

DUKE POWER COMPANY
OCONEE UNIT 3

8-25-75

Report No.: UE-287/75-9

Report Date: August 25, 1975

Event Date: July 14, 1975

Facility: Oconee Unit 3, Seneca, South Carolina

Identification of Event: Failure of personnel hatch interlocks

Conditions Prior to Event: Unit at full power

Description of Event:

On July 14, 1975, personnel entering the Reactor Building checked the personnel hatch interlocks and found the inner door interlock was not functioning properly. Administrative controls were taken to assure that both doors were not opened simultaneously.

Designation of Apparent Cause of Event:

Each door of the personnel hatch has a gear which is rotated by the door handwheel. A pawl mechanism, in conjunction with this gear, creates a ratchet mechanism to prevent rotation of the door handwheel should the opposite door be open. The pawls are raised from or lowered on the gear by motion of the opposite door transmitted through a cable and linkage mechanism. The apparent cause of this event was insufficient spring tension on the interlock cable.

Analysis of Event:

Prompt action was taken to prevent simultaneous opening of both hatch doors. The interlock mechanism was repaired and operable within approximately one hour of discovery of its failure. Containment integrity was maintained at all times. It is concluded that the health and safety of the public was not affected.

Corrective Action:

The spring tension on the interlock cable was adjusted and the personnel hatch was returned to service. The interlocks were tested approximately ten times to verify operability.

Additional action has been taken to preclude further failures of the interlock mechanism including:

- (1) A preventive maintenance program for the personnel and emergency hatches has been implemented.
- (2) Several modifications have been implemented to improve the operability and reliability of the interlock mechanisms.

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Failure Data:

Previous failures of the personnel hatch interlocks on Oconee Unit 3 were reported as UE-287/75-3 and UE-287/75-8.