

Management System Description: Project Management

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1.0 Purpose

This Project Management (PM) Management System Description (MSD) identifies for the U.S. Department of Energy (DOE), Office of Environmental Management (EM), Consolidated Business Center (EMCBC) and serviced site staff the key project management requirements and provides procedures that will enable accountable Site Directors, Federal Project Directors (FPD), and Operations Activity Managers (OAM) to effectively carry out their responsibilities for Capital Asset Projects (CAP) and Operations Activities (OA). The objective of the EMCBC Project Management System is to enhance EMCBC's ability to deliver its projects on schedule, within budget, and fully capable of meeting mission performance and environmental, safety, and health (ES&H) standards.

2.0 Responsibilities

Successful project outcomes rest primarily on the efforts of experienced, disciplined, and dedicated Integrated Project Teams (IPT). However, accountability for overall project performance must be accepted and shared appropriately by all responsible EM line managers, Site Directors, FPD, OAM and Contractor Project Managers. Advisory and independent oversight groups provide an essential system of checks and balances.

Specific project authorities should be well-defined and delineated in Project Execution Plans (PEP) and OA Fiscal Year Work Plans (FYWP). Key management responsibilities are identified in DOE Order 413.3B (Program and Project Management for the Acquisition of Capital Assets), Appendix B; the EM Policy & Protocol for Operations Activities; and in the EM Enterprise Requirements System (EMERS), Project Management Functional Area Description (FAD), subsidiary Subject Areas and associated procedures.

DOE Order 413.3B, Appendix A, Table 1, identifies basic authorities for senior DOE managers. With delegations relevant to EM and EMCBC considered, for EMCBC-directed activities the acquisition executive (AE) authority follows Total Project Cost (TPC) as shown below:

Secretarial Acquisition Executive	S-2 Deputy Secretary	≥ \$750M, or as designated
Under Secretary for Management and Performance	S-3	≥ \$400M < \$750M
Program Secretarial Officer	EM-1	≥ \$100M < \$400M
Program Manager or Field Element Manager	EMCBC Director	< \$100M

The EMCBC Director, in his/her capacity as line manager for the Small Sites, is responsible for all activities at the Small Sites. For such activities, the EMCBC Director acts as the Program Manager in DOE O 413.3B, the Acquisition Executive for CAP with a TPC under \$100M, and the Site/Field Office Manager for OA (per requirements in the EM Policy & Protocol for OA).

The Small Sites include the West Valley Demonstration Project (WVDP), Separations Process Research Unit (SPRU), Moab Uranium Mill Tailings Remedial Action (UMTRA) Project (Moab), and Energy Technology Engineering Center (ETEC), as well as other sites or facilities assigned to the EMCBC by agreements with the landlord organizations (notably at Stanford Linear Accelerator Laboratory [SLAC], also known as SLAC National Accelerator Laboratory; Lawrence Berkeley National Laboratory [LBNL]; and Brookhaven National Laboratory [BNL]). The EMCBC is also responsible for project closeout activities at the five Closure Sites (Rocky Flats, Mound, Fernald, Columbus, Ashtabula); closeout activities include such things as monitoring progress on incurred cost audits by the Defense Contract Audit Agency (DCAA), settlement of any EM litigation, payment of final invoice to EM contractor, and closeout of the EM contract. The EMCBC is also available to assist with Site Transition planning activities at any site in the DOE complex where EM legacy cleanup work is nearing completion.

The EMCBC's Project Management Support Division (PMSD) performs the functions of a Project Management Support Office (PMSO), similar to how the EM Headquarters' Office of Project Assessment (EM-53) serves EM as a whole. For a detailed description of EMCBC roles and responsibilities, see the EMCBC Staff Functional Assignments listed on the EMCBC PMSO website.

Some of the major project management responsibilities are listed below. For a complete list, see DOE O 413.3B Appendix B; the EM Policy & Protocol for OA; and the EMERS Project Management FAD, Section 2.0.

Roles	Responsibilities
Under Secretary for Management and Performance	<ul style="list-style-type: none"> • Per DOE O 413.3B, Section B.2: Approve disposition of Performance Baseline (PB) changes for capital asset projects (CAP) with revised TPC \geq \$400M and $<$ \$750M, and with less than 50% or \$100M TPC increase.
Assistant Secretary for Environmental Management, EM-1, as the Program Secretarial Officer (PSO)	<ul style="list-style-type: none"> • Per DOE O 413.3B, Section B.3 for all projects, serve as the Acquisition Executive (AE), for CAP with TPC \geq \$100M and $<$ \$400M. • Approve Mission Need Statement (MNS) and Acquisition Strategy (AS) documents for all CAP. • Approve CD-0 (Approve Mission Need) for CAP with TPC $<$ \$400M. • Approve disposition of projects and PB changes for projects with revised TPC \geq \$100M and $<$ \$400M, and with less than 50% or \$100M TPC increase. Recommend action above this level. • Responsible for line accountability for applicable program and capital asset project execution and implementation of policy. • Execute accountability for site-wide ES&H and safeguards and security. • Review and oversight of Operations Activities (OA).
EMCBC Director, as the responsible Program Manager or Field Element Manager	<ul style="list-style-type: none"> • Serve as the AE for assigned CAP with TPC $<$ \$100M, per DOE O 413.3B, Section B.6. • Execute all contingent requirements in the AE delegation memorandum(s), including: • Approve the Project Execution Plan (PEP) when acting as AE, and recommend action for CAP with TPC \geq \$100M. • Assign Federal Project Director (FPD) no later than CD-1, Approve Alternative Selection and Cost Range, and support selection of Integrated Project Team (IPT) members. Approve the FPD when acting as AE, and recommend action for CAP with TPC \geq \$100M. • Approve disposition of PB changes for CAP with

Roles	Responsibilities
	<p>revised TPC < \$100M and with < 50% TPC increase, or as otherwise detailed in the PEP. Recommend action above this level.</p> <ul style="list-style-type: none"> • Appoint and chair the EM Consolidated Business Center Acquisition Advisory Board (CBCAAB). The CBCAAB will assist with dispositioning Critical Decisions (CD), PB deviations, proposed PB changes, and associated contract changes for CAP within delegated authority. Recommend action above this level. • Serve as the Field Office Manager for Operations Activities (OA) at the Small Sites. • Monitor and evaluate performance throughout each OA's life cycle. Conduct monthly and quarterly project performance reviews. • Direct initial project planning and execution roles for OA assigned by EM-1. • The EMCBC Director may also, at his/her discretion, choose to utilize the CBCAAB to assist with management of OA, including disposition of DOE O 413.3B "equivalent" CDs, PB deviations, proposed PB changes, and any associated contract changes. • Provide support services to projects at assigned sites, per the DOE EMCBC Service Plan. • In coordination with EM Headquarters, approve Fiscal Year work Plans (FYWP) for OA under EMCBC line management authority, and changes thereto. • Approve new, consolidations, or closure of OA. • When allowed and appropriate, the EMCBC Director may delegate certain authorities to Site Directors, FPDs and/or OA Managers (OAM).
Site Project Directors or Operations Portfolio Managers	<ul style="list-style-type: none"> • Review and endorse dependent projects' baseline change requests. • Review and endorse the site FYWP(s). • Approve changes to FYWP, as allowed by change authority document. • Propose new, consolidations, or closure of OA.
Federal Project Directors or Operations Activity Managers	<ul style="list-style-type: none"> • For CAP, the individual must attain certification, in concert with the requirements outlined in DOE

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	<p>Order 361.1 and the Project Management Career Development Program (PMCDP) Certification and Equivalency Guidelines before he/she is delegated authority to serve as a FPD and/or achieve the appropriate level of certification within one year of appointment.</p> <ul style="list-style-type: none"> • For OA, the individual must meet or attain certification, in concert with the requirements outlined in the EM Operations Activities Manager Competency Policy. • Responsible for project management activities for all assigned CAP or OA. • Initiate development and implementation of the Acquisition Strategy and the PEP. • Define CAP or OA objectives, performance metrics, performance milestones and/or technical scope, schedule, and cost baselines. • Ensure design; construction; environment, safety & health; and quality assurance efforts performed by various contractors comply with the contract, public law, regulations, and Executive Orders. • Ensure timely, reliable, and accurate integration of contractor performance data into the CAP or OA scheduling, accounting, and performance measurement systems. • Evaluate and verify reported progress, make projections of progress and identify trends. • Serve as the single point of contact between Federal and contractor staff for all matters relating to a CAP or OA and its performance. • Serve as the Contracting Officer Technical Representative (COTR), as appointed. • Establish and lead the IPT. With IPT support, prepare and issue the IPT Charter. • As delegated by the EMCBC Director or the AE, approve changes in compliance with the approved change control process. • Prepare FYWP for assigned OA and any changes thereto.

