

DOE PROJECT MANAGEMENT NEWS

Promoting Project Management Excellence



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Director's Corner

WELCOME ABOARD! A warm welcome to our incoming new Secretary and the new DOE leadership team. Some have already joined us and more to follow. I am confident they will soon appreciate that some of the most complex capital asset projects in all of Federal government, if not the world, are executed by DOE. They will also get to meet some of the best Federal Project Directors (FPDs), project managers, and integrated project team (IPT) members anywhere. I know everyone across the DOE/NNSA project management community will give the new team a warm welcome and stands ready to bring them up to speed on our projects and key issues while continuing to execute our mission essential projects, under budget and ahead of schedule.

Normally, we would be getting ready to open registration for the Annual DOE PM Workshop. However, given the ongoing COVID-19 dynamics, the workshop will not be held this year; better safe than sorry. We will continue to process the FY20 project management awards. We are also hopeful that an in-person workshop will return in the spring of 2022.

This month's newsletter covers a variety of topics, including the latest update to DOE Order 413.3B, the incorporation of the EM's Cleanup Project Management Protocol and Implementation Standard for Demolition Projects as Appendix D, article page 2. Other articles provide insight into how PM's Project Analysis Division (PM-20) conducts their monthly analysis of 413 projects (article page 2); the importance of integrating management and control systems for project execution, also known as EIA-748 Guideline 3, (article page 4); and the methodology used to assess the quality of our Project Management Career Development Program (PMCDP) curriculum (article page 5).

As we approach the eleventh month of enhanced safety COVID-19 precautions on our jobsites and expanded telework for many of our staffs, I want to assure you that the tremendous challenges you have faced and overcome have not gone unnoticed. Your work remains critical to the delivery of new capabilities and facilities; to maintain our nation's lead in scientific research, protect our environment, and ensure the security of our nation. Thank you for all you do.

Keep Charging!

Paul Bosco



DOE Order 413.3B, Chg 6 Approved: A PM Policy Milestone

Rob Stern, Policy and Program Support Division (PM-50)

The latest limited update to <u>DOE Order 413.3B, Chg 6</u> (Order), *Program and Project Management for the Acquisition of Capital Assets*, was approved by the Deputy Secretary (S2) on January 12, 2021. The purpose of this limited Order update was to incorporate the Office of Environmental Management's (EM) *Cleanup Project Management Protocol and Implementation Standard for Demolition Projects* (EM Protocol) within a new appendix for the Order (Appendix D).

Appendix D provides EM the means to comply with the Order while adapting to external regulatory frameworks that often add requirements that are out of sync with the Order's processes which focus on the acquisition, vice demolition, of capital assets, including major items of equipment. The EM Protocol establishes requirements for planning, decision-making, execution, performance measurement, and reporting of demolition projects. The requirements in Appendix D of the Order are of comparable rigor to those described in Appendix A - Requirements, but are designed to address unique aspects of demolition projects.

Monthly PM Project Assessment Process

Tony Ermovick, Director, Project Analysis Division (PM-20)

Each month, the Office of Project Management (PM) conducts a comprehensive analysis of all active capital asset projects that fall under DOE Order 413.3B. This includes all projects that are in the various stages of the critical decision (CD) process, as well as monitoring projects that have been completed (i.e., achieved CD-4) but are pending final closeout actions. The culmination of this analysis and assessment process is the publication of a Monthly DOE Project Portfolio Status Report, which is provided to the Deputy Secretary and senior DOE leadership, as well as several external stakeholders (e.g., the Office of Management and Budget (OMB) staff).



FPDs and Program Representatives Are a Big Part of the Process!

