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April 17, 1996

MEMORANDUM TO: J. W. Roe, Director, Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

FROM: W. L. Axelson, Director, Division of Reactor Projects
Region III

SUBJECT: TECHNICAL SPECIFICATION ON DIESEL GENERATORS WITH COMMON
MODE FAILURE OF SUPPORT SYSTEMS (AIT 96-0149)

Background On February 5, 1996, during a surveillance test at the Fermi 2 nuclear plant, the licensee was unable to get the required flow from one of their Division I diesel generator cooling water pumps. After determining that the blockage was due to freezing in the suction shaft on the "C" pump, the licensee declared the Division I diesel generator inoperable. However, the licensee did not test the diesel generators or the diesel generator cooling water pumps in Division II for more than 29 hours. By then the air temperature had warmed up. When the pumps in Division II were tested, one of the pumps did not start for about 90 seconds.

The applicable technical specifications are as follows:

Technical Specification (TS) 3.7.1.4, requires that the diesel generator cooling water subsystem associated with each EDG shall be operable when the associated EDG is required, with each subsystem comprised of:

1. One operable diesel generator cooling water pump, and
2. An operable flow path capable of taking suction from the associated ultimate heat sink and transferring cooling water through the associated diesel generator heat exchanger.

With one or more diesel generator cooling water subsystems inoperable, the associated EDG shall be declared inoperable and the actions of TS 3.8.1.1 or 3.8.1.2, shall be taken, as applicable.

Technical Specification 3.8.1.1, requires, in part, that two separate and independent divisions of onsite AC electrical power, each consisting of two EDGs, be operable during Conditions 1, 2, and 3.

Technical Specification 3.8.1.1, Action b, requires "With one or both diesel generators in one of the above required onsite AC electrical power divisions inoperable, demonstrate the OPERABILITY of the remaining AC sources by performing Surveillance Requirement 4.8.1.1.1 within one hour and at least once per eight hours thereafter, and

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if the diesel generator(s) became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventive maintenance or testing, by performing Surveillance Requirement 4.8.1.1.2.a.4 for one diesel generator at a time within 24 hours, unless the absence of any potential common mode failure for the remaining diesel generators is determined. Restore the inoperable division to OPERABLE status within 72 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the next 24 hours."

Technical Specification 3.8.1.1, Action c, requires "With one or both diesel generators in one of the above required onsite AC electrical power divisions inoperable, in addition to Action b, above, verify within two hours that all required systems, subsystems, trains, components and devices that depend on the remaining onsite AC electrical power division as a source of emergency power are also OPERABLE; otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours."

Technical Specification 3.8.1.2 was not applicable because the reactor was in Mode 1 at 96 percent power.

Discussion - On March 15, 1996, an Enforcement Board was held to discuss licensee failure to test the other diesel generator pursuant to T.S. 3.8.1.1, Action b or the cooling water pumps pursuant to Action c, when a possible common mode failure of the diesel generator cooling water pump existed. The common mode failure was the freezing of the cooling water pump supply. During the board's discussion, the NRR interpretation of the diesel generator technical specification (3.8.1.1 Action b) was that the other diesels needed to be tested only if the common mode failure was in the diesel generator. The other diesels did not need to be tested if the common mode failure was in the diesel generator support systems. The technical specification (3.8.1.1 Action c) also required the verification that the other diesel generators subsystems, including their support systems were OPERABLE. This verification only required an administrative check, such as verifying that the other diesels were not out of service for maintenance and that the surveillances for the support systems were current. There was no requirement to test the other support systems to ensure operability. Thus, the technical specifications apparently did not require testing of the support systems to prove operability if a common cause failure of the diesel generator could be due to a failed support system.

The licensee is currently working at changing over to the standardized BWR technical specifications. The current date for completion of the change over is mid-1997. In the mean time, we believe that common mode failures of diesel generator support systems are not being treated correctly by the current technical specifications.

The Region requests that NRR review the technical specifications for Fermi 2 and confirm that upon common mode failure of a diesel generator support system, technical specification 3.8.1.1 does not require the licensee to test the other support systems or the diesel generators in the other division. We believe that is a safety issue. If the technical specifications do not currently require the testing of support systems when a common mode failure is identified, the Region also requests the Fermi technical specifications be modified. The modification should require the licensee to test the support systems in a reasonable time if a common mode failure is determined.

Please provide a response within 45 days.

cc: A. B. Beach, RIII
Division Director
RI, RII, RIV

(See attached concurrence)

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