

Executive Session

**Director's CD-3B Review of the
Utilities Upgrade SLI Project
June 1-2, 2015**

Dean Hoffer

Agenda for Exec Session

- Charge
- Typical CD-3B Documents
- Review Agenda
- Subcommittee Assignments
- Reviewer Writing Assignments
- Reporting Structure
- Discussion

Charge (excerpts)

- Please assess whether the Utilities Upgrade Project (UUP) meets the DOE 413.3B requirements of Critical Decision **CD-3B** “Approve **Start of Construction for Phase B**”, where Phase B is the final construction phase of UUP. UUP received CD-2/3A Approval on February 18, 2015, which approved the performance baseline and the pre-procurement of the Master Substation Control Building. The project is preparing for a DOE CD-3B Review on August 11-12, 2015. The Director’s CD-3B review should focus on the Phase B scope and proposed scope enhancements.
- **Technical Charge Questions**
 - Are final designs for all scope, including Phase-B, and the respective design review reports complete? Similarly, is the CD-3B scope towards achieving the Key Performance Parameters (KPPs) sufficiently defined and documented?
 - Is the final design sufficiently mature such that the Project can initiate procurements and start construction for Phase B scope?

Charge (excerpts)

- **Cost/Schedule/Funding**
 - Does the resource-loaded schedule include the Project's full scope of work? Is the schedule realistic and achievable?
 - Are the cost and schedule estimates complete and credible? Do they include adequate scope, cost and schedule contingency? Is CD-4 achievable with the Project's risks and within the DOE approved Total Project Cost?
 - Are the Phase B contract documents sufficient to support starting Phase B work? Are bids or quotes already in hand? If so, are the base bids or quotes within the cost estimates and consistent with the Project Execution Plan (PEP)?
 - Is a contingency spend-down plan developed and executable by CD-4? Are the proposed scope enhancements prioritized, within the objective KPPs, and consistent with the approved

Charge (excerpts)

- **Management**

- Has the Project implemented Risk Management by identifying risks, performing a risk assessment (qualitative and quantitative) and developing mitigation plans? Are there any interdependencies with other projects or significant research operations? If so, have they been identified and are there plans in place to mitigate risk for the CD-3B scope? Does the risk register reflect both Phase B scope and the proposed scope enhancements?
- Has the Project updated required project management documents per DOE Order 413.3B for CD-3B and per the Fermilab Project Management System? Are the Acquisition Strategy and Acquisition Plan updated and approved?
- Are the Project organization and staffing levels adequate to initiate Phase B construction and manage the work to achieve CD-4?
- Are ESH&Q aspects being properly addressed at this stage? Is the Hazard Analysis Report issued and are the permits in place to allow CD-3B scope to commence?
- Does the Project's Earned Value Management process for monthly progress reporting satisfy DOE and Laboratory requirements?
- Has the Project appropriately addressed the recommendations from prior reviews?
- Is the UUP Project ready for a DOE CD-3B review in August?

Typical CD-3 Documents

- Acquisition Strategy
- Project Execution Plan
- Project Management Plan
- Project Organization Chart
- Final Design Requirements Established
- Technical Design Report (TDR)
- Hazards Analysis Report (HAR)
- Integrated Safety Management Plan
- Issue final National Environmental Policy Act (NEPA) determination
- Quality Assurance Plan (QAP)
- Configuration Management Plan
- Procurement Management Plan
- Established Cost and Schedule Performance Management Baseline (PMB)
- Risk Management Plan
- Risk Register & Assessment
- Resource Loaded Schedule
- Resource Profile Graphs
- Assumptions Document
- WBS Dictionary
- Milestone Dictionary
- BOEs w/reference documents
- Monthly Status Reports

Typical CD-3 Documents (continued)

- Scope Contingency Plan (potential adds and removals)
- Lifecycle Costs with Alternative Assessment
- Memos of Understanding (MOUs) / Statement of Work (SOWs)
- Technical Requirements and Specifications

