

# Pathways to Project Success

MARCH 2011

## Project Management Order Update Highlights:

### The “Ball Park” Estimate

By Eric S. Wayne, P.E., CCE,  
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Let us first define the term “ball park” estimate. A good definition for this term is *a rough approximation, made with a degree of knowledge and confidence that the estimated figure falls within a reasonable range of values.* This is also referred to as a *Rough-Order of Magnitude (ROM) estimate.* The ability to provide a ROM estimate is important, since it helps to define the cost range at Critical Decision (CD)-0, *Approve Mission Need.*

Referring to DOE O 413.3B, the cost range provided at CD-0 should be a ROM estimate and is used to determine the Acquisition Executive (AE) authority designation. This range does not represent the Performance Baseline (PB), which will be established at a later CD

stage; however, it should be realistic and reasonably bound the cost and schedule of the potential alternatives. As a minimum, we need to get the magnitude, or number of zeros, correct, i.e., a multi-million dollar vs. a multi-billion dollar project. If we develop realistic “ball park” estimates, this will contribute to strengthening the Department’s project management performance record.

Estimating the cost of projects isn’t an easy task, especially when you are in the early conceptual stages of defining the mission need at CD-0. Even if we think we have all of the information, we can be sure something is missing, a technical alternative won’t materialize, or a risk hasn’t been considered. It isn’t easy, but developing high-quality cost estimates, even at this early stage, is keenly important.

As such, the preparation of Independent Cost Estimates (ICE) and Independent Cost Reviews (ICR) are highlighted within DOE O 413.3B. The Order now requires:

- For major system projects, or for projects designated by the Secretarial Acquisition Executive (SAE), OECM is to conduct an ICR prior to CD-0 approval.
- For projects with a Total Project Cost (TPC)  $\geq$  \$100M, OECM will:
  - \* Prior to CD-1, develop an ICE and/or conduct an ICR, as appropriate.
  - \* Prior to CD-2, develop an ICE in support of performance baseline validation.
  - \* Prior to CD-3, develop an ICE, if warranted by risk and performance indicators or as designated by the SAE.

#### INSIDE THIS ISSUE:

PM Order Update Highlights Cont’d 2

FPD Corner 2

PMCDP Schedule 3-4

Question of the Month 5

*(Continued from p. 1)*

While it is important to adequately bound the cost and schedule of the preferred alternative at CD-1, *Approve Alternative Selection and Cost Range*, it is important to remember that the CD-1 cost range is only a preliminary estimate based on stochastic estimating methods. It, too, is a ROM estimate. Again, it does not represent the performance baseline, which is our commitment to Congress.

Further, the Order speaks to a cost growth trigger associated with the cost range developed at CD-1. If the top end of the original approved CD-1 cost range grows by more than 50%, as the project proceeds toward CD-2, the Program, in coordination with the AE, must reassess the alternative selection process. Instead of moving forward and making pro-

gress, the project will incur a setback. This is something everyone in project management would like to avoid. It is important the cost range be realistic and reasonable.

Typically, the “ball park” estimate is prepared for any number of strategic planning purposes, such as project screening, location studies, evaluation of resource needs & budgeting and long-range capital planning, to name a few. These estimates are prepared with very limited information and will have a wide accuracy range. However, be cautious not to develop that “ball park” estimate only to help support that desired project. Rather than a single number, the estimate should always be expressed as a wide range that bounds the cost and schedule of potential or preferred alternatives. The main use of this type of estimate is

to help in determining whether a particular solution is worth pursuing. It is not, and should never, be used as part of the final recommendation for project approval, or CD-2, *Approve Performance Baseline*, in our case. Be cautious, but be realistic, when developing and/or presenting that “ball park” estimate. It will follow the project and can be detrimental, if not handled in the correct manner.

Be on the lookout for DOE G 413.3-21, *Cost Estimating Guide*. This Guide is currently under review in the Department’s review and comment system. This Guide will provide uniform guidance and best practices that describe the methods and procedures recommended for use in preparing project cost estimates.

