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June 29, 1983

Mr. James P. O'Reilly, Regional Administrator
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30303

Re: Oconee Nuclear Station
Docket Nos. 50-269, -270, -287

Dear Mr. O'Reilly:

Please find attached a special report on non-functional fire barriers. This report is submitted pursuant to Oconee Nuclear Station Technical Specification 3.17.6.3 which concerns fire barrier penetrations that cannot be restored to functional status within seven days, and describes an incident which is considered to be of no significance with respect to its effect of the health and safety of the public. My letter of June 15, 1983 addressed the delay in preparation of this report.

Very truly yours,

H.B. Tucker 1/00

Hal B. Tucker

JCP/php

Attachment

cc: Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

INPO Records Center
Suite 1500
1100 Circle 75 Parkway
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Mr. J. C. Bryant
NRC Resident Inspector
Oconee Nuclear Station

Mr. John F. Suermann
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
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JPO/JCP
June 29, 1983

Duke Power Company
Oconee Nuclear Station
Special Report on Non-Functional
Fire Barriers

On May 9, 1983, during an inspection to verify the integrity of fire barrier penetration seals, penetration 3-K-5-2, a smoke exhauster for the Unit 3 Equipment Room, was found to have no fire barrier seal. On May 12, 1983, during the same inspection, penetration 3-C-5-3 and 3-C-5-4, a ventilation duct and a smoke exhauster for the Unit 3 Control Room kitchen area, respectively, were found to have no fire barrier seals. In addition, 3-C-5-3 did not have a required fusible damper installed. Without these seals, the fire barriers were determined to be non-functional. For both areas, a fire watch patrol was immediately established to inspect the areas at least once per hour. This was done after the operability of the fire detection instrumentation was verified.

Penetration 3-C-5-3 was found to require a fusible fire damper to be installed. This had to be done before the penetration was to be sealed to produce the necessary three hour rated fire barrier. The necessary materials and qualified manpower needed to install the damper were not immediately attainable. The penetration, therefore, still required a fire watch. As a result, personnel kept the fire watch on all of the penetrations concerned and initiated work requests to complete the necessary work, unaware of the seven day limit for inoperable fire penetrations. On May 17, 1983, it was realized that the penetrations were required by Technical Specification 3.17.6.3 to be returned to functional status within seven days, or a report is required to be submitted to the NRC. The repairs were expedited.

In 1978, the Fire Protection Safety Evaluation Report was issued by the NRC requiring the upgrade of penetrations to provide a three-hour rated fire barrier. The Oconee upgrade was completed in 1979, and was reviewed and approved by the NRC. Since then, there have been two inspections made of the fire barrier penetrations before the inspection of May 1983. The personnel who conducted these inspections had little experience or training in performing fire barrier penetration inspections and failed to detect any problem with the three identified penetrations. The reason that the damper and the proper sealant were not originally applied to the subject penetrations was due to inadequate information and insufficient guidance provided by Design Engineering in the NSM (Nuclear Station Modification) package that they issued to comply with the fire barrier penetration upgrade. The cause of this occurrence is attributed to design deficiency.

No equipment or systems were affected by this incident. The chance of a fire in either the Equipment or Control Room is remote. The use of high heat, such as welding or burning on a job in these areas, is restricted and requires a burning permit and fire watch. There are smoke detectors located in each area that are functional along with a manually activated spray system in the Equipment Room. In addition, the Control Room is manned continuously and the Equipment Room is toured during shifts. An hourly fire watch tour was established when the penetrations were identified as non-functional. Based on the above, the

possibility of a fire spreading was very low. The health and safety of the public were not affected by this incident.

Penetrations 3-C-5-4 and 3-K-5-2 had their fire barrier seals installed and were declared functional on May 23, and 24, 1983, respectively. Penetration 3-C-5-3 is expected to have its damper and fire barrier seal installation complete by July 15, 1983. Affected procedures will be revised to include references to the seven day limit and to clarify the inspection requirements for the ventilation ducts. A training package will be developed for certain maintenance personnel that addresses awareness of Technical Specifications applicable to their respective area/equipment. It is planned that an individual will be assigned the responsibility to coordinate between Design Engineering and the station who would be responsible for fire protection. Design Engineering has implemented a program whereby specific installation instructions are included in NSM packages affecting fire barriers.