

September 3, 1996

FOR: The Commissioners
FROM: James M. Taylor /s/
Executive Director for Operations
SUBJECT: STATUS OF THE MAINTENANCE RULED

PURPOSE:

To inform the Commission about the status of NRC staff activities concerning the maintenance rule.

SUMMARY:

In SECY 95-179 the staff informed the Commission of the status of activities related to implementation of the maintenance rule. In that paper, the staff identified several actions that needed to be completed. Specifically, the staff would: 1) issue the final maintenance rule inspection procedure, 2) develop a training program and provide training to inspectors and other staff related to the requirements and inspection of the rule, 3) review clarifications to the industry guidance document proposed by the Nuclear Energy Institute (NEI) and endorse them if acceptable in a revision to the regulatory guide, 4) conduct a baseline inspection at every nuclear power plant site, and 5) ensure that the staff inspection and enforcement of the maintenance rule was conducted in a consistent manner throughout all the regions. The staff has completed items 1 and 2, which had to be completed before the effective date of the rule. The staff has taken the necessary actions to ensure that items 3, 4, and 5 will be completed in an appropriate timeframe.

BACKGROUND:

The maintenance rule, [10 CFR 50.65](#), "Requirements for monitoring the effectiveness of maintenance at nuclear power plants," was issued on July 10, 1991, to be effective on July 10, 1996. The staff has periodically given to the Commission papers and briefings on the status of the maintenance rule. The staff last briefed the Commission on the status of the maintenance rule on July 26, 1995. The last Commission paper that provided the status of the maintenance rule was SECY 95-179, "Status of the Maintenance Rule," dated July 17, 1995, a copy of which is provided as Attachment 1.

SECY 95-179 summarized the staff's activities from July 1991 until July 1995 to

prepare for the maintenance rule. This Commission paper which responds to the Commission's June 28, 1996, Staff Requirements Memorandum, describes the activities completed since July 1995 and discusses the staff's remaining activities related to oversight of the maintenance rule.

DISCUSSION:

Issue the Final Maintenance Rule Inspection Procedure

As part of the staff's maintenance rule implementation activities, the staff conducted a pilot program to verify and validate the maintenance rule inspection procedure at nine voluntary sites. The results of the pilot program are documented in NUREG-1526, "Lessons Learned From Early Implementation of the Maintenance Rule at Nine Nuclear Power Plants." After considering the results of the pilot program, the staff determined that the inspection procedure needed clarification. In general, the changes to the inspection procedure noted variations in how the maintenance rule was implemented during the pilot program, discussed areas of weakness observed during the pilot program, or clarified the requirements of the maintenance rule and the guidance in the inspection procedure. The staff issued the final inspection procedure, [IP 62706](#) , "Maintenance Rule," on August 31, 1995. This inspection procedure will be used for the baseline inspection program, and then as a regional initiative inspection following completion of the baseline inspections.

In addition to [IP 62706](#), the staff issued a new core program inspection procedure, [IP 62707](#) , "Maintenance Observation," on April 22, 1996. [IP 62707](#) will be used by resident and region-based inspectors to fulfill the monthly inspection requirement related to maintenance, which was previously required by [IP 62703](#), "Maintenance Observation".

When Regulatory Guide 1.160, Revision 2, "Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," (which is discussed later in this paper) is issued, the staff will revise both [IP 62706](#) and [IP 62707](#) to include the clarifications that will be in the revised regulatory guide. The staff is also in the process of revising other inspection procedures that directly address maintenance activities, to ensure they adequately address the requirements of the maintenance rule. The revisions to other inspection procedures are nearly complete; most involve minor changes such as providing references to the requirements of the maintenance rule and/or [IP 62706](#) and [IP 62707](#).

Develop Training Program and Provide Training to Inspectors and Staff

In SECY 95-179 the staff stated that a training program related to the requirements and inspection of the maintenance rule would be developed and training provided to inspectors and other staff as appropriate. The staff developed 3-day, 1-day, and 1-hour training sessions.

The 3-day training course provides an in-depth review of the requirements of the maintenance rule, staff positions on implementation of the maintenance rule, and the use of IP 62706 and IP 62707. The 3-day course is for inspectors who will participate in the baseline inspections. The 3-day course has been provided in every region, the NRC Technical Training Center, and twice at headquarters.

The 1-day training describes the maintenance rule in detail and goes over IP 62706 and IP 62707. The 1-day training is oriented towards region-based and resident inspectors that will not be conducting the baseline inspections but are expected to assess implementation of the maintenance rule in other inspections. The 1-day session has been provided in three of the regions⁽¹⁾ and at headquarters. An additional session was given on August 21, 1996, in Region II, and one has been scheduled for September 10, 1996, in Region I.

The 1-hour training session provides an overview of the maintenance rule. The 1-hour training session has primarily been given to technical staff and managers who are expected to have limited involvement with the rule. Additional sessions are not currently scheduled but can be provided if desired.

The Technical Training Center (TTC), with assistance from the Quality Assurance and Maintenance Branch (HQMB), will develop and provide long-term training for the staff. To prepare for the assumption of this responsibility, the TTC staff has taken the 3-day training and observed some of the training given by the HQMB staff in the regions. A definitive date for the TTC to assume responsibility for training the staff on the maintenance rule has not been set; however, it is expected to occur during Fiscal Year 1997.

