

<small>NRC Form 308 (9-83)</small>										<small>U.S. NUCLEAR REGULATORY COMMISSION APPROVED OMS NO. 3160-0104 EXPIRES - 9/31/85</small>														
LICENSEE EVENT REPORT (LER)																								
FACILITY NAME (1) Peach Bottom Atomic Power Station - Unit 3															DOCKET NUMBER (2) 0 5 0 0 0 2 7 8					PAGE (3) 1 OF 3				
TITLE (4) Jet Pump Instrumentation Line Cracks Indications																								
EVENT DATE (5)			LER NUMBER (6)					REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)													
MONTH	DAY	YEAR	YEAR	SEQUENCE NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES					DOCKET NUMBER(S)										
0 6	1 0	8 4	8 4	0 0 3	0 0	0 7	0 9	8 4						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)																					
POWER LEVEL (10)			20.402(b)					20.406(c)					60.73(a)(2)(iv)					73.71(b)						
0 0 0			20.406(a)(1)(ii)					60.36(a)(1)					60.73(a)(2)(v)					73.71(a)						
			20.406(a)(1)(iv)					60.36(a)(2)					60.73(a)(2)(vi)					OTHER (Specify in Abstract below and in Test, NRC Form 366A)						
			20.406(a)(1)(iii)					60.73(a)(2)(ii)					60.73(a)(2)(vii)(A)											
			20.406(a)(1)(iv)					60.73(a)(2)(iii)					60.73(a)(2)(viii)(B)											
			20.406(a)(1)(v)					60.73(a)(2)(iv)					60.73(a)(2)(ix)(B)											
			20.406(a)(1)(vi)					60.73(a)(2)(v)					60.73(a)(2)(ix)(A)											
			20.406(a)(1)(vii)					60.73(a)(2)(vi)					60.73(a)(2)(ix)(B)											
LICENSEE CONTACT FOR THIS LER (12)																								
NAME															TELEPHONE NUMBER									
B. L. Clark, Senior Engineer, Special Projects															2 15 8 4 1 - 50 1 7									
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		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC								
X	A	D	P	E	N	G	0	8	0	Y														
SUPPLEMENTAL REPORT EXPECTED (14)															EXPECTED SUBMISSION DATE (15)									
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)															<input type="checkbox"/> NO									
<small>ABSTRACT (Limit to 1400 words, i.e., approximately fifteen single-space typewritten lines) (16)</small>																								
Abstract: 3-84-08																								
On June 10, 1984, with Unit 3 shutdown for routine maintenance, three through-wall cracks were discovered in the "B" loop jet pump instrumentation penetration reducer to safe end weld. Ultrasonic examinations were performed on five welds associated with each jet pump instrumentation penetration. Crack-like indications oriented circumferentially were discovered in the number 2 weld on both the "A" and "B" loop jet pump instrumentation penetrations. Weld repairs designed as full structural overlays were performed on both penetrations prior to returning the unit to service.																								

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES 8/21/85

FACILITY NAME (1)

Peach Bottom Atomic Power
Station - Unit 3

DOCKET NUMBER (2)

07500027884

LER NUMBER (3)

YEAR

SEQUENTIAL
NUMBERREVISION
NUMBER

PAGE (3)

07500027884-008-0002 OF 03

TEXT (if more space is required, use additional NRC Form 288A (7-77))

Description of the Event:

As a result of crack indications found on the Peach Bottom Unit 2 jet pump instrumentation penetrations during a refueling outage, inspections of the Unit 3 jet pump instrumentation penetrations were performed. The inspections were conducted in accordance with I.E. Information Notice 84-41 and NRC Generic Letter 84-11. Ultrasonic examinations were performed on the five welds associated with each jet pump instrumentation nozzles. Circumferential crack indications were found in the heat affected zone of the number 2 weld of each jet pump instrumentation penetration. These welds are designated as JP-A-2 and JP-B-2.

The indication on the JP-A-2 weld was found on the safe end side of the weld, measured to be 1 inch in length with a maximum depth of 48.6% into the wall. Indications on the JP-B-2 weld were found on the reducer side of the weld with a maximum length of 1.87 inches. Additionally, three pin-hole leaks were discovered on this weld at the 12 o'clock position on the reducer side of the weld.

Consequences of the Event:

Fracture mechanics analyses performed on the crack indications showed that these indications would not violate the ASME Code required safety factor of three for at least 9,000 hours of full power operation. Although through-wall leaks existed on the "B" loop jet pump instrumentation penetration, the weld was still within the allowable requirements since the ASME Code safety factor of three can be maintained with a through-wall crack of over 40% of the circumference in length.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) Peach Bottom Atomic Power Station - Unit 3	DOCKET NUMBER (2) 05000278	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		84	008	00	03	OF	03

TEXT (If more space is required, use additional NRC Form 268A (1/7))

Cause of the Event:

Analysis of the data regarding these indications shows a pattern typical of intergranular stress corrosion cracking.

Corrective Actions:

The circumferential indications on both the JP-A-2 and JP-B-2 welds were weld overlay repaired in order to provide the structural reinforcement necessary for 18 months of full power operation. The weld overlays were designed and sized as full structural overlays meeting the requirements of NRC Generic Letter 84-11 and providing all ASME Code safety margins.

Additionally, both welds have been instrumented with moisture sensing equipment. The equipment is identical to the leak detection devices described in Attachment G, "Identification of Leak Detection Devices and Monitoring of Test Devices to Assure Safe Operation of Plant", to the October 19, 1983 Peach Bottom Unit 2 Supplemental Response to I.E. Bulletin 83-02, S. L. Daltroff, PECO, to Dr. T. E. Murley, USNRC.

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July 9, 1984

Docket No. 50-278

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


SUBJECT: Licensee Event Report

This LER deals with crack indications in jet pump instrumentation penetration welds.

Reference:	Docket No. 50-278
Report Number:	3-84-08
Revision Number:	00
Event Date:	June 10, 1984
Report Date:	July 9, 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)

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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