

POLICY ISSUE INFORMATION

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FOR: The Commissioners

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SUBJECT: PROCESS USED TO DETERMINE WHEN FURTHER RESEARCH ON A
PARTICULAR ITEM SHOULD BE CLOSED OR TERMINATED

PURPOSE:

To inform the Commission of the process used to determine when further research on a particular item should be closed or terminated.

BACKGROUND:

On Tuesday, March 19, 2002, the staff briefed the Commission on the status of RES programs, performance, and plans. Subsequently, a Staff Requirements Memorandum (SRM) was issued on April 1, 2002, that in part directed the staff to inform the Commission of the process used to determine when further research on a particular item should be closed or terminated. This paper has been prepared in response to that direction.

DISCUSSION:

RES management considers the following guidance and information when making its decisions on whether further research on a particular item should be closed or terminated.

RES Office Letters

In 1996, RES formalized guidance to the staff regarding research project management through a series of Office Letters. These Office Letters describe processes for implementing, managing, and terminating research projects. Although developed prior to the use of the

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planning, budgeting, and performance management process (PBPM), these Office Letters contribute to its implementation within RES. Office Letter 1, "Implementing Research Projects," provides criteria for implementing and continuing research projects. The attachment to this paper contains the criteria from Office Letter 1. It contains the following criteria posed as questions that projects are to be evaluated against relative to closure: Has the work been completed? Has it answered the specific question(s) addressed? Was the work terminated when the initiating question was answered and the value of further information tapered off to a point beyond what is worthwhile?

In addition, RES Office Letter 1A, "Role of the RES Project Manager in Contract Management," states that "Projects should be terminated whenever altered situations and facts eliminate the need for the product." RES Office Letter 1A also specifies "Initiate closeout of the project when (1) the work scope has been completed, or (2) the knowledge gained from research is sufficient to satisfy the needs of the NRC user, or (3) the value of incremental knowledge from further research is no longer cost effective."

The Office Letters require Project Managers to provide written recommendations to the Division Director to initiate, continue, or close out a research project. The Division Director reviews these recommendations and the results of the review are retained in the official project file. This process provides the Project Manager, the Branch Chief, and the Division Director with a definite decision point on continuing or closing a research project, along with specific decision criteria.

Thus, as part of the contract project management process, established RES procedures directly address the importance of closing research projects by requiring evaluation against specific closure criteria.

To aid in making the determination called for in the RES Office Letters, input from others is also sought as described below:

Internal Inputs

Over the last few years, RES has modified and improved its budget formulation process regarding new initiatives and closure of existing projects. This new process stresses alignment of staff and management and includes interaction with user offices. RES management provides policy direction and goal setting and the staff is involved in developing specific activities and issues to implement this direction and to achieve the goals. Outcomes are defined in terms of success relative to the agency Performance Goals. In addition, a prioritization process, discussed in more detail later in this paper, is applied to all ongoing activities.

External Inputs

RES budget formulation is aided by input from several external sources. The Advisory Committee on Reactor Safeguards and the Advisory Committee for Nuclear Waste each provide their views on the research program, including recommendations on programs that should be considered for closure. RES also has sought input from ad hoc groups, such as the "Rogers Committee" and DOE national laboratories. Interactions with DOE, the Electric Power Research Institute, and the international community through the International Atomic Energy Agency and

the Committee on the Safety of Nuclear Installations (CSNI) under the Nuclear Energy Agency (NEA) also provide insights into needed activities and those that may be adequately addressed by external organizations. A new RES initiative seeks specific external stakeholder input on 'anticipatory' research needs; this initiative may provide input on research activities that have reached the point where they can be closed.

Maintaining Core Capabilities

SECY 97-075 discussed criteria for research program closure. Such criteria have been incorporated into the RES process used for budget formulation. As part of the process, some decisions are made to continue projects that have a low priority ranking in order to respond to particular stakeholder needs or to maintain technical expertise in certain critical areas.

RES Prioritization

The prioritization process developed by RES is a process where RES uses prioritization factors with assigned numerical weights to estimate the importance of each ongoing activity to applicable Strategic Plan Performance Goal outcome measures. This results in a 1 through n ranking of all RES activities.

This prioritization process implicitly addresses the need to continue research efforts as contrasted to the need for new initiatives. The agency budget guidance and the needs for new initiatives require that RES identify lower priority activities that can be closed.

In addition to the day-to-day Project Manager consideration, the budget formulation process brings together the internal and external inputs and requires explicit consideration by RES Management of closing projects. Proposals for project termination are made taking into account information developed from the internal and external inputs noted earlier, considerations of core capability maintenance, and the results of the RES prioritization process. These proposals are then reviewed by the RES Director as the Office budget proposal is developed. This is a deliberate step in the budget formulation and provides the RES management team a specific decision point on continuing or ending a research project or activity.

International Activities

The CSNI has established an ad hoc Group on Regulator-Industry Collaboration (GRIC); one of their activities is to define project closure criteria. RES is an active participant in GRIC and has been following the closure criteria discussions closely. A set of questions on research needs or closure has been proposed that addresses many of the same issues addressed by the criteria in RES Office Letters 1 and 1A.

RES will continue to follow this activity and we will adjust our closure criteria to incorporate, as appropriate, new measures proposed by the CSNI.

CONCLUSION:

In addition to considering input from both internal and external sources, RES management uses guidance in various office letters when making management decisions on whether a particular research item should be closed or terminated. Additional enhancements will be made, as

appropriate, if new information or ideas are developed, for determining when further research on a particular item should be closed.

COORDINATION:

The Office of the Chief Financial Officer does not need to concur on this Commission paper because there are no resources implications. This paper was not sent to the Office of the General Counsel for review because it does not involve rulemaking, interpretation of regulations, policy matters, or other actions with legal or regulatory implications.

RESOURCES:

The resources needed for continued implementation of these processes have been included in the RES operating plan.

/RA/

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Attachment: As stated

CRITERIA FOR EVALUATING RESEARCH PROJECTS
(Adapted from Nuclear Regulatory Research Philosophy in NRC Five-Year Plan)

1. **Is the research relevant to an important or risk-significant regulatory issue? To what regulatory issue does it pertain? How? Does the importance or risk significance of the issue warrant a high or at least medium priority office ranking?**
2. **Are the research results expected to affect resolution of the regulatory issue? What is the expected benefit of the knowledge that the research will produce?**
3. **Is the estimated cost justified by the value of the knowledge to be gained?**
4. **For the particular issue, are the best people doing the work and are the best laboratories being used?**
5. **Has there been competition of ideas in selecting the direction and approach for the research?**
6. **For near-term needs, will the results be timely? For longer-term exploratory research, is it a reasonable expectation that the forthcoming results can be applied to NRC needs?**
7. **Is the work within budget? On schedule?**
8. **Has appropriate peer review been incorporated in the research plan? Are its results taken into account?**
9. **Has the work been completed? Has it answered the specific question(s) addressed?**
10. **Was the work terminated when the initiating question was answered and the value of further information tapered off to a point beyond what is worthwhile?**
11. **Have results been effectively communicated to users? To the public?**
12. **Have the research results been recognized and used, as applicable, by peers, users, the international community?**