Roles	Responsibilities
Project Management Support Division, as the EMCBC local Project Management Support Office	<ul style="list-style-type: none"> • Provide independent oversight and report directly to the EMCBC Director. • Serve as the Secretariat for the CBCAAB. • Coordinate performance reviews of assigned CAP and OA. • Coordinate with other DOE and EM organizations and offices, notably EM-53, to ensure effective and consistent implementation of project management policies and directives. • Provide project management assistance and oversight to line management organizations. • Analyze project management execution issues. • Actively assist senior management on issues related to project management performance, including implementation of corrective actions. • Assure compliance with the EM Corporate Work Breakdown Structure. • Assist EMCBC customer sites with Site Transition planning and execution.

3.0 Management System Operation

3.1 Overview

The Project Management System provides the corporate processes for delivering CAP and OA by relying on disciplined up-front planning, well-defined and managed project baselines, sound acquisition strategies, and effective communications among all project stakeholders.

The EMCBC CAP and OA are directed and executed under authority delegated by EM-1. This EMCBC Project Management MSD provides local direction under the structure of EM's corporate Project Management FAD (see the FAD for further information).

The EMCBC Director serves as the responsible Field Element Manager for work at assigned sites. He/she will review all FYWP, schedules, and progress. The EMCBC sites' lead FPD or OAM will best organize the site work to achieve DOE goals, and submit plans or proposals to the EMCBC Director for approval or endorsement as appropriate. The EMCBC Director will coordinate his/her review with Headquarters Offices.

The management of CAP and OA will use the same or very similar processes of Critical Decision management, change control, reporting, monitoring, risk management, and FPD or

OAM certification. All CAP usually have defined scope and schedule (a baseline), are tied to physical assets with over two years of useful life, and are governed by DOE O 413.3B. In comparison, OA usually work without fixed quantities, have significant unknowns, and are governed by the EM Policy & Protocol for Operations Activities (Appendix C of which delineates OA from CAP). The EM Project Management FAD applies to both OA and CAP.

Projects and activities at sites are organized under a Work Breakdown Structure (WBS) described in EM's Corporate WBS Guidance.

3.2 Key Functions/Services and Processes

The EMCBC Project Management System provides the corporate processes for delivering EM projects by relying on disciplined up-front planning, well-defined and managed project baselines, sound acquisition strategies, effective change control, and effective communications among all project stakeholders.

See also the instructions in the EM Project Management FAD, Sections 3.1 and 3.2.

3.2.1 Critical Decision and Change Control Management

Within the DOE project management system, Critical Decisions (CD) are key project milestones that must be successfully achieved in order to reach agreement on project baselines, funding, and readiness to execute. CDs are integral to the overall project schedule and must be planned and managed with the same rigor as major technical activities and milestones. CDs secure stakeholder agreement, build credibility, keep the entire organization informed, and affirm the project's purpose and direction.

Suitably-qualified FPD and OAM personnel (including Deputy FPD and OAM, if appropriate) must be assigned to manage CAP and OA, respectively. The DOE Project Management Career Development Program (PMCDP) defines requirements for initial certification of FPD applicants, as well as continuing education and experience requirements for certifications with higher levels of authority. For OAM personnel, EM-internal requirements have been established for certification and continuing education, since the PMCDP does not apply to DOE operations activities.

Annually, each OAM will prepare a FYWP for each OA. The FYWP describes the scope, cost, schedule, performance metrics, milestones, assumptions, and risks associated with the OA. Even though the FYWP is a Federal document, it is based on the contractor's Contract Performance Baseline (CPB) segment for the OA. A CPB segment for an OA represents the contractor's work plan for planning and executing an OA through the contract period of performance. Elements that can significantly influence outcomes include annual targets for EM corporate metrics and budget allocations, lifecycle cost reduction, risk reduction, regulatory milestones, and safety & health of workers and communities. The EMCBC Director will consult with EM Headquarters to review and approve changes to all FYWP.

For CAP, the baseline management process, change approval thresholds, composition, and charter of the Federal Change Control Board (CCB) must be part of the PEP. Changes above the authority of the FPD will either be approved or endorsed (or rejected) by the EMCBC Director.

The EMCBC Director will appoint and chair the CBCAAB to consider CDs and proposed baseline changes to CAP. The CBC Director may also, at his/her discretion, choose to utilize the CBCAAB to consider DOE O 413.3B “equivalent” CDs and proposed baseline changes to OA. All changes must be coordinated with the responsible Contracting Officer.

