DOE PROJECT MANAGEMENT NEWS

Promoting Project Management Excellence

APRIL 2021

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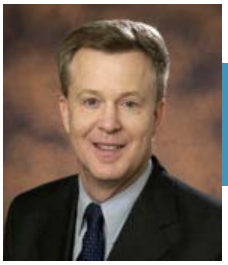


Director's Corner

Spring is here! With the arrival of Spring, we kickoff of a series of articles that addresses the project lifecycle within the framework of DOE Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets*. These articles will look at various Order requirements, discuss best practices, and highlight where to go for additional information.

The Department's goal is to deliver every project within the original Performance Baseline, on or ahead of schedule, within or below budget, and fully capable of meeting mission performance, safeguards and security, quality assurance (QA), sustainability, and environmental, safety, and health requirements.

As is well known to the DOE project management community, the typical project will progress through a series of five critical decisions (CDs). Each CD represents a major milestone and decision point requiring approval by the Project Management Executive (PME). Each CD approval represents the PME's authorization to commit additional resources to proceed to the next phase, the next CD.

The focus of this month's article is on the start of a project, the project initiation phase, the identification of a credible performance gap between a current capability and those required to achieve the program's goals and reflected in their strategic plan. For more information, see the article on page 2.

In addition, this month, we continue our discussion on the development of a new model to assess the maturity level and the environmental conditions of a project's Earned Value Management System (EVMS). Currently referred to as the EVMS maturity and Environment Total Rating (EVMS METR), the model will consider multiple attributes and factors with the goal to provide various attribute ratings helping identify areas for improvement, leading to a more, effective, consistent and reliable EVMS. Find out more in the article on page 4.

Finally, keeping our leadership informed of a project's status and performance is critical to their ability to make timely, informed decisions. For background on what goes into providing leadership with a project's status and the information necessary to support their decision making, see the article on page 9.

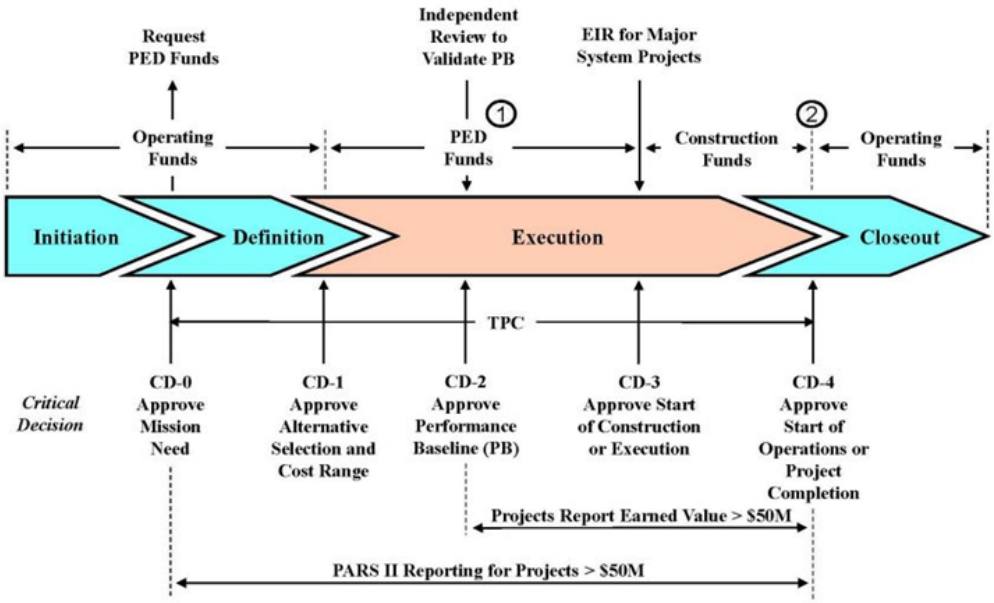
Keep Charging!

Paul Bosco

Project Initiation: The Mission Need Statement

Dave Chisenhall, Project Analysis Division (PM-20)

This article focuses on how to create a mission need statement (MNS), the backbone document for achieving critical decision (CD)-0, *Approve Mission Need*, which is developed in a project's initiation phase. It is the first step in the identification and execution of a Department of Energy (DOE) project. From DOE Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets*, "the DOE Acquisition Management System establishes principles and processes that translate user needs and technological opportunities into reliable and sustainable facilities, systems, and assets that provide a required mission capability." The figure below illustrates the requirements for the typical implementation of the DOE Acquisition Management System for Line Item Capital Asset Projects. The development of the MNS is synonymous with the initiation phase of the project.



This acquisition system is organized into project phases and critical decisions (CDs), where the initial phase is identification of a mission "capability gap" that is subsequently transformed into well-defined requirements. A capability gap represents the inability to execute a specified plan of action or process. Solutions should yield products (facilities, systems, etc.) that are operationally effective, suitable, and affordable in addressing the identified capability gap. One of the first steps in the identification and execution of a DOE project is the development of the MNS document. The MNS is not an engineering study or a proposed solution to the identified mission gap. Rather, it is anticipated and accepted that pre-conceptual level engineering and technical analyses would be accomplished before the MNS is submitted.

The MNS is the primary document supporting the Project Management Executive's (PME) decision at CD-0 to initiate an exploration of options to satisfy a recognized capability gap which may include a capital asset acquisition. Specific to the National Nuclear Security Administration (NNSA), the initiation phase is also supported by the Program Requirements Document (PRD), which defines the ultimate goals which the project team must satisfy.