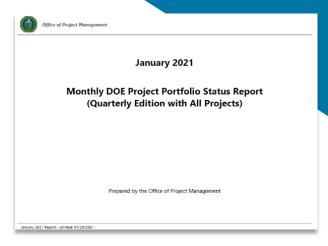
The purpose of this article is to explain the process that the PM Project Analysis Division (PM-20) project analysts go through to conduct the monthly project analysis, and why the Federal Project Directors (FPDs) and Program representatives are a valuable and key element of the assessment process. Their input – be it their performance assessment and reporting system (PARS) assessment narrative, the FPD estimate at completion (EAC), the submission of the monthly project progress reports, or validation of the contractor's monthly earned value (EV) data – are key to ensuring that PM is informed of the latest project status and hence best prepared to provide project assessments that are accurate and contain key project performance information that leadership needs to know.

Once all the key information is received from the FPD and Program via their PARS assessments and document uploads, the following steps are taken by PM to conduct and finalize the monthly project assessment.

- Validate required PARS assessments (FPD and Program) are completed. If incomplete, contact the FPD or Program representative to complete. The requirement for monthly FPD and Program assessments is described in DOE O 413.3B, Appendix C, Section 20.
- 2. Analyze the key performance indicators or project events/milestones, either in the narrative or data entered by the FPD or Project Manager, such as EACs. For projects that have EV data loaded in PARS (usually those that are post CD-2), use the PARS Empower data analytics tool to assess project trends and early warning indicators. Frequently, the PM-20 project analysts will be augmented in doing this by PM's data analytics SMEs. Such things as cost and schedule indices, baseline activity execution indices, and schedule milestones achieved are assessed, and performance simulations conducted as needed.
- 3. Validate the accuracy of the general project description data, such as current Project Management Executive (PME), project owner, last project peer review (PPR) date, EVMS certification status, etc.
- 4. Review any ancillary project documents (such as project monthly progress report, project peer review report, updated risk report, etc.), and the results of any project related ad hoc meetings or site visits that have occurred during the previous month.

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- 5. Once the above is completed, the PM project analyst will then initiate documenting the PARS project assessment, coordinating with the Program representative and/or FPD for clarifying information as required. For post CD-2 projects, key focus in the PARS narrative is on the project's performance against its approved performance baseline, as well as discussion of any significant milestones or project events that may have occurred or been missed. It is not simply a "project construction report" of ongoing activities.
- Verify that all relevant and key documents have been loaded up in the PARS Document Management System (DMS), which is the official repository of record for capital asset projects that fall under DOE O 413.3B.
- 7. Make the final recommended color assessment (red, yellow, or green) for the project (if post CD-2), taking into consideration the FPD and Program representative's color assessment. It is always desirous for PM to be in synch with the FPD and Program with their project color assessments, but ultimately PM independence in making this assessment is paramount.
- Conduct internal PM leadership review of the project analysts' assessments, including adjustments for any supplemental information or considerations.



9. Publish the monthly DOE Project Portfolio Status Report, generally no later than the 25th business day of the month. Note: each quarter, the report will include detailed data on all projects, whereas for the interim month's report only red and yellow assessed projects will be included as well as an overall summary status of all projects.

The PM monthly project status report is routinely referred to by senior DOE leaders to keep abreast of ongoing capital asset projects – which currently number 110 at a total value of nearly \$122 billion. The report has also been used on numerous occasions by OMB, the General Accountability Office (GAO), and Congressional Staff to stay informed on the status of our projects. Understanding your role in the PARS assessment and monthly report development is key to keeping it a valuable tool for DOE and our capital asset project program. If you have any question on the process described above, please contact your PM-20 project analyst.

Congratulations to our newly certified FPDs!



Level IV

Frank Gines (SC)
Adam Bihary (SC)

Level III

Wendy Cain (SC)
Charles Comeau (EM)

Level I

Benjamin Vannah (EM)

Earned Value Management System: EIA-748 Guideline 3 Systems Integration

Matthew Taliaferro, Project Control Division (PM-30)

This article discusses the relevance of Guideline 3 – Systems Integration, one of the 32 guidelines comprising the earned value management system (EVMS) standard EIA-748 applicable to DOE capital asset acquisition projects greater than \$50M. Guideline 3 requires the use of a fully integrated management and control system to execute the project. The planning, scheduling, budgeting, work authorization, and cost accumulation management subsystems must integrate within the overall EVMS such that the data derived from one system is relatable to and consistent with the data of each of the other systems. The integration provides the capability for establishing the performance measurement baseline (PMB). The proper integration of the contractor's EVMS and associated processes ensures the information and performance data retrieved from the EVMS is traceable and auditable.

