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FOR IMMEDIATE RELEASE
(Thursday, December 31, 1992)

NOTE TO EDITORS:

The Nuclear Regulatory Commission has received from its independent Advisory Committee on Reactor Safeguards the attached two letter-type reports. They provide comments on a resolution of generic safety issue B-56, "Diesel Generator Reliability" and a NRC staff response to a petition for rulemaking on electrical transients.

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Attachments:
As stated

December 18, 1992

The Honorable Ivan Selin, Chairman
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Chairman Selin:

SUBJECT: RESOLUTION OF GENERIC SAFETY ISSUE B-56, "DIESEL
GENERATOR RELIABILITY"

During the 392nd meeting of the Advisory Committee on Reactor Safeguards, December 9-11, 1992, we reviewed the NRC staff's latest proposals for amendment of the Station Blackout (SBO) Rule, 10 CFR 50.63, and the corresponding revision of Regulatory Guide 1.9, which address resolution of Generic Safety Issue (GSI) B-56, "Diesel Generator Reliability." During this review, we had the benefit of discussions with representatives of the NRC staff and NUMARC. We also had the benefit of the documents referenced. On several occasions in recent years we have reviewed the staff's proposals for resolution of GSI B-56, and have offered our advice.

As stated in our previous reports, we continue to believe that additional regulations and guidance are not warranted to ensure adequate diesel generator reliability. The recent industry-wide diesel generator reliability is better than 98 percent, as

measured by failure history over the past few years. This is well above the reliability suggested by the relevant regulatory guide as adequate to meet the requirements of the SBO Rule. It is an improvement over what was being observed five years ago, and the improvement has been achieved through industry and staff initiatives without the proposed amendment.

A principal argument of the staff for a rule amendment is that a future relaxation in licensee attention to the diesel generators may occur, and that if it does, the monitoring requirements of the amendment will reveal it. We believe the current NUMARC Initiative 5A and implementation of the Maintenance Rule should ensure adequate attention to diesel generators.

In addition, current regulations require that every diesel generator failure receive a detailed analysis and if a cause of the failure is identified, it must be remedied. This requirement alone makes it likely that the current high level of reliability will be maintained.

It is not necessary for us to repeat our position on the statistical questions that have plagued the diesel generator reliability assurance issue. In addition, the deterministic reliability standards of 0.95 and 0.975, which led to the diesel generator dilemma, are still in place.

In summary, we believe that existing regulations and industry initiatives will ensure adequate diesel generator reliability, and recommend that the Generic Safety Issue B-56 be resolved without further regulatory action.

Sincerely,

Paul Shewmon, Chairman
Advisory Committee on Reactor
Safeguards

References:

1. Memorandum dated November 6, 1992, from W. Minners, Office of Nuclear Regulatory Research, NRC, to R. Fraley, ACRS, Subject: Resolution of GSI B-56, "Emergency Diesel Generator Reliability"
2. NUMARC Initiative 5A of NUMARC 8700, "Guidelines and Technical Bases for NUMARC Initiatives Addressing Station Blackout at Light Water Reactors," Revision 1, August 1991
3. Letter dated March 5, 1992, from A. Marion, NUMARC, to H. Lewis, ACRS, regarding industry-wide data on emergency diesel generator performance
4. ACRS report dated May 19, 1992, from David A. Ward, ACRS Chairman, to Chairman Selin, NRC, Subject: Reliability of Emergency AC Power at Nuclear Power Plants

5. ACRS report dated December 20, 1991, from David A. Ward, ACRS Chairman, to Chairman Selin, NRC, Subject: Resolution of Generic Safety Issue B-56, "Diesel Generator Reliability"
 6. ACRS report dated August 14, 1990, from Carlyle Michelson, ACRS Chairman, to Chairman Carr, NRC, Subject: Proposed Resolution of Generic Safety Issue B-56, "Diesel Generator Reliability"
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December 17, 1992

The Honorable Ivan Selin, Chairman
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Chairman Selin:

SUBJECT: NRC STAFF RESPONSE TO THE PETITION SUBMITTED BY RICHARD GRILL FOR RULEMAKING ON ELECTRICAL TRANSIENTS, PRM-50-56

During the 392nd meeting of the Advisory Committee on Reactor Safeguards, December 9-11, 1992, we reviewed the NRC staff's response to the petition submitted by Richard Grill for rulemaking on electrical transients. During this review, we had the benefit of discussions with representatives of the NRC staff and of the documents referenced.

The petitioner requested that the NRC quantify the potential adverse consequences of lightning and other electrical transients on the safety of nuclear power plants, and provide regulations and guidance to require licensees to analyze for, and take protective measures against, these potential consequences.

The staff contends that the potential consequences of lightning and other electrical transients are known and have been adequately dealt with in the design of nuclear power plants. The staff maintains that its licensing review of operating plants for conformance to GDC 2 and GDC 4 includes consideration of protective measures against these potential consequences. The staff's review was based on the use of established industry standards and practices, satisfactory performance of equipment and components in electromagnetic environments, and qualification testing of components and systems. The staff stated it had previously determined that additional industry-wide regulation of lightning protection is not cost effective, based on an assessment done at the request of the ACRS in 1981. The staff's review of lightning related event reports since 1980 concludes that the risk of core damage from such events is not significant.

The staff stated that it has issued guidance for plants with histories of lightning strikes that have caused more malfunctions than just a loss of offsite power, to include those events in their Individual Plant Examination of External Events. In addition, the staff is requiring digital components to be qualified against electrical transient induced failure. Finally, advanced plant designs are being evaluated against EPRI requirements for lightning and electrical transient protection.

We agree with the staff's conclusion that current operating nuclear power plants are adequately protected at this time, and that rulemaking is not needed.

We note that for future reviews the staff is currently developing a regulatory guide on electromagnetic interference, reconsidering developing a regulatory guide on lightning protection, reviewing industry standard NFPA-78 on lightning protection, and augmenting guidance for staff review. We recommend that the staff use and endorse industry guides and standards, to the extent practical, and work with industry toward the development of additional guidance as needed.

Sincerely,

Paul Shewmon, Chairman
Advisory Committee on Reactor
Safeguards

References:

1. Memorandum dated November 5, 1992, from W. Minners, Office of Nuclear Regulatory Research, NRC, for R. Fraley, ACRS, Subject: Staff Response to the Petition for Rulemaking on Electrical Transients Submitted by Richard Grill, PRM-50-56
2. National Fire Protection Association, Inc., Lightning Protection Code (NFPA-78), August 7, 1989