

POLICY ISSUE
(Notation Vote)

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SECY-05-0005

FOR: The Commissioners

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SUBJECT: OPTIONS FOR RESEARCH EFFECTIVENESS REVIEW BOARD

PURPOSE:

The purpose of this paper is to provide the Commission with options concerning the activities of the Research Effectiveness Review Board (RERB), seek Commission endorsement to end RERB, and provide pertinent updated information. Toward that end, this paper addresses the functions of the RERB which have been overtaken by other changes such as the strategic planning process, inter-dependent office Operating Plans, and common prioritization.

BACKGROUND:

In 1996, as part of strategic planning, the staff examined the state of the NRC's research program and identified options concerning its future. After reviewing the information, and considering related stakeholder comments, the Commission issued staff requirements memorandum (SRM) COMSECY-96-066, dated March 28, 1997, which instructed the staff to consider creating an RERB, which would be chaired by the Office of Nuclear Regulatory Research (RES) and composed of representatives from the Offices of Nuclear Reactor Regulation (NRR), Nuclear Material Safety and Safeguards (NMSS), Analysis and Evaluation of Operational Data (AEOD), as well as the regional offices. The Office of Nuclear Security and Incident Response (NSIR) was included in April 2002 following its establishment. The RERB periodically reviewed the bases for initiating, continuing, and terminating specific research programs, giving particular attention to the effectiveness of broad-based, long-range programs and the staff's capabilities to address core research needs. In addition, the Commission expressed its desire to conduct a triennial review of the usefulness of the RERB and the advisability of continuing its existence.

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In response to the SRM on COMSECY-96-066, the staff prepared a Commission paper (SECY-97-224, dated October 1, 1997), entitled "Creation of a Research Effectiveness Review Board," which the Commission subsequently approved in a related SRM dated November 4, 1997. Since establishing the RERB, the staff has provided periodic reports to the Commission, in SECY-01-0163 (dated August 24, 2001) and SECY-03-0204 (dated November 25, 2003), regarding the activities of the RERB and the status of the agency's research program.

As described in SECY-01-0163, the RERB activities included selective review of RES products and user need requests, as well as the operating plans for pursuing research. Insights were gleaned concerning the effectiveness of the conduct of research and the interaction between the principal offices that affects RES and its products. For example, the RERB found that the user need development process was important in establishing common expectations between the licensing office and RES. In addition, RERB deliberations led to a recognition that a wider range of issues and sources of information ought to be considered in order to successfully evaluate the effectiveness of the research program. The RERB concluded that these broader issues could benefit from higher management dialogue. As a result, the RERB was reconstituted at the Deputy Office Director/Associate Director level. Systematic "vertical slice" reviews of research projects were undertaken to obtain data and insights on the effectiveness of the existing processes supporting the initiation and conduct of research.

In the last report on RERB, SECY-03-0204, the staff informed the Commission of continued improvements in coordination of research through a marked increase in the number and scope of inter-office communications between assigned organizational elements in each office. Significant institutionalization of beneficial changes was noted. New initiatives were described that further enhanced research effectiveness, such as a system for common prioritization of work based on the unifying concepts in the agency performance and strategic goals. User need improvements were customized to meet individual office circumstances, and included innovations such as the advanced reactor Technical Advisory Group (TAG) and steering committee.

DISCUSSION:

The processes that enhanced the effectiveness of the research program have matured significantly. As a result, the staff believes that it is appropriate to revisit the benefits of continuing RERB activities. The Commission's original objectives for creating the RERB have been attained, and even surpassed in some respects. The oversight functions of the RERB are routinely fulfilled by the program reviews performed by the Advisory Committee on Reactor Safeguards and the Advisory Committee on Nuclear Waste. Candid feedback provided by the program offices regarding progress on research projects in which they have interests informs inter-office interactions.