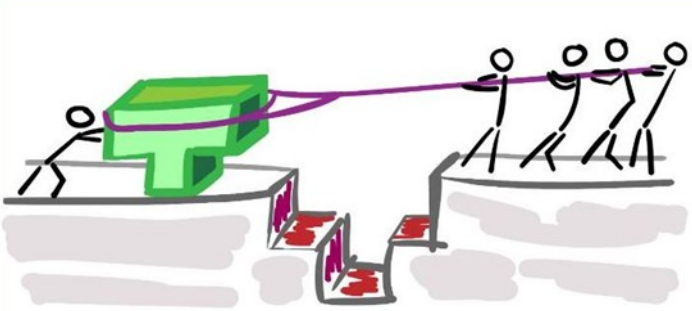
Development of the MNS starts when a Program office identifies a credible performance gap in current capabilities and capacities when assessed against the required performance to achieve their strategic plan's goals and objectives. The MNS is the translation of this identified gap into a high-level requirement that can only be met through material means. The MNS summarizes the analytical process used by programs to evaluate and define the need.

The MNS should be broad in scope and describe the general parameters of the solution and why it is critical to the overall accomplishment of the Department's mission. The MNS is independent of a particular solution, physical end-item, or site. Following these criteria allows the Program Office the flexibility to explore, through the analysis of alternatives (AoA) process, a variety of solutions as the project progresses to CD-1, *Approve Alternative Selection and Cost Range*, while not limiting the potential solution set. The MNS is independent of a particular solution, physical end-item, or site. Following these criteria allows the Program Office the flexibility to explore, through the analysis of alternatives (AoA) process, a variety of solutions as the project progresses to CD-1, *Approve Alternative Selection and Cost Range*, while not limiting the potential solution set. This would allow the project team to:

- **Explore and define the scope of the gap**
- **Identify potential hazards and the associated safety, security, and risk implications**
- **Identify the rough order of magnitude (ROM) range estimates (as an example, -50 percent to +100 percent) of a conceptual project's cost and schedule range**

Continued on Page 3.

The initial ROM range estimate helps identify who the appropriate PME should be and provides them an initial reference point relative to future resources and schedules the project could entail. The MNS ROM range estimate **is not** a budget quality estimate, as it is likely to change as the requirement is refined over time with greater details and an eventual alternative is selected. Therefore, avoid making judgments regarding project performance relative to the rough order of magnitude range estimates.



To reinforce the broad aspect of the MNS, the suggested document length is no more than 15 pages and should include the following content:

Statement of Mission Need: A clear and concise paragraph (in a few sentences) that lays out the essential summary of the mission need. The section of the mission need statement dedicated to defining the capability gap should describe the gap between the current state of the program's mission and strategy plan.

Alignment: How does the stated mission need fit into the overall strategy for achieving or advancing the Department's and the program's strategic plan and mission? What is the priority of fulfilling the mission need relative to other programs and projects within the program office and Department and relative to other project/programs at the site, installation, laboratory, etc.? What are the internal or external drivers for this mission need (e.g., legal ruling, statue, regulation, international agreement, earmark, or Presidential, Congressional, or Secretarial direction/priority)?

Capability Gap: The gap or shortcomings the MNS is addressing should be clearly described in terms of an operational or functional performance capability, technological opportunity, or service. The MNS should be a description of the mission as defined by a desired end-point, not a contract statement of work. Therefore, capability gap descriptions that incorporate construction of a physical system, decontamination and decommissioning, environmental restoration, procurement of a piece of equipment, construction of a facility, or other specific material end item are not appropriate for a mission need statement.

Approach: What has been considered or what will be analyzed as potential strategies to meet the new mission need? What are the mission level assumptions? What are the constraints (functional, technical, operational, staffing, regulatory, safety, or financial)? Are there any nuclear safety or safeguards and security issues that will need to be considered?

Resource and Schedule Forecast: Provide a ROM estimate of the project cost and schedule ranges. Identify the fiscal year for meeting subsequent CDs. Identify the funding profile associated with the ROM estimate at the high end of the range, including a breakout of project engineering and design funds, and an explanation of funding needs to proceed from CD-0 to CD-1.

The MNS is a concise document that describes a mission need to close a capability gap and is aligned with the Department's and the program's strategic plan without specific solution sets. It is a description of the mission as defined by a desired end-point, not a contract statement of work. Therefore, descriptions of the capability gap in terms of a construction of a physical system, decontamination and decommissioning, environmental restoration, procurement of a piece of equipment, construction of a facility, or other specific material end item are not appropriate for a mission need statement.

By following the above guidance, authors of a MNS can write a clear statement to support the PME's decision to initiate exploration of options to fulfill a capability gap. More information about the MNS such as detailed suggested content and examples can be found in DOE Guide 413.3-17, *Mission Need Statement Guide*.

Improving the Maturity and Environment of the Earned Value Management System (EVMS): Development of an EVMS Rating Index (Part 2)

David Kester, Office of Project Controls (PM-30)

This is a continuation of an article on the joint sponsored EVMS research study led by Arizona State University (ASU) discussed in the March 2021 PM Newsletter. As noted in that article, the research study was initiated by the Office of Project Management (PM) to design and produce an EVMS rating index [current working title EVMS maturity and Environment Total Rating (EVMS METR)] to assess the state of maturity and environment of an EVMS within an integrated project management (IPM) construct for those capital asset projects requiring compliance with EIA-748. The EVMS maturity and environment levels consider multiple attributes and factors, for consistent, effective, and reliable IPM and EVMS implementation to position projects for success by meeting technical and quality objectives on budget and schedule.

EVMS maturity templates have been developed by the research study and are being utilized in PM-30 EVMS reviews to assess the maturity of a contractor's EVMS. Results to date appear to corroborate that low environment scores (e.g., an environment not fully embracing the rigors of implementing the EVMS) result in low maturity with numerous process incidents or data quality errors. Fifty-six (56) weighted maturity templates are used to appraise the maturity of the EVMS management processes and attributes. Similar to how FICO* scores are weighted to place special emphasis on the different pieces of credit data in the credit report, the EVMS maturity level/score reflects how important a management process and attribute is for the level of risk and type of work being performed. Each maturity template defines at Level 4 the operating characteristics necessary for compliance with EIA-748 requirements.

