May 1, 1996

FOR: The Commissioners
FROM: James M. Taylor /s/
Executive Director for Operations
SUBJECT: GUIDANCE FOR SENIOR MANAGEMENT MEETING AND PLANT EVALUATION PROCESSES

- PURPOSE:
- BACKGROUND:
- DISCUSSION:
- CONCLUSION:

PURPOSE:

To submit to the Commission the staff's draft management directives on the senior management meeting (SMM) and on evaluating the operational safety performance of nuclear power plants.

BACKGROUND:

The fundamental basis for conducting Senior Management Meetings (SMMs) is the NRC's need to assure the operational safety performance of nuclear power plants.

Following the Davis Besse loss-of-feedwater incident in June 1985, the agency established the SMM process to provide a forum for senior managers to assess nuclear power reactor operational safety performance. This incident and two other significant operational events in 1985 -- the San Onofre and Rancho Seco events in November and December 1985, respectively -- underscored the need for improved methods to evaluate operational safety performance. The primary goal of the SMM, as well as the other evaluative processes discussed in this paper and its attachments, is to identify declining trends in the operational safety performance of individual plants so that early corrective actions can be implemented.

In a staff requirements memorandum (SRM) dated February 8, 1996, the Commission tasked the staff to address several issues regarding the development of the management directives on evaluating the performance of nuclear power reactor licensees and on the SMM, and requested a Commission paper addressing issues related to plants on the NRC Watch List. Specifically, the staff was tasked to --

- Clearly communicate the overall plant evaluation process to industry and the public
- Be explicit about NRC assumptions and evaluations for placing a plant on the Watch List or sending a trending letter
- Develop additional structure that can be used to enhance the objectivity of problem plant identification
- Address criteria and actions to be taken when a plant remains on the Watch List for an extended period
- Incorporate criteria to be used in determining when a plant may be removed from the Watch List
- Conduct a historical review of the indicators of safety performance for those plants that have been placed on the Watch List in the past
- Continue and accelerate efforts to ensure as much consistency as possible among the regions in the plant evaluation process

These issues have been the subject of continuing dialogue between the staff and the Commission. Recent correspondence from the staff to the Commission germane to these topics include a memorandum dated October 30, 1995, to the Commissioners from the Executive Director for Operations, "Trending Letters"; SECY 95-085, "Recommendations on the Senior Management Meeting Process for the Continued Use of Trending Letters and for Plants That Remain On the Problem Plant List for an Extended Period"; and SECY 94-113, "Senior Management Meeting Review Process."

In response to the Commission's request, this paper and its attachments build on the foundation that has already been established by providing structure to the preparations for, and conduct of, SMMs; articulating the assumptions and criteria that are used to evaluate the safety performance of nuclear power plants; providing greater openness to the industry and public about the overall NRC evaluation process; outlining the NRC regulatory options that are available for plants that remain on the Watch List for extended periods; and including formal criteria for removing plants from the Watch List in the draft SMM management directive.

To add completeness to the discussions in this paper, the latest guidance on how regional offices conduct periodic plant performance reviews (PPRs) for nuclear power plants is also attached. This PPR guidance standardizes the implementation of the evaluative processes among the regions and Headquarters.

DISCUSSION:

Clearly Communicating the Overall Plant Evaluation Process to the Industry and the Public

The attached draft management directive (MD) 8.13, "Evaluating the Safety Performance of Nuclear Power Reactor Licensees," describes the interrelationships of the inspection program, reviews of operational data, PPRs, integrated performance assessments, systematic assessments of licensee performance (SALPs), and SMMs. The initial draft of MD 8.13 was sent to the Commission on September 27, 1995. Since then, comments from within the agency have been incorporated into MD 8.13, and the staff has begun the administrative process of issuing MD 8.13. Once approved, MD 8.13 will be made publicly available, which will clearly communicate the overall plant evaluation process to the industry and the public.

Explicitness About NRC Assumptions and Evaluations for Placing a Plant on the Watch List or Sending a Trending Letter

The performance assumptions used by senior managers to place plants on the Watch List are also used to determine whether a trending letter should be sent to a licensee. To clearly articulate these assumptions, the staff developed the

SMM Nuclear Power Plant Performance Evaluation Template, which has been incorporated into the draft SMM management directive. This template represents the first attempt to publicly describe the licensee performance characteristics that are evaluated during the SMM process. The template is structured as questions that summarize the root causes of poor performance. During the SMM preparation phase, regional staff will address the relevent template factors in developing the narrative summaries of performance for each plant to be discussed at the meeting. The answers to these questions will derive from the agency's various evaluative processes and will incorporate a variety of quantitative and qualitative indicators.

The use of the template to evaluate each plant discussed in the SMM will pro-vide a common baseline by which the senior managers can evaluate operational safety performance. This baseline will foster objective evaluation of all plants by the senior managers. The template is a guide to assist the evalu-ation process; it is not intended to mechanistically determine agency action.

Additional Structure That Can Be Used To Enhance the Objectivity of Problem Plant Identification

The development of the two management directives and PPR guidance attached to this Commission paper has added significant structure to the NRC's evaluative processes, ranging from the PPR up through the SMM. The standardization of these evaluative activities throughout the NRC fosters objectivity in plant performance evaluations, and the criteria that have been developed publicly establish explicit benchmarks to assess the safety performance of all plants.

In addition to establishing criteria, the draft SMM management directive provides for the use of the same standardized inspection information at PPRs, SMM screening meetings, and the SMM itself. This standardized inspection information is contained in the recently introduced Plant Issues List (PIL). The PIL is a plant-specific historical listing of inspection findings, licensee event reports (LERs), and other publicly available information that provides objective information for use in assessing plant performance. The PIL is updated regularly by each regional office. Each item in the PIL is described with its occurrence date, a brief description of the item, reference (i.e., inspection report, LER, etc.), apparent cause, identifying source (NRC, licensee, self-disclosing, or other), and SALP functional area. Only items from inspection reports or other docketed information are entered into the PIL, which will further enhance the openness of the evaluation process and will ensure that performance is assessed on the basis of factual data.

Criteria and Actions To Be Taken When a Plant Remains on the Watch List for an Extended Period

At each SMM, the senior managers evaluate the Category 2 plants' progress in correcting their problems and improving their performance. The review by the senior managers focuses on identifying any discernible trends in performance from the last SMM, from the SMM at which each plant was initially placed on the Watch List, or any other period deemed appropriate by the senior managers. The criteria against which plant performance will be evaluated are contained in the Nuclear Power Plant Performance Evaluation Template and in the Watch List Removal Matrix. If a plant's problems remain unresolved or its performance does not improve sufficiently to be removed from the Watch List, resulting in retention of the plant on the Watch List for an extended period, the agency has several options available to foster improved licensee operational safety performance. These options already exist within the scope of the NRC's regulatory program, and they have been enumerated in the SMM management directive to coherently link them to the SMM. Their inclusion in the management directive does not supersede the requirements or policies documented elsewhere for implementing the actions, nor does it preclude cognizant agency managers from implementing such actions as necessary separate from the SMM process. Whether and when to take any of these actions is a determination within the NRC's sole discretion.

