Lab-Wide Earned Value Management System Project Core Team Meeting

July 10, 2008

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Agenda

1) Project Progress [Dean, Elaine]
   a) System Description Document and Implementing Procedures
   b) Review Process
   c) Schedule
2) FYIs [Dean, Elaine]
   a) Established Variance Analysis Thresholds
   b) BNL's Corrective Action Plan from EVMS Certification Review
   c) EVMS Surveillance and Maintenance Process
   d) Work Authorization Process
   e) EVMS Audit
3) Pending issues [Dean, Elaine]
   a) Free Physicist Labor and In-Kind Contributions
4) Next Meeting Thursday, 14-Aug from 3:00 – 4:00 PM in the Snake Pit

Project Progress
Procedures

PROCEDURE	WRITING ASSIGNMENTS	REVIEWER ASSIGNMENTS
PM-1 Project WBS, OBS, RAM	Rich, Rob	Dean
PM-2 Control Accounts, Work Packages, Planning Packages	Elaine, Steve	Bill
PM-3 Work Authorization and Funds	Elaine	Dean
PM-4 Project Scheduling	Bill, Ken	Dean
PM-5 Project Cost Estimating	Marc, Steve	Harry
PM-6 Monthly Status and Reporting	Harry	Suzanne
PM-7 Change Control	Rob, Elaine	Ken
PM-8 Surveillance	Harry, Elaine	Wyatt

Project Progress – Review Process

Activity	Duration	Start	Finish
Fran Clark review of all procedures	10 days	14-Jul-08	25-Jul-08
Technical Writer review of all procedures	10 days	14-Jul-08	25-Jul-08
Core Team rework after review	10 days	28-Jul-08	8-Aug-08
Oversight Committee review of all procedures	10 days	11-Aug-08	22-Aug-08
Core Team rework after OS review	5 days	25-Aug-08	29-Aug-08

Schedule

- Key Activities/Projected Dates
  - Documents ready for Readiness Review – 17-Oct-2008
  - Readiness Review by OECM – 16-Dec-2008
  - OECM On-Site Review – 11-Mar-2009
- 7 Day Slip from last meeting (Finishing Implementing Procedure Writing and Core Team Reviews)

FYI's

- Established Variance Analysis Thresholds
- BNL's Corrective Action Plan from EVMS Certification Review
- EVMS Surveillance and Maintenance Process
- Work Authorization Process
- EVMS Audit

DOE Variance Thresholds

CPI and SPI Color Thresholds

Index color thresholds

- Based on cumulative performance index

Green .88 – 1.2

Yellow .85 - .88, 1.3 – 1.5, Not updated in past 30 days

Red <.85, > 1.5, No data

Fermilab's Variance Thresholds

CPI and SPI Variance Threshold Flags for both Accumulative to Date and Current Period at Control Account

- Green .88 – 1.2
- Yellow .85 - .88, 1.3 – 1.5
- Red <.85, > 1.5

BNL's Corrective Action Plan

- CAR 1 (major) – Organization – WBS Dictionary
- CAR 2 (major) – Interim EVM Milestones
- CAR 3 (major) – Escalation
- CAR 4 (minor) – Direct versus Indirect Charges
- CAR 5 (major) – Revisions
- CAR 6 (major) – Revisions and Change Control Logs
- CAR 7 (major) – Variance Reports

BNL's Corrective Action Plan

- CIO 1 – Centralized Project Management
- CIO 2 – Web-Based Change Control Tool
- CIO 3 – Develop Oversight/Surveillance Process
- CIO 4 – Develop Training Program
- CIO 5 – Incorporate the baselines for BGRR and NSLS II into the EVM system staring in October 2007
- CIO 6 – Modify Standard BCP Log to Include Origination Dates

EVMS Surveillance & Maintenance Processes

- Reviews implementation of EVMS processes at Fermilab
- Carried out by OPMO
- Performed through
  - CD-2 Director's Reviews for new projects to assess how ready project is to implement EVMS
  - Annual general review of implementation on ongoing projects
- Although annual reviews will require input from project staff, shouldn't be burdensome

Pending Issues

- Free Physicist Labor and In-Kind Contributions

Free Physicist Statement

3.5.5 Overhead Budgets

The Fermilab financial management system has a documented process and the Finance Section is the identified organization responsible for managing and controlling overhead rates. Indirect costs and overhead rates are for common Laboratory activities that cannot be identified specifically for a project and are budgeted and controlled separately at the Laboratory level, and approved annually by the DOE. Approved forward pricing rates and projected overhead rates beyond the current year are also maintained within the Fermilab financial management system.

