

DUKE POWER COMPANY
OCONEE UNIT 3

Report Number: RO-287/78-19

Report Date: January 9, 1979

Occurrence Date: December 7, 1978

Facility: Oconee Unit 3, Seneca, South Carolina

Identification of Occurrence: Both Penetration Room Ventilation System
Trains Inoperable

Conditions Prior to Occurrence: 98% Full Power

Description of Occurrence:

At 0618 on December 7, 1978, it was determined by observation of flow indications, that both trains of the Reactor Building Penetration Room Ventilation System were inoperable. The trains registered flow indications of 0 and 150 cfm as compared to a nominal flow rate of 1000 cfm. The inoperability was apparently due to saturation of the filters with water from one or more valve leaks in the penetration room. The filters were replaced and a reactor shutdown was initiated at 1500 in order to meet the requirements of Oconee Nuclear Station Technical Specification 3.15. The operability of the A train was verified by 2300.

Apparent Cause of Occurrence:

The filters apparently failed due to moisture saturation caused by steam leakage from 3FDW-251. The valve leaked steam into the penetration room for approximately 3 days prior to being temporarily repaired during a unit outage on November 3, 1978. Both fans were run on November 1, 1978 for approximately 2.61 hours during which time the filters were apparently saturated with moisture.

Analysis of Occurrence:

For the period of time the penetration room ventilation system was inoperable, the filters could not have performed their required safety function.

In the event of a postulated loss of coolant accident, and without this system operable, however the offsite doses would be considerably less than 10CFR100.

It is considered that this incident did not adversely affect the safety of the public.

Corrective Action:

The filters were replaced and verified to be operable as required by Technical Specifications. The periodic test has been revised to assure greater reliability of the system by including verification of adequate flow (1000 cfm \pm 10%). An investigation into the humidity levels which could cause such failure(s) has been initiated.

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