

May 7, 1997

The Honorable Shirley Ann Jackson  
Chairman  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

Dear Chairman Jackson:

SUBJECT: DESIGN BASIS VERIFICATION

During the 441st meeting of the Advisory Committee on Reactor Safeguards, May 1-3, 1997, we met with representatives of the NRC staff and the Nuclear Energy Institute to discuss design basis verification. We reviewed the staff criteria for evaluating licensee responses to the NRC request for design basis information pursuant to 10 CFR 50.54(f), staff initiatives to perform design inspections, and related industry activities and initiatives. We also had the benefit of the documents referenced.

#### Conclusions and Recommendations

We believe that the current four-phase approach is effective in identifying those licensees that need to take action to maintain their design basis. The staff review of licensee responses appears to have been successful in identifying and prioritizing follow-up inspection activities.

The design inspections conducted to date have shown that, in some cases, the actual plant configuration and procedures do not correspond to the design basis upon which the plant was licensed. This illustrates the value of the design inspection program and suggests that such a program be continued in some form.

The NRC will be relying on the results of probabilistic risk assessments (PRAs) to an ever-increasing extent as it embarks on risk-informed, performance-based regulation. PRAs should be based on the current configuration of the plant. Results of the design basis inspections should, then, be shared formally with the Office of Nuclear Regulatory Research and the Office for Analysis and Evaluation of Operational Data. Where inconsistencies between PRA assumptions and design inspection results are found, it may be of use to conduct sensitivity studies to establish the risk significance of these inconsistencies.

Sincerely,

/s/

R. L. Seale  
Chairman

References:

1. Section (f) of 10 CFR 50.54, "Conditions of Licenses."
2. Memorandum dated March 19, 1997, from L. J. Callan, Executive Director for Operations, NRC, to the Commissioners, Subject: Update on 10 CFR 50.54(f) Response Review Efforts: Pilot Process Results.
3. Memorandum dated February 25, 1997, from L. J. Callan, Executive Director for Operations, NRC, to the Commissioners, Subject: Review of Licensees' Responses to the 10 CFR 50.54(f) Letter of October 9, 1996, on the Adequacy and Accuracy of Design Bases Information for Nuclear Power Plants.
4. Nuclear Energy Institute, NEI 96-05, draft Revision D, "Guidelines for Assessing Programs for Maintaining the Licensing Basis," dated July 25, 1996.
5. Nuclear Management and Resources Council, Inc., NUMARC 90-12, "Design Basis Program Guidelines," October 1990.