Revision to the Industry Implementation Guidance Document

As a result of the pilot program, NEI suggested clarifications to [NUMARC 93-01](#) , Revision 2, dated April 1996. The letter also withdrew NUMARC 93-01, Revision 2, and has prepared Draft Regulatory Guide 1051 (DG-1051), which is the proposed Revision 2 to Regulatory Guide 1.160. A copy of DG-1051 is provided as Attachment 2. The staff expects to issue DG-1051 for public comment in September 1996 and issue it for final release as Revision 2 to RG 1.160 in December 1996 after review, evaluation, and incorporation of public comments.

The NRC staff found the revisions to NUMARC 93-01 are provided in DG-1051 (pp. 7-9). However, the NRC staff also found five additional issues that need further clarification. The staff position on each of these issues is discussed in DG-1051 (pp. 10-13).

Industry Guidelines Document for Structural Monitoring

NEI has submitted NEI 96-03, Revision D, "Guideline for Monitoring the Condition of

Structures at Nuclear Power Plants," to the staff for review. The purpose of NEI 96-03 is to provide specific guidance for structural monitoring that would satisfy the requirements of the maintenance rule and the license renewal rule (10 CFR Part 54). The guidance in NEI 96-03 is in much more detail than the structural monitoring guidance provided in NUMARC 93-01. Assuming NEI revises RG 1.160 as appropriate if NEI 96-03 is found to be acceptable for purposes of the maintenance rule. Staff endorsement of NEI 96-03 for purposes of the license renewal rule would be addressed separately.

Baseline Inspection Program

The staff is conducting baseline maintenance rule inspections at all sites using IP 62706. The baseline inspections will be performed primarily by the regions, with headquarters support as needed. The staff's goal is to have the baseline inspections completed by July 1998, with the schedule taking into account plant-specific performance.

Each inspection will generally include four inspectors, with provisions for additional inspectors for plant-specific performance issues. Staff from HQMB in the Office of Nuclear Reactor Regulation plan to participate in each inspection. Each inspection will last about three weeks, with a preparation week, an on-site week, and a documentation week. The first inspection was at the Palo Verde Nuclear Generating Station, with the on-site week from July 15-19, 1996. Two inspections were scheduled for August, two are scheduled for September 1996, and approximately four inspections are scheduled per month (one per region) beginning in October 1996.

Region-based and resident inspectors began using the new core maintenance inspection procedure, IP 62707, in July 1996.

Consistent Inspection and Enforcement of the Maintenance Rule

A concern of the Commission, senior NRC staff management, and the industry has been that the maintenance rule needs to be inspected and enforced in a consistent manner throughout all the regions. This concern was most recently stated by the Commission during the June 25, 1996, briefing of the Commission by the staff on the status of operating reactors and fuel facilities.

The staff has taken actions to ensure consistent inspection and enforcement of the maintenance rule. As described above, extensive training has been provided to the appropriate inspectors and technical staff (especially those inspectors and staff who will participate in the baseline inspection program) to give them a uniform understanding of the requirements of the maintenance rule, staff positions, and use of the inspection procedures. Another element of consistency is the participation in the baseline inspections by HQMB, the branch with programmatic responsibility for the staff's oversight of the implementation of the maintenance rule.

The staff has also established a panel to review maintenance rule related inspection findings with potential notices of violation before inspection reports are issued. This panel includes members from the Office of Nuclear Reactor Regulation, the Office of Enforcement, and a regional participant. The panel was described in Enforcement Guidance Memorandum (EGM) 96-001 dated July 3, 1996, from James Lieberman, Director, Office of Enforcement, to the Regional Administrators.

On July 8, 1996, the Director, Office of Nuclear Reactor Regulation, issued a memorandum to the Regional Administrators that reminded the Regional Administrators of the importance of consistent inspection and enforcement of the maintenance rule and the need for continued coordination with HQMB. The memorandum also requested the Regional Administrators identify the Senior Executive Service manager responsible for maintenance rule activities in their region, ensure this individual attended the first maintenance rule baseline inspection exit meeting in their region and other such meetings on a periodic basis, ensure that all inspectors have the required training prior to conducting a maintenance rule inspection, ensure that potential notices of violation related to the maintenance rule are reviewed by the panel described above, and ensure that in all communications with licensees the proper interpretation is given to the number of structures, systems, and components being monitored in accordance with Paragraph (a)(1) of the rule.

CONCLUSION:

The staff has completed those activities necessary to begin the staff's oversight of licensees' implementation of the maintenance rule. The appropriate inspectors and technical staff have received training, maintenance rule inspection procedures have been issued, and guidance has been provided to the regions to ensure that inspection and enforcement of the maintenance rule is conducted in a consistent manner. The staff's remaining activities include issuance of Revision 2 to RG 1.160, which is expected by December 31, 1996, and completion of the baseline inspection program, which is expected by July 1998. In addition, a future revision to RG 1.160 may be forthcoming so that the staff could endorse using the specific guidance for structural monitoring contained in NEI 96-03 for purposes of the maintenance rule.

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Attachments: 1. SECY 95-179
2. DG-1051

1. The 1-day training was not provided in Region IV. Instead, Region IV had an expanded one-hour training session and had a greater number of resident and region-

based inspectors attend the 3-day course.