

DUKE POWER COMPANY

POWER BUILDING

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

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

October 22, 1980

TELEPHONE: AREA 704
373-4083

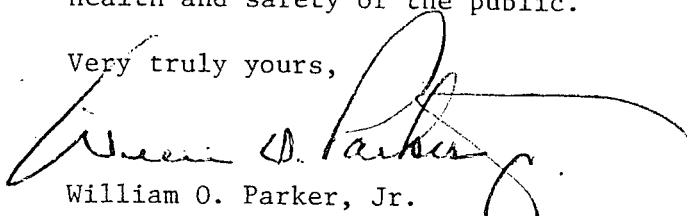
Mr. James P. O'Reilly, Director
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Re: Oconee Nuclear Station, Unit 2
Docket No. 50-270

Dear Mr. O'Reilly:

Please find attached Reportable Occurrence Report RO-270/80-18. This report is submitted pursuant to Oconee Nuclear Station Technical Specification 6.6.2.1.a(5), which concerns the operability of a system required to cope with accidents analyzed in the Safety Analysis Report, and describes an incident which is considered to be of no significance with respect to the health and safety of the public.

Very truly yours,


William O. Parker, Jr.

JLJ:scs
Attachment

cc: Director
Office of Management and Program Analysis
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Mr. Bill Lavallee
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P. O. Box 10412
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DUKE POWER COMPANY
OCONEE UNIT 2

Report Number: RO-270/80-18

Report Date: October 22, 1980

Occurrence Date: October 8, 1980

Facility: Oconee Unit 2, Seneca, South Carolina

Identification of Occurrence: West Penetration Room Ventilation System
Inoperable

Conditions Prior to Occurrence: Oconee 2 - 100% FP

Description of Occurrence:

At 0214 on October 8, 1980, Unit 2 was at 100% FP when the humidity level in the West Penetration Room was found to be 72%. The humidity level in the East Penetration Room was found to be 65%. The Penetration Room Ventilation System (PRVS) was declared inoperable since the humidity level was above the 70% limit. This is contrary to Technical Specification 3.15 which requires that both PRVS trains be operable or that the unit be shutdown within 12 hours. This incident is therefore reportable pursuant to Technical Specification 6.6.2.1.a(5).

Apparent Cause of Occurrence:

The high humidity in the Penetration Room was caused by steam leaks on check valve 2FDW-37 (hinge pin leak) and 2FDW-104 (body to bonnet leak). The humidity level was 55% when the leaks were first discovered, but continued to increase in both the East and West Penetration Rooms. Because the larger steam leak (2FDW-104) was in the West Penetration Room, the humidity was somewhat higher in the West than in the East Penetration Room.

Analysis of Occurrence:

It has been observed that the PRVS filters can become saturated and clogged with water when the system is run under high humidity conditions. A high humidity limit for the PRVS was set at 70% per ANSI Standard N509, Section 4.0, and Oconee Nuclear Station's PRVS design. The PRVS fans were not running during this period and the flapper dampers installed on the filter housing inlets prevented moisture from migrating to the filters.

Based on the 72% humidity level in this incident, the information obtained from past incidents of this occurrence, and the flapper dampers at the filter inlets, it was determined that the PRVS filters were not affected. Therefore, the PRVS (both trains) was declared operable when the humidity stabilized below 70%.

Analysis of Occurrence (Continued):

Because of the interpretation of Step 11.1 in the "Penetration Room Temperature and Humidity Weekly Check" procedure which states "The average relative humidity in any Penetration Room shall be no greater than 70%", the PRVS was declared inoperable when the West Penetration Room was found to be 72%. The phrase "any Penetration Room" was intended to include each unit's Penetration Room (East and West) combined to form one Penetration Room. The phrase "average relative humidity" was provided to ensure that the humidity was not measured directly in or under a steam leak. Had the interpretation of "average" been used as an average between the East and West Penetration Room humidity levels, as it later was, the average humidity would not have been greater than 70% in the worst case, and the PRVS would not have been declared inoperable. Due to the fact that the procedure may have been somewhat unclear, additional personnel knowledgeable of the subject should have been contacted for interpretation prior to declaring the PRVS inoperable.

The PRVS is assumed to remove 45% of the iodine released as the result of a LOCA. In the case of a LOCA, it can be shown that the off-site doses without the PRVS would still be considerably below the guidelines of 10CFR 100. All other equipment required to cope with accidents analyzed in the FSAR was operable and available if needed. Therefore, this incident is not considered to be significant with respect to safe operation and the health and safety of the public were not affected.

Corrective Action:

The leak on 2FDW-104 was contained by installing a box cover over the valve. The leak could not be repaired by Furmanite at this time due to the type of valve, however, it will be repaired during the next Unit 2 outage. The leak on 2FDW-37 was repaired by Furmanite. The Penetration Room door was opened and portable fans were run to reduce the humidity before and after the leaks were contained and repaired.