Appendix B

Planning, Control, and Management of Research Projects in the Office of Nuclear Regulatory Research

Research project requests are managed through an internal Office Instruction for the NRC's Office of Nuclear Regulatory Research (RES) - PRM-001, *Process for Responding to Work Requests: Informal Assistance, Research Assistance, and User Needs, and Research Plans*. The process laid out in this Office Instruction defines the internal controls and management procedures needed to ensure that the RES develops a complete and mutually agreed-upon work request and corresponding project plan before beginning any research work. The process requires that all requests for research articulate clearly defined objectives and deliverables.

User need requests (UNRs) are the primary mechanism used by the regulatory offices to request RES support. A UNR typically involves a request for research or analyses to support regulatory decision making. Each UNR is transmitted as a memorandum to the RES Office Director from the requesting Office Director. Therefore, UNRs have a high level of senior management review, approval, and oversight within the NRC. Emphasis on safety and risk significance are used throughout the review process to appropriately scope the research activity and the expected results deliverables.

During the last couple of years, the staff has successfully implemented enhanced tracking and reporting of research projects. Current research projects are being tracked against Enterprise-wide Project Identifiers (EPIDs). The use of enhanced tracking with EPIDs and reporting has improved the staff's planning and oversight of the research projects as well as inter-office collaboration. The enhancements have improved upfront planning of research projects, enhanced monitoring during the execution year, and structure and prioritization of projects in budget formulation. The staff has used these enhancements to improve the effectiveness, efficiency, and agility of the NRC's research program.

Furthermore, the Commission maintains awareness of the research being performed through briefings from staff and periodic reviews with the Director of Nuclear Regulatory Research. In addition, the Commission reviews the research budget and exercises its authority to provide or remove resources for specific research efforts during both budget formulation and budget execution. Additionally, the NRC staff notifies the Commission of any significant reprogramming of funds over documented thresholds during the execution year.

NRC explicitly considers the risk benefit and safety significance of research projects in planning, prioritizing, and conducting research. In recent years, significant reductions in research have been accomplished by the NRC in rebaselining, sunsetting completed research projects, and in response to Congressional appropriations and the Commission budget formulation. Research priorities are conveyed to RES through User Need Requests (discussed above) and periodic counterpart meetings at various levels of management and staff. Consideration of the importance to safety and a variety of inputs including contractor progress, contractor spending, user need updates, operating experience, and changes in priority from requesters are used to update the budget execution on a real-time basis. The progress of ongoing research and any updated priorities are reviewed on an ongoing basis by the Director of Nuclear Regulatory Research and by each of the RES division directors more frequently with their counterparts in the regulatory program offices.