



U.S. DEPARTMENT OF
ENERGY

OFFICE OF
SCIENCE

DOE/SC Status Review
of the
Utilities Upgrade Project (UUP)
Fermi National Accelerator Laboratory
July 19-20, 2016

Raymond Won
Committee Chair
Office of Science, U.S. Department of Energy

<http://www.science.doe.gov/opa/>



- **Closeout report (prepared in PowerPoint)**
 - Presented Wednesday, July 20
 - Instructions—slide 11
 - Template—slide 13
- **Final report draft (prepared in MS Word)**
 - Due Monday, July 25 to Casey
(casey.clark@science.doe.gov)
 - Instructions—slide 12



DOE EXECUTIVE SESSION AGENDA

Tuesday, July 19, 2016—Hornet’s Nest (WH8XO)

- 8:00 a.m. DOE Executive Session.....R. Won
- 8:05 a.m. Program Perspective.....D. Michlewicz
- 8:15 a.m. Federal Project Director Perspective.....S. Neus
- 8:25 a.m. Questions
- 8:30 a.m. Adjourn

Project and review information is available at:

<https://fermipoint.fnal.gov/organization/os/FESS/SLI/SitePages/Status%20Review%20July%202016.aspx>

Username: sli_reviewer

Password: 3UUP!Fermilab

Review Committee Participants

Raymond Won, DOE/SC, Chairperson

Review Committee

Subcommittee 1—Technical

*Shane Wells, SLAC
Pat Hogan, ANL

Subcommittee 2—ES&H

*Dan Edwards, PNNL
Mike Ratelle, SLAC

Subcommittee 3—Cost and Schedule

*Kelly Krug, TJNAF
Laurie Casarole, BNL
Jesse Saldivar, DOE/SSO

Subcommittee 4—Project Management

*Rusty Sprouse, TJNAF
Teresa Danforth, TJNAF
Machelle Vieux, SLAC

*Lead

Observers

Stephanie Short, DOE/SC
David Michlewicz, DOE/SC
Steve Neus, DOE/FSO



Office of the Director (SC-1)
Cherry Murray

Deputy Director for Field Operations (SC-3)
Joseph McBrearty
Associate Deputy – *Stephanie Short*

Deputy Director for Science Programs (SC-2)
Patricia M. Dehmer

Deputy Director for Resource Management (SC-4)
Jeffrey Salmon
Executive Officer – *Helen DeHart*

Ames SO
Cynthia Baebler

Argonne SO
Joanna Livengood

Berkeley SO
Paul Golan (A)

Brookhaven SO
Frank Crescenzo

Fermi SO
Michael Weis

Oak Ridge SO
Johnny Moore

Princeton SO
Peter Johnson

Pacific NWest SO
Roger Snyder

Stanford SO
Paul Golan

Thomas Jeff. SO
Joe Arango

Chicago Office
Roxanne Purucker

SC Integrated Support Center

Oak Ridge Office
Ken Tarcza

Office of Safety and Security Policy (SC-31)
T. LaPointe

Office of Laboratory Policy (SC-32)
J. LaBarge

Office of Operations Program Management (SC-33)
C. Steve Trischman

Advanced Scientific Comp. Research (SC-21)
J. S. Binkley

Basic Energy Sciences (SC-22)
Harriet Kung

Biological & Environ. Research (SC-23)
Sharlene Weatherwax

Fusion Energy Sciences (SC-24)
Edmund Synakowski

High Energy Physics (SC-25)
James Siegrist

Nuclear Physics (SC-26)
Timothy Hallman

Workforce Development for Teachers/Scientists (SC-27)
Jim Glownia

Office of Project Assessment (SC-28)
Stephen W. Meador

Small Business Innovation Research (SC-29)
Manny Oliver

Office of Budget (SC-41)
Kathleen Klausung

Office of Grants & Contracts (SC-43)
Linda Shariati

Office of Scientific and Technical Information (SC-44)
Brian Hitson

Office of Information Technology and Services (SC-45)
Vasilios Kountouris

Office of SC Communications and Public Affairs (SC-47)
Rich Borchelt

Office of Management (SC-48)
Cynthia Mays

(A) Acting



1. General: Is the project's technical, cost and schedule performance consistent with the Project Execution Plan (PEP) established at CD-3b? Has the project responded appropriately to recommendations from prior reviews? Are there lessons learned from problems encountered during project construction (e.g., lock-out/tag-out and tunneling) that could be shared with the SLI community?
2. Technical: Do contingency spend-down alternatives conform to the approved project scope and key performance parameters, and are they prioritized? Is technical performance adequate and properly managed?
3. ES&H: Are ES&H systems and processes in place to support the mitigation of all identified hazards and to ensure delivery of the project in a safe and environmentally sound manner? Is ES&H performance adequate and properly managed?
4. Cost and Schedule: Is the project performance in line with the approved performance baseline, and are variances being effectively managed? Is the cost and schedule contingency adequate to complete approved work prior to CD-4? Are project schedules resource loaded and managed for effective performance reporting?
5. Management: Is the project properly managed for successful completion? Is a contingency spend-down plan developed and executable by CD-4? Are contingency spend-down alternatives prioritized? Is the risk register updated to reflect approved scope enhancements, and are future updates adequately mature for high priority contingency spend-down alternatives?



