AEC DISTRIBUTION FOR PART 50 DOCKET MATERIAL
(TEMPORARY FORM)

CONTROL NO: 9717

FILE:

FROM:	DATE OF DOC	DATE REC'D	LTR	TWX	RPT	OTHER
Duke Power Co Charlotte, NC 28201 A C Thies	9-17-74	9-20-74	XX			

TO:	ORIG	CC	OTHER	SENT AEC PDR	SENT LOCAL PDR
Mr Moseley	1 signed			XX	XX

CLASS	UNCLASS	PROP INFO	INPUT	NO CYS REC'D	DOCKET NO:
	XX			1	50-287

DESCRIPTION:

Ltr trans the following:

ACKNOWLEDGED

DO NOT MOVE

PLANT NAME: Oconee #3

ENCLOSURES:

REPORT: Abnormal Occurrence #74-1 on 9-3-74 concerning weld failure on reactor coolant pump seal injection pumping.

FOR ACTION/INFORMATION 9-20-74 ehf

BUTLER (L) W/ CYS	SCHWENCER (L) W/ CYS	ZIEMANN (L) W/ CYS	REGAN (E) W/ CYS
CLARK (L) W/ CYS	STOLZ (L) W/ CYS	DICKER (E) W/ CYS	LEAR W/ CYS
~~BARR (L)~~ W/ CYS	~~VASSALLO (L)~~ W/ CYS	~~KNIGHTON (E)~~ W/ CYS	W/ CYS
KNIEL (L) W/ CYS	✓PURPLE (L) W/4 CYS	YOUNGBLOOD (E) W/ CYS	W/ CYS

INTERNAL DISTRIBUTION

~~✓REG FILE~~	TECH REVIEW	DENTON	LIC ASST	A/T IND
✓AEC PDR		GRIMES	DIGGS (L)	BRAITMAN
✓OGC	✓SCHROEDER	GAMMILL	GEARIN (L)	SALTZMAN
✓MUNTZING/STAFF	✓MACCARY	KASTNER	GOULBOURNE (L)	B. HURT
✓CASE	✓KNIGHT	BALLARD	KREUTZER (E)	
GIAMBUSSO	✓PAWLICKI	SPANGLER	LEE (L)	PLANS
BOYD	✓SHAO		MAIGRET (L)	MCDONALD
MOORE (L)(LWR-2)	✓STELLO	ENVIRO	REED (E)	CHAPMAN
DEYOUNG (L)(LWR-1)	✓HOUSTON	MULLER	SERVICE (L)	DUBE w/input
SKOVHOLT (L)	✓NOVAK	DICKER	✓SHEPPARD (L)	E. COUPE
GOLLER (L)	✓ROSS	KNIGHTON	SLATER (E)	
P. COLLINS	✓IPPOLITO	YOUNGBLOOD	SMITH (L)	✓D. THOMPSON (2)
DENISE	✓TEDESCO	REGAN	TEETS (L)	✓KLECKER
✓REG OPR	✓LONG	PROJECT MGR	WILLIAMS (E)	✓EISENHUT
FILE & REGION (2)	✓LAINAS		WILSON (L)	
✓MORRIS	✓BENAROYA	HARLESS		
✓STEELE	✓VOLLMER			

EXTERNAL DISTRIBUTION

✓1 - LOCAL PDR Walhalla, SC	(1)(2)(10)-NATIONAL LABS	1-PDR-SAN/LA/NY
✓1 - TIC (ABERNATHY)	1-ASLBP(E/W Bldg, Rm 529)	1-BROOKHAVEN NAT LAB
✓1 - NSIC (BUCHANAN)	1-W. PENNINGTON, Rm E-201 GT	1-G. ULRIKSON, ORNL
1 - ASLB	1-B&M SHINEBROAD, Rm E-201 GT	1-AGMED (RUTH GUSSM
1 - Newton Anderson	1-CONSULTANTS	Rm B-127 GT
5 - ACRS SENT TO LIC ASST SHEPPARD	NEWMARK/BLUME/AGBABIAN	

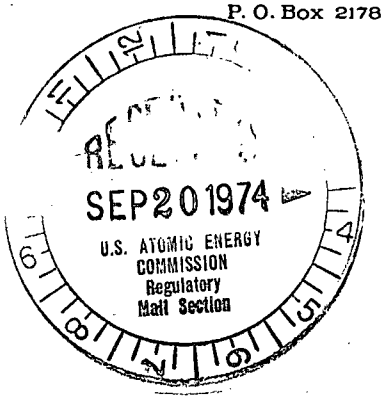
DUKE POWER COMPANY
POWER BUILDING
422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28201

