



UNITED STATES  
**NUCLEAR REGULATORY COMMISSION**  
 ADVISORY COMMITTEE ON REACTOR SAFEGUARDS  
 WASHINGTON, D.C. 20555-0001

November 12, 1999

The Honorable Richard A. Meserve  
 Chairman  
 U.S. Nuclear Regulatory Commission  
 Washington, D.C. 20555-0001

Dear Chairman Meserve:

**SUBJECT: PROPOSED REVISION 3 TO REGULATORY GUIDE 1.160 (DG-1082),  
 "ASSESSING AND MANAGING RISK BEFORE MAINTENANCE ACTIVITIES  
 AT NUCLEAR POWER PLANTS"**

During the 467<sup>th</sup> meeting of the Advisory Committee on Reactor Safeguards, November 4-6, 1999, we reviewed the proposed Revision 3 to Regulatory Guide 1.160 (DG-1082), "Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants," and the revised draft of Section 11 of NUMARC 93-01, "Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants." During our review, we had the benefit of discussions with representatives of the NRC staff and the Nuclear Energy Institute (NEI). We previously commented on an earlier version of this guide in a report dated July 21, 1999.

Recommendations

1. The proposed Revision 3 to Regulatory Guide 1.160 should be issued for public comment.
2. We support the staff's endorsement of the NEI guidance for industry use when revised to incorporate the staff's comments and to provide a concise definition of unavailability.

Discussion

Both the staff and NEI agree that the proposed Revision 3 to Regulatory Guide 1.160 and NUMARC 93-01 provide an acceptable method for assessing and managing the increase in risk that may result from nuclear power plant maintenance activities, as required by new paragraph (a)(4) of 10 CFR 50.65. The guidance that the staff and NEI have developed resolves our concerns that we raised in our report of July 21, 1999.

There are three minor issues between the staff and NEI that we were assured would be resolved easily. In addition, the definition of unavailability in the draft Regulatory Guide needs to be clarified. The description of unavailability provided in Appendix B of the proposed

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modification to NUMARC 93-01 is not a definition. The commonly accepted definition of the unavailability of a system that is under periodic surveillance testing is simply the average fraction of time during which the system is incapable of performing its intended function. The equation in Appendix B is correct, if "required operational hours" is interpreted as the period of surveillance tests.

Sincerely,



Dana A. Powers  
Chairman

References :

1. Memorandum dated October 18, 1999, from Theodore R. Quay, Office of Nuclear Reactor Regulation, NRC, to John T. Larkins, ACRS, Subject: Request for Review of Draft Regulatory Guidance for 10 CFR 50.65, The Maintenance Rule.
2. Final Draft of Section 11, "Assessment of Risk Resulting from Performance of Maintenance Activities," of NUMARC 93-01, "Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," dated October 8, 1999.
3. Report dated July 21, 1999, from Dana A. Powers, Chairman, ACRS, to Greta Joy Dicus, Chairman, NRC, Subject: Proposed Revision 3 to Regulatory Guide 1.160 (DG-1082), "Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants."