

**EFCOG PROJECT MANAGEMENT
WORKING GROUP**

PERFORMING PEER REVIEWS

WHITE PAPER

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Purpose

This paper provides guidance and best practices to assist contractors and federal staff in performing peer reviews of DOE projects. These reviews are required by DOE Order 413.3B. Successful peer reviews will enhance the professional development of all participants, who can learn from each other the most effective ways to manage projects and benefit from lessons learned from others. The interaction of project teams and peer review teams in this process will improve project performance while addressing GAO “high risk concerns” by drawing on the successful best practices and subject matter expertise of agencies inside and outside the DOE enterprise.

Enhancing DOE Project Management

Since 1990, DOE has been included on the OMB high-risk list for inconsistent cost and schedule results on some of their projects. In August of 2005, then DOE Secretary Bodman called for a series of actions aimed at improving project management. This effort focused on adherence to DOE Order 413, improving project and earned value management training, incentivizing superior performance, strengthening accountability and encouraging early management involvement. The DOE published a Plan of Action with Milestones (POAM) in March 2007 with EFCOG assistance focusing on five action areas:

- Addressing effective EVMS implementation
- Developing key skill sets for effective project teams
- Formulating improved practices for estimating
- Improving communications and management involvement
- Constructing improved risk management processes

In April 2008, DOE published a root cause analysis on contract and project management that listed 10 areas of focus. This report again focused on insufficient trained resources; the lack of early management involvement; inconsistent adherence to requirements and accountability along with insufficient risk assessment; segmented funding; and incompatible organization structures. In November of 2009, DOE again pointed to the lack of skilled personnel as a continuing problem. Most recently, Deputy Secretary Poneman published a set of principles to guide project management in the DOE. Included in the principles is that “Project Peer Reviews should be conducted at least once a year for large or high visibility projects and more frequently for the most complex projects or those experiencing performance challenges.” All of the activities cited above demonstrate a continuous effort on the part of DOE to improve project management in the areas of accountability, scoping, training, funding and managing risk. The root causes of the problems are now well known. Corrective actions are showing good progress. The Department has closed out most of these actions and incorporated many in the new DOE O 413.3B. The Department’s advocacy of Reviews is yet another step in this continuous improvement process.

Objectives of Peer Reviews

Peer review teams, made up of federal employees and contractors from across the department and contracting community, who have proven their skills on successful projects, can be instrumental in evaluating and improving the skills of other teams on other projects. Peer reviews have demonstrated their usefulness in improving performance in managing projects outside and within the DOE. Deputy Secretary Poneman issued a memo on March 4, 2010 that recognized the value of Peer reviews in the Office of Science (SC) and recommended their use more broadly. The new DOE O 413.3B has now made them an integral part of the acquisition process.

The objective of a peer review is to enhance the development of the project management professionals engaged in DOE work. The interaction of the peer review teams and the project teams provide a unique opportunity to learn from each other. The value of this cross fertilization reaches its maximum when our most talented project, contract and technical staff participate in these reviews.

A collateral benefit from peer reviews is the evaluation of technical, managerial, cost, scope and other key aspects of projects so that necessary course corrections can be identified and projects can be delivered within the original scope, cost and schedule. Peer reviews focus on achieving successful outcomes and helping the project team to succeed. Mechanisms within the DOE to evaluate processes and compliance with requirements are extensive and peer reviews will not be redundant to those efforts. Peer reviews will attempt to identify both effective and wasteful practices, but always focus on enabling successful outcomes.

Use of Peer Reviews in DOE

The Department has had some success in partnering with its contractors in conducting peer reviews. EM instituted performance of these reviews in the spring of 2009 and performs them twice a year on major projects. NNSA has been conducting peer reviews since 2007. Reviews conducted by the Office of Science have been cited as the most effective in contributing to a higher rate of successfully completed projects.

The Office of Science attributes their success in delivering projects to a focus on outcomes and establishing an atmosphere of trust with their contractor community. There is an expectation from the reviewee that the review will be of value and from the reviewer that it will be a learning experience. This mutual trust enables good recommendations from the review team and acceptance of needed improvements by the project. The reviews are centrally coordinated and have clear objectives that consider compliance with procedural requirements, but are primarily focused on the likelihood a project will meet cost, schedule and scope commitments. Review scope is clearly defined and formalized in a charge to the team prior to the review. The scope is chosen to focus the review on those areas known to need help. The review team is carefully chosen to ensure that the right skills are available for the areas needing review and that the SME are credible. Recognizing the success of peer reviews in SC, on April 12, 2011, Deputy Secretary

Poneman issued an additional memorandum directing the use of the SC model for conducting peer reviews.