Guideline 3 requires that the contractor integrate the planning, scheduling, budgeting, work authorization, and cost accumulation processes with each other, and with the project work breakdown structure (WBS) and organizational breakdown structure (OBS). A contractor's EVMS must provide a complete audit trail for any increment of work

through the various management subsystems. The EVMS must demonstrate traceability from the assignment of authorized work scope to the WBS where the work is formally identified and defined. It must be able to trace the assignment of

resources to the OBS where the chain of command is assigned, and it must be able to trace the work scope to the scheduling system so one can identify when, in time, an activity fits into the total project plan. The contractor must be able to provide and explain the detailed plans for getting the work scope accomplished, along with defining the type of effort required. The EVMS should be able to break the work planned and completed down by element of cost (labor, material, etc.) and resource to substantiate that efforts' construction budget, demonstrate how the work plan is translated into action in the work authorization system, and how actual costs are documented, tracked and properly categorized as that work is accomplished.

Effective systems integration is key to the accomplishment of any project since success depends heavily on the effectiveness of its managers. Project managers depend on reliable data that is consistent throughout the planning, scheduling, budgeting, work authorization, and cost accumulation subsystems to make decisions involving cost, schedule, and technical performance to ensure the viability of the project, such as exploring opportunities and avoiding risks. A fragmented and misaligned control system produces inconsistent and unreliable data that do not track between subsystems, weakening the effective use of core management processes. Management's decisions become questionable if they rely on poor quality data resulting from poor integration of scope, schedule, cost, and technical parameters within their management subsystems.

Integration of documented EVMS processes and operating procedures, as well as consistent use of a unique coding structure (i.e., work orders, job orders, activity code charge number structure, etc.) facilitates the linkage among and between the EVMS and management subsystems and enables consistent and relatable performance data. Unique coding structures support the transfer of data and allow the performance data derived from one management subsystem and process to relate to, and be consistent with, the performance data of other management subsystems



and processes. This data simultaneously flows through each of the management subsystems, the WBS, and the OBS, to the reporting level and the total contract level, where actual work scope management and control occurs, and where performance measurement is conducted.

Data reconciliation between the baseline and forecast integrated master schedule (IMS) and cost tool are a primary indicator of subsystem integration. The budget identified in the work authorization process should be consistent with the budget at completion (BAC) and PMB total budget values. For example, the automated and data-driven tests DOE uses for Guideline 3 compliance compares the IMS to the cost tool for active work packages (WPs) to assess the consistency of the physical percent complete being generated from each, and compares other key data through the various management subsystems to assess the complete audit trail for any increment of work scope.

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Another requirement of Guideline 3 is that significant subcontracted effort must be recognizable within the WBS and the OBS. It is necessary to separately identify each major subcontractor's performance. The prime contractor must ensure that subcontractor performance data is accurate and consistent with the actual performance to date. Hence, special steps must be taken to minimize performance data differences caused by accounting month differences. The prime contractor must perform periodic assessments of all or portions of the subcontractor's work efforts, including planned budgets, actual performance, and completion estimates. Typically, the prime contractor will assign one or more cost account managers (CAMs) to manage the subcontracted efforts and have responsibility for ensuring complete, current, and accurate information.

