DUKE POWER COMPANY
OCONEE UNIT 3

Report No.: RO-287/77-4

Report Date: April 20, 1977

Occurrence Date: March 22, 1977

Facility: Oconee Unit 3, Seneca, South Carolina

Identification of Occurrence: Feedwater containment isolation valve 3FDW-106 inoperable

Conditions Prior to Occurrence: Unit at 100 percent full power

Description of Occurrence:

On March 22, 1977, following chemical sampling of the "3A" once-through steam generator, feedwater containment isolation valve 3FDW-106 failed to close under system pressure. This valve, located outside the Reactor Building, is part of the chemical sampling system and provides containment isolation following an ES actuation. The redundant valve, 3FDW-105, located inside the Reactor Building was closed and locked as required by Oconee Technical Specification 3.6.4.b.2.

Apparent Cause of Occurrence:

The inability of valve 3FDW-106 to cycle properly was determined to have resulted from hardening of the valve packing.

Analysis of Occurrence:

Valve 3FDW-106 was properly isolated in compliance with Technical Specification 3.6.4.b.2 by securing redundant valve 3FDW-105 in the closed position. In the event that containment isolation had been required prior to securing valve 3FDW-105, valve 3FDW-105 would have closed upon an ES actuation. Containment integrity was not affected by this incident and it is this concluded that the health and safety of the public were not affected.

Corrective Action:

Valve 3FDW-106 was repacked and its operability verified. To prevent recurrence of this incident, the following action will be taken.

A program will be developed to periodically adjust or replace packing on FDW-106 and FDW-108 valves on all three units. This program will include examination and, as necessary, replacement of the packing. At present, all FDW-106 and -108 valves have been repacked during the last 4 months except 1FDW-106, 2FDW-108 and 2FDW-106. These valves will be examined and repacked as necessary during each units next refueling outage. A review will also be made of different types of packing which could eliminate hardening problems.

To determine if these valves need to be changed to a different design and/or different operator, the operation and maintenance histories of these valves are being reviewed and evaluated.