Key Attributes for a Successful Peer Review

The success of peer reviews is founded on increased partnering between DOE and their contractors in recognition of their “shared fate” for project excellence. This partnership draws upon the strengths of both organizations. Successful peer reviews conducted by contractors usually contain the following attributes:

1. **Proper Focus.** Peer review teams focus on three areas: first, to help improve the effectiveness of the projects Integrated Project Team (IPT) on individual projects; second, to improve the efficiency and effectiveness of DOE project management processes and metrics; and third, to provide an opportunity for PM professional development and knowledge management. The review process is intended to improve project management skills and increase the probability of project success.
2. **Prompt Feedback.** Peer reviews are intended to provide prompt feedback to the project IPT on the status of the project and changes that, if implemented, may enhance the probability of success. The Peer review provides recommendations to the project team which are reviewed at subsequent reviews. Follow up reviews will include the evaluation of responses to previous peer review recommendations.
3. **Non-adversarial.** The review is a non-adversarial partnership between the DOE and contractor community to improve project management on DOE projects.
4. **Recognized Team Expertise.** The review team is composed of recognized experts in the fields being reviewed. Choosing recognized experts ensures a quality review that will be credible and provides inputs and expertise not already existing within the project. The contracting community should employ its most talented and capable people in staffing the peer review teams.
5. **Good Planning.** The reviews are well planned with clearly defined objectives and authorities. A clear charter is given to the team to assure that their scope of work, authorities and deliverables are clearly defined. Peer reviews do not duplicate objectives of any other review.
6. **Appropriate Agenda.** The review agenda matches the time and effort required to the scope desired.
7. **Outcome Focused.** Peer review teams review processes, but are primarily outcome focused on the predictability of scope, cost and schedule.

How the Contracting Community Can Enhance DOE Peer Reviews

The challenge for the contractor project management community is how best to use their experience and expertise to obtain maximum value from the peer review process for the DOE. Three key actions to address this challenge are:

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1. Develop a cooperative DOE/ Contractor team. DOE and contractors must continue to build a culture of cooperation and trust that enables learning and continuous improvement. Peer reviews are not assessments, but a continuous improvement dialogue where all sides bring the best skills that they can to focus on the project success in a shared fate approach. The peer review process is not used for this purpose. A similar atmosphere would enhance DOE reviews.

A meaningful step in creating such an atmosphere might be to create an ad hoc team of contractors and Federal staff (peers) along with needed expert consultants, to perform lessons learned on some of the completed projects (good and bad). This team would establish criteria for membership in peer teams including training and experience, set criteria for reviews and establish standardized metrics. It should look for ways to minimize cost and schedule risk while keeping the end product delivery clearly as the prime goal. This will establish trust and teaming to explore, categorize and evaluate the impacts of various weaknesses in the existing system. This would achieve several good things, by building relationships without tying the team's existence to the success or failure of any active project. It would also establish a partnership of trust between Feds and contractors drawing on the strengths of both organizations to increase effectiveness and efficiency of project management and oversight. It would also help make the contractors more comfortable with opening up to the team if they were not reviewing current sensitive business data.

2. Use the best contractor Subject Matter Experts (SME) on peer review teams. Contractors are a pool of highly trained, qualified and experienced PM talent that can greatly enhance the quality of DOE peer reviews. The DOE should make maximum use of this resource in structuring their review teams. In addition to providing expertise to enhance DOE review teams, involving contractor personnel creates a learning environment by sharing expertise and real time lessons learned information across the entire enterprise. Peer reviews will foster a cooperative teaming environment and provide a learning opportunity for the reviewers.
3. Focus on assistance with minimal assessment. During the review, emphasis should be placed on improving the project management of the project and increasing the likelihood of project success, not solely collecting a list of deficiencies in process requirements for corrective action. Existing assessment processes have been expensive, detrimental to teaming, and ineffective in early detection of project problems or improving overall project performance. The goal should be to improve the management of the project today.
4. To create a departmental culture in which peer reviews are valued and ensure the broadest opportunity for professional development of the department's project management professionals, the NNSA and EM should ensure their personnel participate on SC peer reviews as observers to observe their review process and procedures. Similarly, SC should encourage their peer review SMEs to participate on NNSA and EM peer reviews to share their knowledge and expertise.

General Procedures and Best Practices

The general procedures and best practices cited below address essential elements of the peer review process. DOE has developed numerous detailed procedures for the conduct of reviews. Those in the Office of Science, NNSA and EM provide a good basis for the development of processes appropriate for the conduct of peer reviews discussed in this paper. These procedures are available through the department websites and can be an excellent basis for the development of more detailed procedures. From the contractor perspective, the following are procedures and best practices that have been effective in external reviews and can be successfully applied to enhance the peer review process.