A. C. THIES
SENIOR VICE PRESIDENT
PRODUCTION AND TRANSMISSION

P. O. BOX 2178

Regulatory File

September 17, 1974



Mr. Norman C. Moseley, Director
Directorate of Regulatory Operations
U. S. Atomic Energy Commission
Region II - Suite 818
230 Peachtree Street, Northwest
Atlanta, Georgia 30303

Re: Oconee Unit 3
Docket No. 50-287

Dear Mr. Moseley:

Pursuant to Sections 6.2 and 6.6.2 of the Oconee Nuclear Station Technical Specifications, please find attached Abnormal Occurrence Report AO-287/74-1.

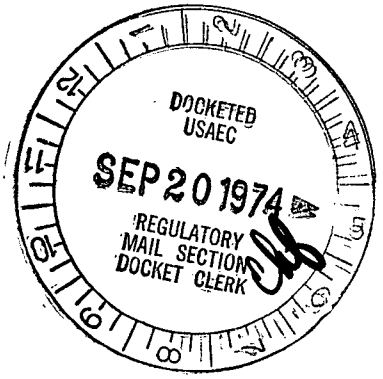
Very truly yours,

A. C. Thies

A. C. Thies

ACT:gje
Attachment

cc: Mr. Angelo Giambusso



9717

DUKE POWER COMPANY
OCONEE UNIT 3

Report No.: AO-287/74-1

Report Date: September 17, 1974

Occurrence Date: September 3, 1974

Facility: Oconee Unit 3, Seneca, South Carolina

Identification of Occurrence: Weld failure on reactor coolant pump seal injection piping

Conditions Prior to Occurrence: Unit in hot shutdown

Description of Occurrence:

On September 3, 1974, during a 2285 psig leak test of the Oconee Unit 3 Reactor Coolant System, a weld failure was detected on the seal injection line to the 3B2 Reactor Coolant Pump. The leak, located on a 1½ inch socket welded joint between valves 3HP-286 and 3HP-67, was detected by visual inspection. Cooldown of the Reactor Coolant System commenced. An attempt to isolate 3B2 Reactor Coolant Pump by closing valves 3HP-146 and 3HP-67 was not successvul due to valve leakage. The leak was stopped by isolating seal water to all reactor coolant pumps by closing valves 3HP-138 and 3HP-140 and stopping the high pressure injection pump.

An inspection of the weld showed a small pinhole on the surface of the weld.

Designation of Apparent Cause of Occurrence:

The apparent cause of the failure of this weld is diagnosed as lack of fusion (cold lap) between the weld filler material and the elbow fitting. The lack of fusion was covered near the top of the weld by the weld pool. Prolonged pressure on the small surface forced a pinhole to blow out, resulting in the leak.

Analysis of Occurrence:

The reactor coolant pumps are designed such that either the Component Cooling System or the High Pressure Injection System will provide sufficient cooling for the pump seals. Only a small amount of reactor coolant outleakage will occur with the seals operating properly. The actions taken to isolate the leak did not affect the integrity of the reactor coolant pump seals.

The system had previously passed the initial dye penetrant test and had been successfully hydrostatically tested to 4575 psig.

This event occurred prior to initial criticality for Unit 3. Therefore, any leakage would not have resulted in any contamination. The seal water is

supplied from the High Pressure Injection System and is normally at 110°F and 3000 psi. This water would also be relatively free of contaminants even after criticality and would not have adverse affects upon the environment of the Auxiliary Building. Since the integrity of the reactor coolant pump seals were not affected and there was no contamination associated with the weld failure, it is concluded that the health and safety of the public was not affected.

Corrective Action:

Repair of the defective weld was performed in accordance with applicable maintenance and quality assurance procedures. This included grinding out the defective portion of the weld to approximately one inch on either side of the pinhole. The full defect was verified to have been completely removed.

Six welds, similar to the defective weld, were also dye penetrant inspected. Five of these welds were made by the same welder and inspected by the same inspector as the defective weld. These welds were chosen for testing because of the proximity to the defective weld and since all the welds were performed during the same period of time and probably with the same equipment. No defects were discovered in these welds.