

# Fermilab EVMS Surveillance Review Close-out Presentation

March 7-8, 2016

# Fermilab Surveillance Review

## Team Members

- Bob Wunderlich (Team Leader) - Consultant (DOE Retired)
- Kurt Fisher - DOE-SC Office of Project Assessment
- Greg Capps - ORNL, Project Management Officer
- Lynda Gauthier - MSU, FRIB Project, Project Controls Manager
- Betsy O'Connor - ANL, OPM Financial Manager
- Jenn O'Connor - BNL, Advanced Project Management Specialist
- Cathy Lavelle – BNL, Project Management Center Manager
- Ethan Merrill, DOE-SC Office of Project Assessment (Observer)

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## Team Members

- Leonard Mucciari – Consultant (formerly DOE)
- Julia Chaffin, SLAC, Project Management Support Group Lead
- Rick Larson – LBNL, Project Controls
- Ethan Merrill – DOE-SC Office of Project Assessment (Observer)

# Fermilab EVMS Surveillance Team Assignments

Team Member	Responsible Area	Guidelines
Kurt Fisher	Organization	1-3,5
Greg Capps Cathy Lavelle* Jenn O'Connor	Planning, Scheduling, and Budgeting	6-12, 14, 15
Betsy O'Connor	Accounting Considerations	4, 13, 16-21
Lynda Gauthier* Rick Larson	Analysis and Management Reports	22-27
Julia Chaffin* Leonard Mucciario	Revisions and Data Maintenance	28-32

# 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.
- Provides a record for both DOE and the Laboratory in support of future assessments of their EVMS and/or DOE Order 413.3B compliance.

# Review Team Report

- Write-up for every one of the 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
- Draft report will be provided to Fermilab for factual accuracy check.

# Basis for Team Observations

- ANSI/EIA-748-B Standard
- Fermilab's Certified EVMS including EVM System 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 outbriefing to summarize team's assessment and feedback provided by Fermilab

# General Observations

- FRA EVMS still meets the requirements and intent of ANSI/EIA-748 Standard.
- Overall continuing improvements, including positive changes in Fermilab culture towards EVMS, were noticeable
- Use of standardized (institutional) systems approach has been positive
- CAMs have consistently improved; have embraced EVMS culture

# General Observations

- Introductory presentations, provided to the Review Team, helped to put the Laboratory, FRA EVMS, as well as the Muon g-2, Mu2e, and LBNF Projects in perspective.
- Fermilab has made considerable use of lessons learned.
- Corrective action logs and SMART Tool are valuable tools.
- Level of schedule details are being used effectively by CAMs.
- Variance analyses have improved.
- FRA EVMS continues to mature but some elements still need some refinement.

# 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 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 Results

- 4 Corrective Action Requests (requires a corrective action plan)
- 2 Continuous Improvement Opportunities\* (asterisk) (also requires a corrective action plan)
- 8 Continuous Improvement Opportunities (does not require a formal corrective action plan)

# Corrective Actions

- 1) Issues with planning and schedule integrity including logic issues, sequencing of activities, use of schedule float, inconsistent development of “steps” for activities and inability of CAMs to clearly articulate critical path and near critical path activities.
- 2) Need to establish, upfront, more rigorous basis for reporting % complete including strengthening performance measures using objective measures.
- 3) Inconsistent description of use of combined LOE and discrete activities (process versus practice).
- 4) Change control process includes bundling but there is a need to ensure that bundling is consistently performed and results are traceable. Standardized process is desirable and change control logs should include initiation date, approval date and implementation date.

# Continuous Improvement Initiatives \*

- 1) CAM training is needed for improved response /better understanding of details of Fermilab EVM System with targeted training on scheduling, critical path analysis, trend charts.
- 2) Monthly Project Status Meetings - CAMs indicated that they physically met with technical leads when they just distributed spreadsheets

# Continuous Improvement Initiatives

- 1) Documentation/Configuration Management Issue involving information provided to Review Team being different than official schedules; organization charts need to be updated, outdated links between SD and procedures, CAM organization to be included in RAM, handling of key contractors in organization description
- 2) Continue to refine the process for establishing the baseline without use of negative values
- 3) Need to define the process for closing Control Accounts
- 4) Consider a process for ensuring better visibility for “contributed effort”
- 5) Consider removing requirement for PMP documentation to include monthly reporting calendar

# Continuous Improvement Initiatives

- 6) Appropriate CAM should be informed of contract terms and should be copied on all emails to Tech Reps for invoice approvals.
- 7) Consider apportioning the appropriate indirect costs to all projects associated with the contract as opposed to burdening the first project with the costs.
- 8) Review the scale and appropriateness in variance analysis thresholds between projects.

# Closing Remarks

- Thanks to Fermilab management and staff, including project controls organization, accounting, and the Muon g-2 Project, Mu2e Project, and LBNF Project teams 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.