

FRA
Earned Value Management System
Implementation Project

October 9, 2008

Dean Hoffer / Elaine McCluskey

Presentation Outline

- Implementation Overview
- Project Progress
- Next Steps
- Schedule Key Dates
- Issues/Concerns

Lab Earned Value History

- EV has been performed at some level since the Main Injector Project in the 1990s.
- In 1998 the Lab purchased Welcom's (now Deltek) Cobra software tool for managing project costs, measuring earned value, and analyzing budgets, actuals and forecasts. The software was purchased to support the NuMI Project.
- The Cobra software was made the Lab's standard software for measuring and reporting EV for projects that were required to report EV to DOE.
- Even though there was the Lab's standard software tool for EV, there was not a Lab standard for the EVMS process. Each new project has created their own version of an EVMS.

Requirements

- DOE O 413.3A & DOE M 413.3-1 “Program and Project Management for the Acquisition of Capital Assets”
 - At CD-2, projects with a TPC \geq \$5M and $<$ \$20M are not required to utilize an EVMS, but an alternative performance management system must be described in the respective Project Execution Plan. => MINERvA
 - At CD-2, projects having a TPC \geq \$20M and $<$ \$50M are to have a self-certified EVMS that is compliant with ANSI/EIA-748-A. => DECam
 - At CD-2, projects having a TPC \geq \$50M are required to have an ANSI/EIA-748-A compliant system certified by the DOE Office of Engineering and Construction Management (OECM). => NOvA

Requirements (continued)

- ANSI/EIA-748 Earned Value Management Systems and Intent Guide
 - Standard provides basic guidelines to establish and apply an integrated EVMS utilizing 32 Criteria that are grouped into 5 major categories
 - Organization (5 criteria)
 - Planning, Scheduling and Budgeting (10 criteria)
 - Accounting Considerations (6 criteria)
 - Analysis and Management Reports (6 criteria)
 - Revisions and Data Maintenance (5 criteria)

EVMS Project Work Scope

- Developing a Self-Certified EVMS that OECM certifies.
- Both a Certified and Self-Certified EVMS have to meet the same requirements, ANSI/EIA – 748.
- There are two parts that have to be accomplished to obtain a Certified system.

EVMS Project Work Scope (continued)

- Part 1 – Development and Implementation of a Lab-Wide FRA EVMS Process
 - Develop FRA EVMS Description Document
 - Develop Implementing Procedures
 - Develop Implementation Guides/Desktop Instructions
 - Develop Control Account Managers (CAM) Notebooks
 - Evaluate Supporting Electronic Tools for Future Implementation
 - Develop/Conduct Training

EVMS Project Work Scope (continued)

- Part 2 – OECCM EVMS Certification Process (including review of one active project “NOVA”)
 - Readiness Assessment Site Visit
 - Certification Review
 - Corrective Action Plan (CAP)
 - Follow-up Review
 - Certification Issued

EVMS Project Participants

- Project Co-Sponsors
 - Steve Holmes
 - Peter Garbincius
- Core Team (cross section of Lab organization)
 - Steve Dixon
 - Rob Kennedy
 - Ken Domann
 - Dale Knapp
 - Harry Ferguson
 - Elaine McCluskey
 - Bill Freeman
 - Wyatt Merritt
 - Dean Hoffer
 - Suzanne Saxer
 - Marc Kaducak
 - Rich Stanek

EVMS Project Participants (continued)

- Oversight Committee (cross section of Lab organization)
 - Bill Boroski
 - Peter Garbincius
 - Nancy Grossman
 - Dave Harding
 - Steve Holmes
 - Tom Lackowski
 - Mike Lindgren
 - Pat Lukens
 - Ann Nestander
 - Ed Temple
 - Connee Trimby

EVMS Document Development of the FRA System

- Advantage that Fermi was the last Lab to be certified or in the process to being certified
- Did not have to start from scratch
- Had certified or almost certified EVMS from other Labs to use as reference
 - Brookhaven National Laboratory
 - Lawrence Berkeley National Laboratory
 - Los Alamos National Laboratory
 - Pacific Northwest National Laboratory
 - Sandia National Laboratory
 - Stanford Linear Accelerator Center
 - Thomas Jefferson Laboratory

Lab's EVMS

- EVMS Documents
 - FRA Earned Value Management System Description
 - 12.PM-001 Project WBS, OBS, RAM
 - 12.PM-002 Control Accounts, Work Packages, Planning Packages
 - 12.PM-003 Work Authorization and Funds
 - 12.PM-004 Project Scheduling
 - 12.PM-005 Cost Estimating
 - 12.PM-006 Monthly Status and Reporting
 - 12.PM-007 Change Control
 - 12.PM-008 EVMS Surveillance & Maintenance
- Ownership
 - OPMO - responsible for maintaining the EVMS and maintaining interfaces with existing Fermilab business and management systems
 - QQBP - responsible for surveillance of the EVMS to ensure Lab adherence to the approved certified system

EVMS Document Development/Review Process

- System Description and Implementing Procedure Development by Core Team
- Independent Core Team Member Review
- External Project Controls Expert Review (Fran Clark -ANL Retired)
- EG&G Technical Writer review
- Oversight Committee review of all procedures
- External EG&G EVMS Expert Review (Terry McNew - Savannah River Retired)

Next Steps

- Core Team complete incorporation of external EG&G reviewer comments
- Approve EVMS Documents
 - System Description Approved by Pier
 - Implementing Procedures Approved by Ed Temple
- Conduct Training (Projects, Div/Sect Sr. Management, Directorate)
- Full Implementation of System by NOvA

Schedule – Key Dates

- Project Kickoff (16-Apr-08)
- System Description and Implementing Procedure Approval (17-Oct-08)
- NOvA to use FRA Approved System for Oct. Reporting (Nov-08)
- OECM Pre-Meeting (6-Nov-08)
- EVMS General Training (proposed dates Dec 3-4 or 4-5)
- Mock Certification Review (proposed week of 12-Jan-09)
- OECM One Day Readiness Review (Proposed week of 8-Dec or 15-Dec)
- OECM On-Site Review (proposed week of 16-Mar-09)

Issues/Concerns

- OHEP Policy on Free Physicists
- Tight schedule to obtain Certification in time for NOvA's CD-3b Approval in Sep-09
- Available Resources to Implement and Maintain EVMS for Current and Future Projects