Tuesday, July 19, 2016—Hornet’s Nest (WH8XO)

8:00 am	DOE Executive Session	R. Won
8:30 am	Project Welcome	K. Collins
8:45 am	Project Overview	R. Alber
	• Scope/Cost/Schedule	
9:00 am	ES&H.....	R. Cantu
9:15 am	WBS 1 Project Management - Project Status	R. Alber
	• Financials	
	• Earned Value	
	• Change Control	
9:30 am	Risk Management	J. Hunt
9:45 am	WBS 1 Project Management – Spend Down.....	R. Alber
	• Spend Down Plan	
	• 12-month Look Ahead	
10:00 am	Quality/Lessons Learned	J. Adetunji
10:15 am	Break	
10:30 am	WBS 2 High Voltage	R. Wielgos
11:15 am	WBS 3 Industrial Cooling Water	C. Federowicz
12:00 pm	Lunch – 2 nd Floor Crossover	
12:45 pm	Reviewer/Observer Photo in Atrium	
1:00 pm	Site Tour	
2:00 pm	Break	
2:15 pm	Q&A / Discussions with Full Committee	All
3:15 pm	Subcommittee Breakout Meetings	
	• Management	Hornet’s Nest (WH8XO)
	• Cost and Schedule	OPSS (WH2E)
	• ES&H/Construction	Quarium (WH8SW)
	• High Voltage Subproject	TaberNAcle (WH5E)
	• Industrial Cooling Water Subproject	ConFESSional (WH5E)
4:15 pm	DOE Full Committee Executive Session	R. Won
5:15 pm	Adjourn	



Wednesday, July 20, 2016

8:00 am	Breakout Q&A and Discussions (if needed) / Report Writing	Committee
10:30 am	Dry Run 1 and Coordination with Laboratory	R. Won
12:00 pm	Executive Session Working Lunch	R. Won
1:00 pm	Revise Reports	Committee
2:15 pm	Break	
2:30 pm	Dry Run 2 and Consolidate Closeout Report	R. Won
4:00 pm	Closeout Presentation	R. Won
5:00 pm	Adjourn	



Report Outline/Writing Assignments

Executive Summary/2-Page Summary Review Report Won*

1. Introduction Michlewicz*

2. Technical (**Charge Questions 1, 2**)..... Wells*/SC1

 2.1 Findings

 2.2 Comments

 2.3 Recommendations

3. Environment, Safety, and Health (**Charge Question 1, 3**) Edwards*/SC2

4. Cost and Schedule (**Charge Questions 1, 4**)..... Krug*/SC3

5. Management (**Charge Questions 1, 5**) Sprouse*/SC4

*Lead



Closeout Presentation and Final Report Procedures



(Use PowerPoint / No Smaller than 18 pt Font)

2.1 Use Section Number/Title corresponding to writing assignment list.

List Review Subcommittee Members

List Assigned Charge Questions and Review Committee Answers

2.1.1 Findings – What the project told us

- In bullet form, include your account of factual technical, cost, schedule, and management. Information provided/presented by the Project

2.1.2 Comments – What we think about what the project told us

- In bullet form, include your assessment of project status (observations, concerns, feedback, suggestions, etc.) based on the findings. This section carries more emphasis than the Findings, but does not require an action as do the Recommendations. Do not number your comments.

2.1.3 Recommendations – What we think the project needs to do

- 1. Beginning with an action verb, provide a brief, concise, and clear statement with a due date.**

For Critical Decision reviews, include a specific recommendation addressing how the Committee judged the readiness for the CD, *i.e.*:

- **The project is ready to proceed to CD-2; *or***
- **The project is ready to proceed to CD-2, after addressing the following recommendations**



Format: Final Report

(Use MS Word / 12pt Font)

2.1 Use Section Number/Title corresponding to writing assignment list.

2.1.1 Findings – What the project told us

Include a brief narrative description of technical, cost, schedule, management information provided by the project. Each subcommittee will emphasize their area of responsibility.

Cost and schedule subcommittee should provide attachments for approved project cost breakdown and schedule. Management subcommittee should provide attachment for approved project organization and names of personnel.

2.1.2 Comments – What we think about what the project told us

Descriptive material assessing the findings and making observations and conclusions based on the findings. **The committee's answer to the charge questions should be contained within the text of the Comments Section.** Do not number your comments.

2.1.3 Recommendations – What we think the project needs to do

1. Beginning with an action verb, provide a brief, concise, and clear statement with a due date.
- 2.

Please Note: Recommendations are approved by the full committee and presented at the review closeout briefing. Recommendations SHOULD NOT be changed or altered from the closeout report to the Final Report.



Closeout Report on the DOE/SC Status Review of the

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- **Findings**
- **Comments**
- **Recommendations**



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- **Findings**
- **Comments**
- **Recommendations**



PROJECT STATUS as of May 31, 2016

Project Type	Line Item	
CD-1	Planned: Nov 2010	Actual: 11/15/2010
CD-2/3a	Planned: Jan 2015	Actual: 02/18/2015
CD-3b	Planned: Aug 2015	Actual: 09/03/2015
CD-4	Planned: Aug 2017	Actual:
TPC Percent Complete	Planned: 56.9%	Actual: 55.9%
TPC Cost to Date	\$19,523,600	
TPC Committed to Date	\$31,096,333	
TPC	\$36,000,000	
TEC	\$34,900,000	
Contingency Cost (w/Mgmt Reserve)	\$3,026,139	
Contingency Schedule on CD-4b	17 months	36.2% (CD-3a→CD-4)
CPI Cumulative	1.03	
SPI Cumulative	0.98	



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- **Findings**
- **Comments**
- **Recommendations**