1. Planning the Review. The key to a successful peer review is detailed planning. Accurately defining a clear, unambiguous and achievable scope in a “Charge” to the team, selecting a team with the proper skills and credibility and formulating a detailed review plan are the elements essential to a successful review.

- a. **The Review Plan.** The review plan is a key document guiding the review. The plan is formulated early in the process, updated periodically to reflect changes and finalized prior to the start of the review.
- b. **The Review Team.** Selecting the right subject matter experts is a critical aspect of the planning process. Members of the review team should be selected based upon the experience and skill sets needed for the review. Team members must be competent, credible and cooperative. Each member of the review team must commit to remain with the review team until the review is completed. Team members should be selected early enough to allow ample time for making travel and lodging arrangements.
- c. **Agenda.** The agenda is critical to an efficient review. It provides planned activities with dates, allotted time, location and responsible individual(s). The agenda should be carefully formulated to provide sufficient time for each activity. Care should be taken to ensure that there is sufficient time for executive sessions, in process reviews and report writing.
- d. **Logistics.** Providing good logistics support to the review is critical to the credibility of the effort. A review which is under-resourced will quickly be recognized by those being reviewed as a low priority effort that not worth the time and effort that they must devote to preparing for it. The recommendations resulting from the review will not receive their full support. Therefore, having good meeting rooms, adequate IT capability, etc. must receive significant attention from those sponsoring the review.
- e. **Communicating with the Review Team.** Keeping the review team informed during the planning period ensures the most efficient use of their preparation time. Detailed information regarding the aspects of the project covered by the scope should be provided to the review team no later than one month before the start of the review. Typical data provided includes scope documents, cost estimates, schedules and other project plans. Additional information can be included in periodic updates to the review plan. Teleconferences and phone conferences may also be useful in maintaining good communications.

2. Executing the Review

- a. **Entrance Briefing.** A formal entrance briefing establishes a professional approach to the review. The entrance briefing establishes the ground rules for the review, introduces the review team and the project team and provides information on the scope, agenda, and logistics for the review. The briefing provides an opportunity to discuss the parameters of the review. It should be used to ensure that all aspects of the review are fully understood by all parties.
- b. **Gathering Information.** Following the agenda, the team discusses and clarifies documents; interviews key individuals and visits project sites to gain a full understanding of the project. Detailed focus is placed on the specific charges in the scope. The review team must have free access to all documents and people associated with the project to successfully accomplish this phase of the review.
- c. **Executive Sessions.** Prior to entrance briefing and at the end of each day, executive sessions are convened with review team and project leaders, to discuss findings, comments, concerns, and recommendations with the. This session should include program personnel. The purpose of executive sessions are to ensure that the review team is focused on the review scope, that the project team understands what is happening during the review and to ensure that all necessary information is available to the review team. The review team initiates the executive session with a discussion of where the team feels it needs to focus its efforts. The project team provides assistance in developing the subject and in further defining observations. At the end of the executive session, the two teams determine any agenda changes, additional information or resources required by the team.
- d. **Prebriefing to Management.** When the team has prepared a rough draft of the exit briefing, they schedule a meeting with the senior members of the project team and discuss their observations and recommendations. This prebriefing assures that management understands the outcomes of the review and is not surprised by the content of the formal exit briefing.
- e. **Closeout Dry Run.** Prior to the exit briefing, there is a practice presentation by each subcommittee lead on the review findings, comments, and recommendations. The dry-run is conducted to ensure all issues are captured, to promote consistency, and to ensure that there is no confusion or misunderstanding with the presentation language.
- f. **Exit Briefing.** A detailed exit briefing provides project management information that can be used immediately to improve the project. The briefing should present a simple depiction of the observations and recommendations of the team. It should contain noteworthy practices as well. The project manager and the peer review team leader determine attendance at the exit briefing, but it should be as broad as possible.

3. After the Review

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- a. Report.** The team prepares a formal report as soon after the exit briefing as possible. The report should be written in narrative form using clear prose. It should include observations and achievable recommendations with measurable results. The report should be completed within 2 – 3 weeks, if possible. Recommendations are provided to the project team for action during the closeout briefing.
- b. Close Out.** The report and review documentation developed and agreed upon by the project and review teams in the executive sessions is provided to the Acquisition Executive. The project team then implements improvements included in the report.
- c. Management.** Management ensures that appropriate recommendations are implemented by the project.
- d. Follow up.** Recommended actions from prior reviews are reviewed at the next review.