Documentation to Demonstrate EVMS Compliance

Organization

- Project WBS
- Project Organization Chart
- Responsibility Assignment Matrix (RAM) with Dollars & % LOE by CA
- Project Execution Plan & Project Management Plan
- DOE CD Approval Documents
- CA Plan – Work Authorization Docs

Planning, Scheduling, & Budgeting

- Performance Baseline Document
 - Scope – WBS Dictionary
 - Schedule – Summary & Detailed Schedule
 - Cost Baseline – Cost Plan by Fiscal Year (includes BOE, Assumptions)
- Risk Management Plan
- Risk Registry & Analysis

Documentation to Demonstrate EVMS Compliance (continued)

Accounting Considerations

- Sponsor Work Authorization (same as DOE CD approval documents)
- Finance Charge Code Mapping to WBS (may be part of RAM)

Analysis & Management Reports

- Variance Threshold Table
- Monthly Performance Reports - (3 months preferred)
- Cost Performance Reports by CA (3 months preferred)

- Variance Analysis Reports - (3 months preferred)
- EAC Analysis (Yearly, Monthly)
- Corrective Action Log

Revisions & Data Maintenance

- Baseline Change Control Log
- Baseline Approved Changes – (3 months)
- Contingency & MR Log

Committee Organization

- Technical subcommittee is responsible for reviewing technical development and resource identification (including looking at representative BOEs), and assessing the extent of final designs
 - From a practical perspective I would suggest we regard a design as final when it has been independently reviewed and can be used as a basis for proceeding to spend funds in an efficient manner.
- Cost & Schedule Subcommittee will do both drill downs and an assessment of process and documentation of cost/schedule
 - Need to look at risk associated with elements not yet at final design
- Management Subcommittee will assess the state of all CD-3B documentation
- ES&H Subcommittee will review hazards/impacts and associated documentation

Agenda Summary - Monday

- Monday morning – plenary sessions in One West
- Lunch – WH 2nd floor crossover
- Monday 1-4:15pm – “Breakouts” in One East
 - Note: We have reserved the ConFESSional (WH5E) and Small Dining Room (near Cafeteria) for side discussions if needed
- Monday 4:15-5:30pm - Executive Session – One East

Agenda Summary - Tuesday

- Tuesday 8-8:45am – Answers to Homework – One East
- Tuesday 8:45am-noon – Executive Session – One East
- Tuesday noon – Closeout in Curia II

NOTE: Write-ups (including answers to charge questions) are to be sent to Lisa Temple at ltemple@fnal.gov prior to 9:30 AM on Tuesday for the Closeout Dry Run starting at 10:00 AM. Also try to find time to review your impressions with the project team prior to the closeout for fact checking.

Reviewer Writing Assignments

Chairperson

Dean Hoffer, FNAL

Project Management

Jason Budd, ANL

Cost and Schedule

Jeff Reiser, ANL*

Mike Gardner, FNAL

ES&H

John Benkert, ANL

Technical

Jerry Leibfritz, FNAL*

Jeff Sims, SLAC

John Reid, FNAL

*Lead

*Cost/Schedule and ESH&Q Reviewers will rotate between breakouts

Reviewer Writing Assignments

Executive Summary	<u>Chair: Dean Hoffer</u>
<u>1.0 Introduction</u>	
2.0 Management Cost & Schedule	<u>Jason Budd</u> Dean Hoffer <u>Jeff Reiser</u> Mike Gardner
3.0 Technical	<u>Jerry Leibfritz</u> Jeff Sims John Reid
3.1 Industrial Cooling Water 3.2 High Voltage	
4.0 ES&H	John Benkert

Reviewer Writing Assignments

5.0 Charge Questions	
TECHNICAL	
1. Are final designs for all scope, including Phase-B, and the respective design review reports complete? Similarly, is the CD-3B scope towards achieving the Key Performance Parameters (KPPs) sufficiently defined and documented?	<u>Jeff Sims</u> Jerry Leibfritz John Reid
2. Is the final design sufficiently mature such that the Project can initiate procurements and start construction for Phase B scope? What outstanding design risks remain? For those elements of the design that are not yet finalized, has the Project shown that there are no major risks or issues that impede a clear path to a final design?	<u>Jerry Leibfritz</u> Jeff Sims John Reid