3.5.6 Costs for Scientific Labor on DOE Projects

The effort of scientists on DOE projects after CD-0 approval shall be included in project planning and budgets with $0 rates. This is in accordance with DOE Office of High Energy Physics policy, as outlined in the memo posted at this website: http://www.fnal.gov/directorate/OPMO/DOE/OHEP_Guidance/Project-labor-costs.pdf. Any deviation from this policy requires approval of the DOE Office of High Energy Physics.

3.6 MANAGEMENT RESERVE, CONTINGENCY, AND UNDISTRIBUTED BUDGET

proposed section on free physicists

Contingency is an amount of the approved Project Budget Base that is identified at the start of the project. The contingency is established to provide budget coverage for future uncertainties (risks) that are within the scope of the project but are not funded in the control account budgets. The contingency is developed at the work package level, but is not assigned to specific segments of work.

Project management establishes the contingency based on a risk analysis of the project work scope for all elements of the project after CD-0. The factors affecting the amount of contingency established may include: technical risk, schedule issues, and/or possible shortages in a critical resource area (i.e., labor, material, timely appropriations, or support services), direct and indirect rate changes, etc. As the level of risk is reassessed on the project, the budget for contingency can change.

Contingency is released to provide a budget for risk mitigation within the project work scope. Conversely, budget from the control accounts is returned to the contingency whenever the work scope, and therefore the allocated budget, is decreased. Contingency transactions are executed through the project change control system, and documented in the project change

20

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HEP's Capturing Labor Costs in the Total Project Costs

Scientists

The only scientists whose salaries may be charged to projects are physicists who are high-level (e.g., WBS Level 1 or Level 2) managers on a particular project, in which case his or her time may be billed as part of project management costs. Any such arrangement is subject to approval by the federal project manager and the DOE Office of High Energy Physics.

It has been the practice in the high energy physics program, particularly for detector fabrication projects, to utilize members of the scientific research collaboration to carry out some of the tasks in the fabrication project. This is done to exploit their expertise in the relevant detector technology and their knowledge of the ultimate use of the detectors. In general, these scientists are supported by a variety of different funding sources including DOE funds, NSF funds, and university funds. It is not possible to capture the labor costs that are not funded by DOE. In order to select scientists for project-related tasks based on their skills and expertise that they bring to the project, rather than their cost to the project, it is desirable to **not** capture the costs of any scientists who are members of the associated scientific collaboration in the project costs. The only exception this rule is when a physicist is working as a high-level (e.g., WBS Level 1 or Level 2) manager on a particular project, in which case his or her time may be billed as part of project management costs. Any such arrangement is subject to approval by the federal project manager and the DOE Office of High Energy Physics.

The goals of project management can still be met under the assumption that scientist labor costs are not in the TPC, by careful and explicit risk analysis of how the work assumed to be done by "off -project" scientists will be carried out if any of these scientists leave the project, or otherwise cannot deliver on their commitments.

NOvA's Labor (Scientist vs. Nonscientist)

Quarter	Percent of Scientist Hours
1/1/2009	18.0%
4/1/2009	20.2%
7/1/2009	14.1%
10/1/2009	15.8%
1/1/2010	14.2%
4/1/2010	16.3%
7/1/2010	19.2%
10/1/2010	17.1%
1/1/2011	16.4%
4/1/2011	23.6%
7/1/2011	12.6%
10/1/2011	13.8%
1/1/2012	12.3%
4/1/2012	12.7%
7/1/2012	12.6%
10/1/2012	14.9%
1/1/2013	13.8%
4/1/2013	13.0%
7/1/2013	15.1%
10/1/2013	33.9%
1/1/2014	51.1%
4/1/2014	5.9%
Total Project:	15.9%

In-Kind Contributions

- How is EV done with In-Kind Contributions?
- Can monitor Schedule Variances with progress milestones
- Can’t track Cost Variances