Fermilab EVMS Surveillance Review

August 19-20, 2013

Fermilab Surveillance Review Team Members

- Bob Wunderlich, Team Leader, (Consultant, DOE Retired)
- Dennis Miner, Deputy Team Leader, (JLAB) – Organization
- Jenn O'Connor, (BNL) – Planning, Scheduling, and Budgeting
- Betsy O'Connor, (ANL) – Accounting Considerations
- Greg Capps, (ORNL) – Analysis & Management Reports
- Lynda Gauthier, (MSU) – Revisions and Data Maintenance
- Pam Utley (SLAC) – observer
- Katie Martin, (ANL) – observer
- Marc Kaducak (FNAL) -observer

Surveillance Review
DOE Guide 413.3 Definition

- A review conducted to demonstrate continued compliance of a certified system to the ANSI/EIA-748-B, or as required by the contract, and in accordance with FAR clause 52.234-4, *EVMS*, to ensure company **processes are being followed, verify the EVM data is useful, timely, and effective, and assess whether the data is used to make informed decisions.** Surveillance Reviews may be conducted on site or as desk reviews depending on the pre-review risk assessment.

Intent of EVMS Surveillance

- Assess compliance of the EVMS with ANSI/EIA-748
- Ensure implementation of the EVMS to monitor and manage costs, schedule, and technical performance
- Assess maintenance and continued implementation of the EVMS
- Provide a record for both DOE and the Laboratory in support of any future assessment of their EVMS and/or DOE Order 413.3B compliance

Review Team Report

- Write-up for every EVMS 32 Guidelines
- Corrective Action Request (CAR)

  Requires a corrective action and system implementation to be compliant with Fermilab's EVMS and ANSI Guidelines
- Continuous Improvement Opportunity (CIO)*

  Suggested Improvement requiring a corrective action
- Continuous Improvement Opportunity (CIO)

  Enhancements or other suggested improvements

  CIOs do not require a corrective action plan

Basis for Team Observations

- ANSI/EIA 748B
- Fermilab's Certified EVMS including EVMS Systems Description and Procedures
- Project presentations and status
- Interviews with Fermilab Management, Project Managers, CAMs, Project Controls and Accounting staff
- Supplied Project Documents including the website
- Daily out briefing to summarize team's assessment.

Review Results
Corrective Actions

Corrective Actions fall into two broad categories:

1) non-compliance with the ANSI/EIA 748B EVMS guidelines (process).
2) non-compliance with the approved EVMS description or procedures (implementation)

Failure to resolve Corrective Actions reduces confidence in the ability of project management to effectively use the EVMS process to achieve project goals and objectives of the stakeholders. A Corrective Action Plan is required for each finding.

Review Results
Continuous Improvements

The team members may recommend EVM implementation enhancements such as sharing of successful practices, tools, or other items that come to their attention. Continuous Improvements, however, are not the same as Corrective Actions and, therefore, need not necessarily be tracked for closure. However, should a recommendation have an asterisk (*), the team members have elected that this practice is critical enough to require tracking to closure.

Corrective Action Requests

- CAR #1 Need for improved quality (meaningful, quantitative, complete) of variance analysis reports and records to provide effective analysis of issues and proposed corrections.
- CAR #2 Coupling between risk management, ETC, and contingency accounts is not clearly defined and well understood across the NOvA CAMs. Some risks not quantified for cost and schedule impacts.
- CAR #3 Need for additional CAM training in use of Fermilab EVMS so that system tools serve intended purpose. Training should include CAM roles, responsibilities, and accountabilities.

Corrective Action Requests

- CAR #4 Inconsistent application of performance measurement techniques concerning LOE.
- CAR #5 Potential for schedule integrity issues (critical path) resulting from lags, missing logic/relationships, and constraints.

Continuous Improvement Initiatives *

- CIO #1 Clarify level of integrated impact analysis in the change control process.

Continuous Improvement Initiatives

- CIO #1 Unclear accounting for spares and associated distribution of scope/budgets/costs.
- CIO #2 Limited level of detail in WBS dictionary (total scope, no quantification).
- CIO #3 Ensure that baseline changes to the current performance period do not occur (rubber baseline).
- CIO #4 Consider modification of overhead to assess as benefits are received compared to only at the beginning of the contract.
- CIO #5 Consider consequences of routine accounting adjustments (e.g. rate adjustments) to budgets and involve CAMs directly on impact analysis.

Best Practices and Observations

- Fermilab Laboratory Management engagement in projects (POG and PMG)
- Several important initiatives associated with future Fermilab projects, particularly risk management systems and early exercise of Fermilab project management systems (CD#0)
- Use of outside EVMS trainers
- Availability of weekly time cards allows timely review by CAMs before finalization (real time data)
- Much of remaining project work is essentially manufacturing processes where live time data is captured by individual shift or on a daily basis

EVMS Final Report

- Team assessment regarding EVMS application at NOvA
- Team Leader’s assessment regarding moving forward on other future Fermilab Projects
- Full Draft Report in two weeks
- Target date for final report in one month

Closing Remarks

- Thanks to Fermilab management and staff, including project control organization, accounting, and the NOvA project team for their support of this EVM System Surveillance Review.

- Thanks to the review team members for taking the time to apply their expertise in conducting this Surveillance Review.