Figure 1 shows the EVMS maturity template for the assessment of Attribute F.5 Estimates at completion (EAC) as part of the analysis and managerial reporting process. As noted, the highlighted area of the template, Level 4, describes the characteristic of the EVMS needed for meeting EIA-748 requirements. Each level is assigned a weighted score based on the results of numerous surveys and workshops conducted by ASU as part of the research study. A primary benefit of the EVMS maturity level/score is to identify the gaps and provide an actionable result to achieve level 4 for attributes scored at a level lower than 4.

Where project risk and complexity do not necessitate EIA -748 compliance for a project, but there is a need for some implementation of suitable project management and project control practices, a lower level of maturity may be deemed appropriate and beneficial.

If capability maturity model integration (CMMI) levels of capability and performance are applied as a way to characterize a contractor's EVMS maturity results, a maturity index score approaching 0.6 would fall within the "Defined Stage" as depicted by the blue needle in Figure 2. At this stage, there are sets of defined and documented standard processes established that are subject to some degree of improvement over time. While these standard processes are in place, they have not been systematically or repeatedly used. If a contractor's EVMS is already EIA-748 certified, it should be operating at the "Managed Stage" where the EVMS is capable of effectively using process metrics to achieve programmatic objectives evidenced across a range of conditions as depicted by the range of green needles. Here the suitability of the EVMS has been tested and the management processes refined and adapted in multiple environments. Also, process users have experienced the EVMS in multiple and varied conditions and can demonstrate competence without measurable losses of quality or deviations from expected implementation results. For example, a surgeon performing an operation hundreds of times with levels of negative outcomes approaching zero.

The "Environment" refers to events, factors, people, systems, structures, and conditions, both internal and external to a project, that influence the implementation of the EVMS. Culture, people, practices, and resources are elements typically associated with an environment that will influence a project's activities, decisions, behaviors, and the attitudes of team members responsible for implementing the EVMS. Environment factor templates are used to appraise the internal and external influences on the implementation of the EVMS. Figure 3 shows the environment factor template for the assessment of "Culture." The highlighted areas of the template describe the factors affecting an organization and project culture. Each factor is assigned a weighted score based on the results of numerous surveys and workshops conducted by ASU as part of the research study.

**Fair Isaac Corporation, the first company to offer a credit-risk model with a score. Bill Fair and Earl Isaac are the founders.*

Continued on Page 5.

Figure 3.

Culture		
Factor	**Culture Environment Factors**	**Description**
1a.	The **contractor organization is supportive and committed** to EVMS implementation, including making the necessary investments for regular maintenance and self-governance.	The contractor's integrated project/program team (IPT) is in place (i.e., corporate leadership, execution/operations, oversight, and support staff), and has a demonstrated belief in the value and disciplined use of the EVMS. The project/program follows an integrated project management strategy to identify and manage risks using the EVMS that would otherwise negatively impact a well-formed baseline plan. It has committed resources, including funding, to ensure that effective implementation of the EVMS is a priority, assuring continuous improvement and accountability at every level of the contractor organization. This commitment ensures the availability and protected time of key individuals who contribute to implementing and executing EVMS substantively and measurably. Typically, this also includes the availability/commitment of other personnel with specialized skills/knowledge, who may or may not be "dedicated" to the project/program. Leadership's and team members' attitude and discipline, both at the corporate office level and the project/program level leads to the correct use, application, and acceptance of EVMS as an integrated project/program management tool (ranging from the definition of work scope to planning and scheduling to budgeting and work authorization, to analysis and reporting to forecasting and risk management). Leadership actively revisits the most effective ways to evaluate EVMS metrics that support decision-making. The organization's policies provide incentives and education to foster support and commitment. The contractor's team does not choose convenience over following the EVMS regulations and procedures applicable to the project/program. Project/program decision-making, which ultimately drives project results, is collaborative, and effectively relies on EVMS generated data and metrics. Governance is enforced and effective at dealing with the challenges of the project/ program. Comments: Self-governance refers to the capacity of a contractor to govern autonomously and, as such, is an important approach in overseeing the effective implementation of the EVMS. When a contractor instills integrated project/program management principles using the EVMS in a way that benefits all levels of the organization, the results can guide management decisions, lead to improved project/ program execution, and optimize the performance of the project/program team.

1. Culture
Culture is, by definition, the display of behaviors. Organizational culture is a system of common assumptions, values, and beliefs (or the lack thereof) that governs how people behave in organizations. Organizational values and beliefs should align with the development and outcomes of a successful EVMS. The project/program culture can enable or hinder the effectiveness of the EVMS.

Factors for Review	Not Acceptable	Needs Improvement	Meets Some	Meets Most	High Performing
1a. The **contractor organization is supportive and committed** to EVMS implementation, including making the necessary investments for regular maintenance and self-governance.	0	19	39	58	78
1b. The **customer organization is supportive and committed** to the implementation and use of EVMS.	0	14	27	41	54
1c. The project/program **culture fosters trust, honesty, transparency, communication, and shared values** across functions.	0	15	30	45	60
1d. **Effective teamwork exists,** and team members are working synergistically toward common project goals.	0	5	11	16	22
1e. The project/program **leadership effectively manages, and controls change** using EVMS, including corrective actions and continuous improvement.	0	8	16	24	32
1f. **Alignment and cohesion exist among key team members** who implement and execute EVMS, including common objectives and priorities.	0	5	9	14	19
1g. Project/program leaders make **timely and transparent decisions** informed by the EVMS.	0	12	24	36	48
Column Totals (For Culture)	**0**	**78**	**156**	**234**	**313**