The objective of these actions is to ensure that the licensee establishes a plan for improvement that incorporates measurable goals to determine when performance has improved. The options listed in the management directive should be considered for use by the NRC on the basis of documented plant performance, and they include --

- Conducting regularly scheduled meetings with the licensee's management
- Inviting licensees to brief the Commission regarding their actions to address the NRC's concerns about continuing poor performance
- Establishing an oversight panel with Headquarters and regional members to closely monitor implementation of corrective action plans
- Issuing a letter asking a licensee to respond with its actions and measures for determining its improvement
- Issuing a confirmatory action letter to confirm the NRC's and the licensee's understanding of issues and the actions, measures, and schedule needed to address NRC operational safety performance concerns
- Issuing a demand for information requiring the licensee to show cause why the NRC should not pursue further enforcement action, such as issuing an order or modification, suspension, or revocation of the plant's license
- Issuing a remedial order or an order to modify, suspend, or revoke a license

Criteria To Be Used in Determining When a Plant May Be Removed From the Watch List

In 1990, the staff and the Commission established criteria for removing plants from the Watch List. These criteria have been in use since that time, and they are embodied in the Watch List Removal Matrix, which has been incorporated into the draft SMM management directive. Regional offices prepare these matrices for plants whose readiness to be removed from the Watch List will be evaluated during the SMM. The decision to prepare Watch List Removal Matrices is made during the screening meetings.

Historical Review of the Indicators of Safety Performance for Those Plants That Have Been Placed on the Watch List in the Past

The Office for Analysis and Evaluation of Operational Data (AEOD) and the Office of Nuclear Reactor Regulation (NRR) conducted independent historical reviews of indicators of safety performance. Summary results of these studies are presented below.

AEOD historical review of NRC performance indicators: AEOD performed an historical review of the NRC's Performance Indicators (PIs) for those plants that have been placed on the Watch List since 1991. For comparison purposes, the review also included some plants identified as superior performers during the same time frame. For this review, the staff utilized a technique developed to screen plant performance in preparation for Senior Management Meetings. This method is intended to identify plants whose performance, as measured by the PIs, warrants a detailed evaluation by AEOD. It does not, in and of itself, identify Watch List plants. Such a determination can only be made by looking into the underlying causes of events and other information about plant activities.

The results of the review are shown in attachment 4. In general, the Watch List plants exhibited poorer PI performance than the plants that exhibited superior performance. The PI performance of several of the Watch List plants (Brunswick, Fitzpatrick, South Texas, and Zion) had improved by the time they were removed from the list. Others (Calvert Cliffs, Dresden, and Nine Mile Point) had not shown significant improvement when they were removed from the list. The PIs for Dresden deteriorated after it was taken off the list in December, 1988. Also, in many cases (Brunswick, Fitzpatrick, Millstone, South Texas, and Zion) it appears that PI performance declined significantly 1 to 2 years before the plants were placed on the Watch List.

While the PIs provide an important measure of licensee safety performance, they are only one of many tools the NRC uses to assess performance. Because the PIs capture a subset of the entire operating experience of a plant, problems may be exhibited through a large number of relatively minor events not included in the PIs. In addition, the PIs are lagging indicators. Other information is needed to determine if there are problems at a plant that do not show up in the PIs, and to determine whether or not PI problems are caused by random events or are a true reflection of safety problems. The figures for Diablo Canyon and Calvert Cliffs demonstrate the importance of assessing other information about plant activities. These two plants have similar scores over the past 9 years, yet Diablo Canyon has been a superior performer for almost 4 years while Calvert Cliffs has been on the Watch List in the past. Although there is much useful information to be gained from the PIs, they have limitations and should be used in accordance with the guidance provided by the Executive Director for Operations in Announcement No. 200, dated November 29, 1989.

NRR evaluation of quantitative criteria: NRR's study evaluated quantitative criteria that could be used to identify plants for discussion at the SMM. Criteria considered by this study included enforcement activities; events assessment for generic safety issues; SALPs; NRC performance indicators; augmented inspections, incident investigations, and diagnostic evaluations; licensee emergency plan activations; operator requalification program evaluations; and human factors data analyses.

Each potential criterion was evaluated by comparing it to the performance of operating nuclear power plants and determining the criterion's optimum numerical value that differentiated the list of plants discussed at the three most recent SMMs from the rest of the operating plants. Some of the many criteria that were evaluated by this method were the number of significant enforcement actions during the previous 24 months, the number of SALP functional areas that had declined over the previous two SALP periods, and the number of events requiring further staff followup as a result of NRR's screening process for generic issues.

Since no single criterion was found to correlate with the plants that were discussed at SMMs or, in particular, were placed on the Watch List, several combinations of criteria were evaluated. Among these combinations, the most successful (which correlated enforcement activities and plant events) only identified about half of the discussion plants and one non-discussion plant. On the basis of the results of this study, the NRR staff concluded that it could not develop a reliably accurate correlation of combinations of numerical criteria that would predict whether a plant would be discussed at SMMs or would be placed on the Watch List. The major reasons why these combinations were unreliable included the diversity of the sources of the information, the impact of a plant's operational status, and the generally lagging nature of the indicators. In addition, the criteria are not readily amenable to a weighting of the safety significance of the individual items to plant operational safety performance.

The numerical criteria evaluated by NRR also did not reflect other significant, and not readily quantifiable, information used to evaluate the operational safety performance of nuclear power plants, such as many of the factors identified in the SMM Nuclear Power Plant Performance Evaluation Template. However, in developing the Template, the staff ensured that several numerical measures, such as the number of scrams and safety system availability data, will be considered during SMM evaluations of plant operational safety performance. This approach will provide an effective vehicle for ensuring that quantifiable performance information is explicitly considered, while allowing for appropriate characterization of the safety significance of the performance information.

Continue and Accelerate Efforts To Ensure As Much Consistency As Possible Among the Regions in the Plant Evaluation Process

The actions described in this paper and its attachments are significant enhancements to agency-wide consistency in evaluating plant performance. Agency efforts in this regard are ongoing, including changes to the inspection program for operating power reactors.

The staff's most recent major effort to enhance consistency among the regions in the plant evaluation process has been in the area of standardizing the periodic PPRs that are conducted in each region. The PPRs are described in draft MD 8.13 and in the recently promulgated PPR guidance, both of which are attached. Consistency is fostered by the standardization of the PPR summary reports, regional inspection plans prepared for each plant, and by the recent development and implementation of the PIL, which was discussed earlier in this paper.

CONCLUSION:

The staff will finalize and implement the attached management directives. In so doing, the NRC's evaluative processes will become more visible to the industry and the public, and the agency will be able to demonstrate consistency and objectivity in these processes by providing explicit assumptions about plant performance that leads to placement of a plant on the Watch List.

The staff recognizes that these processes are continuing to evolve. Because of the implications these processes have for NRC resources, their impacts on the NRC's mission, the changes that are occurring in the materials and fuel facilities licensees' area, and their impact on nuclear power plant licensees, the staff will continue to evaluate the effectiveness of all these processes and will periodically inform the Commission of the results of staff evaluations and the need for further enhancements or significant changes.