## Federal Project Director (FPD) Corner

By Victoria C. Barth, MA ISD  
OECM

The Certification Review Board granted the following certifications:

**Office of Environmental Management:**

Joel B. Bradburne, Piketon, OH – Level 1  
Susan A. Mason, Washington, D.C. – Level 1  
Kenneth R. Whitham, Idaho Falls, ID – Level 1  
Barbara A. Beller, Idaho Falls, ID – Level 2  
Suzanne Schulman, Los Alamos, NM – Level 2

**National Nuclear Security Administration:**

Cynthia M. Brizes, Aiken, SC – Level 1  
Maris G. Lenss, Aiken, SC – Level 1  
Daniel K. Hoag, Oak Ridge, TN – Level 2

# PMCDP Course Schedule

Start	End	Course	Location	PMCDP Info	CHRIS Code/Session	Registration Restrictions
<b>March 2011</b>						
3/15/11	3/16/11	Effective Program and Project Communication	Idaho Falls, ID (Idaho Operations)	Level 2 Core Course	001940/0008	None
3/15/11	3/17/11	Negotiation Strategies & Techniques	Aiken, SC (Savannah River)	Level 3 Elective	001047/0008	None
3/15/11	3/17/11	Contract Administration for Technical Representatives	Pittsburgh, PA (NETL)	Level 1 Core Course	001028/0009	None
3/17/11	3/18/11	Capital Planning for DOE O 413.3B Capital Asset Projects	Alexandria, VA (Holiday Inn)	Level 1 Elective	002152/0002	None
3/21/11	3/25/11	Cost & Schedule Estimation	Washington, DC (Headquarters)	Level 2 Core Course	001044/0009	None
3/28/11	4/1/11	Acquisition Management for Technical Personnel	Cincinnati, OH (EMCBC)	Level 1 Core Course	000145/0025	None
3/29/11	3/31/11	Strategic Planning	Los Alamos, NM (Canyon School)	Level 4 Elective	001043/0007	None
<b>April 2011</b>						
4/4/11	4/8/11	Advanced Leadership	Los Alamos, NM (Canyon School)	Level 4 Elective	001041/0011	None
4/5/11	4/8/11	Planning for Safety in Project Management	Livermore, CA (Lawrence Livermore National Laboratory)	Level 1 Core Course	001035/0045	None
4/11/11	4/14/11	Planning for Safety in Project Management	Richland, WA (Federal Building)	Level 1 Core Course	001035/0048	None
4/11/11	6/3/11	Project Management Essentials	Oak Ridge, TN (OR Federal Building)	Level 1 Core Course	001022/0048	None
Onsite: 5/10-5/12						
4/11/11	4/15/11	Acquisition Management for Technical Personnel	Idaho Falls, ID (Idaho Operations)	Level 1 Core Course	000145/0028	Idaho Sponsored <sup>1</sup>
4/12/11	4/15/11	Project Risk Analysis & Management	Cincinnati, OH (EMCBC)	Level 1 Core Course	001033/0029	None
4/18/11	4/22/11	Cost & Schedule Estimation	Aiken, SC (Savannah River)	Level 2 Core Course	000139/0013	None
4/19/11	4/22/11	Federal Budgeting Process in DOE	Pittsburgh, PA (NETL)	Level 2 Elective	001034/0010	None
4/26/11	4/28/11	Environmental Laws & Regulations	Washington, DC (Headquarters)	Level 2 Elective	001046	None
4/26/11	4/28/11	Value Management	Oak Ridge, TN (OR Federal Building)	Level 2 Elective	001037/0010	None