The four stages of group development (Forming, Storming, Norming, Performing) can be used as a reference to place environment factor index score in perspective. These stages were originally defined by Bruce Tuckman (in the 1960s) who believed that there are four phases for teams to go through for them to grow and deliver results and to overcome challenges, tackle problems, find solutions, and plan work.
For example, an Environment Factor index score approaching 0.6 would indicate the project's environment is in the later stage of "Storming" as depicted by the blue needle in Figure 5. This stage is a period marked by conflict and competition as individual personalities emerge. Team member performance decreases in this stage because energy is put into unproductive activities. Members may disagree on team goals, and subgroups and cliques may form around strong personalities or areas of agreement. To get through this stage, members must work to overcome obstacles, to accept individual differences, and to work through conflicting ideas on team tasks and goals. Teams can get bogged down in this stage. Failure to address conflicts may result in long-term problems. The storming stage is the most difficult and critical stage to pass through.

For a project well over 50% complete, the expectation should be that a project team is operating at the later stage of "Norming" or preferably the beginning stage of "Performing" where conflict is resolved, and some degree of unity emerges, as depicted by the range of green needles.

In the "Norming" stage, a consensus develops around who the leader or leaders are, and individual member's roles. Interpersonal differences begin to be resolved, and a sense of cohesion and unity emerges. Team performance increases during this stage as members learn to cooperate and begin to focus on team goals. Getting to the "Performing" stage is of paramount importance where problems and conflicts still emerge, but they are dealt with constructively and promptly. A culture of compliance goes beyond once-a-year mandated surveillance and training. It embeds the use of the EVMS into everyday workflow and sets the foundation for individual behaviors.

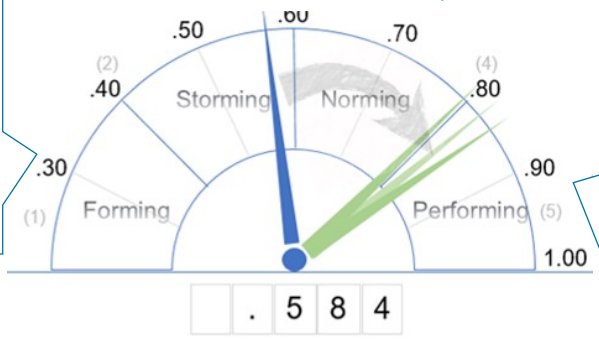
The next important milestone in the progression of the research study is to finalize the maturity and environment content and weightings using survey and workshop results, incorporate the lessons learned from active EVMS reviews where the tools were piloted, and test and field the EVMS METR. Being able to think differently is a basic definition of innovation and is also a definition of how to be smart about the implementation of the EVMS. The communication of research study results and field of the automated tool and use of the rating index across departments and agencies will be important first steps in explaining and promoting the relationship of EVMS maturity to the environment in which it operates. By establishing statistically meaningful evidence taken from the research study, project managers will know how to best utilize the EVMS to its full potential towards meeting work scope, schedule, and budget objectives. By doing so they take the first of many important steps towards creating the right environment for success.

Figure 4.

Storming Stage:
The storming stage is the most difficult and critical stage to pass through. It is a period marked by conflict and competition as individual personalities emerge. Team performance may decrease in this stage because energy is put into unproductive activities. Members may disagree on team goals, and subgroups and cliques may form around strong personalities or areas of agreement. To get through this stage, members must work to overcome obstacles, to accept individual differences, and to work through conflicting ideas on team tasks and goals. Teams can get bogged down in this stage. Failure to address conflicts may result in long-term problems.

Norming Stage:
If teams get through the storming stage, conflict is resolved, and some degree of unity emerges. In the norming stage, consensus develops around who the leader or leaders are, and individual member's roles. Interpersonal differences begin to be resolved, and a sense of cohesion and unity emerges. Team performance increases during this stage as members learn to cooperate and begin to focus on team goals. However, the harmony is precarious, and if disagreements re-emerge the team can slide back into storming.

Forming Stage:
The forming stage involves a period of orientation and getting acquainted. Uncertainty is high during this stage, and people are looking for leadership and authority. A member who asserts authority or is knowledgeable may be looked to take control. Team members are asking such questions as "What does the team offer me?" "What is expected of me?" "Will I fit in?" Most interactions are social as members get to know each other.



Performing Stage:
In the performing stage, consensus and cooperation have been well-established and the team is mature, organized, and well-functioning. There is a clear and stable structure, and members are committed to the team's mission. Problems and conflicts still emerge, but they are dealt with constructively. The team is focused on problem solving and meeting team goals. A culture of compliance goes beyond once-a-year mandated training. It embeds compliance into everyday workflow and sets the foundations and expectations for individual behavior across an organization.

Importance of Timely and Accurate Project Documentation

Ed Gully, Office of Project Analysis (PM-20) and Zac West, Office of Project Controls (PM-30)

Each month, the Office of Project Management (PM) conducts a comprehensive independent analysis of all active capital asset projects subject to DOE Order (O) 413.3B *Program and Project Management for the Acquisition of Capital Assets.* The culmination of this analysis and assessment process is the publication of a monthly and quarterly DOE Project Portfolio Status Report for all projects, specifically highlighting any projects at risk of not meeting their performance baseline (scope, cost, and/or schedule). These reports are provided to the Deputy Secretary, senior DOE leadership, and several external stakeholders (e.g., the Office of Management and Budget (OMB) staff) to keep abreast of ongoing capital asset projects. The reports are also used by the Government Accountability Office (GAO) and Congressional staff to stay informed on the status of our projects.