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Attachments:
1. Draft Management Directive 8.13, "Evaluating the Safety Performance of Nuclear Power Reactor Licensees"
2. Draft Management Directive on "Senior Management Meeting (SMM)"
3. Memorandum dated February 9, 1996, "Plant Performance Review (PPR) Guidance"
4. Results of AEOD Historical Review of NRC Performance Indicators

DIRECTIVE TRANSMITTAL

TN:

To:	NRC Management Directives Custodians
Subject:	Transmittal of Management Directive 8.Z, "Senior Management Meeting (SMM)"
Purpose:	Directive and Handbook 8.Z have been developed to provide guidance for the preparation and conduct of the SMM.
Office of Origin:	Office of Nuclear Reactor Regulation
Contact:	Patrick Castleman, 415-3747
Date Approved:	
Volume:	8 Licensee Oversight Programs
Directive:	8.Z Senior Management Meeting (SMM)
Availability:	U.S. Government Printing Office, (202) 512-2409

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Senior Management Meeting (SMM)
Directive 8.Z

Policy
(8.Z-01)

Senior NRC managers conduct semiannual Senior Management Meetings (SMMs) to review the performance of reactors, fuel cycle facilities and other materials licensees; to focus agency attention on those facilities of highest concern and to monitor licensee efforts to recognize and resolve performance concerns; to review the consistency of the agency-wide implementation of plant evaluative processes; to review activities in NRC mission areas; and, to review agency-wide resource issues and emerging technical and policy issues.

Objectives
(8.Z-02)

- To conduct a periodic, senior-level review of operational safety performance at nuclear power plants.
- To conduct a periodic senior-level review of materials and fuel cycle licensees where there are significant performance issues.
- To communicate the concerns of senior NRC managers to licensees with poor performance or adverse performance trends.
- To ensure that coordinated courses of action are developed and implemented for licensees of concern before problems reveal themselves as significant events.
- To foster consistency throughout the agency in evaluating licensee performance, and applying NRC resources, by:
  - standardizing evaluative processes and associated documents, which will enhance the reproducibility of the evaluative process;
  - including regional management in the performance reviews of licensees in other regions; and
  - ensuring that evaluative processes are appropriately focused on identifying and analyzing trends and patterns.
- To formally recognize nuclear power plants that have demonstrated superior operational safety performance.
- To review significant generic issues affecting nuclear power plants, major fuel cycle facilities and materials licensees.
- To inform the Commission, the Congress, and the public of SMM results.
- To address emerging technical and policy issues.
- To review NRC staff development and human resource programs and policies.

Organizational Responsibilities and Delegations of Authority
(8.Z-03)

The Commission
(031)

- Acts on those results of SMMs that have potentially significant public health and safety consequences.

The Executive Director for Operations (EDO)
(032)

- Oversees the activities described in this directive and handbook.
- Conducts the SMM.
- Issues letters to the nuclear power plants on the Watch List, to those exhibiting adverse performance trends, and to those that have demonstrated superior performance.
- Decides if a special inspection or evaluation is to be conducted at a particular licensee based on discussions at the SMM.
- Briefs the Commission on SMM results following each SMM.

The Director, Office of Nuclear Reactor Regulation (NRR)
(033)

- Implements the requirements of this directive and handbook within NRR.
- Develops guidance for coordinating SMM preparation activities.
- Schedules and holds a nuclear power plant licensee performance screening meeting with each regional administrator before each SMM.
- Participates in the SMM.

Regional Administrators
(034)

- Implement the requirements of this directive within their respective regions.
- Brief the Director of NRR on operating reactor licensee performance at screening meetings.
- Coordinate SMM preparations with program offices as specified in this directive and handbook and in implementing guidance.
- Lead SMM discussions for operating reactors, fuel facilities and other materials licensees in their respective regions.
- Participate in the SMM.

The Director, Office of Nuclear Material Safety and Safeguards (NMSS)
(035)

- Implements the requirements of this directive and handbook that pertain to NMSS licensed facilities.
- Coordinates SMM preparations and discussions pertaining to fuel facilities and other materials licensees within NMSS and among other NRC headquarters and regional offices, as necessary.
- Participates in the SMM.

The Director, Office for Analysis and Evaluation of Operational Data (AEOD)
(036)

- Implements the requirements of this directive and handbook that pertain to AEOD.
- Coordinates with program and regional offices in providing input to both the SMM and SMM screening meetings.
- Provides the most current Performance Indicator data to program and regional offices.
- Provides an independent analysis of selected operating reactors based on AEOD activities.
- Participates in the SMM.

Directors of Program Offices
(037)

- Coordinate SMM preparations with program and regional offices as specified in this directive and handbook and in implementing guidance.
- Participate in the SMM.

Chief, Regional Operations Staff
Office of the EDO
(038)

- Coordinates SMM preparations among program and regional offices.
- Prepares SMM summary and action items.

Applicability
(8.Z-04)

Licensees
(041)

This program applies to all entities that conduct activities regulated by the NRC.

Employees
(042)

The provisions of this directive and handbook apply to, and must be followed by, NRC personnel.

Handbook
(8.Z-05)

Major components for the SMM program are specified in Handbook 8.Z.

References
(8.Z-06)

1. MD 8.6, "Systematic Assessment of Licensee Performance"
2. MD 8.13 "Evaluating the Safety Performance of Nuclear Power Reactor Licensees" (Draft)
3. NRC Enforcement Manual
4. Inspection Manual Chapter 2515, "Light Water Reactor Inspection Program -- Operations Phase"
5. Inspection Manual Chapter 0350, "Staff Guidelines for Restart Approval"

Volume 8, Licensee Oversight Programs
Senior Management Meeting (SMM)
Handbook 8.Z Parts I - II

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Part I
Introduction

The fundamental basis for conducting Senior Management Meetings (SMMs) is the NRC's need to assure the operational safety performance of nuclear power plants.

Following the Davis Besse loss-of-feedwater incident in June 1985, the agency established the SMM process to provide a forum for senior managers to meet twice a year to evaluate nuclear power reactor operational safety performance. This incident and two other significant operational events in 1985 -- the San Onofre and Rancho Seco events in November and December 1985, respectively -- underscored the need for improved methods to evaluate operational safety performance. The primary goal of the SMM is to identify declining trends in the operational safety performance of individual plants so that early corrective actions can be implemented. The meetings also include discussions regarding the performance of major fuel facilities and materials licensees, and reviews of other NRC mission areas. Participants in these meetings typically include the EDO, DEDR, DEDS, the regional administrators, office directors of NRR, AEOD, NMSS, RES, OE, OI, OSP, senior managers from OGC, and other support personnel as directed.

The major objectives of the SMM are to: review the operational safety performance of power reactors (also referred to as "plants") with poor performance or adverse performance trends, and to communicate the concerns of NRC senior managers to the licensees of those plants; plan coordinated courses of action for plants of concern before problems reveal themselves as significant events; identify plants that have demonstrated superior safety performance; and, discuss significant technical and policy issues.

