

NOTATION VOTE

RESPONSE SHEET

cc: Stello  
Taylor

FYI: Murley, NRR  
JJankovich, NRR

TO: SAMUEL J. CHILK, SECRETARY OF THE COMMISSION

TRehm

FROM: COMMISSIONER CARR

SUBJECT: SECY-87-314 - INTERIM POLICY STATEMENT ON  
MAINTENANCE OF NUCLEAR POWER PLANTS

APPROVED <sup>1-19-88</sup> X (WITH COMMENT) DISAPPROVED \_\_\_\_\_ ABSTAIN \_\_\_\_\_

NOT PARTICIPATING \_\_\_\_\_

REQUEST DISCUSSION \_\_\_\_\_

COMMENTS: (ATTACHED)

*Kenneth M. Carr*

SIGNATURE

1-19-88

DATE

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PDR ADDCK 05000410  
S PDR

YES

NO

ENTERED ON "AS"

NRC-SECY FORM MAY, 1987

9305070244

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Commissioner Carr's comments on SECY-87-314

1. I approve staff's recommendations to issue a Policy Statement on Maintenance. However, I would modify the staff's proposal as reflected in the attached draft Policy Statement.
2. I propose we issue this Policy Statement as a final, not interim, Policy. I, for one, do not see the need for public comment on the issuance of this Policy, but would welcome it during subsequent rulemaking.
3. My proposed Policy deletes any reference to a two year trial period to assess industry initiatives. I believe a rule is necessary in this important area regardless of industry initiatives in place at present. I am confident that a rule can be developed that spells out this agency's expectations in maintenance within the framework of the attached Policy, yet still encourages industry initiatives to achieve excellence. I propose we direct staff to develop a notice of proposed rulemaking for Commission review no later than August 1, 1988. In doing so, staff should work closely with NUMARC, should consider maintenance approaches in other countries, and should review practices in other industries and regulatory bodies in this country that place a heavy reliance on equipment reliability and availability.
4. While I value the advice of the ACRS, in this instance I would not delay issuance of the Policy for their formal review, estimated to be in mid-February. Instead, staff should periodically brief the ACRS and seek their input during the development of the rule. Additionally, I would ask SECY to work closely with the EDO and the ACRS staff in scheduling Commission review of major issues such as this so that sufficient time is available for ACRS input.
5. The attached proposed Policy is silent on the subject of staff maintenance inspections. While I continue to believe that inspections over the next two years of maintenance programs in place at 75 percent of the utilities is unnecessary, staff should nonetheless continue to assign inspection resources to those plants needing help in this area. Additionally, I would encourage staff to conduct other visits, as necessary, to gain information for development of the rule.
6. Finally, it was mentioned at the meeting that serious consideration was being given to the use of LER cause codes as a maintenance performance indicator. I do not believe this indicator would be useful since it is subjective and subject to data manipulation. I would urge staff to continue their efforts to develop maintenance indicators that are more quantifiable and meaningful.

*Draft Statement attached  
approved*

*Kuehan*

*1.19.88*



## POLICY

### Background

The Commission has a program to continually evaluate the operational performance of nuclear power plants. Analysis of operational events has shown that, in some cases, nuclear power plant equipment is not being maintained at a level which ensures, with a high degree of reliability, that the equipment will perform its intended function when required. A limited NRC examination of nuclear power plant maintenance programs has found a wide variation in the effectiveness of these programs. Inadequate maintenance at some plants has been a significant contributor to plant reliability problems and, hence, is of safety concern. The Commission believes there is a need to improve safety by improving the effectiveness of maintenance programs throughout the nuclear industry. The Commission is proceeding with rulemaking consistent with this belief. This policy statement is being issued at this time to provide guidance to the industry while the rulemaking proceeds.

### Policy Statement

It is the objective of the Commission that all components, systems and structures of nuclear power plants be maintained so that plant equipment will perform its intended function when required. In order to accomplish



this objective, each licensee should develop and implement a maintenance program which provides for the availability, periodic evaluation, and prompt repair of plant components, systems, and structures.

#### Definition of Maintenance

The Commission defines maintenance as the aggregate of those functions aimed at preserving or restoring safety, reliability, and availability of plant structures, systems, and components. As such, maintenance includes not only activities traditionally associated with identifying and correcting actual or potential degraded conditions, i.e., repair, surveillance, diagnostic examinations, and preventive measures; but extends to include all supporting functions for the conduct of these activities. These activities and functions are developed below under "Activities Which Form the Basis of a Maintenance Program".

#### Maintenance Programs

Each commercial nuclear power plant should develop and implement a well-defined and effective program to assure that maintenance activities are conducted to preserve or restore the availability and reliability of plant structures, systems, and components. The program should clearly define the components and activities included, as well as the requirements





of the program used to control those activities. Further, the program should include provisions to evaluate effectiveness and a method to feedback the results of that program to ensure effective corrective action.

#### Activities Which Form the Basis of a Maintenance Program

An adequate program should consider:

- o Technology in the areas of
  - corrective maintenance,
  - preventive maintenance,
  - predictive maintenance,
  - surveillance;
- o Engineering support and plant modifications;
- o Quality assurance and quality control;
- o Equipment history and trending;
- o Maintenance records;
- o Management of parts, tools, and facilities;
- o Procedures;
- o Post-maintenance testing and return-to-service activities;



- o Maintenance management and organization in the areas of
  - planning,
  - scheduling,
  - staffing,
  - shift coverage,
  - resource allocation;
- o Control of contracted maintenance services;
- o Radiological exposure control (ALARA);
- o Personnel qualification and training;
- o Interface with plant operations and plant support groups; and
- o Interface with plant and corporate management.

Maintenance recommendations or requirements of individual vendors should receive appropriate attention in the development of the maintenance program.

#### Future Commission Action

The Commission intends this policy statement to provide interim guidance to the industry in improving maintenance programs for their power reactor facilities. The Commission will continue to enforce existing requirements that address maintenance practices and will take whatever action that may be necessary to protect health and safety.



The Commission expects to publish a Notice of Proposed Rulemaking in the near future that would establish basic requirements for plant maintenance programs. We believe that the contents and bounds of the proposed rule will fall within the general framework described in this policy statement. We encourage the industry and other interested persons to provide their views on this important subject to the Commission, even at this early stage of the rulemaking process. Any notice of proposed rulemaking that is published will provide, of course, a period for public comment on its contents.

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1-19-88

