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UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF NUCLEAR REACTOR REGULATION
WASHINGTON, D.C. 20555

July 15, 1992

NRC INFORMATION NOTICE 92-52: BARRIERS AND SEALS BETWEEN MILD
AND HARSH ENVIRONMENTS

92 AUG -5 P1:51

Addressees

All holders of operating licenses or construction permits for nuclear power reactors.

Purpose

The U.S. Nuclear Regulatory Commission (NRC) is issuing this information notice to alert addressees to problems that could result from missing or deteriorated barriers or seals that protect equipment designed to operate in a mild environment from areas that could have a harsh environment following a design basis accident (DBA). It is expected that recipients will review the information for applicability to their facilities and consider actions, as appropriate, to avoid similar problems. However, suggestions contained in this information notice are not NRC requirements; therefore, no specific action or written response is required.

Description of Circumstances

On April 1, 1992, with the Millstone Nuclear Power Station, Unit 1, in cold shutdown, the Northeast Nuclear Energy Company (the licensee) performed a walkdown inspection of the environmental qualification barriers in the switchgear area. The licensee found a number of postulated steam paths into the switchgear area, including gaps between floor hatch covers and the surrounding floors, openings around doors where gasket material was missing, and miscellaneous small gaps and openings. The licensee had previously performed evaluations for its environmental qualification (EQ) program but did not adequately document determinations of the acceptability of barriers or unsealed openings. The licensee's EQ program also did not establish procedures to periodically check and replace, as necessary, some of the gaskets and seals used in the plant to protect equipment from a harsh environment.

Discussion

In Section 50.49 of Title 10 of the Code of Federal Regulations, the NRC established requirements for the environmental qualification of electrical

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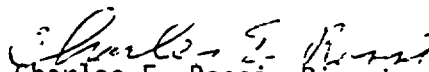
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equipment important to safety. Equipment that operates in a "mild" environment was not included within the scope of the regulation; inherent is the presumption that "mild" environments do not change into "harsh" environments. The circumstances described above indicate that some licensees may not have maintenance procedures to ensure the integrity of seals or barriers between "harsh" and "mild" environment areas. If safety-related equipment intended for "mild" environments were operated at more demanding conditions, it could cause safety concerns.

This information notice requires no specific action or written response. If you have any questions about the information in this notice, please contact one of the technical contacts listed below or the appropriate Office of Nuclear Reactor Regulation (NRR) project manager.


Charles E. Rossi, Director
Division of Operational Events Assessment
Office of Nuclear Reactor Regulation

Technical contacts: H. Walker, NRR
(301) 504-2827

J. Carter, NRR
(301) 504-1153

Attachment: List of Recently Issued NRC Information Notices

LIST OF RECENTLY ISSUED
NRC INFORMATION NOTICES

Information Notice No.	Subject	Date of Issuance	Issued to
92-51	Misapplication and Inadequate Testing of Molded-Case Circuit Breakers	07/09/92	All holders of OLs or CPs for nuclear power reactors.
92-50	Cracking of Valves in the Condensate Return Lines of A BWR Emergency Condenser System	07/02/92	All holders of OLs or CPs for BWRs.
92-49	Recent Loss or Severe Degradation of Service Water Systems	07/02/92	All holders of OLs or CPs for nuclear power reactors.
92-48	Failure of Exide Batteries	07/02/92	All holders of OLs or CPs for nuclear power reactors.
92-47	Intentional Bypassing of Automatic Actuation of Plant Protective Features	06/29/92	All holders of OLs or CPs for nuclear power reactors.
92-46	Thermo-Lag Fire Barrier Material Special Review Team Final Report Findings, Current Fire Endurance Tests, and Ampacity Calculation Errors	06/23/92	All holders of OLs or CPs for nuclear power reactors.
92-45	Incorrect Relay Used in Emergency Diesel Generator Output Breaker Control Circuitry	06/22/92	All holders of OLs or CPs for nuclear power reactors.
92-44	Problems with Westinghouse DS-206 and DSL-206 Type Circuit Breakers	06/18/92	All holders of OLs or CPs for nuclear power reactors.
92-43	Defective Molded Phenolic Armature Carriers Found on Elmwood Contactors	06/09/92	All holders of OLs or CPs for nuclear power reactors.