

March 29, 2000

MEMORANDUM TO: Chairman Meserve
Commissioner Dicus
Commissioner Diaz
Commissioner McGaffigan
Commissioner Merrifield

FROM: William D. Travers */RA/*
Executive Director for Operations

SUBJECT: STATUS OF THE REVISED REACTOR OVERSIGHT PROCESS
FOR INITIAL IMPLEMENTATION

The purpose of this memorandum is to provide the status of the Revised Reactor Oversight Process for Initial Implementation. SECY-00-0049, "Results of the Revised Reactor Oversight Process Pilot Program," dated February 24, 2000, provided the results and lessons learned from the pilot program conducted for the revised reactor oversight process (RROP). In SECY-00-0049, the staff committed to notify the Commission of the status of all outstanding RROP development items needed to support initial implementation, and this memorandum outlines the status of those items. Several items are not fully completed; however, those still in progress have time lines established to assure completion prior to being needed in the process. Accordingly, the staff has concluded that all items that must be resolved to support the start of initial implementation of the RROP at all operating commercial power plants (except D.C. Cook) on April 2, 2000, are completed.

As described in this memorandum, sufficient work has been completed on all of the remaining issues noted in SECY-00-0049 to support initial implementation of the RROP at all operating power plants on April 2, 2000. While some issues will not be completely resolved by April 2, 2000, this remaining work will not adversely affect initial implementation. For these outstanding issues, the scheduled completion date has been provided, along with the basis for why this schedule does not adversely affect initial implementation.

The procedures and guidance documents necessary for initial implementation of the RROP on April 2, 2000, have been issued for use. The staff is continuing to work on several additional procedures required to support the RROP. The status of these remaining procedures is as follows:

- Revisions to Inspection Manual Chapter (IMC) 0610*, "Reactor Inspection Reports," are currently being reviewed by headquarters and regional staff. This procedure is expected to be issued by April 28, 2000. This issue date will not adversely affect initial

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implementation because the first inspection reports under the RROP will not be required to be issued until after April 28, 2000.

- Revisions to IMC 0305, "Operating Reactor Assessment Program," are currently being reviewed by headquarters and regional staff. This procedure is also expected to be issued by April 28, 2000. This issue date will not adversely affect initial implementation because it is not expected that any aspect of the assessment process would be required until after April 28, 2000.
- IMC 0609, "Significance Determination Process," is scheduled to be issued by April 7, 2000. This issue date will support the timely evaluation of any inspection findings identified following initial implementation of the RROP. Some aspects of the significance determination process (SDP), such as the improved guidance for the Phase 3 analysis, will not be ready for the April 7, 2000, procedure revision. As described in more detail in the following discussion, these remaining parts of the SDP will be part of a second revision to IMC 0609, expected to be issued by April 28, 2000.

In addition to issuing these program documents, the following is the status of those items noted in SECY-00-0049 as remaining to be completed to support initial implementation.

Performance Indicators (PIs)

- **Reassess the guidance, definitions, and thresholds for several PIs based on the January 2000 historical data submittal, including the Security Equipment Performance Index, Safety System Unavailability, Scrams With a Loss of Normal Heat Removal, and the Occupational Exposure Control Effectiveness PIs.**

Complete. The staff has reviewed the January 2000 historical data submitted from all operating power plants and developed several changes to PI definitions, thresholds, and guidance. These proposed changes were reviewed with the public and the industry and were agreed upon for initial implementation. These revisions have been incorporated by the Nuclear Energy Institute (NEI) in Revision 0 to NEI 99-02, "Regulatory Assessment Performance Indicator Guideline," which is expected to be issued by NEI for use at all power plants by March 31, 2000.

In addition to the above noted issue, a new concern was raised following the March 7, 2000, staff briefing of the Commission on SECY-00-0049. By letter dated March 13, 2000, NEI expressed a concern that certain performance indicators (including manual scrams in the scram indicators) could result in unintended consequences. As described in more detail later in this memorandum, the staff is working closely with the public and the industry to resolve this concern.

- **Develop and implement a more formal process for resolving PI interpretation issues.**

In Progress. PI interpretation issues will continue to be handled as they were during the pilot program, through the use of frequently asked questions (FAQs). Guidance to licensees on how to submit FAQs is described in Revision 0 to NEI 99-02, "Regulatory

Assessment Performance Indicator Guideline.” Similar guidance for NRC staff will be documented in an inspection manual chapter, expected to be issued by April 28, 2000. This issue date will not adversely affect initial implementation because the staff guidance that will be contained in this procedure is only intended to more formally document the process that is already in place.

- **Develop definitions and guidance for what constitutes an invalid PI.**

In Progress. The staff is continuing to work on the definition of an invalid PI, which will be included in an inspection procedure expected to be issued by April 7, 2000. As described later, this inspection procedure will provide the inspection guidance for the agency response to invalid PIs.

