mode 5 (cold shutdown) (as a result of a scheduled surveillance/maintenance outage which began on March 7, 1986) when engineering personnel, while reviewing Technical Specification surveillances, observed that procedure OP-903-013, "Surveillance Procedure Monthly Channel Checks", was changed on January 30, 1986. The procedure change was made when Wide Range Reactor Coolant System (AB) Hot Leg Outlet Temperature Resistance Temperature Detector (RTD), RC-ITE-0112HB, failed (due to connection embrittlement). The subject RTD loop feeds instruments on Local Control Panel (LCP)-43 and the Main Control Board. Therefore, indicators (TI) RC-ITI-0122HB (located on Main Control Board Control Panel, CP,-8) and RC-ITI-0112H1B (located on Local Control Panel, LCP-43) were inoperable as defined in Technical Specification 3.3.3.6 and 3.3.3.5 respectively. To correct this problem Condition Identification Work Authorization number 24607 and Temporary Authorization Request (TAR) -86-013 were written to physically substitute indicator RC-ITI-0122HB for RC-ITI-0112H1B on LCP-43. Also a deviation was made to OP-903-013 (described above) instructing plant operators to read loops RC-ITI-0122HB (B Train) and RC-ITI-0112HA (A Train) in order to compensate for the inoperable instrument on CP-8. (The procedural substitution on train A was made in order to have an operable indicator in each hot leg loop). To accomplish the procedural substitution on the Main Control Board, recorder (TR) RC-ITR-0112/1 and 2 (a duel pen recorder fed by the above signals) was read on CP-2. This condition existed until Waterford entered the surveillance/maintenance outage described above.

During the review on March 18, 1986 described above, engineering personnel questioned the validity of the procedural substitution of the instruments on the Main Control Board. Since the instruments on CP-8 are used to satisfy the Accident Monitoring Instrumentation requirements in Technical Specification 3.3.3.6, plant personnel questioned the design of recorder RC-ITR-0122/1 and 2 as it relates to Regulatory Guide 1.97, Instrumentation for Light-Water-Cooled Nuclear Power Plants to Assess Plant and Environs Conditions During and Following an Accident. Therefore, Project Engineering/Information Request (PER) 70794 was written to evaluate the design of RC-ITR-0112/1 and 2 as it relates to Reg. Guide 1.97. The evaluation revealed that the recorder on CP-2 (RC-ITR-0112/1 and 2) is non-safety related and does not have sufficient signal separation. Also, since the surveillance requirements for both trains were satisfied by the readings from the single recorder on CP-2, a single failure of the 120 VAC

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

power supply to the subject recorder would cause both trains of designated wide range hot leg temperature indications to become inoperable. Therefore, the operability of two acceptable channels of hot leg temperature Accident Monitoring Instrumentation (as required by Technical Specification 3.3.3.6 and the design criteria specified above) was in question from January 30, 1986 to March 8, 1986 when Waterford exited the mode of operability. It is important to note that other instruments were capable of performing the Accident Monitoring function; however, these instruments lacked documented surveillances.

At this stage of the investigation it appears that the review of the change to procedure CP-903-013 was unsatisfactory. Since the investigation is continuing, it is difficult to qualify the scope and nature of any corrective action. Therefore, a supplemental report will be submitted to the Commission by May 9, 1986. Presently, however, OP-903-013 has been revised to include all wide range hot leg and cold leg indications and the allowable combinations of operable indications to satisfy the minimum requirements of Technical Specification 4.3.3.6. The RTD and cable were replaced during the above described outage.

Although the above error resulted in the failure to perform the appropriate surveillance on the proper instrumentation, this event did not affect the health and safety of the public since the Qualified Safety Parameter Display System was available and capable of performing the Accident Monitoring function. It is important to note that the instrument loops feeding the recorder in question are acceptable for Accident Monitoring usage.

Similar Events

None

Plant Contact

L. Myers, Operations Superintendent, 504/464-3118



LOUISIANA
POWER & LIGHT

WATERFORD 3 SES • P.O. BOX 8 • KILLONA, LA 70066-0751

April 16, 1986
W3A86-0035
A4.05
QA

Director, Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

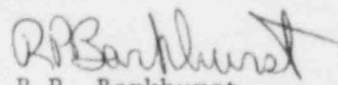
ATTENTION: Document Control Desk

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

Dear Sir:

Attached is Licensee Event Report Number LER-86-005-00 for Waterford 3.
This Licensee Event Report is submitted per 10CFR50.73(a)(2)(i).

Very truly yours,


R.P. Barkhurst
Plant Manager - Nuclear

RPB/LWL/wp

Attachment

cc: R.D. Martin, G.W. Knighton, J.H. Wilson, NRC Resident Inspectors Office,
INPO Records Center (J.T. Wheelock), B.W. Churchill, W.M. Stevenson

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