

NOTICE OF VIOLATION

Duke Power Company
McGuire Nuclear Station,
Units 1 and 2

Docket Nos. 50-369 and 50-370
License Nos. NPF-9 and NPF-17
EA 84-135

As a result of the inspection conducted on September 24-28, 1984, several violations of fire protection separation requirements were identified. In accordance with 10 CFR 2.201 and the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, as revised, 49 FR 8583 (March 8, 1984), the particular violations are set forth below:

- I. Unit 1 Operating License Section 2.c.(4) specifies that the McGuire Nuclear Station shall comply with the requirements of 10 CFR Part 50, Appendix R, Section III.G., Fire Protection of Safe Shutdown Capability. Section III.G.2 requires that redundant trains of systems necessary to achieve and maintain hot shutdown conditions be maintained free from fire damage by providing fire protection features in accordance with Sections III.G.2.a, III.G.2.b, or III.G.2.c.

Contrary to the above, as of July 18, 1984, the following safe shutdown systems were not provided with adequate fire protection features to satisfy the requirements set out above:

- A. Cabling to the valve operators for the Safe Shutdown System (SSS) Unit 1 Turbine Driven Auxiliary Feedwater Pump (TDAFP) suction valves 1CA-161c and 1CA-162c, equipment necessary to achieve and maintain hot shutdown, did not have the required fire protection features defined in Sections III.G.2.a, III.G.2.b, or III.G.2.c. This cabling is located within the Unit 1 pipe chase and mechanical penetration room. No fire suppression system was provided in these areas.
- B. Control cables for both the Unit 1 Train "A" and Train "B" pumps of the centrifugal charging and auxiliary feedwater systems, systems necessary to achieve and maintain hot shutdown, did not have the required fire protection features as defined in Section III.G.2.a, III.G.2.b, or III.G.2.c. These cables are located within the same Unit 1 Train "B" switchgear room. No fire suppression system was provided in this area.

This is a Severity Level III violation (Supplement I). This violation is applicable to Unit 1 only.

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- II. Unit 1 Operating License Section 2.c.(4) and Unit 2 Operating License Section 2.c.(7) specify that the McGuire Nuclear Station shall comply with the requirements of 10 CFR Part 50, Appendix R, Section III.G., Fire Protection of Safe Shutdown Capability. Section III.G.2 requires that protection shall be provided in accordance with III.G.2.a., III.G.2.b., and III.G.2.c. where cables or equipment, including associated non-safety circuits, could prevent operation or cause the faulty operation due to hot shorts, open circuits or shorts to ground of redundant trains of systems necessary to achieve and maintain hot shutdown conditions.

Contrary to the above, at the time of this inspection, the following circuits were identified as having a common power source with shutdown equipment and the power source was not properly electrically protected from the circuit of concern or protected in accordance with 10 CFR Part 50, Appendix R, Section III.G.2 in that they lacked circuit breaker and/or fuse coordination:

- A. 125 VDC control power for Centrifugal Charging Pumps CCPA or CCPB from panels EVDA or EVDD, respectively.
- B. 600 VAC power supply for auxiliary feedwater supply Motor Operated Valves (MOVs) CA46B, CA50B, CA54AC, and CA58A.
- C. 600 VAC power supply for PORV block valves MOVINC31B and MOVINC35B.
- D. 600 VAC power supply for RHR isolation valve MOVINDIB.
- E. 600 VAC power supply for Turbine Driven Auxiliary Feedwater Pump (TDAFP) suction valve CA7A.
- F. 600 VAC power for nuclear service valve RN16B.
- G. 600 VAC power for Volume Control Tank (VCT) outlet valves NV141A and MV142B.
- H. 600 VAC power for Component Cooling Pump (CCP) suction valves for RWST NV221A and NV222B.

This is a Severity Level IV violation (Supplement I).