The staff is also developing the process and guidance that would be used to establish when a PI should be considered invalid, including the necessary licensee and NRC communications and documentation to make this determination. The staff plans to issue this guidance in an inspection manual chapter, which it expects to issue by April 28, 2000. This issue date will not adversely affect initial implementation because the first set of quarterly PIs will not be submitted to the NRC until April 21, 2000. Also, the staff will be conducting special inspections at all sites during the first several months of initial implementation to assure a common understanding exists on how PIs are to be collected and reported. PI verification inspections will not occur until later in the year. This schedule will ensure that the new guidance is available to allow any substantive discrepancies in the licensee’s data collection and reporting process to be evaluated in a timely manner.

- **Clearly define the use and meaning of the barrier integrity PIs.**

Complete. As stated in SECY-00-0049, the barrier integrity PIs as they currently exist are fundamentally different from the other indicators. They serve primarily a public confidence role to indicate how much margin there is to a safety concern. The staff has worked with NEI to better clarify the guidance for reporting these indicators in Revision 0 to NEI 99-02, “Regulatory Assessment Performance Indicator Guideline,” which is expected to be issued by NEI for use at all power plants by March 31, 2000. The staff will continue to work with the public and the industry to identify additional revisions to PI definitions that may more accurately indicate the integrity of the barriers to the release of fission products. Any changes would be made to a future revision to NEI 99-02 following initial implementation, and would be the result of a considered change process, including bench-marking and pilot testing activities.

Inspection Program

- **Develop the process for addressing and responding to those instances when the NRC has lost confidence in a licensee’s ability to report PI data accurately and completely.**

In Progress. The staff has developed a new inspection procedure that provides the necessary inspection guidance to allow the NRC to independently assess the attributes

that were expected to be captured by any PIs in question. This inspection procedure is scheduled to be issued for use by April 7, 2000. This issue date will not adversely affect initial implementation because the next quarterly PI submittal is not due to the agency until April 21, 2000.

- **Develop appropriate inspection guidance to compensate for the deletion of the Containment Leakage PI.**

Complete. The staff reviewed the scope of the baseline inspection program and determined that no additional inspection guidance was necessary to compensate for the deletion of the Containment Leakage PI. The staff determined that the periodic inspections of licensee surveillance testing activities required by inspection procedure (IP) 71111, Attachment 22, "Surveillance Testing," would be adequate to assess licensee performance in this area.

- **Develop the Temporary Instruction to perform an inspection of the licensee processes for collecting and reporting PI data.**

In Progress. The staff has prepared the Temporary Instruction (TI) to inspect the licensee processes for collecting and reporting PI data. This inspection will be performed at all power plants within the first several months following initial implementation. This TI is scheduled to be issued for use by April 7, 2000, and will not adversely affect initial implementation due to the schedule for performing these inspections.

- **Develop the guidance to allow the documentation of inspector observations of programmatic deficiencies and cross-cutting issues that have been placed in an appropriate safety context.**

Complete. IMC 0609, "Significance Determination Process," and IMC 0610*, "Reactor Inspection Reports," have been revised to provide additional guidance to inspectors for documenting observations of substantial programmatic deficiencies and cross-cutting issues that have been placed in the appropriate safety context. As previously discussed, these procedure revisions are scheduled to be issued for use at all power plants by April 7 and April 28, 2000, respectively.

SDP

- **Complete the initial development of the shutdown and external events SDP screening tools and the containment SDP.**

Complete. The shutdown and external events screening tools, and the containment SDP, have been developed and reviewed by Headquarters and regional staff. These new SDP tools are ready for use, and will be available to the regions to support initial implementation. However, as it has done throughout the development of the RROP, the staff will perform a feasibility review of these processes to verify their efficacy in evaluating the safety significance of issues.

This Headquarters sponsored feasibility review will use test cases submitted by the regional offices to exercise these new processes. These feasibility reviews are expected to be completed in early April 2000. Following the completion of these feasibility reviews, any changes to these new SDP tools will be issued in a revision to IMC 0609, "Significance Determination Process." The staff expects that this revision will be issued by April 28, 2000. As discussed in SECY-00-0049, this issue date will not adversely affect initial implementation because regional and headquarters risk analysts will be available to evaluate any inspection findings in these areas.

- **Improve the consistency of SDP entry conditions for inspection findings.**

Complete. The flow chart developed to establish thresholds for inspection issues has been refined to clarify which issues should be forwarded to the SDP for further evaluation. This flow chart has been included in the revision to IMC 0609, "Significance Determination Process," which is scheduled to be issued for use by April 7, 2000.

- **Improve the guidance for conducting Phase 3 analysis.**

In Progress. Guidelines for conducting Phase 3 analysis have been developed and are currently being reviewed by headquarters and regional staff. A revision to IMC 0609, "Significance Determination Process," will incorporate these new guidelines and is expected to be issued by April 28, 2000. This issue date will not adversely affect initial implementation because it is unlikely that any issues will be identified this early in the new process that will progress to a Phase 3 review. Even if this does occur, the draft procedures incorporating the lessons learned and feedback from the regional staff will be available for use as guidance.