In conducting analyses to prepare these reports, it is important that project teams and programs maintain project documentation appropriately in the Performance Assessment and Reporting System (PARS) in addition to uploading performance data for projects that are past the Critical Decision (CD)-2, *Approve Performance Baseline,* milestone. DOE O 413.3B states "All projects with a total project cost (TPC) greater than $50M are required to report progress and provide documentation in the Project Assessment and Reporting System (PARS) at Critical Decision (CD)-0 and thereafter, in accord with Appendix C." PARS includes a document management system (DMS), which is the official repository of record for capital asset projects that fall under DOE O 413.3B.

Timely posting of relevant and key project documents is essential to ensuring that a project's status is appropriately reflected and that documentation to support analysis is present for users and stakeholders at all levels.

One example of use in preparing the monthly and quarterly reports is having access to the Integrated Program Management Reports (IPMR) or Contract Performance Reports (CPR). As analysts and management observe current period or cumulative variance, they need to be able to read the contractor's variance narratives to gain insight as to why and what is being done to improve performance. This insight helps all users of the data in PARS -- whether the Federal Project Director, Program or PM staff -- to better understand the project's status.

There are many documents that need to be uploaded to PARS. Key documents include critical decision (CD) approval and support documents, CPR/IPMR Formats 1 to 5 documents, appointment of key project personnel, monthly project reports, key contract documents, change control logs, project peer review reports, funding documents, risk documents, and many more.

NEW! Over this upcoming year a document monitoring tool will be added to PARS to let users see, for a given project, which documents are properly loaded up in PARS, and which are missing for a specific critical decision phase.

This tool should help the project team and program maintain the documentation in PARS in a timelier manner. Currently, an audit by PM staff of project documentation is ongoing and a report for each project will be provided to help ensure documentation is up to date. Please look for subsequent articles in this newsletter to provide additional details on the new PARS document monitoring tool and audit status.

While the responsibilities for posting these documents may vary by program (e.g., the Office of Environmental Management, the National Nuclear Security Administration, and the Office of Science), all involved parties (e.g., contractor, Federal Project Directors, Program representatives) are encouraged to monitor their PARS documents status to ensure that it is current and contains the key project documents. When GAO conducts audits, they use the documents and project performance data uploaded in PARS to evaluate the status and management effectiveness of each project. We need all involved to help maintain these records to support senior leadership being informed and to ensure that each project history is maintained for audits, benchmarking, and a clear understanding of past and current period performance, as well as future indicators towards reaching the approved performance baseline.

If you have any questions on the above, please contact your PM-20 project analyst or the PM-30 PARS team.

Funding Considerations for Pre-CD-0 Project Initiation

Brian Kong, Office of Project Controls (PM-30)

CD-0, *Approve Mission Need*, is a significant milestone. It's the first of five critical decisions (CD) in the hard work leading to successful project completion. Successful projects depend on strategic project initiation work supporting front-end planning, identifying the gap, and developing the comprehensive CD-0 package. The green shaded area on the Figure 1.1 represents this initiation phase.

This critical effort prior to CD-0 also involves a strong integrated project team (IPT) to initiate *pre-conceptual planning* activities that focus on the Program office's strategic goals and objectives, safety planning, design, development of capability gaps, high-level parameters, a rough-order-of-magnitude cost range, and schedule estimates. DOE Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets*, table 2.0 identifies other key activities prior to CD-0 including the development of the mission need statement, performing various reviews based on the upper end of the cost range, and the development of additional documentation for National Nuclear Security Administration (NNSA) and Hazard Category (HC) 1, 2, and 3 nuclear facility projects.

Getting to CD-0 may require significant funding and resources that challenge the Program office's affordability and project prioritization. In some cases, general operations programmatic funds are inadequate for pre-CD-0 activities and project specific requests for funds are necessary. This is typically the case for many NNSA and HC projects which are defense-related and authorized by the National Defense Authorization Acts (NDAA) where the United States Code (USC)Title 50, *War and National Defense* is applicable. While pre-CD-0 costs are not typically included in the total project cost (TPC), they would be considered other project costs (OPC) and included in the TPC for defense-related projects.

50 USC Chapter 41, *NNSA*, and Chapter 42, *Atomic Energy Defense Provisions*, provide important planning, programming, and budgeting process requirements that significantly impact project timing. IPT needs to address the requirements of 50 USC §2746, *Conceptual and construction design*. It requires completion of conceptual design prior to requesting funds for the construction project, e.g., requesting funds for project engineering and design (PED) after CD-0.

Completion of the project's conceptual design report (CDR) is a key indicator that the conceptual design is complete. If the estimated cost of completing the conceptual design exceeds $5 million, a request for the conceptual design funds must be submitted to Congress. Further, if the total estimated cost (TEC) for construction design exceeds $2 million, funds for that design must be specifically authorized by law. Note: 50 USC §2744, Limits on construction projects, states construction may not be started (and additional obligations incurred) if the current estimated cost of the construction project exceeds by more than 25 percent of the amount of the TEC for the project shown in the most recent budget justification data submitted to Congress or of the authorized project amount. If not recognized and planned for upfront, this may result in a situation requiring approval of a baseline change proposal (BCP) and delay project completion.

Figure 1.1 depicts when these type funds may be requested and expended. These requirements and resulting funding availability impact the project's schedule including the forecast CD dates. Figure 1.2 (Page 11) shows the full lifecycle.

Such risks are mitigated with emphasis on these essential efforts prior to CD-0 to ensure a well-ordered CD-0 approval, a key first step towards successful project completion.