- III. Unit 1 Operating License Section 2.c.(4) and Unit 2 Operating License Section 2.c.(7) require the licensee to fully implement and maintain in effect all provisions of the approved fire protection plan. The approved fire protection plan includes the McGuire Nuclear Station Fire Protection Review, Revision September 1982. Section F.11 of the referenced document, Safety-Related Pumps, indicates that redundant safety-related pumps are separated by fire barriers and that automatic fire detection with alarm and annunciation is provided in the control room.

Contrary to the above, at the time of this inspection, the following safety-related pumps identified in Appendix C of the McGuire Nuclear Station Fire Protection Review are not separated by a fire barrier:

- A. Recycle Evaporator Feed Pumps, Room 620.
- B. Waste Drain Tank Pumps, Room 639.
- C. Boron Injection Recirculation Pumps - Unit 2, Room 788.
- D. Boron Injection Recirculation Pumps - Unit 1, Room 730.
- E. Fuel Pool Cooling Pumps - Unit 1, Room 816.
- F. Fuel Pool Cooling Pumps - Unit 2, Room 829.

In addition, the following safety-related pumps were not provided with automatic fire detection capabilities:

- A. Recycle Evaporator Feed Pumps, Room 620.
- B. Waste Drain Tank Pumps, Room 639.
- C. Fuel Pool Cooling Pumps - Unit 1, Room 816.
- D. Fuel Pool Cooling Pumps - Unit 2, Room 829.

This is a Severity Level IV violation (Supplement I).

- IV. Unit 1 Operating License Section 2.c.(4) and Unit 2 Operating License Section 2.c.(7) specify that the McGuire Nuclear Station shall comply with the requirements of 10 CFR Part 50, Appendix R, Section III.G., Fire Protection of Safe Shutdown Capability. Sections III.G.2.a and III.G.2.c require that structural steel members forming a part of or supporting fire barriers be provided with fire resistance equivalent to that of the fire barriers to which such members form a part of or support; that is, three hours and one hour, respectively.

Contrary to the above, as of this inspection, the structural steel members supporting the following items did not meet the applicable fire resistive rating:

- A. A one-hour fire barrier enclosure for valves 2CA-161C and 2CA-162C and associated cabling was not sufficient in that the structural steel members supporting the fire barrier were not protected to assure a one-hour fire rating as required by Section III.G.2.c.

- B. Valves 1CA-161C and 1CA-162C and portions of their associated cabling are enclosed in a three-hour rated fire barrier. However, the structural steel members supporting the fire barrier are not protected to assure a three-hour fire rating as required by Section III.G.2.a.

This is a Severity Level IV violation (Supplement I).

- V. Unit 1 Operating License Section 2.c.(4) and Unit 2 Operating License Section 2.c.(7) specify that the McGuire Nuclear Station shall comply with the requirements of 10 CFR Part 50, Appendix R, Section III.J., Emergency Lighting, except for certain approved exemptions. Section III.J. requires emergency lighting units with at least an 8-hour battery power supply to be provided in all areas needed for operation of safe shutdown equipment and in access and egress routes thereto.

Contrary to the above, at the time of this inspection, the following plant areas were identified as not having adequate emergency lighting:

- A. Several lighting units in the Unit 1 interior doghouse were mounted behind concrete columns, piping, and other similar structures and/or components which eliminated their effectiveness to illuminate access ladders to safety shutdown valves.
- B. No 8-hour, battery-powered, lighting units were provided for the Unit 1 and Unit 2 corridor 908 which provides a portion of the access and egress route between the main control room and the Standby Shutdown Facility.

This is a Severity Level V violation (Supplement I).

Pursuant to 10 CFR 2.201, you are required to submit to this office within 30 days of the date of this Notice a written statement or explanation in reply including: (1) admission or denial of the alleged violations, (2) the reasons for the violations if admitted, (3) the corrective steps which have been taken and the results achieved, (4) corrective steps which will be taken to avoid further violations, and (5) the date when full compliance will be achieved.

Date: MAR 15 1985