

DUKE POWER COMPANY

POWER BUILDING

422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

WILLIAM O. PARKER, JR.  
VICE PRESIDENT  
STEAM PRODUCTION

October 19, 1979

TELEPHONE: AREA 704  
373-4083

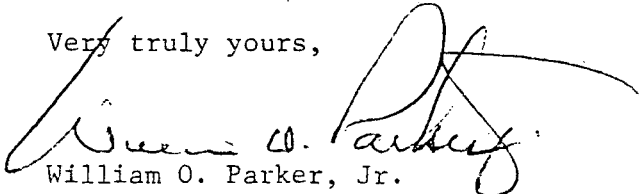
Mr. James P. O'Reilly, Director  
U.S. Nuclear Regulatory Commission  
Region II  
101 Marietta Street, Suite 3100  
Atlanta, GA 30303

Re: Oconee Unit 1  
Docket No. 50-269

Dear Mr. O'Reilly:

Please find attached Reportable Occurrence Report RO-269/79-30. This report is submitted pursuant to Oconee Nuclear Station Technical Specifications 6.2 and 6.6.2.1.b(2), which concerns operation in a degraded mode permitted by a limiting condition for operation, 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.

Very truly yours,

  
William O. Parker, Jr.

SRL/sch  
Attachment

cc: Director, Office of Management Information  
and Program Control



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Approved  
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DUKE POWER COMPANY  
Oconee Unit 1

Report Number: RO-269/79-30

Report Date: October 19, 1979

Occurrence Date: September 21, 1979

Facility: Oconee Unit 1, Seneca, South Carolina

Identification of Occurrence: Penetration Room Ventilation System Inoperable

Conditions Prior to Occurrence: 87% Full Power

Description of Occurrence:

At 1010 on September 21, 1979, Oconee 1 was operating at 87% full power when the Penetration Room Ventilation System was declared inoperable as a result of high humidity in the east penetration room. The humidity was determined to be approximately 78%, and the PRVS is considered to be inoperable whenever humidity in the penetration rooms exceeds 70%. A small flange leak from valve FDW-37, the steam generator A normal header check valve, was discovered. In order to reduce the humidity until repairs to the valve could be made, the penetration room and freight elevator doors were opened, and portable fans were operated. Personnel were stationed to secure the fans and close the doors if necessary. By 1640 on September 21 the humidity had been reduced to 62%, and the PRVS was declared operable. Valve FDW-37 was repaired by 2200 on September 22, but in the process it was discovered that valve FDW-47, the equivalent check valve in the steam generator B normal header, also had a small steam leak. Therefore, operation of the fans with the penetration room doors open continued in order to help maintain humidity below 70% until September 25, 1979, when repair of valve FDW-46 was completed. The penetration room doors were then closed, and humidity stabilized at 65%. An attempt was made to verify the operability of the PRVS filters, but problems with the test equipment were encountered. On September 27, 1979, the filter test was successfully completed for PRVS train A, verifying PRVS operability.

Apparent Cause of Occurrence:

The PRVS was declared inoperable as a result of high humidity in the east penetration room. The high humidity was due to small steam leaks from the steam generator normal header check valves.

Analysis of Occurrence:

The function of the PRVS is to retain some of the iodine which would be released in the unlikely event of a loss-of-coolant accident (LOCA). Oconee Nuclear Station Technical Specification 3.15 requires that the affected unit be shut down within 12 hours after the PRVS is declared inoperable. However, the PRVS was restored to operability within 5½ hours, precluding the need for a unit shutdown. Therefore, this incident constitutes operation in a degraded mode permitted by a limiting condition for operation, and must be reported pursuant to Technical Specification 6.6.2.1.b(2). However, since it can be shown that offsite releases during a LOCA would still be well within the guidelines of 10 CFR 100 without PRVS operation, this occurrence is considered to be of no significance with respect to safe operation, and the health and safety of the public were not endangered.

Corrective Action:

The immediate corrective action was to lower the humidity in the penetration room using portable fans with the freight elevator and penetration room doors open. The source of the high humidity was eliminated by repairing check valves FDW-37 and -46. Since the PRVS fans had not been run while the humidity was high, the filters would not have been damaged. This was confirmed when the filter test was successfully completed on September 27. In order to monitor the penetration room environment more closely, sight glasses have been added to the PRVS drainlines, and humidity sensors will be installed in the penetration rooms. In addition, dampers will be added to the PRVS inlets to prevent natural draft from carrying moisture through the system. Steps had already been taken to replace valves FDW-37 and -46, since they had exhibited leakage on previous occasions.