Figure 1.1

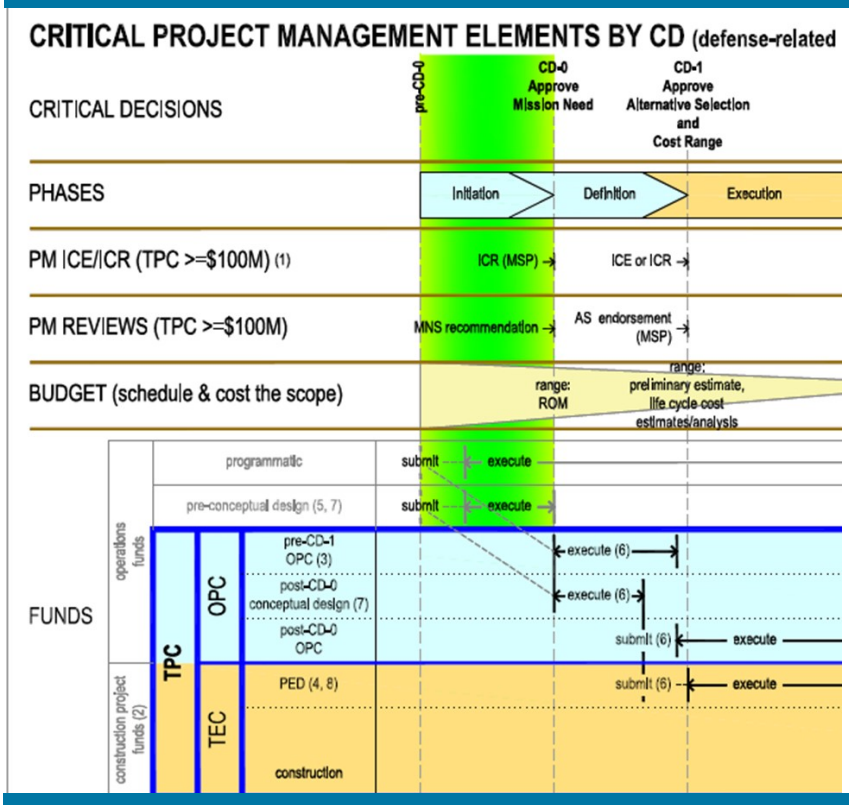


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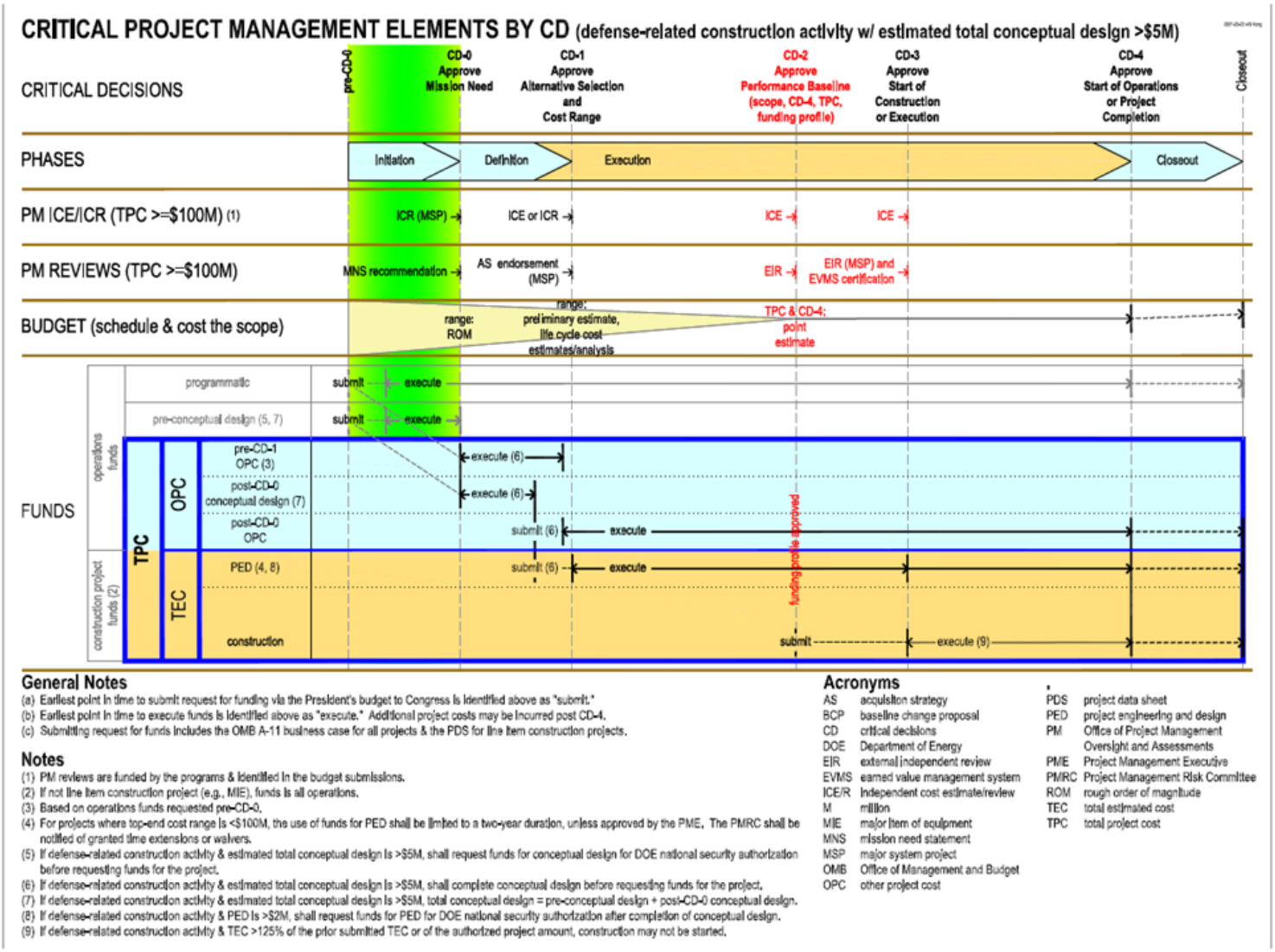
Figure 1.2 (Full graphic for context)



General Notes

(a) Earliest point in time to submit request for funding via the President's budget to Congress is identified above as "submit."
(b) Earliest point in time to execute funds is identified above as "execute." Additional project costs may be incurred post CD-4.
(c) Submitting request for funds includes the OMB A-11 business case for all projects & the PDS for line item construction projects.