As described in MD 8.13, "Evaluating the Safety Performance of Nuclear Power Reactor Licensees (draft)," the SMM is part of an integrated evaluative process and is used to provide the highest level of agency review of plants and facilities whose performance is of most concern. In preparing for SMMs, the staff analyzes licensee performance information from inspection reports, performance indicators and analyses, enforcement history, and other pertinent data. The proper integration of this data is essential to the ability of senior managers to accurately characterize operational safety performance.

Although managers rely on their experience and judgment during the plant performance discussions, the concepts outlined in the SMM Nuclear Power Plant Performance Evaluation Template, (Exhibit 1) help guide their deliberations. Exhibit 1 provides a framework for assessing the plant performance information from the various NRC evaluative processes and includes both subjective evaluation criteria and plant-specific numerical criteria. The subjective criteria evaluate items such as the effectiveness of a licensee's corrective actions, licensee management awareness of, and involvement in, day to day plant activities, and the comprehensiveness and accuracy of a plant's licensing basis documentation and how effectively it is maintained. Examples of plant-specific numerical criteria embodied in Exhibit 1 include: scrams, safety systems actuations, personnel errors, equipment availability rates, maintenance backlog, and corrective action backlog.

Based on the SMM discussions, the senior managers may modify the agency's approach to address the performance problems at a plant. This may include conducting a special team inspection to ascertain the causes of the performance problems, holding discussions between senior officials of both the NRC and the licensee to further enhance the quality of communications, or convening a meeting with the Commission to review plant performance

and licensee plans to improve performance. The SMM includes a review of inspection plans and technical reviews for each facility discussed and often results in reallocation of resources to address facilities of concern. However, the SMM is not the primary means for allocation of inspection or program resources. The plant performance review (PPR) is the primary means for development of power reactor inspection plans.

Following each SMM, licensees are informed of any NRC decisions or actions that have been taken with respect to their plants or facilities, and the Commission is briefed on the results of the meeting.

This Handbook describes SMM preparations, the general conduct of SMMs, actions that can result from SMMs, and communication of SMM results. It should be emphasized that this Handbook in intended solely as guidance to NRC officials in exercising their oversight responsibilities for licensee activities. As such, the determination whether to take any of the actions suggested in the Handbook is solely within the NRC's discretion. Although most of the detailed guidance provided in this Handbook refers only to nuclear power plants, fuel facilities and materials licensees are discussed at SMMs and are specifically addressed under Part III, Sections A and E, of this Handbook.

Part II
Definitions

- Watch List - (A)
- Screening Meetings (B)
- Discussion Plant (C)
- Superior Performer (D)
- Trending Letter (E)
- Major Fuel Cycle Facility (F)
- Materials Licensee (G)
- Facilities for Priority Attention (H)

Watch List - (A)

A list of nuclear power plants whose performance warrant NRC monitoring beyond that normally required by the inspection program. There are three categories associated with this list:

Category 3 - Shutdown plants requiring NRC authorization to start up and that the NRC will monitor closely. (1)

Plants in this category are having or have had significant weaknesses that warrant maintaining the plant in a shutdown condition until the licensee can demonstrate to the NRC that adequate programs have both been established and implemented to ensure substantial improvement. Commission approval is required for restart of a plant in a Category 3 status.

Category 2 - Plants authorized to operate that the NRC will monitor closely. (2)

Although they are being operated in a manner that adequately protects public health and safety, plants in this category are having or have had weaknesses that warrant increased NRC attention from both headquarters and the associated regional office. A plant will remain in this category until the licensee either demonstrates a period of improved performance, or until a further deterioration of performance results in the plant being placed in Category 3.

Plants that are placed in either Category 2 or Category 3 are referred to as being "on the NRC Watch List." Plants that are placed in Category 1, defined below, are referred to as having been "removed from the NRC Watch List."

Category 1 - Plants removed from the watch list. (3)

Plants in this category were previously designated as Category 2, and have taken effective action to correct identified weaknesses. No further NRC special attention beyond the current level of monitoring is needed to verify that improvement continues.

Screening Meetings (B)

Screening meetings are conducted by the Director of Nuclear Reactor Regulation and individual Regional Administrators to identify plants whose adverse or superior performance warrant discussion at an SMM.

Discussion Plant (C)

Plants that are discussed at an SMM because they have exhibited adverse performance.

Superior Performer (D)

A nuclear power plant that has been assessed as SALP Category 1 in all functional areas at its most recent SALP. A superior performer is eligible for formal recognition by the EDO after the first SMM following the issuance of the superior SALP report. Additional guidance on superior performers is contained in Management Directive 8.6, "Systematic Assessment of Licensee Performance." For a plant to receive formal recognition of its superior performance from the EDO, it must meet other criteria, in addition to its SALP Category 1 ratings, which are specified in Exhibit 3 of this Handbook.

Trending Letter (E)

A letter that alerts senior utility managers of NRC concerns regarding declining trends in nuclear power plant performance that, if not corrected, may result in the plant's being placed on the Watch List. This early warning expresses agency level endorsement of concerns that have been documented in previous communications with the licensee, such as letters, inspection reports, SALP reports, and management meetings. The intention of a trending letter is to prompt licensees to take early necessary actions to address the adverse performance trends.

Major Fuel Cycle Facility (F)

A facility licensed or certified under 10 CFR Parts 70, 72, and 76 to possess or process special nuclear material.

Materials Licensee (G)

An entity that has been issued a license under 10 CFR Parts 30 - 36, 39, or 40. Broadly, this category includes general licensees and holders of certificates of compliance and quality assurance approvals.

Facilities for Priority Attention (H)

Major fuel cycle facilities or materials licensees are placed in this category if they are having, or have had, weaknesses that warrant increased regulatory attention. A licensee will remain in this category until it demonstrates a period of improved performance.

Part III
Guidance for SMM Preparation and Conduct

- General (A)
- Screening Meetings (B)
- Final Preparations for SMMs (C)
- Conducting the SMM (D)
- Commission Briefing (E)

General (A)

SMMs will be conducted approximately semiannually. (1)

There are three significant events in each SMM cycle: screening meetings; the Senior Management Meeting; and a Commission briefing. The preparations for each SMM will require comprehensive reviews of operating power reactor performance to identify plants that will be discussed at the SMM, and to determine which plants should be recognized for superior performance. (2)

While most of the SMM discussion pertains to the performance of power reactors, licensee performance at major fuel cycle and materials facilities licensed by NMSS may be discussed at the SMM when there are significant safety or safeguards issues. In addition, while NMSS facilities are not included on the Watch List or subject to screening meetings, NMSS may identify facilities or licensees needing "Priority Attention" based on significant performance weaknesses. (3)

Screening Meetings (B)

Within about 2 months before each SMM, regional administrators will meet with the Director of Nuclear Reactor Regulation (DNRR) on the performance of the plants in their respective regions. These meetings, which are coordinated by NRR, are called screening meetings. (1)

