The Deputy Secretary of Energy
Washington, DC 20585

March 4, 2010

MEMORANDUM FOR DISTRIBUTION

FROM: DANIEL B. PONEMAN

SUBJECT: Project Management Principles

Secretary Chu and I are firmly committed to the continuous improvement of project management across the Department and to removing all Departmental organizations from the Government Accountability Office's High-Risk List by January 2011. We recognize that this is an aggressive goal requiring your personal leadership, if it is to be achieved.

Many of the challenges to be addressed were detailed in the Root Cause Analysis (April 2008) and appropriate responses were identified in the Corrective Action Plan (July 2008). You should continue to use those documents in support of your efforts to improve project management.

You should also incorporate the attached policy statements on Project Size and Structure, Project Team Staffing, Funding Stability, Project Peer Reviews, Project Information Management, and Improving DOE Cost Estimates, into your processes for planning and executing our projects. These policies will also be included in the planned revisions to our contract and project management directives.

Attachment

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Kristina M. Johnson, Under Secretary of Energy
Steven E. Koonin, Under Secretary for Science
Thomas P. D'Agostino, Under Secretary for Nuclear Security/National Nuclear
    Security Administration
Ines Triay, Assistant Secretary for Environmental Management
Bill Brinkman, Director, Office of Science
Brigadier General Garrett Harencak, Principal Assistant Deputy Administrator
    for Military Application
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    Nuclear Nonproliferation

cc: CFO
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PROJECT MANAGEMENT POLICIES

DESIGN MATURITY

Advancing design maturity to a sufficient level prior to establishing the performance baseline is essential to project management success. The project design will be considered sufficiently mature when the Program has developed a cost estimate and all relevant organizations have a high degree of confidence that it will endure to project completion. In determining the "sufficiency" of the design level, factors such as project size, duration, and complexity will be considered. For basic facilities, such as administrative buildings, general purpose laboratories, and utilities, the design does not have to be as mature as for a complex chemical or nuclear processing facility, which may necessitate the design being complete before work begins. In any case, construction should not be allowed to proceed until the design is sufficiently mature to limit change orders to a minimum.

In conducting External Independent Reviews, the Office of Engineering and Construction Management (OECM) will evaluate the sufficiency of the project's design maturity. This analysis will serve as a key evaluation factor in formulating its recommendation to validate a project performance baseline. In addition, when approving a Critical Decision (CD), the Acquisition Executive should consider the sufficiency of the design maturity. The upcoming revision of DOE Order 413.3A will include specific guidance on the expected level of design maturity for different types of facilities.

PROJECT SIZE AND STRUCTURE

Projects should be configured to fulfill mission need and facilitate the most effective management of cost, scope, schedule and risk. Smaller projects are often easier to manage than larger projects and can be completed in less time with reduced risk. Therefore, Program Offices, in coordination with the Acquisition Executive, should consider breaking larger projects out into multiple, smaller, more discrete, and usable projects that collectively meet the mission need. Although dividing a large, high-risk project into smaller projects can provide the opportunity for better oversight, the benefits of improved management and risk exposure should be balanced with the potential for increased overhead costs.

Each project, regardless of size, must be led by a certified Federal Project Director (FPD). Depending on the project size, an FPD can be assigned to direct one large project and/or multiple small projects. Each project should stand on its own and will be subject to appropriate Departmental directives. In addition, the project organizational structure, roles and responsibilities and chain of command should be delineated in the Project Execution Plan.

PROJECT STAFFING

Sufficient qualified staff (including contractors) must be available to accomplish all contract and project management functions. Project staffing requirements should be based on a variety of factors, including project size and complexity, taking into account the management experience of the project staff. Programs must use a validated methodology to determine the appropriate project team size and required skill sets. They should consider using the staffing algorithm developed by the Department to identify the appropriate staffing level. Regardless of the methodology used, once the appropriate staff size has been determined, programs should plan and budget accordingly.

FUNDING STABILITY

Improved project and financial management integration strengthens project stability and reduces risk. In approving the funding profile for the life cycle of the project, acquisition executives must determine that the proposed funding stream is affordable and executable within the program's capital and operations budget portfolio. Any changes to the approved funding profile must be endorsed by the project's acquisition executive, who may not be the Program Budget Officer. Prior to endorsement by the acquisition executive, the Chief Financial Officer (CFO) and OECM will be notified of any proposed project funding profile changes so that the CFO can verify that the funding profile is covered within the President's budget. In addition, line item capital asset projects with a total project cost less than $50M should be fully funded in a single budget request, if appropriate, in accordance with the Corrective Action Plan for Contract and Project Management.

PROJECT PEER REVIEWS

Numerous studies have demonstrated the benefit of cross-functional Project Peer Reviews. Considered a "best practice" by the Government Accountability Office, Project Peer Reviews were pioneered by the Office of Science. These focused, in-depth reviews are conducted by non-advocates (Federal and M&O or other contractor experts) and support the design and development of a project. 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. These Project Peer Reviews may supplement or replace applicable Independent Project Reviews at the discretion of the Program Office.

PROJECT MANAGEMENT INFORMATON

To be of value, project information must be timely, accurate, consistently reported and auditable. The Project Assessment and Reporting System (PARS) II will be the central repository for key Departmental-level project information and will be administered by OECM. Program Offices will support PARS II as the Department's project management system by providing sufficient resources and direction to achieve complex-wide roll-out by the end of Fiscal Year 2010.

Programs and their Federal Project Directors will ensure that project data is uploaded into PARS each month, including monthly Earned Value Management System (EVMS) data provided directly from contractors' systems. PARS II data will be integrated into the Department's *i-Manage* system to ensure appropriate linkage and consistency with financial information. OECM will also be the central repository of key project documentation, to include critical decision and baseline change proposal (BCP) approval memorandums, to ensure project information is accurate, auditable and archived.

IMPROVING DOE COST ESTIMATES

The Department's pending cost estimating order (415.X) will require independent cost estimates for major projects prior to approval of Alternative Selection and Performance Baseline (milestones 1 and 2). These independent cost estimates will be consistent with the project phase. For milestone 1, the Department will identify a cost range using parametric cost methods (or extrapolation from actual costs for similar projects when available). For milestone 3 – start of construction – DOE will conduct an independent cost estimate if warranted by risk and performance indicators or required by senior officials. Another important element in improving cost estimates is the development of a DOE cost database. All programs will support the development of the DOE Cost Database with historical and actual costs. The Office of Cost Analysis will establish policy for the development of Department-wide cost databases and cost estimating directives. Specific organizational roles and responsibilities will be defined in the Department's pending cost estimating order.