DUKE POWER COMPANY P.O. BOX 33189 CHARLOTTE, N.C. 28242

HAL B. TUCKER VICE PRESIDENT NUCLEAR FRODUCTION 83 0C7 3 A 9: 20

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

Subject: McGuire Nuclear Station Units 1 and 2
Docket Nos. 50-369 and 50-370
LER/RO-369/83-72 and 370/83-44
Facility Operating License No. NPF-9 Section 2.G Report Inadequate Fire Barrier

Dear Mr. O'Reilly:

Pursuant to Facility Operating License No. NPF-9 Section 2.G, please find attached the written followup report concerning deviation from the requirements contained in Section 2 Item C.(4); specifically, fire protection of safe shutdown capability in accordance with 10 CFR 50 Appendix R Section III.G. Initial notification of this event was made with Mr. H. C. Dance of your staff on September 14, 1983. Also attached are Reportable Occurrence Reports RO-369/ 83-72 (Unit 1) and 370/83-44 (Unit 2) related to this incident. These reports concern T.S. 3.7.11, "All Fire Barrier Penetrations (Walls, Floor/Ceilings, Cable Tray Enclosures and Other Fire Barriers) Separating ... Portions of Redundant Systems Important to Safe Shutdown Within a Fire Area ... Shall Be Operable." This incident was considered to be of no significance with respect to the health and safety of the public.

Very truly yours,

Hal B. Tucker Hal B. Tucker by PHJB

PBN:jfw Attachments

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

> Records Center Institute of Nuclear Power Operations 1100 Circle 75 Parkway, Suite 1500 Atlanta, Georgia 20339

Mr. W. T. Orders NRC Resident Inspector McGuire Nuclear Station

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DUKE POWER COMPANY McGUIRE NUCLEAR STATION FACILITY OPERATING LICENSE NO. NPF-9 SECTION 2.G REPORT REPORTABLE OCCURRENCE REPORT NOS. 369/83-72 and 370/83-44

REPORT DATE: September 28, 1983

FACILITY: McGuire Units 1 and 2, Cornelius, NC

IDENTIFICATION: Inadequate Fire Barrier Between Electrical Penetration Rooms

INTRODUCTION: Duke Power Company has identified areas on McGuire Unit 1 where full three-hour fire rated barriers are not continuous, in a location which separates redundant trains of cables required for hot shutdown as required by 10 CFR 50, Appendix R. This is contrary to Condition 2.C.4 of Facility Operating License No. NPF-9 which requires compliance with certain sections of 10 CFR 50, Appendix R. This was reported for McGuire Unit 1 to NRC, Region II, on September 14, 1983, pursuant to License Condition 2.G. This deficiency also constitutes a degradation of fire barrier penetrations per Technical Specification 3.7.11.

An identical deficiency exists on McGuire Unit 2 which constitutes a degradation pursuant to T.S. 3.7.11. However, compliance with Appendix R for McGuire Unit 2 is not required until March, 1984 in accordance with Unit 2 License Condition 2.C.7. Therefore this deficiency does not deviate from the conditions of Unit 2 License NPF-17.

BACKGROUND: On November 19, 1980, the Commission published in the <u>Federal Register</u> a new Appendix R to 10 CFR Part 50 delineating certain fire protection requirements for nuclear power plants licensed to operate prior to January 1, 1979. Although the fire protection rule did not apply to McGuire Nuclear Station, by letter dated January 9, 1981, Duke Power committed to implement three provisions (Sections III.G., III.J., and III.O.) identified in Appendix R as items to be back fitted. Of these three items, Section III.G.2.a, Fire Protection of Safe Shutdown Capability, requires "separation of cables and equipment and associated non-safety circuits or redundant trains by a fire barrier having a three-hour fire rating".

DESCRIPTION: Electrical penetration rooms for redundant trains of cables required for hot shutdown are located in the Auxiliary Building on Elevations 750+0 and 733+0. Walls, floors and ceilings of the Auxiliary Building are 12 inches to 24 inches of reinforced concrete with electrical and mechanical penetrations sealed to maintain three-hour fire rating.

In areas where the Auxiliary Building abutts the Reactor and Diesel Generator Building, the structures are spaced about three inches apart so that during a Design Basis Seismic Event the buildings would move independently rather than act as a rigid frame structure. During the time the concrete was being poured (prior to the commitment to implement provisions of Appendix R), compressed cork was installed in the three inch gap as filler material. This situation was inadvertently overlooked during identification of areas requiring fire barrier protection.

During internal review, while preparing a licensing submittal for a station under construction, Catawba, this feature was noticed and subsequently evaluated for applicability to McGuire Nuclear Station. Investigation identified the arrangement described above at McGuire Nuclear Station and determined that the arrangement does not comply with Appendix R in that the configuration has not been tested and approved for three-hour fire resistance, and that the limiting condition for operation of T.S. 3.7.11 was not met.

<u>CORRECTIVE ACTION</u>: Compressed cork will be removed from the floor, ceiling and wall of the Electrical Penetration Room on Elevation 750+0 where they abutt Reactor and Diesel Generator Buildings, and an approved three-hour fire rated material will be installed in the void. Duke Power will complete this modification on Units 1 and 2 by March 1, 1984, the date that compliance with Appendix R is required on Unit 2. In the interim, fire detectors in the area have been verified operable and hourly fire watch patrols have been established in the Electrical Penetration Room on Elevation 750+0 for both units in accordance with the action statement of T.S. 3.7.11. The penetrations will be added to T.S. 3.7.11 surveillance procedures.

These corrective actions will ensure satisfactory compliance with Appendix R Section III.G.2. and T.S. 3.7.11 and will prevent recurrence of this incident.

SAFETY ANALYSIS: The combustible loading above and below the floor slab at Elevation 750+0 is moderate and would not approach the severity of a three-hour design basis fire. Administrative controls prohibit storage of transient combustible material in these areas. Heat generated by a fire in the area would mix throughout the room rather than being concentrated on the assembly as in the ASTM E-119 fire test.

Fire detection and hourly fire watch patrols will minimize the potential for fire propagation. The health and safety of the public has not been affected by this event.