In preparing for screening meetings, regional staffs, coordinating as necessary with other program offices, will review and summarize relevant information on overall plant performance. Information to be reviewed includes: plant events; licensee event reports; inspection findings; licensee corrective action effectiveness; enforcement information associated with escalated action; allegations; and investigations. The main vehicle for these reviews will be the periodic regional Plant Performance Reviews (PPRs), which are described in Inspection Manual Chapter 2515. (2)

In addition, the regional office will incorporate insights from performance indicators, relevant operating experience, IPEs, and human factors data analysis to arrive at an integrated perspective of licensee performance. Program offices will coordinate with the regional offices to supply needed information, as appropriate. (3)

The results of the Plant Performance Reviews (PPRs) should be used as the primary information source for screening meeting preparations. Screening meeting briefing materials for each plant will include a PPR summary, performance indicators, a summary of planned inspections, and the plant issues list, which is a tabulation of objective plant performance information derived from inspection reports and other publicly available information, such as licensee event reports. (4)

Each region will meet with the DNRR, and the regional administrators will lead the plant performance discussions. Meeting participants will include senior managers and staff from NRR, the regional offices, the Office for Analysis and Evaluation of Operational Data (AEOD), and the Office of Enforcement (OE). (5)

The screening meeting review of each plant will emphasize the discussion of adverse performance trends and the effectiveness of licensee self-assessments and corrective actions for identified problems. The information contained in the plant issues lists will be used by meeting participants to independently assess plant performance. Future inspection plans are also to be reviewed at the screening meetings. (6)

The main objective of discussing each plant at the screening meeting is to conduct integrated reviews of plant performance, focusing on changes in performance since the last SMM. From these discussions, the DNRR and RAs will determine which plants should be discussed at the SMM and which should be considered for recognition for superior performance. (7)

Identification of Discussion Plants: On the basis of screening meeting analyses, plants will be selected for discussion at the SMM. Selection as a discussion plant is not an adverse action, since SMM discussion is primarily a vehicle to permit the assessment of operational plant performance from the senior managers' perspective.

If, after reviewing a plant's performance at the screening meeting, either the Regional Administrator, DNRR, or the Director of AEOD believe that it would be beneficial, the plant will be selected for SMM discussion. Additionally, the following plants shall be discussed at the SMM: those that are currently in Categories 2 or 3 of the Watch List; those that have been placed in Category 1 during either of the two preceding SMMs; and, plants that were issued a trending letter at the previous SMM. Also, at the screening meetings, the DNRR and regional administrators will identify additional plants whose performance may be declining such that they warrant discussion at the SMM. (8)

Final Preparations for SMMs (C)

Following the screening meetings, the headquarters and regional staffs will work together to develop the information for use at the SMM. This information will be collated by NRR into a notebook called the SMM Executive Summary. The SMM Executive Summary will include background papers that synopsize the performance of each plant to be discussed at the SMM, tables of relevant technical and regulatory information, summaries of plants to be considered for recognition as superior performers, a meeting agenda, and other information as specified by the EDO. (1)

For each SMM discussion plant, the cognizant regional office will prepare a narrative summary of plant performance that incorporates insights developed during the screening meeting. The narrative summary will be derived from the PPR summary, and the Plant Performance Evaluation Template (Exhibit 1) will be used in its preparation. In addition to the narrative summary, the regional office will include an updated plant issues list in its SMM materials, along with a Watch List Removal Matrix (Exhibit 2) for plants that will be recommended for removal from the Watch List, as determined during the screening meeting. (2)

The SMM Executive Summaries will be distributed to SMM participants in advance of the meeting. (3)

The Office of the EDO will coordinate the identification of SMM discussion topics and will prepare the agenda for the meeting. (3)

Conducting the SMM (D)

The SMM will be conducted under the direction of the EDO. (1)

Attendees: Attendees will typically include the EDO, DEDR, DEDS, the regional administrators, office directors of NRR, AEOD, NMSS, RES, OE, OI, OSP, senior managers from OGC, and other support personnel as directed. (2)

Plant Performance Discussions: The discussions of plant performance will be led by each cognizant regional administrator with input from the other senior managers. Plant performance will be evaluated by the senior managers using the information contained in the SMM Executive Summary, and discussions will be guided by the Performance Evaluation Template or the Watch List Removal Matrix, as applicable. To aid in arriving at an independent and objective view of a plant's operational safety performance, senior managers can refer to the inspection data provided in the plant issues list. To ensure that all discussion plants are assessed similarly, the various factors included in the Template and Matrix should be considered by the meeting's participants, although each plant discussion should focus on those factors that are germane to that plant. The senior managers will also review the allocation of NRC inspection and technical program resources and will initiate actions to address identified issues. (3)

Based on SMM review of performance information for individual plants, senior managers may take one of the actions summarized below. (a)

For plants that are not currently on the Watch List and whose performance is discussed at the SMM:

- No specific action recommended from the SMM; plants may continue to receive NRC inspections in accordance with Inspection Manual Chapter 2515, "Light Water Reactor Inspection Program -- Operations Phase."
- Plants may be placed on the Watch List, and therefore receive additional regulatory attention (an increase in NRC inspection oversight of licensee activities) from both NRC headquarters and the associated regional office.
- Plants may be issued a trending letter that formally communicates NRC management's concerns regarding adverse performance trends. This action, which is taken to inform licensee management that plant performance, if not corrected, may result in the plant being placed on the Watch List at a future SMM, also entails an enhanced NRC oversight of licensee activities. A plant is issued only one adverse trending letter. The adverse performance trend should be assessed at future SMMs.

  Should there be insufficient data during future SMMs for senior managers to determine if the adverse trend has been arrested, the NRC should continue to monitor plant performance and to discuss the plant at SMMs. If the adverse performance trends are observed to continue, the plant should be placed on the Watch List.

  If, during a future SMM, the adverse performance trend is considered to have been arrested, this determination will be communicated to the licensee in a letter from the EDO. A sample of this type of letter is contained in Exhibit 8 of this Handbook. (b)

For plants that are currently on the Watch List, the following actions apply:

- Based on their review of the Watch List Removal Matrix, the senior managers may remove a plant from the Watch List if the licensee has taken effective action to correct identified weaknesses. To ensure that an improving trend continues, the performance of a plant removed from the list is reviewed at the next two SMMs.

