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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

June 26, 1989

MEMORANDUM FOR: Victor Stello, Jr.
Executive Director for operations

FROM: Samuel J. Chilk, Secretary

SUBJECT: SECY-89-143/COMLZ-89-21 - AMENDMENT TO 10 CFR
50 RELATED TO MAINTENANCE OF NUCLEAR POWER
PLANTS

The Commission has been impressed by the tremendous teamwork effort put forth by the NRC staff to develop, on the Commission's accelerated schedule, the final rule on Maintenance of Nuclear Power Plants and the accompanying regulatory guide. NRC's rulemaking initiative immediately served to increase industry attention on this important aspect of nuclear power plant safety.

During recent visits to nuclear power plants, Commissioners have seen the evidence of the industry's commitment to improving plant maintenance. Moreover, based upon recent NRC analyses of industry performance in the area of maintenance, including the results of the maintenance team inspections, the AEOD special Study Report (AEOD/S901, Revision 1), performance indicators, SALP ratings, and other similar measures, it is evident that progress has been made over the past four years in the area of nuclear power plant maintenance. As the AEOD report points out, this is particularly true for the latter part of 1987 and 1988.

Nevertheless, there is a widely held view that further improvements are necessary, especially with regard to effective implementation of maintenance programs.

Because maintenance plays such an important and integral role with plant operations in assuring public safety, the Commission is convinced that continued improvement in maintenance is needed; not only for improved maintenance today, but to ensure the continued proper performance of maintenance in the future. Therefore it is appropriate for this agency to pursue its interest in seeking to improve maintenance. The Commission also believes that industry participation in developing a standard for maintenance would be extremely valuable; without the industry's

expert involvement in developing such a standard, the draft Regulatory Guide might not be as good as it can or should be.

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Accordingly, the Commission (with all Commissioners agreeing) has approved the following actions related to maintenance at nuclear power plants:

1. The Commission has agreed to hold the final draft rule on maintenance in abeyance for an 18-month period from the effective date of a revised policy statement (see Item 2 below) while closely monitoring industry's maintenance progress. At the end of the 18-month period, the staff should report back to the Commission on the progress that the industry has made in improving maintenance and provide recommendations on the need, if any, for additional regulatory action. The Commission will review the industry's improvement in maintenance based upon inspections and relevant performance indicators to determine what, if any, additional regulatory action is warranted.

(EDO) (SECY SUSPENSE: 1/91)

2. The staff should prepare for commission review and approval a revised Maintenance Policy Statement. The revised Maintenance Policy Statement should retain the basic elements of NRC's current policy with appropriate revisions based on the staff's efforts to date, acknowledge the industry progress to date and commitment to continued improvement in maintenance performance, and encompass the following additional elements:

- a. State the Commission's intention to grant the industry a set period of time, (18 months) during which the Commission would monitor the industry's initiatives in the area of maintenance; and announce the Commission's intention to hold the draft final rule in abeyance during this period of time.
- b. Emphasize the need for continued improvement in maintenance of nuclear power plants and the importance of well executed and documented maintenance programs to plant life extension;
- c. Encourage expanded industry use of and participation in the Nuclear Plant Reliability

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Data System (NPRDS);

d. Indicate the Commission's intention that the staff continue to refine its draft maintenance standard. NRC should encourage the assistance of the industry and the public in this task. NRC should also encourage voluntary industry adoption of the maintenance standard;

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e. Encourage the further development and use of maintenance performance indicators by the nuclear industry such that the Commission and the industry may closely monitor the progress of industry improvement initiatives;

f. Indicate the Commission's intention to issue plant specific orders or to take other appropriate enforcement action where the NRC detects poor or declining maintenance performance; and

g. Identify the principal elements that are essential to an acceptable maintenance program (these are set forth in large part in the existing Policy Statement, but may need to be supplemented).
(EDO (SECY SUSPENSE: ASAP High Priority)

3. The staff should publish the draft regulatory guide for comment so that a final regulatory guide with the benefit of feedback from maintenance inspections and input from the industry can be ready for final issuance with a maintenance rule at a later date if necessary. (see Item 1 above) The notice requesting comments on the guide should provide adequate background information for those seeking to comment on the guide without-publishing the draft final rule.

4. To assist the Commission in monitoring industry improvement initiatives, the staff should proceed with validation and implementation of its maintenance effectiveness indicator on an expedited basis. As a first step, the staff should invite the voluntary participation of licensees in a small, NRC-utilities, demonstration project to identify quantitative indicators for the evaluation of the performance of maintenance programs. This project should begin immediately and would have the objective of developing a product suitable for use on a trial-basis within one

year. Following the identification of a mutually agreed upon set of indicators, a testing period (of adequate duration) of their use should begin.

5. The staff in coordination with OGC should establish criteria to be used to determine when a plant specific order or other appropriate enforcement action should be taken under the revised Maintenance Policy. In this regard, the staff and OGC should examine our authority to issue orders or to take enforcement action for balance of plant systems and components. If the current regulations on this matter are unclear, the staff should identify those changes in the regulations that would be necessary to permit the Commission to issue such orders or take other appropriate enforcement

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action. The criteria should be forwarded for commission review and approval.

(EDO/OGC) (SECY SUSPENSE: 10/1/89)

6. Staff should continue to coordinate with ACRS so that ACRS views can be incorporated into the revised policy statement and reflected in future staff activities in this area.

Commissioners Roberts and Curtiss believe that the Staff should identify, based upon the results of maintenance team inspections, for utilities where maintenance improvements are considered necessary so that individual utilities can direct their efforts accordingly. The articulation of improvements should be in terms of end results, not the process.

Commissioner Roberts believes (in addition to the above items) that in order not to dilute staff and licensee resources, staff should identify, in terms of function, those BOP systems and components that have an importance to safe operation of the plant.

Copies:

Chairman Zech
Commissioner Roberts
Commissioner Carr
Commissioner Rogers
Commissioner Curtiss
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