Notes

(1) PM reviews are funded by the programs & identified in the budget submissions.
(2) If not line item construction project (e.g., MIE), funds is all operations.
(3) Based on operations funds requested pre-CD-0.
(4) For projects where top-end cost range is <$100M, the use of funds for PED shall be limited to a two-year duration, unless approved by the PME. The PMRC shall be notified of granted time extensions or waivers.
(5) If defense-related construction activity & estimated total conceptual design is >$5M, shall request funds for conceptual design for DOE national security authorization before requesting funds for the project.
(6) If defense-related construction activity & estimated total conceptual design is >$5M, shall complete conceptual design before requesting funds for the project.
(7) If defense-related construction activity & estimated total conceptual design is >$5M, total conceptual design = pre-conceptual design + post-CD-0 conceptual design.
(8) If defense-related construction activity & PED is >$2M, shall request funds for PED for DOE national security authorization after completion of conceptual design.
(9) If defense-related construction activity & TEC >125% of the prior submitted TEC or of the authorized project amount, construction may not be started.

Acronyms

AS	acquisition strategy
BCP	baseline change proposal
CD	critical decisions
DOE	Department of Energy
EIR	external independent review
EVMS	earned value management system
ICE/R	independent cost estimate/review
M	million
MIE	major item of equipment
MNS	mission need statement
MSP	major system project
OMB	Office of Management and Budget
OPC	other project cost
PDS	project data sheet
PED	project engineering and design
PM	Office of Project Management Oversight and Assessments
PME	Project Management Executive
PMRC	Project Management Risk Committee
ROM	rough order of magnitude
TEC	total estimated cost
TPC	total project cost

Congratulations to our newly certified FPDs!

Level IV

Wahed Abdul (EM)

Level III

Amanda Clark (NNSA)

Level I

Jonathan Caldwell (NNSA)

Joseph Diehl (SC)

Recipe for FPD Certification Success

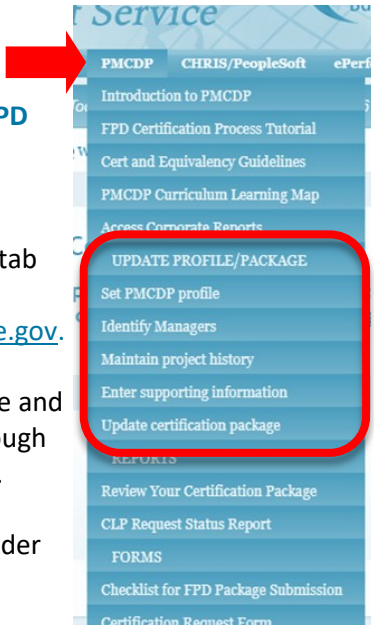
Linda Ott, Professional Development Division (PM-40), Director

Federal Project Director (FPD) certification is required for DOE federal project management personnel assigned to lead capital asset projects (CAPs) at the Department of Energy (DOE). The process begins in Employee Self Service (ESS) where the FPD application is completed. The completed FPD application along with supporting documentation are then loaded to PM-MAX where the certification moves through the workflow approval process.

Below outlines the recipe for completing the FPD application and making the FPD certification package in PM-MAX. My mother had a rule about a recipe—stick to the recipe the first time you try it. Before you start, make sure your Supervisor supports your pursuing the certification. FPD certification is not for everyone. In addition, some Program offices have points-of-contract (POCs)* for the FPD certification who support FPD candidates through the process. As with any recipe, make sure you have your ingredients together before you begin.

Begin in ESS to Complete the FPD Application

The first step is to request the Project Management Career Development System (PMCDP) tab by sending an email to PMCDP.Administration@hq.doe.gov. The tab will appear in the tabs across the top of ESS home page and will guide you step-by-step through completing the FPD application. Work through the links in the UPDATE PROFILE/PACKAGE header by first setting PMCDP profile.



- "**Set the profile**" is selecting what FPD level you are pursuing and entering certification and equivalent training that may apply. This relevant information will be entered into the FPD application leaving fields that need to be completed by you. When you set the level, the application is front populated with available information from DOEInfo and the Learning Nucleus (LN) related training.
- **Identify managers"** is to change/edit information from DOEInfo regarding who will sign the FPD application. In some cases, Program office HQ personnel are put here instead of first line supervisor. Your Program POC can provide guidance.
- "**Maintain project history**" is where you enter your project management history. It holds information provided earlier if you are pursuing a higher level.
- "**Enter supporting information**" is where you can add information in addition to what is asked for in the application.
- **"Update certification package"** is where you can update information such as when you complete training or when you want to update your work and development experience.
- Under REPORTS header **"Review your certification package"** will show the application in its current state. You cannot make changes or correction here. To make changes or corrections, select the section from UPDATE PROFILE/PACKAGE.

Complete FPD application in ESS PMCDP

Once you are satisfied with the FPD application, get electronic signatures for those persons identified as first line manager and site manager. Download the completed FPD application from ESS PMCDP and save it to upload to PM-MAX.

Creating the FPD Certification Package in PM-MAX

The FPD candidate needs to request support from your Program sponsor to create a folder for you in PM-MAX FPD certification package workflow (Workflow) and to complete the FPD checklist that indicates your Program Sponsor supports your request for FPD certification. For the Office of Science (SC), Office of Environmental Management (EM), and the National Nuclear Security Administration (NNSA), the Program sponsor is a member of the Certification Review Board (CRB). For all other Program Offices, the Program Sponsor is in the Office of Project Management Support Office (PMSO) and the Request is submitted through the CRB Secretariat.

