# DUKE POWER COMPANY

POWER BUILDING

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

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

October 10, 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 2

Docket No. 50-270

Dear Mr. O'Reilly:

Please find attached Reportable Occurrence Report RO-270/79-5. 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



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# DUKE POWER COMPANY Oconee Unit 2

Report Number: RO-270/79-5

Report Date: October 10, 1979

Occurrence Date: September 24, 1979

Facility: Oconee Unit 2, Seneca, South Carolina

Identification of Occurrence: Reactor Building Gaseous Radiation Monitors

Inoperable

Conditions Prior to Occurrence: 92% Full Power

# Description of Occurrence:

At 1400 on September 24, 1979, during routine testing of Oconee 2 Engineered Safeguards (ES) valves, Valve 2PR-10, the containment isolation valve outside the Reactor Building (RB) on the RB gaseous radiation monitor return line, failed in the closed position. This rendered the RB particulate, iodine, and gaseous activity monitors inoperable. Redundant isolation valve 2PR-9 inside the Reactor Building was closed and its breaker was locked open by 1500 on September 24 in order to assure containment isolation during the repair of valve 2PR-10. The valve's diaphragm was replaced by 0030 on September 25, and the valve was successfully tested at 0215. Valve 2PR-10 was declared operable at 0238 on September 25, and the gaseous radiation monitors were returned to service.

#### Apparent Cause of Occurrence:

The RB gaseous activity monitors were rendered inoperable as a result of the failure of valve 2PR-10 in the closed position. The valve failure was caused by a hole in its diaphragm. Although the age of the failed diaphragm could not be determined, it is likely that it had been in service in excess of its expected operating life of five years.

# Analysis of Occurrence:

The RB activity monitors provide a radiation-sensitive means for detecting reactor coolant system (RCS) leakage. Oconee Nuclear Station Technical Specification 3.1.6.8 permits the monitors to be out of service for up to 48 hours provided that at least two other leak detection systems are operable. The monitors were returned to service well within the required time, and during the time they were inoperable, RB normal sump level and RCS inventory volume measurements were available to detect any leakage. The failure of valve 2PR-10 in the closed position did not affect the ability to achieve containment isolation, and redundant valve 2PR-9 was closed and its breaker locked open as further assurance, in accordance with Technical Specification 3.6.3.b. However, this incident must be reported pursuant to Technical Specification 6.6.2.1.b(2), since it constituted operation in a degraded mode permitted by a limiting condition for operation, although it was 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 ensure isolation of the penetration by closing valve 2PR-9. The operator diaphragm for valve 2PR-10 was found to be defective and was replaced. The valve was tested successfully prior to being declared operable, thereby returning the RB gaseous activity monitors to service. The preventive maintenance program will be revised to assure that ES valve diaphragms are replaced prior to exceeding their service lives.