

Issued April 21, 2008



Final Report

Director's CD-2 Mini-Review of the NOvA Project

April 17, 2008

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Executive Summary

The NOvA project team has updated their Baseline Documentation in response to OHEP funding guidance post the FY2008 Omnibus Budget which zeroed out construction funding for NOvA in FY2008.

This revised Baseline Documentation

- “fits” within the revised funding profile provided by OHEP; some fine tuning is still needed to get detailed balance between the cumulative obligations and cumulative BA – Budget Authority,
- responds well to Recommendations of the DOE/OHEP Lehman Review, and
- responds well to the EIR Recommendations; the response forms the basis of an EIR CAP (Corrective Action Plan).

The committee recommends fine tuning some of the NOvA written responses to the two reviews mentioned above to make them as constructively responsive to the recommendations as possible.

Also, the Environmental Assessment and NEPA (National Environmental Protection Act) process seems well on the track for completion. The Draft EA was recently published for public comment.

The Director’s Review Committee believes that NOvA can be in good shape for a DOE/OHEP Lehman Mini-Review in approximately two weeks and an EIR follow-up.

1.0 Introduction

A Director's CD-2 Mini-Review of the NOvA Project was held on April 17, 2008. This review assessed NOvA's baseline proposal, which has been revised to incorporate changes resulting from the recent budget cut and recommendations from the prior reviews. The committee evaluated the revised cost and schedule baseline proposal to determine if it is appropriate and ready for a follow-up Lehman Independent Project Review (IPR) and an External Independent Review (EIR). The assessment of the Review Committee is documented in the body of this report with answers to the four charge questions and a few Recommendations. These Recommendations are actions that should be addressed by the NOvA Project Team.

Reference materials for this review are contained in the Appendices. The Charge for this review is shown in Appendix A. The review was conducted per the agenda shown in Appendix B. The Reviewer's assignments are noted in Appendix C and their contact information is listed in Appendix D. The Review Participants are listed in Appendix E. Appendix F is a table that contains all the recommendations included in the body of this report.

2.0 Charge Questions

2.1 Does the revised scope, cost, and schedule baseline fit within the revised funding profile provided by OHEP?

The revised obligation profile and schedule fit the funding profile from OHEP with the following caveat. The funding profile by OHEP for 2008 includes \$2.3M for the Cooperative Agreement that was taken back. If this is not restored some tasks in FY09-10 will need to be deferred to match the funding profile.

The profile shown includes contingency within each of the level 2 tasks. There is an additional \$10.5M of overall contingency that is not shown explicitly in the profile.

Recommendations

1. Show the “additional contingency” explicitly in the obligation profile.
2. Ensure that the sum of the total of the funding and obligation is equal at the end of the project, and that the summed obligations do not exceed the summed funding through any year.

2.2 Does this revised baseline meet / respond to the Recommendations (those that are appropriate to address at this time) of the DOE/OHEP Lehman Review?

Yes, the project responded to all recommendations from the October 2007 DOE review in a substantive manner. There were comments and recommendations on all level 2 sections, and all were addressed. Especially notable is the progress on the EA and UM MOU.

Recommendations

3. Restrict the responses to the review questions to straightforward declarations of fact. Examples of responses to recommendations that could be condensed are:

DOE Recommendation – 2.1 Consider decoupling the production of the commodities from the construction and occupancy of the Ash River detector building.

Example condensation:

Done - This is now a backup plan should funding be delayed. The suggested decoupling requires storage space to be rented, so there is a trade-off that has to be evaluated once the specific conditions are known.

DOE Recommendation – 4.3 - DOE/CH, the Fermi Site Office, and Fermilab/NOvA parties, in coordination with the University of Minnesota, need to provide all necessary and sustained effort required to ensure that the NEPA process is successfully completed. NOvA can then address any comments on the EA that may arise during the state/public comment period in Illinois, and move successfully on to the next stage.

Example condensation:

Done/in progress - Progress has been steady, and we are close to finally having a completed document. The EA was sent out for public comment on March 27, 2008. There are no comments from the public to date, but the project is prepared to address them when they are received.

2.3 Does this revised baseline meet / respond to the Recommendations of the DOE External Independent Review (EIR) Recommendations? Including, has NOvA provided updated responses as applicable to the 17 Lines of Inquiry (where there are changes as a result of the Omnibus Budget)? Evaluate where NOvA stands on developing responses in the EIR CAP (Corrective Action Plan).

Yes, the recommendations, finding and observations from the EIR appear to be adequately addressed in the revised baseline. In addition, the project has developed a complete EIR Corrective Action Plan and has completed the actions required in response to all major findings. Responses were presented for each Major Finding, Finding, and Observation, and documented in “Consolidated Review Recommendations and Responses” (NOvA-doc-3079). Some additional effort may be required to revise some responses to improve clarity and objectivity.

Recommendations

4. Review and where necessary revise responses in the EIR Corrective Action Plan to improve clarity and objectivity.

For example:

Slide 36: Risk Management – Acknowledge the potential existence of programmatic risks associated with the capabilities/performance of University of Minnesota, but note the low probability of occurrence and the manner in which this risk is mitigated (e.g., oversight).

Slide 37: Funding Profile – Revise the response to take credit for the fact that the project continuously evaluates opportunities for compressing the project schedule as part of the management review process.

Issued April 21, 2008

2.4 Is the Environmental Assessment on track for completion? As a minimum, has it been submitted for public comment?

Yes, the Environmental Assessment is on track for completion. A draft Environmental Assessment document was sent out for public comment on 27-March-2008 with comments due by 30-April-2008.

