

December 19, 1997

FOR: The Commissioners

FROM: L. Joseph Callan /s/
Executive Director for Operations

SUBJECT: RESPONSE TO STAFF REQUIREMENTS MEMORANDUM OF OCTOBER 24, 1997, REGARDING THE DECISION-
MAKING PROCESS AT THE SENIOR MANAGEMENT MEETING AND THE BENEFITS THAT THE PROCESS AND
THE WATCH LIST PROVIDE IN TERMS OF PUBLIC HEALTH AND SAFETY (M970919C)

PURPOSE:

This Commission paper responds to a staff requirements memorandum in which the Commission requested the staff to provide a paper describing 1) how the staff intends to use information such as performance trends and economic plots to reach decisions at senior management meetings (SMMs); 2) the staff's plans for responding to an Advisory Committee on Reactor Safeguards (ACRS) letter dated September 10, 1997, regarding the SMM template and the SMM process in general; 3) the benefits that the SMM process and watch list provide in terms of public health and safety; and 4) whether the SMM is the dominant driver of the NRC's inspection, assessment, enforcement, and regulatory process.

BACKGROUND:

Upon review of the 1985 Davis-Besse loss-of-feedwater event, weaknesses were revealed in the NRC's integration of licensing, inspection, and operating experience. Following the event, one recommendation that evolved was that senior NRC managers meet periodically to review the agency's observations and findings regarding operating nuclear power reactors, discuss the safety performance of operating facilities, and plan a coordinated course of action for those plants whose safety performance was of most concern. The first SMM was conducted in April 1986.

Since inception of the SMM process, the staff has continued to look for ways to improve the process. Previous changes to the process included the addition of the good performers list in 1991 and establishment of the trending letter in 1992. In March 1997, NRC Management Directive 8.14, "Senior Management Meeting", was approved and implemented. The directive provides guidance for the preparation and conduct of the SMM. More recently, the staff has been working to provide a more objective and scrutable process by improving the information base for selecting plants for discussion at the SMM, and for judging whether plants should be placed on or deleted from the watch list.

The staff's recommendations for improving the SMM process were conveyed to the Commission in SECY-97-072, "Staff Actions to Improve the Senior Management Meeting." The Commission was updated on the improvements in a briefing on September 19, 1997. Following the briefing, the Commission asked the staff to provide a paper describing the issues that are the subject of this paper.

DISCUSSION OF HOW THE STAFF INTENDS TO USE INFORMATION SUCH AS PERFORMANCE TRENDS AND ECONOMIC PLOTS TO REACH DECISIONS AT THE SMM:

Screening meetings for the January 1998 SMM were held between October 30 and November 7, 1997, to review plant performance. During the screening meetings, the performance of each plant was reviewed using data developed by various NRC offices. Data included the following: regional input - plant performance review (PPR) executive summaries and plant issues matrices (PIMs); Office of Analysis and Evaluation of Operational Data (AEOD) - performance indicators (PIs), performance trends (trend methodology), and economic data; Office of Enforcement (OE) - enforcement history; Office of Investigation - investigation history; Agency Allegation Advisor - allegation history; and Office of Nuclear Reactor Regulation (NRR) - licensing and regulatory performance issues.

Listed below are specific details on how the trend methodology and economic data were used at the screening meetings.

Trend Methodology - Trend plots were provided by AEOD and included trend models and regression models. Plant specific plots using each model were provided to meeting participants prior to the meetings and were factored into the plant discussions. The plots provided data that were used with other performance information to identify discussion plants for the January 1998 SMM. Both models provided a threshold, which if reached, identified plants as candidates for discussion at the SMM. For the plants identified as full-discussion plants, either the trend model or the regression model threshold was reached except for one instance. For plants that met or exceeded the threshold but were not forwarded to the SMM for discussion, the trend methodology facilitated further analysis and discussions, including the identification of the dominant factors that lead to the decision for not selecting the plant for discussion at the SMM. For example, the trend plot threshold for SMM discussion was reached for several plants because of licensee initiatives that resulted in the licensee identifying and reporting problems. For these plants, if other performance information did not reflect significant performance concerns, meeting participants concluded that the plants did not warrant discussion at the SMM. The minutes of the screening meeting will document the basis for the conclusions made.

Economic Indicators - Economic data plots are still in the development phase and were presented at the screening meeting on a trial basis. The discussions of economic data were presented by AEOD and included insights regarding economic performance that may help explain current performance observations or provide a leading indicator of future trends in plant safety performance. Economic insights were provided as information for senior managers, but were not considered as a basis for selecting plants for discussion at the SMM.

