UNITED STATES
NUCLEAR REGULATORY COMMISSI
REGION II
230 PEACHTREE STREET, N.W. SUITE 818
ATLANTA, GEORGIA 30303

October 29, 1976

K. V. Seyfrit, Reactor Technical Assistant Branch, Office of Inspection and Enforcement, Headquarters
THRU: N. C. Moseley, Director, Office of Inspection and Enforcement Region II

DUKE POWER COMPANY, OCONEE 1, 2 & 3 (DNS 50-269, 50-270, 50-287) - FLOODING OF TURBINE BUILDING - REQUEST FOR TRANSFER OF LEAD RESPONSIBILITY

Oconee Reportable Occurrence, RO-287/76-18 (Enclosure 1) dated October 25, 1976, discusses flooding of the turbine building through the Unit-3 condenser on October 10, 1976. The incident occurred when electrical supply to the air controller on the six 78" condenser outlet valves, to Lake Keowee, was lost causing the air operated valves to attempt to open. One of the six installed strong backs (pipes) on the valves failed and one of the 78" valves opened. Three manways were removed from the Unit-3 condenser for maintenance. The lake water back flowed through the open condenser manways into the turbine building. (Enclosure 2) Units 1 and 2 were operating.

The above conditions existed for about 32 minutes, until electrical power was restored to the 78" valves and the open valve was closed.

Water accumulated to a depth of approximately 1 ft. above the turbine building basement floor and to within 5 in. of overflowing into the auxiliary building. The turbine and auxiliary buildings are common to all 3 units.

Further flooding could have rendered all sources of water to the secondary side of all steam generators inoperable and the LPI and HPI pumps inoperable.

The possibility exists for an incident which would cause more severe flooding, from rupture of a pipe downstream from the 78" condenser outlet valves, in the turbine building, or failure of the valve housings. Another possibility is rupture of the condenser which could damage the outlet valves adjacent to the condenser. A seismic event could cause such a failure. The only possibility for stopping flow of Lake Keowee water into the turbine building and ultimately into the auxiliary building, would be the installation of the large steel panels, "stop logs", into the two 96" condenser discharge pipes at Lake Keowee. This would require the use of a crane to lift the "stop logs" and position each into runners and lower them into place. Such an operation could take hours.

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It is recommended that consideration be given to installation of a gravity drain system in the turbine building basement to remove enough water to prevent flooding the turbine or auxiliary building under any conditions. It is also recommended that consideration be given to installation of bulkhead doors between the turbine and auxiliary buildings. Bulkhead doors alone would not prevent auxiliary building flooding, however, since the wall between the turbine building and auxiliary building may not withstand water pressure on one side.

It is requested that lead responsibility for evaluation and resolution of the flooding problem be transferred to NRR. This subject has been discussed with the NRR project manager.

F. J. Long, Chief
Reactor Operations and
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Enclosures:
As stated

cc: G. Roy, IE:HQ
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