  If, as a result of the Watch List Removal Matrix evaluation, the senior managers determine that a plant will remain in Category 2, the actions discussed in paragraph D(4), Actions for Plants that Remain on the Watch List for Extended Periods, will be considered for implementation.
- Plants in Category 3 must be moved to Category 2 before being considered for placement in Category 1. Typically, the restart of plants that are in Category 3 will be carefully evaluated using the guidance in Inspection Manual Chapter 0350, "Staff Guidelines for Restart Approval." (c)

Should senior managers determine that additional information is needed on a plant to properly assess performance or to evaluate licensee self assessments, they may recommend to the EDO that a special inspection or evaluation be conducted at the plant before the next SMM. (d)

Actions for Plants that Remain on the Watch List for Extended Periods (4)

If a Category 2 plant's problems remain unresolved or its performance does not improve sufficiently to be removed from the Watch List, the senior managers may recommended taking the actions discussed below. These options do not supersede the requirements or policies documented elsewhere for implementing the actions, nor do they relieve others of their responsibilities to implement necessary actions separate from the SMM process. The objective of these actions is to ensure the licensee establishes a plan for improvement that incorporates measurable goals to determine when performance has improved. These actions incorporate into the SMM process existing agency tools to remediate regulatory concerns. Whether and when to take any one of these actions is a determination within the NRC's

sole discretion. (a)

- Conduct regularly scheduled public meetings with licensee management to review corrective actions and plant performance. (b)
- Have the licensees brief the Commission regarding their actions to address continuing poor performance. (c)
- Establish an oversight panel with headquarters and regional members to closely monitor implementation of corrective action plans. Meetings with the licensee would be open to the public. (d)
- Send a letter from the Chairman or the Executive Director for Operations to the licensee if a plant's performance has not shown improvement after having been placed on the Watch List. The letter would express the senior managers' concerns as specifically as possible, and would ask the licensee to respond with its actions and measures for determining its improvement. (e)
- Issue a confirmatory action letter (CAL). Such a decision would generally be based on the information received in response to a previous executive letter and the NRC's validation of that information. The CAL would confirm the NRC's and the licensee's understanding of issues and the actions, measures, and schedule to address NRC operational safety performance concerns. (f)
- Issue a demand for information. The decision to issue a demand would typically be based on the licensee's inability to comply with the actions and milestones established in a previous CAL. The demand would require the licensee to show cause why the NRC should not pursue further enforcement action, such as issuing an order or modification, suspension, or revocation of the license, including shutting down the plant.

  Demands for information are described in the NRC's Enforcement Manual (reference 4). (g)
- Issue an order to modify, suspend, or revoke a license. A modification order also may be used to affect changes in licensee management controls. Remedial orders may be issued which would require licensees to address underlying problems with poor performance without directly affecting the license.

  Orders are described in the NRC's Enforcement Manual (reference 4). (h)

Meetings with Licensee Boards: At any time, based upon the senior managers' assessment of plant performance, the EDO, the Director of NRR, and the cognizant RA may meet with a licensee's board of directors (trustees) to directly communicate senior management concerns regarding the performance of a specific plant.

Recognition of Superior Performance: During the SMM, senior managers will consider whether plants that have demonstrated superior safety performance will be formally recognized. The evaluation criteria to be used in assessing plants for superior performance are the plant's most recent SALP ratings and the plant's performance since those ratings were issued (Exhibit 5 to this handbook). Formal recognition will be provided by a letter from the EDO to the licensee. These letters will be reviewed by the Commission before they are issued and will be placed in the public document room following issuance; no press release will be made. (5)

Other Discussions and Follow-up Actions: During the SMM, the EDO, regional administrators, and program office directors will lead discussions of selected technical, regulatory, and management topics. (6)

Items requiring further action that are identified during the SMM will be formally issued by the EDO to the staff for action. (7)

Following completion of the SMM, the EDO will issue letters to: all plants in Categories 1, 2, or 3; plants exhibiting adverse performance trends (trending letters), and; letters to recognize superior performance, as discussed above. (8)

Commission Briefing (E)

The staff will brief the Commission on the SMM results at a public meeting after each SMM. The briefing will include discussions of the plants that have been placed on the Watch List, removed from the Watch List, or issued trending letters. Licensee performance at fuel cycle facilities where significant performance issues exist will also be discussed. The SMM results will be communicated to the NRC's congressional oversight committees the day prior to the SMM Commission briefing. (1)

Prior to the Commission meeting, letters from the EDO will be transmitted by facsimile to the licensees of those plants placed on the Watch List and to those plants with adverse trends. Routine distribution will be deferred until after the meeting with the Commission. (2)

Cognizant regional administrators will inform licensee senior managers of the NRC's concerns regarding those plants that were discussed at the SMM but not placed on the Watch List or issued trending letters. Notification to a licensee about the performance of a special inspection or evaluation at one of its facilities will be issued separately by the cognizant regional office. (3)

EXHIBIT 1

SMM NUCLEAR POWER PLANT PERFORMANCE EVALUATION TEMPLATE

EXHIBIT 2

WATCH LIST REMOVAL MATRIX

EXHIBIT 3

SUPERIOR PERFORMANCE RECOGNITION MATRIX

EXHIBIT 4

SAMPLE TRENDING LETTER

Dear [NAME]:

On [DATE], NRC senior managers met to evaluate the nuclear safety performance of operating reactors, fuel facilities, and other materials licensees. This meeting is conducted semiannually to determine whether the safety performance of the various licensees warrants increased NRC attention.

The Commission has directed that, during these meetings, NRC senior managers also identify those plants whose performance is trending adversely and that steps be taken to communicate concerns to the utility's corporate president or board of directors. This early notification to the highest levels within the utility's organization is intended to allow appropriate measures to be taken by the licensee to address the areas of concern.

This letter is to advise you that during the [MONTH and YEAR] Senior Management Meeting, recent trends in the performance at [PLANT NAME] raised sufficient concerns that we believe a meeting with you would be appropriate.

[ADDITIONAL INFORMATION, IF APPROPRIATE]

[NAME], the NRC Region XXX Administrator in [CITY, STATE], will be contacting you to arrange for a mutually agreeable time and location for a meeting covering [PLANT NAME] performance.

An NRC Commission meeting, open to the public, has been scheduled to be held in the Commissioners' Conference Room in Rockville, Maryland, on [DATE], to review the results of the latest meeting of NRC senior managers.

If you have any questions regarding this matter, please do not hesitate to call me.

Sincerely,

Executive Director for Operations

Docket No. 50-XXX

cc: See next page

EXHIBIT 5

SAMPLE CATEGORY 2/3 LETTER

Dear [NAME]:

On [DATE], NRC senior managers met to evaluate the nuclear safety performance of operating reactors, fuel facilities, and other materials licensees. The NRC conducts this meeting semiannually to determine if the safety performance of various licensees exhibits sufficient weaknesses to warrant increased NRC attention or if it is trending adversely and requires steps be taken to communicate concerns to the utility's president or board of directors. At the [MONTH and YEAR] Senior Management Meeting, the [PLANT NAME] was discussed.

The [PLANT NAME] [(was placed) or (remains)] on the NRC Watch List as a Category 2 plant. Plants in this category have been identified has having weaknesses that warrant increased NRC attention until the licensee demonstrates a period of improved performance. A summary of NRC discussions related to [PLANT NAME] follows:

[PERFORMANCE DISCUSSION]

[NAME], the NRC Region XXX Administrator, has discussed the bases for our conclusions with regard to the [PLANT NAME] with members of your staff.

An NRC Commission meeting, open to the public, has been scheduled to be held in the Commissioners' Conference Room in Rockville, Maryland, on [DATE], to review the results of the latest meeting of NRC senior managers.

If you have any questions regarding this matter, do not hesitate to call me.

