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

April 9, 1982

Mr. James P. O'Reilly, Regional Administrator
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Re: Oconee Nuclear Station
Docket No. 50-287

Dear Mr. O'Reilly:

Please find attached Reportable Occurrence Report RO-287/82-04. This report is submitted pursuant to Oconee Nuclear Station Technical Specification 6.6.2.1.a(9), which concerns the discovery of conditions not specifically considered in the safety analysis report or Technical Specifications that require corrective measures to prevent the existence or development of an unsafe condition, and describes an incident which is considered to be of no significance with respect to its effect on the health and safety of the public. My letter of March 12, 1982 addressed the delay in preparation of this report.

Very truly yours,

William O. Parker, Jr.

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Attachment

cc: Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Records Center
Institute of Nuclear Power Operations
1820 Water Place
Atlanta, Georgia 30339

Mr. W. T. Orders
NRC Resident Inspector
Oconee Nuclear Station

Mr. Philip C. Wagner
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

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DUKE POWER COMPANY
OCONEE NUCLEAR STATION UNIT 3

Report Number: RO-287/82-04

Report Date: April 9, 1982

Occurrence Date: February 26, 1982

Facility: Oconee Unit 3, Seneca, South Carolina

Identification of Occurrence: The 3A2 HPI and normal makeup nozzle thermal sleeve was found loose and the safe end to pipe area was cracked.

Conditions Prior to Occurrence: Cold shutdown

Description of Occurrence: As a result of HPI-makeup nozzle safe end cracks at Crystal River in Florida, non-destructive examinations of Unit 3 HPI nozzle areas were conducted. Radiographic Tests (RT) and Ultrasonic Tests (UT) revealed that the 3A2 thermal sleeve was loose and displaced 5/8 inch upstream and that the safe end and upstream piping inside diameters (ID) were cracked. The RT of the 3B1 thermal sleeve indicated a partial radial gap between the thermal sleeve and safe end. 3A1 and 3B2 tests revealed no anomalies.

Apparent Cause of Occurrence: The apparent cause of the 3A2 cracked safe end and pipe seems to be thermal fatigue. There appears to be a direct link between loose thermal sleeves and cracks in this area, but exactly why the thermal sleeves are loose is not known at this time. A Babcock and Wilcox owners group task force is investigating this problem to determine the cause.

Analysis of Occurrence: The deepest crack found was 20% through wall, and the material involved (type 316 stainless steel) should exhibit a leak before any break. If the cracks had not been found and a leak progressed to a pipe rupture it would have resulted in a small break loss of coolant accident (LOCA). A small break LOCA has been analyzed in the FSAR, and that analysis indicates that the plant would be able to shut down safely. Thus, the health and safety of the public were not affected by this incident.

Corrective Action: The 3A2 cracked safe end, piping and thermal sleeve were replaced. The new thermal design incorporates features which should better resist movement. The 3B1 thermal sleeve safe end contact area was hard roll expanded to return the thermal sleeve to its intended condition.