Reviewer Writing Assignments

COST/SCHEDULE/FUNDING	
3. Does the resource-loaded schedule include the Project's full scope of work? Is the schedule realistic and achievable?	<u>Jeff Reiser</u> Mike Gardner
4. Are the cost and schedule estimates complete and credible? Do they include adequate scope, cost and schedule contingency? Is CD-4 achievable with the Project's risks and within the DOE approved Total Project Cost?	<u>Jeff Reiser</u> Mike Gardner
5. Are the Phase B contract documents sufficient to support starting Phase B work? Are bids or quotes already in hand? If so, are the base bids or quotes within the cost estimates and consistent with the Project Execution Plan (PEP)?	<u>Mike Gardner</u> Jeff Reiser
6. Is a contingency spend-down plan developed and executable by CD-4? Are the proposed scope enhancements prioritized, within the objective KPPs, and consistent with the approved PEP?	<u>Mike Gardner</u> Jeff Reiser

Reviewer Writing Assignments

MANAGEMENT	
7. Has the Project implemented Risk Management by identifying risks, performing a risk assessment (qualitative and quantitative) and developing mitigation plans? Are there any interdependencies with other projects or significant research operations? If so, have they been identified and are there plans in place to mitigate risk for the CD-3B scope? Does the risk register reflect both Phase B scope and the proposed scope enhancements?	<u>Jason Budd</u> Dean Hoffer Mike Gardner
8. Has the Project updated required project management documents per DOE Order 413.3B for CD-3B and per the Fermilab Project Management System? Are the Acquisition Strategy and Acquisition Plan updated and approved?	<u>Jeff Sims</u> Jason Budd Dean Hoffer
9. Are the Project organization and staffing levels adequate to initiate Phase B construction and manage the work to achieve CD-4?	<u>Jason Budd</u> Dean Hoffer
10. Are ESH&Q aspects being properly addressed at this stage? Is the Hazard Analysis Report issued and are the permits in place to allow CD-3B scope to commence?	<u>John Benkert</u>
11. Does the Project's Earned Value Management process for monthly progress reporting satisfy DOE and Laboratory requirements?	<u>Dean Hoffer</u> Mike Gardner Jeff Reiser
12. Has the Project appropriately addressed the recommendations from prior reviews?	<u>Jason Budd</u> All
13. Is the UUP Project ready for a DOE CD-3B review in August?	<u>Dean Hoffer</u> All

Reporting Structure

- Results of the review are to be documented as findings, comments, and recommendations.
- The answers to the charge questions are to include feedback from each subcommittee.
- Any additional actions required to be completed by the project team to acceptably address the review charge are to be documented as Recommendations.
- Findings, Comments, Recommendations and answers to the questions are to be presented in writing at a closeout with project team and Fermilab's management.

Findings, Comments, and Recommendations

- Findings
 - Findings are statements of fact that summarize noteworthy information presented during the review.
- Comments
 - Comments are judgment statements about the facts presented during the review. The reviewers' comments are based on their experiences and expertise.
 - The comments are to be evaluated by the project team and actions taken as deemed appropriate.
- Recommendations
 - Recommendations are statements of actions that should be addressed by the project team.
 - A response to the recommendation is expected and that the actions taken would be reported on during future reviews.

Reviewer Write-ups

- Write-up Closeout Template is posted on Director's Review Webpage.
- Write-ups (including answers to charge questions) are to be sent to Lisa Temple at ltemple@fnal.gov prior to 9:30 AM on Tuesday, June 2 for the Closeout Dry Run starting at 10:00 AM. A final report will be issued within 2 weeks after the closeout.

Discussion

- Questions?