- **Clarify the guidance to ensure that all SDP results have a similar level of importance for the same color.**

Complete. Based on pilot program experience and lessons learned, the staff has reviewed and revised several of the SDPs, including emergency preparedness, radiation protection, and safeguards to ensure inspection finding results have a consistent safety significance. These revised SDPs will be included in a revision to IMC 0609, "Significance Determination Process," which as previously discussed, is expected to be issued by April 7, 2000.

- **Determine how significant inspection findings pertaining to issues beyond the licensing and design basis of a plant are treated in the RROP.**

Complete. The staff has concluded that licensee performance deficiencies will be assessed for significance using the SDP regardless of whether they constitute a violation of regulatory requirements. Agency follow-up of those safety significant issues that are beyond the licensing or design basis of a plant will be handled in accordance with the backfit rules of 10 CFR 50.109 as appropriate.

Enforcement

- **Resolve how the requirements of 10 CFR 50.9 will be applied to inaccurate PI data reported by a licensee and how enforcement will be applied.**

Complete. The revised enforcement policy that resolves the treatment of inaccurate PI data reported by a licensee was sent to the Commission as SECY-00-0061, "Proposed Revision to the Enforcement Policy to Address the Revised Reactor Oversight Process," dated March 9, 2000. The revised policy describes a near-term policy that includes the use of enforcement discretion until January 31, 2001, for PI errors, to allow licensees time to understand and effectively implement the process. The long-term solution, after January 31, 2001, includes classifying errors as non-escalated enforcement if they do not cause the PI to be greater than "white." Escalated enforcement would be used at a Severity Level III, with the potential for a civil penalty, if the error would cause the PI to go into the "yellow" or "red" bands.

Assessment

- **Refine the process for those rare instances when a deviation from the Action Matrix is warranted, including clarifying the actions specified in the Action Matrix.**

Complete. IMC 0305, "Operating Reactor Assessment Program," was revised to better define the process for those rare instances when deviations from the Action Matrix are warranted. The Action Matrix was also revised to clarify the range of actions for the different performance bands. As previously discussed, the revisions to IMC 0305 are scheduled to be issued for use by April 28, 2000.

- **Establish a working group to gather insights and propose refinement on how to treat cross-cutting issues.**

Complete. A working group has been established to continue to evaluate how cross-cutting issues are treated under the RROP. This working group will be initially composed of internal stakeholders only, but will be expanded to include external stakeholders as lessons learned regarding the role of cross-cutting issues are identified. The group's first meeting is scheduled for the first week of April 2000.

Information Management Systems

- **Trial run the protocol that will be used for quarterly PI submittals to identify and resolve problems.**

Complete. Historical PI data were submitted to the NRC in January 2000 by the licensees for all operating power plants. This process went as expected with minor problems noted and corrected.

- **Make the new RITS activity codes required to support the new oversight processes available and verify their proper use.**

Complete. New Regulatory Information Tracking System (RITS) codes and guidance for their use was forwarded to the regions by memorandum dated March 15, 2000. The regions will have trained all necessary staff on the new RITS codes before initial implementation. Regional feedback was that it was more feasible to begin use of the codes starting with initial implementation of the RROP at all plants, instead of first implementing the codes at the pilot plants for a short trial run. The staff will verify the proper use of the new RITS codes as part of the program self-assessment during the first year of implementation of the RROP.

Transition Plan

- **Develop the change management strategies, methods for program oversight, and evaluation criteria necessary to support: (1) initial implementation, and (2) the program self-assessment.**

(1) Complete. The staff has developed a transition plan that describes the change management strategies, including program oversight and a communications plan, to support initial implementation of the RROP.

(2) In Progress. The staff is still working on evaluation criteria to support the program self-assessment to be conducted during the first year of program implementation. The staff expects that the evaluation criteria and additional details of the program self-assessment will be completed within the first couple of months of initial implementation.

In addition to the above noted issues, a new concern was raised following the March 7, 2000, staff briefing of the Commission on SECY-00-0049. By letter dated March 13, 2000, NEI expressed a concern that certain performance indicators could result in unintended consequences. In particular, in the view of certain industry executives, the inclusion of manual scrams in the scram indicators has the potential for unintended consequences. In their feedback on the pilot program results provided on December 29, 1999, NEI noted that the current performance indicators were satisfactory for initial implementation, but that there should be an effort over the next year to develop an alternative indicator to track initiating events, including manual scrams. However, in their letter dated March 13, 2000, NEI recommended that manual scrams not be counted in the scram indicators while alternative indicators are being pursued.

The staff is committed to continue to identify and review alternative PIs with the public and the industry following initial implementation. As potential new PIs are identified, they will be validated prior to use, just as the current PIs have been. As requested by NEI, the staff has scheduled a public meeting with the industry and other interested external stakeholders on March 29, 2000, to continue the discussion of indicators and the potential for unintended consequences. However, the staff continues to believe that including manual scrams in the scram indicators provides an objective indication of licensee performance in the Initiating Events cornerstone.

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