The trend model plots will be updated for each of the discussion plants and provided to meeting participants before the January 1998 SMM. The following discussion describes the intended use of this information at the SMM.

During the January 1998 SMM, senior NRC managers will review the performance of plants identified for discussion at the screening meetings. On day one, the appropriate Regional Administrator will lead the performance discussion, which will include a brief review of 1) the last systematic assessment of licensee performance (SALP) results and performance changes since the SALP; 2) the plant's SMM history and performance trends since the plant was last discussed, if applicable; and 3) current performance, including insights or trends noted at the PPR.

The discussion on performance will be guided by the SMM Nuclear Power Plant Performance Evaluation Template (Pro/Con charts) or the Watch List Removal Matrix, as applicable. In developing the Pro/Con charts and the Watch List Removal Matrix, the region is to consider the data from the various NRC offices to support a conclusion. After the Regional Administrator's presentation, the Director, NRR, will solicit views from other meeting participants.

The Director, AEOD, will provide insights from the trend methodology data that were not captured during the discussion of the Pro/Con charts or the Watch List Removal Matrix. In addition, AEOD will provide a brief written evaluation describing the performance indicators that were most important. The performance methodology and written evaluation will be provided to SMM participants with the SMM Executive Summary notebooks.

Economic data will not be provided to meeting participants at the January 1998 SMM. However, AEOD will have the data available and will be ready to discuss pertinent insights.

Decisions on what agency actions to be taken will occur on day two of the meeting. When deciding on what action to take for a given plant, senior managers will consider all information presented at the SMM, including the trend plots and what the plots indicate regarding a plant's performance. The minutes of the meeting will reflect the information considered, the major thrust of the discussions, and the basis for any recommended actions.

DISCUSSION OF THE STAFF'S PLANS FOR RESPONDING TO AN ACRS LETTER DATED SEPTEMBER 10, 1997, REGARDING THE SMM TEMPLATE AND THE SMM PROCESS IN GENERAL:

The staff's response to the ACRS letter was provided to the Chairman of the ACRS and copies of the response were sent to the Commission by letter dated October 28, 1997. The staff generally agreed with the ACRS comments and committed to incorporate them into the SMM improvement effort.

DISCUSSIONS OF THE BENEFITS THAT THE SMM PROCESS AND WATCH LIST PROVIDE IN TERMS OF PUBLIC HEALTH AND SAFETY:

The senior management meeting process has become a visible element of the agency's regulatory process. Despite its initial objective to provide a forum for agency senior managers to review operating reactor performance, it has evolved into a process that impacts the agency, industry, and individual utilities in ways not originally anticipated. For example, placing a plant on the watch list may cause financial institutions to down-rate a licensee's bonds or stocks. This may affect the cost of capital to licensees, including capital necessary for safety expenditures, and may, for example, impact a licensee's ability to implement corrective actions. As the electric utility industry continues to have its rates deregulated, such consequences may have an even greater impact on a licensee's ability to obtain funds needed for operational safety upgrades or other safety-related expenditures.

Aside from the above, the SMM process and watch list do provide benefits in terms of public health and safety, including the following:

- Plants discussed at the SMM are the plants that the staff has concluded, through the inspection, PPR, and SALP processes, warrant a high level of NRC attention. The SMM process provides a method for NRC senior managers to reaffirm or challenge the staff's views regarding a plant's performance. The process provides a method for the staff to integrate plant performance data developed by various NRC offices and for presenting the integrated information to NRC senior managers. The information provides the basis for discussion of each plant's performance and for senior management identification of licensees warranting additional communications or inspections by the NRC. In a few cases, senior managers have recommended additional inspection (i.e., diagnostic evaluation) which ultimately identified performance concerns previously not realized by other assessment processes.
- The SMM process provides the opportunity for senior NRC managers to communicate significant performance concerns to licensees and the public for those plants warranting agency-wide attention. Based on discussions at the SMM, agency senior managers communicate a consistent theme of areas of concern during routine interface meetings with licensee representatives. Avoiding mixed messages from the regulator is particularly important where the licensee has not recognized or taken ownership for the scope of existing performance problems. From the results of SMM discussions, the agency issues letters to watch list plants, trending letters, and letters to good performers. Although NRC staff and managers communicate frequently with licensees on emerging issues and concerns, communications resulting from the SMM process are focused on those areas of highest concern.
- Plants identified as trending plants or as watch list plants will continue to receive NRC attention from both headquarters and the regional offices until the licensee demonstrates a period of improved performance. Because of the added agency attention, the SMM process and the watch list serve to keep senior NRC managers aware of the progress that a licensee is making to achieve improved performance.

