



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS  
WASHINGTON, D. C. 20555

September 10, 1997

The Honorable Shirley Ann Jackson  
Chairman  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

Dear Chairman Jackson:

SUBJECT: STAFF ACTION PLAN TO IMPROVE THE SENIOR MANAGEMENT MEETING PROCESS

During the 444th meeting of the Advisory Committee on Reactor Safeguards, September 3-5, 1997, we met with representatives of the NRC staff to discuss its Action Plan to improve the Senior Management Meeting (SMM) process. Our Subcommittees on Probabilistic Risk Assessment, Plant Operations, and Fire Protection also discussed this matter during a joint meeting on August 28-29, 1997. We also had the benefit of the documents referenced.

The SMM process is being revised in response to Commission direction. A report prepared by Arthur Andersen contained recommendations for improving the SMM process in two areas: the SMM information base and the SMM evaluation process. The first area for improvement involves inputs to the SMM decisionmaking process, including performance indicators and the decision criteria used by the senior managers. The second area involves the role of SMM participants, the method of reaching consensus, the presentation of information, and the documentation of meeting results.

The objectives of the revised SMM process are: to provide more structure to the performance evaluations, increase participation of senior managers, improve consistency among the Regions, and enhance the scrutability of the process and decisions to both the Commission and the public. In addition, the Commission directed the staff to make further improvements to the SMM process by developing better performance indicators that can provide a more objective basis for judging whether a nuclear power plant licensee can be placed on or be removed from the NRC Watch List. These improved indicators and objective measures are expected to enhance the staff's ability to take appropriate regulatory actions, including additional enforcement measures - some of which have not been effective in the past.

The staff presented to us its plan to improve the SMM information flow, in order to obtain objective data for use in the assessment process. A key element in this improved process is the development of a Performance Template which is designed to coordinate all relevant data to improve decisionmaking.

We support the goal of codifying the SMM information gathering and review process, however, the basis for the top-level criteria contained in the Template is not clear. Furthermore, the process by which the Template leads to the formulation of decisions is also not apparent.

We would prefer to see a top-down structure that starts with the point of decision, identifies the objectives of the decision, and proceeds to define the informational needs. For example, in a risk-informed approach, one could envision as an objective (one of several) the prevention of the occurrence of initiating events and the degradation of safety functions. To satisfy this objective, one would look for precursors to these undesirable events and then would proceed to identify relevant performance indicators, and address the issue of how these would be measured. In this way, the logic behind the Template would be transparent and easy to communicate to the various stakeholders. A similar systematic approach would be taken for the other objectives. The staff told us that such a hierarchical structure will be developed. We recommend that its development be accelerated, and we would like to be kept informed.

In addition to the concern with the Template discussed above, we recommend that the staff address the following items regarding its efforts to improve the SMM information base:

- Examination of a sample of significant operational events is needed to determine if they were foreshadowed by prior plant performance.
- Careful assessment of the pros and cons on the use of economic indicators is needed, as the relationship between economic indicators and safety performance is not clearly understood.
- Evaluation of how the revised process will focus on the competency of plant management and culture is needed.
- Assurance is needed that the new performance standards are objective and reduce reliance on event-driven assessments.

We note that although progress has been made in improving the information base of the SMM, considerable work remains in such areas as the development of tools for assessing management/organizational effectiveness and testing their implementation.

The staff also discussed the status of its plans to perform an integrated review of the NRC assessment process. The Office of Nuclear Reactor Regulation (NRR) has a number of programs in place to assess licensee performance. Among these are the Systematic Assessment of Licensee Performance, the SMM process, the Plant Performance Review, and the Plant Issues Matrix. Each of these programs provides insight on some aspects of licensee performance. Currently, there is no integrated assessment of licensee performance. The NRR staff is undertaking a review and examination of its current programs with the intention of identifying improvements that will provide a better, integrated, and more comprehensive assessment of licensee performance. Development of a hierarchical structure similar to the one recommended above would be useful here.

The staff plans to complete its integrated review of the assessment process by March 1998, and provide recommendations to the Commission by June 1998. The staff has not yet defined the requirements (preferably quantitative) for an adequate program to assess licensee performance. It is not apparent to us how well-designed recommendations can be formulated without the explicit definition of the requirements for the assessment program to meet Agency needs. It is not clear how preferred options can be selected absent explicit requirements. We strongly recommend that NRR develop requirements for an adequate licensee performance assessment program.

We plan to meet with the NRC staff as it continues its integrated review of the NRC assessment process for operating commercial nuclear power plants.

Sincerely,



R. L. Seale  
Chairman

References:

1. SECY-97-072, Memorandum dated April 2, 1997, from L. Joseph Callan, Executive Director for Operations, NRC, for the Commissioners, Subject: Staff Action Plan to Improve the Senior Management Meeting Process.
2. SECY-97-192, Memorandum dated August 21, 1997, from L. Joseph Callan, Executive Director for Operations, NRC, for the Commissioners, Subject: Peer Review of the Arthur Andersen Methodology and Use of Trending Letters.
3. U.S. Nuclear Regulatory Commission, Senior Management Meeting (SMM), Directive 8.14, Volume 8: Licensee Oversight Programs, Approved March 19, 1997.
4. Memorandum dated March 14, 1997, from John C. Hoyle, Secretary, NRC, to L. Joseph Callan, Executive Director for

- Operations, NRC, Subject: Staff Requirements - Briefing on Analysis of Quantifying Plant Watch List Indicators (Arthur Andersen Study), Commissioners Conference Room, February 18, 1997.
5. Memorandum dated June 24, 1997, from John C. Hoyle, Secretary, NRC, to L. Joseph Callan, Executive Director for Operations, NRC, and John T. Larkins, ACRS/ACNW, Subject: Staff Requirements - Briefing on Staff Response to Arthur Andersen Study Recommendations, April 24, 1997, Commissioners Conference Room.
  6. Memorandum dated June 30, 1997, from John C. Hoyle, Secretary, NRC, to L. Joseph Callan, Executive Director for Operations, NRC, Subject: Staff Requirements - Briefing on Operating Reactors and Fuel Facilities, June 25, 1997, Commissioners Conference Room.
  7. Memorandum dated August 19, 1997 from John C. Hoyle, Secretary, NRC, to L. Joseph Callan, Executive Director for Operations, NRC, and John T. Larkins, ACRS/ACNW, Subject: Staff Requirements - SECY-97-122 - Integrated Review of the NRC Assessment Process for Operating Commercial Nuclear Reactors.