

## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Waterford 3 Steam Electric Station										DOCKET NUMBER (2) 0 5 0 0 0 3 8 2				PAGE (3) 1 OF 3	
TITLE (4) Reactor Trip Due to Inadvertent Turbine Runback															
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				DOCKET NUMBER(S)		
0	7	1	4	8	5	0	3	5	N/A				0 5 0 0 0		
0	7	1	4	8	5	0	3	5	N/A				0 5 0 0 0		
OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5. (Check one or more of the following) (11)													
1		20.402(b)				20.406(e)				<input checked="" type="checkbox"/> 50.73(a)(2)(iv)				73.71(b)	
POWER LEVEL (10)		20.406(a)(1)(i)				50.36(e)(1)				50.73(a)(2)(v)				73.71(e)	
1 1 0 0		20.406(a)(1)(ii)				50.36(e)(2)				50.73(a)(2)(vi)				OTHER (Specify in Abstract below and in Text, NRC Form 300A)	
		20.406(a)(1)(iii)				50.73(a)(2)(i)				50.73(a)(2)(vii)(A)					
		20.406(a)(1)(iv)				50.73(a)(2)(ii)				50.73(a)(2)(vii)(B)					
		20.406(a)(1)(v)				50.73(a)(2)(iii)				50.73(a)(2)(ix)					
LICENSEE CONTACT FOR THIS LER (12)															
NAME T. H. Smith, Maintenance Superintendent										TELEPHONE NUMBER 5 0 4 4 6 4 - 3 1 3 8					
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)										EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR	
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)										<input checked="" type="checkbox"/> NO					

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

## ABSTRACT

At 0750 hours on July 14, 1985 Waterford 3 Steam Electric Station was at 100% reactor power when a reactor trip occurred as a result of an electrical fault in the Digital Electro-Hydraulic Control Panel. The fault was due to an overheated resistor on a solid-state circuit board. The overheating initiated a fire in the control panel which was quickly extinguished by the Halon Fire Extinguishers. Plant conditions were subsequently stabilized in mode 3 (hot standby).

To prevent the above condition from recurring a different type of resistor with better heat dissipating capabilities has been installed on each circuit board which may exhibit similar problems within the Digital Electro-Hydraulic Control Panel.

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

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

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

NARRATIVE

At 0745 hours on July 14, 1985 Waterford 3 Steam Electric Station was at 100% reactor power when a control room operator noticed the Digital Electro-Hydraulic Control transfer from the automatic to the manual position. While investigating the cause of the above incident, a computer technician observed smoke emanating from the Digital Electro-Hydraulic Control Panel. Shortly thereafter (0750 hours), a reactor trip occurred when the Reactor Coolant System pressure was out of the range allowed by the Core Protection Calculators. Upon receiving the reactor trip, Operations Personnel immediately entered procedure OP-902-000, Emergency Entry Procedure, and OP-902-001, Uncomplicated Reactor Trip Recovery. During the recovery process, Steam Generator water levels decreased to the Emergency Feedwater Actuation Signal setpoint; however, water levels did not decrease enough to allow emergency feedwater to be pumped to the Steam Generators. Shortly thereafter, the water level in Steam Generator number 2 increased to the Hi Hi level setpoint resulting in the closure of the feedwater isolation valve. This was due to leakage past the feedwater regulating valves as described in Licensee Event Report-85-029. Plant conditions were subsequently stabilized in mode 3 (hot standby). Fire brigade response was immediate and the fire was quickly extinguished by the Halon Fire Extinguisher.

An investigation of the incident revealed that, due to an overheated resistor, an electrical fault occurred on a solid-state circuit board in the Digital Electro-Hydraulic Control Panel. This fault generated a Turbine Runback. Therefore, since reactor power was greater than turbine power, Reactor Coolant System pressure increased until a reactor trip was generated.

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

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

SAFETY CONSEQUENCES AND IMPLICATIONS

The above event resulted in an uncomplicated reactor trip during Startup testing in which no primary system parameters were exceeded. Since the Control Element Assemblies and the Reactor Protective System functioned as designed, the subject event in no way placed Waterford 3 in a degraded safety condition.

CORRECTIVE ACTION

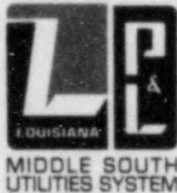
The event described above was caused by a resistor in the solid-state card which was susceptible to overheating. To prevent the above condition from recurring, a different type of resistor with better heat dissipating capabilities has been installed on each circuit board which may exhibit similar problems within the Digital Electro-Hydraulic Control Panel.

SIMILAR EVENTS

NONE

PLANT CONTACT

T. Smith, Maintenance Superintendent, 504/464-3138



**LOUISIANA**  
**POWER & LIGHT**

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NEW ORLEANS, LOUISIANA

• P.O. BOX 8008  
70174-8008

• (504) 388-2345

August 13, 1985

W3P85-1454  
A4.05

Director, Office of Nuclear Reactor Regulation  
ATTENTION: Document Control Desk  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

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

Dear Sirs:

Attached is Licensee Event Report Number LER-85-035-00 for the Waterford 3 Steam Electric Station. This Licensee Event Report is submitted per 10CFR50.73(a)(2)(iv).

Very truly yours,

K.W. Cook  
Nuclear Support & Licensing Manager

KWC:GEW:sms

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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