The SMM process has yielded observable positive results, such as the following:

- In most instances, plants that were placed on the watch list have subsequently improved their performance and been removed from the list. Once off the watch list, the majority of these plants have remained off the watch list. In fact, a few plants have gone on to be superior performers.
- Most licensees have improved their performance when the NRC has issued trending letters notifying licensees of an adverse trend in performance which, if allowed to continue, could result in placement on the watch list. These licensees initiated effective corrective actions, thereby preventing the plants from being placed on the watch list.

DISCUSSION OF WHETHER THE SMM IS THE DOMINANT DRIVER OF THE NRC'S INSPECTION, ASSESSMENT, ENFORCEMENT, AND REGULATORY PROCESS:

In general, the SMM process is not and should not be the dominant driver of the NRC's inspection, assessment, enforcement, and regulatory process. Regulatory processes such as licensing and enforcement are not dependent on nor driven by the SMM process. For example, enforcement actions are taken whenever necessary to address situations in which licensees have not achieved regulatory requirements and would not be directly affected by the SMM process. Further, inspection plans are normally established based on the results of the SALP as modified by the PPR process in response to emerging issues and short-term trends in plant performance. Although the results of SALP and PPR are considered as part of screening meeting preparations, these processes are not driven by the SMM. However, based on SMM review, changes and supplements to the inspection program may be directed to address performance concerns needing further clarification.

It is not possible to isolate the SMM impacts on public health and safety from the impacts of other processes, such as inspection, enforcement, and SALP. While placement of a plant on the NRC watch list is a clear indication of regulatory concern, it has never been the first indication of such concern, nor is the SMM relied upon to take the appropriate regulatory actions in a timely manner. The SMM provides a process for senior NRC managers to express added agency concerns regarding the performance of a specific plant or utility, when other communications and regulatory actions have not proven effective in deterring adverse licensee performance. The SMM process also enables a review and validation or enhancement of planned regulatory response to poor licensee performance. Thus, the SMM is an enhancement to the NRC oversight process and is not required to carry out its regulatory responsibilities.

For SMM discussion plants that result in agency action over and above the other processes (i.e., watch list, trending letter, or diagnostic evaluation), the SMM process provides an increasingly more important regulatory function. Plants in this group receive heightened attention from both headquarters and the associated regional office. For example, for plants that have remained on the watch list for extended periods, NRC senior managers may elect to meet with the licensee's board of directors to directly communicate concerns regarding a specific plant. Once a plant is issued a trending letter or placed on the watch list, increased NRC oversight continues until the senior managers are convinced that the licensee has taken effective action to correct the adverse trend and identified weaknesses.

The SMM process and the significance of the outcomes that result from the process are continuing to change. The SMM process is being looked at as part of the integrated review of the current NRC assessment process.⁽¹⁾ It is the staffs' intention to retain the beneficial aspects of each of the current assessment processes in any new assessment process resulting from the review.

During the staff's work on the integrated review it became apparent that the evaluation tools associated with the SMM could be used with any new performance assessment processes. Currently, the staff is coordinating as separate initiatives both the SMM improvement process and the integrated review efforts, but it appears that a consolidated project with a single schedule may be more effective. The staff is currently evaluating merging these two initiatives. For example, the SMM improvement process has developed a performance template and is developing criteria for judging a plant's performance based on the template information. The template will play a critical part in new performance assessment process resulting from the integrated review. If after further evaluation the staff determines that merging of the two projects is the best course of action, a follow-up Commission paper will be prepared.

The January SMM will be the first time that the trending methodology will be integrated into the SMM process, including the screening meetings. The staff will inform the Commission of any significant insights that evolve from the use of the trending methodology at the Commission briefing on the SMM results scheduled for January 21, 1998.

COORDINATION:

The Office of the General Counsel has no legal objections.

The Office of the Chief Financial Officer has reviewed this Commission Paper for resource implications and has no objections.

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1. The staffs' plans for performing the review were conveyed to the Commission in SECY-97-122, "Integrated Review of the NRC Assessment Process for Operating Nuclear Reactors."