Sincerely,

Executive Director for Operations

Docket No. 50-XXX

cc: See next page

EXHIBIT 6

SAMPLE CATEGORY 1 LETTER

Dear [NAME]:

On [DATE], the NRC senior managers met to evaluate the operational safety performance of operating reactors, fuel facilities, and other materials licensees. The NRC conducts this meeting semiannually to determine if the operational safety performance of various licensees exhibits sufficient weaknesses to warrant increased NRC attention or if it is trending adversely and requires that steps be taken to communicate concerns to the utility's president or board of directors. At the [MONTH and YEAR] Senior Management Meeting, the [PLANT NAME] was discussed.

Based on our discussions, it was concluded that the [PLANT NAME] has demonstrated sustained improvement sufficient to warrant removal from the NRC Watch List category that requires increased attention from both NRC headquarters and Region XXX. Plants removed from the Watch List have taken effective actions to correct identified problems and to implement programs for improved performance. A summary of NRC discussions related to the [PLANT NAME] follows:

> The NRC's inspection program and overview activities have determined that licensee management has substantially corrected the weaknesses and underlying root causes that led to previous performance problems at the [PLANT NAME]. Management has established high standards of performance, implemented improved self-assessment and corrective action programs, and upgraded the material condition of the two units to enhance equipment reliability.
>
> [AMPLIFYING COMMENTS, AS NECESSARY]
>
> In summary, licensee actions have been effective in improving the operational safety performance of the [PLANT NAME]. Therefore, the NRC has determined that an enhanced level of regulatory monitoring is no longer warranted.

An NRC Commission meeting, open to the public, has been scheduled to be held in the Commissioners' Conference Room in Rockville, Maryland, on [DATE], to review the results of the latest meeting of NRC senior managers. [NAME], the Region XXX Administrator, has discussed the bases for our conclusions with regard to [PLANT NAME] with members of your staff.

If you have questions regarding this matter, do not hesitate to call me.

Sincerely,

Executive Director for Operations

Docket No. 50-XXX

EXHIBIT 7

SAMPLE SUPERIOR PERFORMANCE RECOGNITION LETTER

Dear [NAME]:

On [DATE], NRC senior managers met to evaluate the operational safety performance of operating reactors, fuel facilities, and other materials licensees. The NRC conducts this meeting semiannually to determine if the operational safety performance of various licensees exhibits sufficient weaknesses to warrant increased NRC attention or if it is trending adversely and requires steps be taken to communicate concerns to the utility's president or board of directors. In addition, at this meeting, senior managers identify specific plants that have demonstrated a continued high level of operational safety performance that deserves formal NRC recognition. At the [MONTH and YEAR] Senior Management Meeting, [PLANT NAME] was identified as having achieved such a level of operational safety performance and is being recognized as a superior performer.

In identifying such plants, NRC senior managers perform an evaluation of performance in many areas against predetermined criteria, including operational safety, self-assessment, problem resolution, and plant management organization and oversight.

The NRC acknowledges that, to achieve the level of performance demonstrated by [PLANT NAME], there must be management involvement in all phases of plant activities. In addition, the staff must be dedicated, knowledgeable, and fully supportive of plant activities, and a commitment to safety must exist throughout the organization. We commend you and your staff for achieving this high level of operational safety performance. Your achievement is a positive example to the industry.

The greatest challenge that you now face is to maintain the level of performance and not to rest on past achievements. Continued management involvement and support, and dedicated efforts from your staff to identify and promptly correct problems are necessary for you to continue to meet this difficult challenge.

Sincerely,

Executive Director for Operations

Docket No. 50-XXX

cc: See next page

EXHIBIT 8

SAMPLE LETTER INFORMING LICENSEE OF CORRECTION OF ADVERSE PERFORMANCE TREND

Dear [NAME]:

In my letter of [DATE #1], I advised you that recent trends in performance at the [PLANT NAME] raised sufficient concerns that we believed that it would be appropriate to meet with you to discuss the concerns.

On [DATE #2], an SMM was held at which NRC managers once again reviewed and evaluated the operational safety performance of operating reactors. The discussions regarding [PLANT NAME] considered the additional insights gained from our monitoring of plant performance since the previous SMM. Based on these discussions it was concluded that the corrective actions you are taking have been effective in addressing our concerns regarding adverse trends in performance at [PLANT NAME]. We noted overall improvement in [PERFORMANCE DISCUSSION].

We expect that your efforts to improve performance at [PLANT NAME] will continue, and my staff will monitor your progress. [NAME], the Region XXX Administrator, has discussed the basis for our conclusions with regard to the [PLANT NAME] with members of your staff.

If you have any questions regarding this matter, do not hesitate to call me.

Sincerely,

Executive Director for Operations

Docket No. 50-XXX

cc: See next page

SMM NUCLEAR POWER PLANT PERFORMANCE EVALUATION TEMPLATE

- I. Effectiveness of Licensee Self-Assessment
- II. Operational Performance (Frequency of Transients)
- III. Human Performance
- IV. Material Condition (Safety System Reliability/Availability)
- V. Engineering and Design

The questions presented in this template are structured to summarize the root causes of poor performance. In developing the discussion plant narrative summaries for use during the SMM, regional staff should ensure that those factors that are germane to each plant are addressed, and are illustrated with examples from the plant issues lists (PILs). During the SMM, senior managers should use the template to guide discussions of nuclear power plant safety performance. To aid in arriving at an independent and objective view of a plant's operational safety performance, senior managers should use this template in conjunction with the plant's narrative summary, data summary, NRC performance indicators, and PIL.

I. Effectiveness of Licensee Self-Assessment

Does the licensee effectively document problems?

Are safety issues identified to the appropriate level of management before they result in events or equipment failures? Does management take the initiative to identify problems and determine their root causes?

Are deficiencies predominantly identified by the licensee or by NRC (or other external entities), or are they self-revealed?

Does the licensee effectively determine the root causes of identified deficiencies and the extent of degraded conditions?

Are the licensee's corrective actions effective in correcting the root causes of degraded and/or non-conforming conditions?

Are corrective actions timely, and do they include sufficient measures to prevent recurrence of problems?

What is the trend of the plant's corrective action backlog? How does this backlog impact operational safety?

How effectively does the licensee employ industry experience, or other pertinent information from outside sources, in its self-assessments?

Is the licensee responsive to self-assessment findings?

Does the licensee have effective corporate management oversight and involvement in problem resolution?

II. Operational Performance (Frequency of Transients)

How do plant performance indicators for scrams and forced outage rate compare to industry averages and the plant's peer group?

What insights into operational safety are provided by the number and safety significance of events, equipment failures, or other abnormal occurrences?

Does the licensee staff operate the plant in a conservative, safe and professional manner?

How effectively does the operations staff control plant activities?

What level of performance has been demonstrated during routine evolutions, outages, events, and response to abnormal alarms?

How does the licensee's operation of the balance of plant affect overall safety performance?

Does licensee management demonstrate awareness of day-to-day operational concerns?

Does the licensee tolerate conditions that have the potential to challenge plant operational safety, as demonstrated by the existence of operator work-arounds, temporary procedure changes, temporary jumpers, and nuisance alarms?

Are the licensee's operability determinations conservative, timely, and based on safety considerations?