3.2.2 Project Delivery

While CAP and OA delivery in EM is guided by the Department’s project management system, the below list includes signature features of CAP and OA that affect their delivery.

- Each CAP or OA has a baseline that clearly documents the scope of work to be completed, the estimated cost, and the life cycle schedule by which various aspects of the work will be completed. CAP and OA, if appropriate, are expected to employ Earned Value (EV) metrics as part of the overall performance monitoring process.
- Each OA has a FYWP that clearly documents the scope of work to be completed as outlined in the contract, the estimated cost/spend plan, metrics, and milestones which outline the schedule by which various aspects of the OA will be measured and completed.
- The baseline for CAP and the FYWP for OA can be viewed as an acceptable point from which to track and control future changes throughout the duration of the CAP or OA. EM monitors the actual progression of its CAP and OA on a regular basis (typically at least quarterly) against the baseline and FYWP, as appropriate.
- FPD, OAM and other Project Management support personnel assist in the successful execution of CAP and OA by means of consultation, independent project reviews, quarterly project reviews, and monthly project reviews and reporting. Project Management documents are kept under configuration management throughout the duration of the CAP or OA.
- An approved CAP near-term baseline reflects the identified scope of work that can reasonably be accomplished for an identified cost in an identified time period. The near-term period of the baseline typically coincides with the current contract period, which is generally five years. For OA, an annual FYWP reflects the planned scope of work, milestones and metrics outlined in the contract for the current year.
- EM’s environmental cleanup projects often extend beyond the near-term, which is why EM also develops out-year planning estimates (ranges of cost and schedule).
- Completing a CAP or an OA within the parameters of the baseline or FYWP depends on adequate funding and the availability of contingency funds during CAP or OA execution.
- EM CAP and OA usually start with significant unknowns, and additional risks commonly emerge during project execution. The risks must be identified, quantified as much as possible, monitored for realization or retired, and communicated to senior managers.

- An OA typically has fewer unknowns than a CAP and project activities are more level of effort (LOE) by nature. Although OA tend to be more routine in nature, risks must be identified, tracked and managed as appropriate based on the complexity of the activity.

Lessons learned from successful EM projects regularly highlight effective project reporting and monitoring as a critical element of the project management process. Project Management Lessons Learned (PMLL), for both CAP and OA, are collected and maintained on the DOE Corporate Lessons Learned Database, which is maintained by the Office of Health, Safety & Security (HSS). Such PMLL should be reviewed throughout the design, execution and closeout process.

At sites where EM is responsible for legacy cleanup, site transition requirements must be considered as the EM cleanup draws closer to completion. Such requirements are defined in “terms and conditions” agreements that EM has negotiated with various DOE Landlord organizations (e.g., Office of Legacy Management, Office of Science). Site transition requirements are separate from project management requirements imposed on CAP and/or OA, however, all applicable DOE requirements can be satisfied by applying an integrated approach to project management and site transition planning.

3.2.3 Project Reporting and Monitoring

All EM activities with congressional funding lines will report progress in the EM Integrated Planning, Accountability and Budgeting System (IPABS). All CAP with TPC \geq \$10M must also report in the DOE Project Assessment and Reporting System (PARS) II after CD-0 is approved.

CAP and OA must also make regular (usually quarterly) presentations to EM-1. The FPD and OAM will consult with EMCBC staff in order to pre-brief or rehearse the presentations with the EMCBC Director, in his/her capacity as the senior line manager for Small Sites.

The EMCBC Director, in his/her capacity as line manager of the Small Sites, may impose additional reporting requirements for CAP and/or OA, such as monthly or quarterly review & analysis of project performance data, management of project risks, and status of contract and/or financial actions.

The EMCBC Director may also charter teams to perform project reviews of CAP and OA at the Small Sites. Such reviews may include activities performed by the PMSO, as defined in DOE O 413.3B and associated DOE Guides (e.g., Independent Project Review [IPR]), and other reviews that can be tailored for assessment of ongoing OA at the Small Sites.

EMCBC RECORD OF REVISION

DOCUMENT TITLE: Management System Description: Project Management

If there are changes to the controlled document, the revision number increases by one. Indicate changes by one of the following:

I Placing a vertical black line in the margin adjacent to sentence or paragraph that was revised.

I Placing the words GENERAL REVISION at the beginning of the text.

Rev. No.	Description of Changes	Revision on Pages	Date
0	Initial MSD		12/16/11
1	GENERAL REVISION		6/1/12
2	GENERAL REVISION (to meet CBC MS format requirements)		2/26/15