Upload your information to PM-MAX

The FPD candidate uploads all the information to create the full FPD certification package. The full FPD certification package includes:

- FPD Application from ESS PMCDP
- FPD Checklist completed and signed by the Program Sponsor
- Training certificates for training not automatically provided from the LN (COR training for example)
- Current licenses, certifications, or credentials,
- FPD appointments and project management history information showing that you were assigned the responsibility and were accountable for it
- Evidence to back up experience claimed
- References for FPD level III candidates

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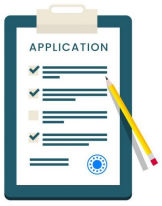
PM-MAX makes Approval Routing a Snap

The **CRB Secretariat** monitors the FPD certification package as it moves through the Workflow approval process which begins with the CRB Secretariat review of the package to make sure all required information is provided.

If documents or fields are not completed, CRB Secretariat sends a message from workflow to the FPD candidate to provide the missing information. The formal approval process continues with a review of the FPD certification package by an **Independent Reviewer.**



The **CRB voting members** then review the FPD certification package and cast their votes through the workflow or by email to the CRB Secretariat mailbox.

The independent reviewers or CRB members can ask for clarification or additional information, referred to as reclamas. Reclamas are resolved and the additional information is added to the certification package. Once all votes are cast, if CRB members unanimously support for the FPD certification request, the candidate is certified by virtual vote; otherwise, the CRB meets to deliberate the candidate's request.

CEG and information related to applying for FPD certification are available on ESS PMCDP and in PM-MAX. Also available is a brief animated video showing the process for applying. For more information or to provide feedback on this article, contact the author directly Linda.Ott@hq.doe.gov.
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EM—Crystal Williams Crystal.Williams@hq.doe.gov
SC—Kin Chao Kinkye.Chao@science.doe.gov
All other Program Offices—Linda Ott Linda.Ott@hq.doe.gov

PMCDP FY20 Training Schedule

The training schedule is posted on PM MAX. Save the direct link to the Project Management Career Development Program PMCDP Training Schedule to your favorites: https://community.max.gov/x/BgZcQw

FY21 Q3				
Course Title	**Dates**	**CLPs**	**LN Code**	**Details**
Project Risk Analysis and Management	April 5-9, 2021	28	001033	Webinar 10:30am-4:30pm (Daily) (EST)
Cost and Schedule Estimation and Analysis	April 19-23, 2021	40	001044	Webinar 10:30am-4:30pm (Daily) (EST)
Planning for Safety in Project Management	April 21, 28, May 5, 12, 2021	28	001035	Webinar 4 Sessions, Wednesdays, 1-3pm EST
Systems Engineering	May 3-6, 2021	24	001049	Webinar 10:30am-4:30pm (Daily) (EST)
Monitoring and Controlling in Project Execution	May 17-21, 2021	28	000450	Webinar 10:30am-4:30pm (Daily) (EST)
Executive Communications	May 25-27, 2021	24	001031	Webinar 10:30am-4:30pm (Daily) (EST)
Front-End Planning	May 25, 2021 to June 10, 2021	20	003176	Webinar: 5 sessions - 2pm-4pm (EST) Tuesday May 25, Thursday May 27, Tuesday June 1, Thursday June 3, Thursday June 10
Scope Management & Baseline Development	June 7-10, 2021	24	001036	Webinar 10:30am-4:30pm (Daily) (EST)
Negotiation Strategies	June 14-30, 2021	24	001047	Webinar: 6 Sessions 1:00pm-3:00pm (EST) Monday June 14, Wednesday June 16 Monday June 21, Wednesday June 23 Monday June 28, Wednesday June 30
Federal Budget Process in DOE	June 21-24, 2021	32	001034	Webinar 10:30am-4:30pm (Daily) (EST)
Value Management	June 28, 2021 - July 1, 2021	24	001037	Webinar 10:30am-4:30pm (Daily) (EST)

Find up-to-date information and resources anytime!

All PMCDP Course Descriptions and Course Materials can be found in the Course Catalog on PM-MAX
Save the direct link to your favorites: **https://community.max.gov/x/UAT3Rw**

Or download the Interactive Curriculum Map: **https://community.max.gov/x/sQd1Qw**

Have a question, found a bug or glitch in a PMCDP online course, or want to provide feedback? Submit your questions through **PMCDPOnlineCourseSupport@hq.doe.gov**.

Contact Us!

The Office of Project Management welcomes your comments on the Department's policies related to DOE Order 413.3B. Please send citations of errors, omissions, ambiguities, and contradictions to PMpolicy@hq.doe.gov. Propose improvements to policies at https://hq.ideascale.com.

If you have technical questions about PARS, such as how to reset your password, please contact the PARS Help Desk at PARS_Support@Hq.Doe.Gov. And as always, PARS documentation, Frequently Asked Questions (FAQs) and other helpful information can be found at https://pars2oa.doe.gov/support/Shared%20Documents/Forms/AllItems.aspx.

The current PARS reporting schedule is located in PM-MAX at the following link https://community.max.gov/x/m4llY.

Need information to apply for FPD certification? The Certification and Equivalency Guidelines (CEG) can be found here https://community.max.gov/x/IQd1Qw.

Can't put your finger on a document or information you were told is available on PM-MAX? Looking for information on DOE Project Management? Submit your questions and queries to PMWebmaster@doe.gov. Check out the links below for information related to FPD Certification and Certification and Equivalency Guidelines.

To reach the Professional Development Division team:

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Ruby Giles —PMCDP Budget Manager, PMCDP Training Coordinator and Training Delivery Manager, Course Audit Program, Ruby.Giles@hq.doe.gov

If you would like to contribute an article to the Newsletter or have feedback, contact the Editor at Linda.Ott@hq.doe.gov.