During outages, does the licensee effectively coordinate activities to minimize shutdown risk?

Are activities such as online maintenance and LCO management properly coordinated? Does the licensee effectively limit unnecessary entry into LCOs or prolonged LCO times?

Does the licensee intentionally enter into LCOs to perform preventive or corrective maintenance? If so, do they consider the safety benefit that may be obtained from such action, and do they apply risk insights in the decision to conduct on-line maintenance?

Do licensee procedures provide adequate guidance for safety-related activities?

Are the licensee's practices governing responses to and assessments of operational events clearly articulated?

III. Human Performance

How many reportable events over the past year have been attributed to the licensed operator, other personnel, or maintenance cause codes? How do these compare with national averages?

To what extent have human performance problems contributed to reportable events?

How do human performance problems contribute to malfunctions, abnormal conditions, or other activities that may adversely impact safety?

Do licensee staff members demonstrate conservatism and an appropriate appreciation of safety when planning and performing activities?

Is the licensee's staff appropriately qualified and properly trained?

Are the licensee's procedures adequate and properly used?

Are management expectations clearly articulated to, and understood by, licensee staff?

IV. Material Condition (Safety System Reliability/Availability)

How do licensee performance indicators for safety system failures, safety system actuations, and significant events compare to industry averages and the plant's peer group?

What are the performance trends of plant equipment, including, but not limited to, availability and failure and rework rates?

What is the trend, and impact on operational safety, of the plant's corrective maintenance backlog?

Has the licensee implemented comprehensive and effective plant maintenance, surveillance testing, and test programs?

Are work activities prioritized with appropriate consideration of importance to safety?

What effect does the material condition of the balance of plant equipment have on the licensee's ability to safely operate the plant?

V. Engineering and Design

How many reportable events over the last year have been attributed to the design cause code?

How effectively does the licensee's engineering function support plant reliability and operational safety? How well are PRA vulnerabilities factored into these activities?

Do design, construction, and equipment deficiencies exist?

Is the plant's licensing basis and design basis documentation complete and accurate (including FSAR maintenance and the effectiveness of activities conducted under 10 CFR 50.59)?

Does the licensee's engineering function adequately address issues related to plant aging?

Do the licensee's engineering work controls effectively establish and monitor the status and priority of the backlog of engineering work?

Does the licensee's engineering function effectively solve problems without recurrence?

Have human-system interfaces resulted in problems that challenge plant safety?

PLANT NAME
EVALUATION FACTORS FOR REMOVAL OF PLANTS FROM THE WATCH LIST

Evaluation Factors	Response	Comments
I. Root Cause Identified and Corrected		
Weak performance areas are thoroughly assessed.		
Comprehensive and clearly defined corrective action program has been developed.		
Corrective actions include sufficient measures to prevent recurrence of problems.		
Management has allocated sufficient resources to carry out long-range corrective action programs.		
NRC is satisfied that corrective action program is sufficiently implemented.		
Sustained, successful plant performance has been demonstrated.		
II. Improved Self-Assessment and Problem Resolution Evident		
Program elements that monitor and evaluate effectiveness of corrective actions have been instituted.		
Safety issues are being identified to appropriate management level and corrected in a timely manner.		
Quality assurance and safety oversight groups provide timely and effective self-assessments of performance to site and corporate management.		
III. Licensee Management Organization and Oversight Improved		
Corporate and plant management teams are fully committed to achieving improved performance.		
Licensee has effective corporate management oversight and involvement in plant operations and problem resolution.		
Management team provides strong direction and fosters a nuclear safety work ethic that is understood at all levels in the organization.		
IV. NRC Assessment Complete		
Senior NRC management no longer considers the plant as having weaknesses that warrant increased NRC-wide attention.		
Significant NRC inspection and licensing activities are complete and findings properly resolved or understood.		
V. Additional Considerations		
Overall performance has improved as reflected in the most recent SALP ratings, Performance Indicators, or results from the Plant Performance Review.		
Enforcement history has indicated an improving trend.		
Performance has improved as demonstrated by a lack of operational problems.		
Performance has improved as demonstrated by a lack of significant operator errors.		
Procedure adherence problems are not evident.		
Simulator is operational.		
Known (i.e., plant specific or industry generic) aging problems have been appropriately addressed.		
Licensee has improved its management organization.		
Licensee procedures are considered adequate overall.		
Licensee has an effective root cause analysis program.		
PRA has been performed.		
PRA has been used.		

PLANT NAME
EVALUATION FACTORS FOR SENIOR MANAGERS' REVIEW OF LICENSEES EXHIBITING SUPERIOR PERFORMANCE

Evaluation Factors	Response	Comments
I. SALP Assessment		
a. SALP 1 ratings in all functional areas.		
II. Current Performance Level		
a. A superior level of safety performance has been maintained since the last SALP, as evidenced by a lack of significant operational problems and operator errors.		
b. The NRC has not initiated any escalated enforcement actions for events that have occurred since the last SALP.		
c. Performance indicators reflect superior overall safety performance since the last SALP.		
d. The NRC is not conducting any significant inspections or investigations of allegations that, if substantiated, might adversely reflect on overall plant performance.		

ATTACHMENT 4

RESULTS OF AEOD HISTORICAL REVIEW OF NRC PERFORMANCE INDICATORS

The following figures depict trends in Performance Indicators (PIs) from 1987 to 1995 for the nine sites (excluding Browns Ferry) that have been placed on the Watch List since January 1991. These sites include the following units:

Brunswick 1 and 2
Dresden 2 and 3
Indian Point 3
Nine Mile Point 1 and 2
Zion 1 and 2
Calvert Cliffs 1 and 2
Fitzpatrick
Millstone 1, 2, and 3
South Texas 1 and 2

The Relative Score for each unit is calculated by summing the relative scores of each PI except collective radiation exposure and cause codes, a total of nine automatic scrams , safety system actuations (SSAs), significant events (SEs), and safety system failures (SSFs) during operations; SSAs, SEs, and SSFs while shutdown; and forced outage rate and equipment forced outages per 1000 commercial critical hours. This sum is calculated with equal weighting for each of the nine PIs. The relative score for any PI is a number between 1 and 109 which represents the order of the plant for that PI, with 1 being the plant with the best performance indicator and 109 being the plant with the worst indicator. The theoretical range of scores then is from 9 to 981, where the higher the score, the poorer the PI performance. The Relative Scores for each unit at a site were then averaged to provide a site value.

The vertical bars denote the time when the plant(s) were placed on or taken off the Watch List.

During outages, nuclear power plants tend to have a higher rate of occurrence of events which result in SSAs, SEs, and SSFs, because of the maintenance and surveillance activities that take place. When a plant is in an extended shutdown of six months or more, however, the number of PI events typically drops off drastically as much of the maintenance backlog is worked off. The duration of extended outages is provided in a footnote on each chart.

For comparison purposes, a few plants which have been recognized as superior performers have also been included. These plants are:

Callaway
Diablo Canyon 1 and 2
Kewaunee
Prairie island 1 and 2
St. Lucie 1 and 2
Summer