## PMCDP Course Schedule

Start	End	Course	Location	PMCDP Info	CHRIS Code/ Session	Registration Restrictions
<b>May 2011</b>						
5/2/11	6/24/11	Project Management Systems & Practices in DOE	Morgantown, WV (NETL)	Level 1 Core Course	001024/0038	None
Onsite: 6/7-6/9						
5/3/11	5/6/11	Advanced Risk Management	Argonne, IL (Argonne National Laboratory)	Level 3 Core Course	001042/0012	None
5/10/11	5/11/11	Effective Program and Project Communication	Aiken, SC (Savannah River)	Level 2 Core Course	001940/0007	None
5/10/11	5/12/11	Contract Administration for Technical Representatives	Washington, DC (Headquarters)	Level 1 Core Course	000058/0168	None
5/16/11	5/19/11	Project Risk Analysis & Management	Idaho Falls, ID (Idaho Operations)	Level 1 Core Course	001033/0031	Idaho Sponsored <sup>1</sup>
5/17/11	5/19/11	Executive Communications	Los Alamos, NM (Canyon School)	Level 4 Core Course	001031/0022	None
5/23/11	5/27/11	Project Management Simulation	Oak Ridge, TN (OR Federal Building)	Level 2 Core Course	001029/0023	None

**For the corresponding classes, registration is restricted to the designated organization unless prior arrangements are made with the following individuals:**

<sup>1</sup>Contact Debbie Williams, 208-526-8771, williadb@id.doe.gov

## Full PMCDP Course Schedule

For the full listing of FY2011 classes, visit the PMCDP website at [http://www.management.energy.gov/project\\_management/pmcdp\\_home.htm](http://www.management.energy.gov/project_management/pmcdp_home.htm) and click on "PMCDP Training Schedule" under "PMCDP Quick Links" at the bottom of the homepage.



# Question of the Month

By Victoria C. Barth, MA ISD  
OECM

**Question:** I am working toward my Level 1 certification and noticed that a lot of the training requirements are very similar to courses I completed outside of DOE. Does the PMCDP accept alternative training to satisfy any of the Level 1 competency requirements?

**Answer:** The PMCDP permits candidates to claim alternative training in lieu of formal PMCDP instruction for *certain* competencies; however, the burden is on candidates to demonstrate how their prior training is commensurate with the PMCDP course.

The PMCDP's Certification and Equivalency Guidelines (CEG) pro-

vide candidates with specific instructions and examples to demonstrate equivalency. Because each competency includes a series of knowledge areas covered by the PMCDP course, candidates must tailor a response explaining how a majority of those areas were covered by the alternative training. Please note, simply stating the alternative training covered the same topics is insufficient.

Take the following example. One of the knowledge areas covered by the course *Project Risk Analysis and Management* is "using tools to assess risk and manage risk" – see page 6-22 of the CEG. A good equivalency response would be: "The DoD course covered managing and assessing risk with specific

tools. For example, one exercise required identifying risks associated with the construction of a stadium. One tool used in the exercise was a decision-tree analysis to assess and manage risk. Using the tool, we were able to develop and record risk-adjusted costs for possible inclement weather that could have extended the project beyond the due date, causing it to go over budget, or both. This tool also helped identify and develop firmer contingency plans and budget reserves." This response demonstrates how the alternative DoD training covered the knowledge area addressed in the PMCDP course.

## Questions or Comments?

Please email general questions and comments about PMCDP to [PMCDP.Administration@hq.doe.gov](mailto:PMCDP.Administration@hq.doe.gov), or visit our website at

[http://www.management.energy.gov/project\\_management/pmcdp\\_home.htm](http://www.management.energy.gov/project_management/pmcdp_home.htm)

For specific information, please contact one of the following individuals:

- Victoria C. Barth, MA ISD - Course Schedule, Certification Review Board (CRB) information, Certification and Equivalency Guide (CEG): [Victoria.Barth@hq.doe.gov](mailto:Victoria.Barth@hq.doe.gov)
- Linda Ott, PMP, MA Adult Ed - Team Lead, PMCDP: [Linda.Ott@hq.doe.gov](mailto:Linda.Ott@hq.doe.gov)
- Steven H. Rossi, P.E., PMP, LEED AP, CCE - PMCDP Newsletter, Continuing Education Units: [Steven.Rossi@hq.doe.gov](mailto:Steven.Rossi@hq.doe.gov)
- Peter J. O'Konski, P.E., CEM, PMP, LEED AP, CCE, Director, Office of Facilities Management and Professional Development: [Peter.OKonski@hq.doe.gov](mailto:Peter.OKonski@hq.doe.gov)