Since initiation of the RERB, the agency has made significant and continued progress by way of enhancements in the effectiveness of the interaction, communication, and coordination between RES and the user offices. For example, meetings between the office directors occur more frequently and focus on outcomes that have agency-wide benefits. Also, operating plans are coordinated and integrated to ensure that RES activities and research program products to support Program Office activities are identified and that milestones are established to meet defined expectations. Quarterly and more frequent office level meetings ensure that impacts are considered before changes in schedule or scope of the work are made.

One example of improved integration of activities or connectivity is the practice that has been adopted to tailor interactions between RES and other NRC offices to suit individual office needs, rather than impose a standardized user need process for all offices. This approach has worked well. For example, during the preapplication reviews of the Advanced CANDU Reactor 700 (ACR-700) and the Economic and Simplified Boiling Water Reactor (ESBWR), the deliberations of the TAG and the Advanced Reactor Steering Committee (ARSC) supplanted the user need process, and the reviews are accomplishing the desired objectives more efficiently. Also, coordinated advanced planning and careful coordination during project development and implementation ensure that products meet user office needs.

Current routine processes and communications emphasize defining up-front the purpose and end-use applications of research work, achieving agreement on milestones and schedules, sharing information on the status monitoring efforts, and integrating periodic reviews of Operating Plans. The staff has also achieved considerable progress toward a common approach to prioritizing research activities in the reactor, materials, and waste programs. This moves the agency closer to adopting a more consistent approach for prioritizing like or linked activities, and using a similar basis for prioritizing the work based on the NRC's strategic performance goals. At the same time, the offices are working toward a common approach for developing and executing their operating plans. Plans now better reflect agency goals, objectives, and priorities. Office level budgeting decisions have also improved in that they reflect resource allocation agreements reached by properly aligning plans across offices. Additionally, quarterly reviews of operating plan implementation at the Office and Deputy Executive Director for Operations levels provide senior management review and further integration of activities. These efforts will contribute to the agency's use of the Program Assessment Rating Tool as required by the Office of Management and Budget.

OPTIONS:

The staff has identified two options related to RERB activities. These options take into account the high level of coordination that has been successfully implemented between RES and the other offices. Although maintaining the status quo is also an option, the staff discounted its merits because, as will be noted below, the status quo has been superseded by improvements in routine practices, and does not meet effectiveness and efficiency objectives. The on-going development of improvements such as interdependent Operating Plans, periodic status review meetings, routine office level coordination meetings, and the other activities addressed above have taken the effectiveness of research coordination beyond the level envisaged at the time that RERB was formed. For example, program offices routinely participate in program reviews conducted at national laboratories on NRC research projects. Therefore, the staff concludes that continuation of the RERB in its present form duplicates other routine activities.

Option 1: Decrease the involvement of the RERB

Under this option, the RERB would continue. The RES Deputy Office Director would continue to chair RERB meetings, which would be called on an as-needed basis. For example, the need for a meeting might be signaled by evidence of a problem observed by any member of the RERB.

Option 2: Terminate the RERB

Under this option, the RERB would be discontinued on the basis that the original functions are being accomplished by routine operations and communications, and the RERB is no longer necessary. As discussed earlier in this paper, communications as well as agency and office processes have been enhanced to fulfill the function of the RERB. Terminating the RERB would serve the interests of the agency's strategic performance goal to ensure effectiveness, efficiency, realism, and timeliness. Specifically, this option could improve efficiency through resource savings. If the Commission elects this option, this paper would be the RERB's final report.

RECOMMENDATION:

The staff recommends Option 2, to terminate the RERB in the interests of effectiveness and efficiency.

COORDINATION:

The Office of the Chief Financial Officer has concurred on this Commission paper. However, the staff did not submit this paper for review by the Office of the General Counsel because it does not involve rulemaking, interpretation of regulations, policy matters, or other actions that might have legal or regulatory implications.

RESOURCES:

Both options will save resources by eliminating duplicate activities. The larger saving is expected to be obtained by Option 2.

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