Following are example scenarios of inadequate subsystem integration:

- A contractor is unable to demonstrate traceability of budget changes due to numerous internal scope changes to
 the baseline plan. The distribution of management reserve (MR) does not reconcile with the MR log and baseline
 change proposal (BCP) documentation that discusses the value of the change. In this case, a less-than-fullyintegrated management system adversely affects the change control process by allowing baseline plan changes to
 go undetected.
- Both subcontractor and internal supplemental working schedules showing select activities to be completed before
 the project meeting a critical event do not fully align with the baseline and forecast dates reported in the
 integrated master schedule (IMS). Without the proper vertical integration and calibration of subcontractor and
 internal supplemental working schedules with the IMS, a project will be unable to reliably assess the sufficiency of
 the time and resources needed to complete all the work remaining.
- A contractor is unable to demonstrate consistency between a schedule activity's duration span (or baseline start
 and finish date) and the duration and dollarized time-phasing of budgeted cost of work scheduled (BCWS) in the
 cost system. While the scheduling system and cost system have uniquely different roles in the EVMS, integration

In conclusion, the lack of integrated management systems impedes the progress of the project towards achieving stated objectives and goals. Left unchecked and uncorrected, other undesirable consequences and actions can result (e.g., maintaining two sets of books) as the project team struggles to understand and report accurate current status and credible completion forecasts for managing the project. As always, please reach out to PM-30 with any question on this or any EVMS related topic.

PMCDP Evaluations and Assessments: Quality is Job 1

Sigmond L. Ceaser, Professional Development Division (PM-40)

Assessing the quality of the Project Management Career Development Program (PMCDP) federal project director (FPD) certification curriculum requires a multilevel, systematic method for collecting, analyzing, and interpreting data to confirm the effectiveness of a course.

The PMCDP certification curriculum is rooted in Department of Energy (DOE) project management critical success factors (CSFs) for FPDs. CSFs are defined as those key requirements of DOE capital asset project management that, if collectively satisfied by the assigned FPD, will ensure project management excellence, as reflected in delivery of pre-established outcomes on time and within budget, to the extent it is within the FPD's control.



The CSFs inform the PMCDP competency model that is constructed to define the behavioral indicators (BI's), also referred to as observable or measurable knowledge, skills and abilities (KSA's), that ensure project management excellence. The BI's are converted to course objectives that specify the respective learning outcomes FPDs must achieve for project management excellence.

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Evaluations and assessments help determine whether the desired learning outcomes are achieved. PMCDP makes recommendations to the Certification Review Board (CRB) about course additions, changes, or deletions based on the data collected through the following types of evaluations/assessments:

| Evaluation/ Assessment | Conducted By | Components | | | |
|-------------------------------|---|--|--|--|--|
| Course Design and Development | PMCDPTraining Vendor | Determine what learning objectives should be achieved Determine what learning activities will assist learners to achieve these objectives Determine how the curriculum should be organized Determine how to measure mastery | | | |
| Pilot Delivery | DOE Project Management Community | Validate design and development components Validate course content alignment with the most recent DOE directives, policies, CEG competencies, and behavioral indicators Validate alignment of test items with course/lesson objective(s) Validate demonstration of mastery adequately addresses the CEG competencies and behavioral indicators | | | |
| Pre-Course Delivery | PMCDPTraining Vendor | Validate course content alignment with the most recent DOE directives, policies, CEG competencies, and behavioral indicators Validate alignment of test items with course/lesson objective(s) Validate demonstration of mastery adequately addresses the CEG competencies and behavioral indicators Validate all updates and revisions listed in the prior Post Course Delivery Report are incorporated Reconcile comments from recent course audits if applicable Validate audit report form is consistent with course materials | | | |
| Course Evaluation | • Course Participants | Measure the degree to which participants find the course favorable, engaging, and relevant to their work Measure the degree to which participants acquire the intended knowledge, skills, abilities, confidence and commitment | | | |
| Post-Course Delivery | PMCDPTraining Vendor | Review all of the feedback and determine if revisions are required, and to identify any best practices that can be applied to other courses as part of continuous improvement The overall course rating Participant course evaluation scores Qualitative comments from the instructor and participants including recommendations for improvement Audit reports | | | |
| Course Audit | PM AnalystDOE FPD | Determine whether the objectives of the course are met and how well Assess the quality and appropriateness of the content and integration of DOE directives Evaluate mastery mechanism (rate the test or similar performance assessment) Assess the facilitator Observe and rate participant commitment and reaction to learning | | | |
| Course Content Audit | PM AnalystDOE FPD | Determine whether the objectives of the course are met and how well Assess the effectiveness and appropriateness of the content and integration of DOE directives Evaluate mastery mechanism rate the test or similar performance assessment evaluate the alignment of test items to the course and lesson objectives | | | |

