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DESCRIPTION:
Letter trans the following.....

ENCLOSURES:
Unusual Event Report # 75-10, on 11-5-75, Concerning a Weld Failure on sample line from Low Pressure Injection system cooler..

(1 Copy Received)

PLANT NAME: Oconee # 3

SAB 11-21-75

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DUKE POWER COMPANY
POWER BUILDING
422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

TELEPHONE: AREA 704
373-4083

November 13, 1975

Mr. Norman C. Moseley, Director
U. S. Nuclear Regulatory Commission
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 Unusual Event Report UE-287/75-10.

Very truly yours,

William O. Parker Jr.
William O. Parker, Jr. by WAH

EDB:vr
Attachment

cc: Mr. Benard C. Rusche

DUKE POWER COMPANY
OCONEE NUCLEAR STATION

Report No.: UE-287/75-10

Report Date: November 13, 1975

Event Date: October 5, 1975

Facility: Oconee Unit 3, Seneca, South Carolina

Identification of Event: Weld failure on sample line from Low Pressure Injection System cooler

Conditions Prior to Event: Unit at cold shutdown

Description of Event:

On October 5, 1975, while the Oconee Unit 3 3A LPI train was in the decay heat removal mode, a 1" sample line from the discharge of the 3A LPI cooler separated from the LPI cooler discharge line. The 3A cooler was isolated and decay heat removal was continued with the 3B decay heat cooler.

Designation of Apparent Cause of Event:

This event was apparently caused by cavitation occurring at high flow rates in the butterfly control valve 3LP-12 located in the cooler discharge line. This cavitation caused the line to vibrate excessively during operation in the decay heat removal mode and consequently resulted in a weld failure in the sample line.

Analysis of Event:

This event involved the failure of a 1" sample line while the unit was in a cold shutdown condition. The redundant LPI cooler, 3B, was not affected and was operated to provide sufficient decay heat removal while the 3A LPI train was isolated and repairs completed. It is concluded that the health and safety of the public was unaffected by this event.

Corrective Action:

The 3A LPI train was isolated, the weld repaired, and dye penetrant testing was performed to assure system integrity. In addition, several representative welds, including corresponding welds in Units 1 and 2 will be dye penetrant tested. This testing will be completed by January 15, 1976.

The causative cavitation problem has existed in the LPI cooler discharge lines for all of the Oconee units. The problem was initially experienced with valves 1LP-12 and -14 and 2LP-12 and -14, located in the LPI cooler discharge lines of Units 1 and 2, and occurred under conditions of low

coolant flow through these lines. After careful review, a decision was made to replace these valves with valves of a globe body design which would eliminate the cavitation problem. These valves for Units 1 and 2 were ordered in June, 1975. It was not considered that this cavitation problem would occur in Unit 2 LPI coolers since the piping arrangement differs from Units 1 and 2 and valves 3LP-12 and -14 are of a different design, intended to alleviate the cavitation effects as experienced in Units 1 and 2. A cavitation problem was experienced with Unit 3, however, but differed from that experienced with Units 1 and 2 since it occurred at high rather than at low flow rates. Currently, after performing a comprehensive evaluation of this incident, it has been concluded that replacement valves identical to those being procured for Units 1 and 2 are necessary to alleviate the cavitation problem in Unit 3. The procurement of these valves is being finalized.