D880913

The Honorable Lando W. Zech, Jr.
Chairman
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Chairman Zech:

SUBJECT: PROPOSED RULEMAKING RELATED TO MAINTENANCE OF NUCLEAR POWER PLANTS

During the 341st meeting of the Advisory Committee on Reactor Safeguards, September 8-10, 1988, we discussed the proposed amendment to 10 CFR Part 50 related to maintenance of nuclear power plants. We had previously discussed this topic with the NRC staff during our 340th meeting, August 11-13, 1988, and during meetings of our Maintenance Practices and Procedures Subcommittee on June 15 and September 7, 1988. During these meetings, we had the benefit of comments by a representative of the Nuclear Management and Resources Council (NUMARC). We also had the benefit of the document referenced.

We cannot endorse the proposal to establish a maintenance rule. The proposal appears to be based upon the following hypotheses:

1. Maintenance of nuclear power plants, as now performed, poses a significant risk to public health and safety.

2. The existence of a maintenance rule would reduce this risk.

There is some evidence to support the first of these hypotheses, although there is no direct quantitative indicator. There is anecdotal evidence that poor maintenance has contributed to plant unavailability and has even led to the existence of plant states that are interpreted as accident precursors. Common sense suggests that a well-maintained plant poses less risk than one poorly maintained. Some operating plants have better maintenance programs than others, and some have programs that should be improved.

We have seen no evidence to support the second hypothesis. The regulatory analysis provided by the staff makes the arbitrary assumption that a reduction in risk will occur as a result of the rule, and bases its cost-benefit conclusions on a guess about the amount of risk reduction expected. Nor have we seen evidence that the existence of a rule would not make things worse. Indeed there are characteristics of regulations, and especially the way in which they are typically enforced, that lead us to believe that, under a rule, a move toward uniformity would occur, and this is likely to decrease the effectiveness of some of the better existing programs.

Finally, it appears to us that maintenance practices in the industry are improving and that a rule may be disruptive to the substantial industry initiatives that have been developed to accomplish this

improvement.

Additional comments by ACRS member Harold W. Lewis are presented below.

Sincerely,

W. Kerr
Chairman

Additional comments by ACRS member Harold W. Lewis

I want to take this opportunity to observe that it is not necessarily true that more maintenance is better maintenance -- a substantial number of events are initiated by testing and maintenance operations. There exists a well-developed theory of reliability which deals with such matters as the optimum level of maintenance -- there are books on the subject -- and it would be useful to bring some expertise into the analysis of this question.

Reference:
Letter dated August 29, 1988 from Bill M. Morris, Director, Division of Regulatory Applications, Office of Nuclear Regulatory Research, to Raymond F. Fraley, Executive Director, Advisory Committee on Reactor Safeguards, enclosing Draft Commission Paper for Notice of Proposed Rulemaking for Maintenance of Nuclear Power Plants

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