

LICENSEE EVENT REPORT (LER)

APPROVED OMS NO. 3160-0104  
EXPIRES - 9/31/93

FACILITY NAME (1) Peach Bottom Atomic Power Station - Unit 2	DOCKET NUMBER (2) 05000277	PAGE (3) 1 OF 3
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TITLE (4)  
Jet Pump Inlet Riser Safe End Crack-Like Indications

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		
07	27	84	84	016	00	08	27	84			
									DOCKET NUMBER(S) 05000		

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

OPERATING MODE (1)	20.402(b)	20.406(e)	60.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10) 0100	20.406(a)(1)(iii)	60.36(a)(1)	60.73(a)(2)(v)	73.71(c)
	20.406(a)(1)(iv)	60.36(a)(2)	60.73(a)(2)(vi)	OTHER (Specify in Abstract below end in Text, NRC Form 366A)
	20.406(a)(1)(iii)	X 60.73(a)(2)(i)	60.73(a)(2)(vii)(A)	
	20.406(a)(1)(iv)	60.73(a)(2)(ii)	60.73(a)(2)(vii)(B)	
	20.406(a)(1)(v)	60.73(a)(2)(iii)	60.73(a)(2)(viii)	

LICENSEE CONTACT FOR THIS LER (12)

NAME B. L. Clark, Sr. Engineer, Special Projects	TELEPHONE NUMBER 215 841-5017
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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
X	A, D	R, P, V	G, O, 8, 0	Y					

SUPPLEMENTAL REPORT EXPECTED (14)

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

ABSTRACT (Limit to 1400 words, i.e., approximately fifteen single-space typewritten lines) (16) \*See "Corrective Action"

Abstract: 2-84-16

On July 27, 1984, while Unit 2 was shutdown for a refueling and major modification outage, liquid penetrant examinations of the reactor pressure vessel jet pump inlet riser safe ends revealed crack-like indications approximately one inch from the safe end - thermal sleeve weld on the jet pump inlet riser safe end. Ultrasonic examination of all the vessel jet pump inlet riser safe ends and the recirculation suction safe ends identified crack-like indications in five of the riser nozzle safe ends. The safe end material is 316 low carbon stainless steel.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		8 4 -	0 1 6 -	0 0	0 2	OF	0 3

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

Description of the Event:

On July 27, 1984, liquid dye penetrant examination of three of the Peach Bottom Unit 2 jet pump inlet riser safe ends revealed circumferential crack-like indications in the safe end near the thermal sleeve attachment weld in two of the nozzles. These indications were about 0.25 to 0.70 inches in length. A boat sample containing the tip of one of the indications was removed for examination. The safe ends are 12-inch 316 low carbon stainless steel, with a pipe-end wall thickness of 0.83 inches, and a vessel-end wall thickness of 1.20 inches.

Ultrasonic examination of all ten jet pump inlet riser safe ends and both recirculation suction safe ends identified fourteen total circumferential crack-like indications in five of the riser nozzle safe ends. Twelve of the indications are 0.40 inches to 1.25 inches long, one indication is 2.0 inches long and one indication is 3.0 inches long. They are shallow: 24 mils to 72 mils at wall thickness of 0.83 inches; 115 mils to 150 mils at wall thickness of 1.20 inches. One additional axial crack-like indication of undetermined length was also identified in one of these five riser nozzle safe ends. Ultrasonic examinations did not identify any indications in the recirculation suction safe ends.

Independent ultrasonic examination of the jet pump inlet riser safe ends confirmed eight of the crack-like indications (seven circumferential, one axial) in the riser nozzle safe ends.

Cause of the Event:

Optical microscopic examination of the boat sample indicates that the cracking is intergranular, characteristic of intergranular stress corrosion cracking.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

Corrective Actions:

Additional radiographic testing and liquid dye penetrant examinations will be performed on the 316 low carbon stainless steel riser nozzle safe ends. Following these examinations, Philadelphia Electric Company will meet with representatives of the NRC Office of Nuclear Reactor Regulation to discuss the results of these further examinations.

PHILADELPHIA ELECTRIC COMPANY

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August 27, 1984

Docket No. 50-277

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Washington, DC 20555

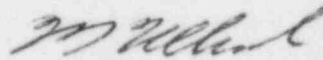
SUBJECT: Licensee Event Report

This LER deals with the discovery of crack-like indications in the safe end - thermal sleeve weld area on the jet pump inlet riser safe end.

Reference:	Docket No. 50-277
Report Number:	2-84-16
Revision Number:	00
Event Date:	July 27, 1984
Report Date:	August 27, 1984
Facility:	Peach Bottom Atomic Power Station RD #1, Box 208, Delta, PA 17314

This LER is submitted pursuant to the requirements of 10 CFR 50.73(a)(2)(i)(B).

Very truly yours,



W. T. Ullrich  
Superintendent  
Nuclear Generation Division

cc: Dr. Thomas E. Murley, Administrator  
Region I, USNRC

Mr. A. R. Blough, Site Inspector

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