Assessing a PMCDP course is a systematic process that considers the intent of the course, the characteristics of the learners, and the outcome focus. Additionally, PMCDP considers the business impact (cost-benefit ratio and the return on investment [ROI]), so the CRB has all of the data needed to address the quality of FPD development.

2021 PM Workshop Postponed to 2022

Project Management professionals – mark your calendars for April 19 – 21, 2022 for the next Project Management Workshop. While PM had considered holding a workshop in 2021, the ongoing dynamics of the coronavirus pandemic and vaccine rollout continues to make scheduling large, in-person gatherings problematic. We have already made arrangements with the Hilton Washington DC National Mall Hotel at L'Enfant Plaza for the 2022 dates. Watch for further announcements with hotel rates and the agenda in future newsletters. These workshops are an important forum for professional development, sharing professional knowledge, hearing from departmental leadership, and interacting with your peers. We look forward to seeing you next year! PM Workshop POC – Joe Grealish at joseph.grealish@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

PMCDP is looking at a different and better training schedule for FY2021. In March 2020, PMCDP quickly shifted all courses to virtual delivery in response to COVID-19. Guiding the training schedule and delivery of classes in FY 2021 are the following:

- Understanding it is difficult to predict when air travel and gathering in groups of more than ten will be considered safe, PMCDP will continue to design and develop courses to support the DOE dispersed program and project management workforce.
- Every new and converted course will be delivered online (self-paced), or via an instructor-led distance learning format.
- Course materials, the learning equipment, the visual aids, the audience engagement, and even the time zones will be given careful consideration. For example, audience engagement will go far beyond polling questions and asking participants to agree or disagree by a show of hands (raise your hand icon).
- The courses delivered in webinar format will leverage subject matter experts and master practitioners who will parachute into the delivery to lecture and offer expert knowledge and experience about topics.

| Course Title | Dates | Course Level | PMCDP LN Code | Length | CLPs | | | |
|---|---|-----------------|------------------|---------|------|--|--|--|
| FY 21 Q2 | | | | | | | | |
| Leadership through Effective Communication | February 16 – 18 th 10:30-4:30 Daily | Level 2 | 002366 | Webinar | 24 | | | |
| Planning for Safety in Project Management | February 17-March 10 th (4 sessions) 1pm-3pm EST | Level 1 | 001035 | DDT | 28 | | | |
| Strategic Planning | February 23 -25 10:30-4:30 Daily | Level 3 | 001043 | Webinar | 24 | | | |
| Capital Planning | February 23-March 9 (5 Sessions) 1pm-4pm EST | Level 1 | 002152 | Webinar | 16 | | | |
| PM Simulation | March 1 – 5 10:30-4:30 Daily | Level 2 | 001029 | Webinar | 40 | | | |
| Acquisition Management for Technical Personnel | March 8 – 17 th (4 Sessions) 12:00-4:00pm Daily | Level 1 | 000145 | Webinar | 16 | | | |
| Scope Management | March 29-April 1 10:30-4:30 Daily | Level 2 | 001036 | Webinar | 24 | | | |

Find up-to-date information and resources anytime!

All PMCDP Course Descriptions and Course Materials can be found in the Course Catalog on 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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If you would like to contribute an article to the Newsletter or have feedback, contact the Editor at Linda.Ott@hq.doe.gov.