Appendixes

Charge

Agenda

Report Outline and Reviewer Writing Assignments

Reviewer Assignments for Breakout Sessions

Reviewers' Contact Information

Participant List

Table of Recommendations

Appendix A

Charge

**for the Director's CD-2 Mini-Review of the NOvA Project
April 17, 2008**

Please conduct a Director's CD-2 Mini-Review of the NOvA project. This review is to assess NOvA's baseline proposal, which has been revised to incorporate changes resulting from the recent budget cut and recommendations from prior reviews. The committee is to determine if the revised cost and schedule baseline proposal is appropriate and ready for a follow-up DOE SC-1.3 Lehman Review and a follow-up DOE-OECM External Independent Review (EIR) for CD-2 approval. The committee is to assess the project readiness by answering the following questions.

1. Does the revised scope, cost, and schedule baseline fit within the revised funding profile provided by OHEP?
2. Does this revised baseline meet / respond to the Recommendations (those that are appropriate to address at this time) of the DOE/OHEP Lehman Review?
3. Does this revised baseline meet / respond to the Recommendations of the DOE External Independent Review (EIR) Recommendations? Including, has NOvA provided updated responses as applicable to the 17 Lines of Inquiry (where there are changes as a result of the Omnibus Budget)? Evaluate where NOvA stands on developing responses in the EIR CAP (Corrective Action Plan).
4. Is the Environmental Assessment on track for completion? As a minimum, has it been submitted for public comment?

Finally, the committee should present their answers to the charge questions and any recommendations at a closeout meeting with NOvA's and Fermilab's management and provide a written report soon after the review.

Appendix B

Agenda

**for the Director's CD-2 Mini-Review of the NOvA Project
April 17, 2008**

Thursday April 17				
Start	End	Time	Subject	Presenter
8:45 AM	9:00 AM	0:15	Executive Session (Snake Pit, WH2NE)	Ed Temple
9:00 AM	9:10 AM	0:10	Welcome	Hugh Montgomery
9:10 AM	10:30 AM	1:20	Presentation on Updated Baseline Proposal	John Cooper
10:30 AM	10:45 AM	0:15	BREAK	
10:45 AM	11:45 AM	1:00	1) Continuation of Presentation 2) Q&A with NOvA's Project Office	John Cooper and NOvA's Project Office
11:45 AM	12:30 PM	0:45	Committee Executive Session and Report Writing	Ed Temple
12:30 PM	1:15 PM	0:45	COMMITTEE WORKING LUNCH	
1:15 PM	2:30 PM	1:15	Continue Report Writing and Closeout Dry Run	
2:30 PM	3:00 PM	0:30	Closeout (Snake Pit, WH2SE)	

Appendix C

**Report Outline and Reviewer Writing Assignments
for the Director's CD-2 Mini-Review of the NOvA Project
April 17, 2008**

Executive Summary	<u>Ed Temple</u>
1.0 Introduction	<u>Dean Hoffer</u>
2.0 Charge Questions	
2.1 Does the revised scope, cost, and schedule baseline fit within the revised funding profile provided by OHEP?	<u>Peter Wilson</u> Fran Clark Marc Kaducak
2.2 Does this revised baseline meet / respond to the Recommendations (those that are appropriate to address at this time) of the DOE/OHEP Lehman Review?	<u>Mike Lindgren</u> Peter Wilson
2.3 Does this revised baseline meet / respond to the Recommendations of the DOE External Independent Review (EIR) Recommendations? Including, has NOvA provided updated responses as applicable to the 17 Lines of Inquiry (where there are changes as a result of the Omnibus Budget)? Evaluate where NOvA stands on developing responses in the EIR CAP (Corrective Action Plan).	<u>Bill Boroski</u> Marc Kaducak Fran Clark
2.4 Is the Environmental Assessment on track for completion? As a minimum, has it been submitted for public comment?	<u>Marc Kaducak</u> Bill Boroski

- Note underlined names are the primary writer.

Appendix D

Reviewers' Contact Information

**for the Director's CD-2 Mini-Review of the NOvA Project
April 17, 2008**

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Appendix E

Participant List

**for the Director's CD-2 Mini-Review of the NOvA Project
April 17, 2008**

Role	Last Name	First Name	Institution
Directorate	Appel	Jeff	Fermilab
	Montgomery	Hugh	Fermilab/Directorate
DOE SO	Carolan	Pepin	DOE SO
	Webster	Steve	Fermilab/AD
NOvA	Ayres	Dave	Argonne
	Cooper	John	Fermilab
	Domann	Ken	Fermilab/AD
	Ferguson	Harry	Fermilab
	Freeman	Bill	Fermilab
	Grossman	Nancy	Fermilab
	McCluskey	Elaine	Fermilab
	Ray	Ronald	Fermilab
	Saxer	Suzanne	Fermilab
	Wehmann	Alan	Fermilab/AD
Other Participants	Baller	Bruce	Fermilab
	Bock	Greg	Fermilab/PPD
	Dixon	Steve	Fermilab
Reviewers	Boroski	Bill	Fermilab
	Clark	Fran	Argonne
	Hoffer	Dean	Fermilab
	Kaducak	Marc	Argonne
	Lindgren	Mike	Fermilab
	Temple	Ed	Fermilab
	Wilson	Peter	Fermilab

Appendix F

Table of Recommendations

**for the Director’s CD-2 Mini-Review of the NOvA Project
April 17, 2008**

#	Recommendation	Assigned To	Status/ Action	Date
	2.1 Does the revised scope, cost, and schedule baseline fit within the revised funding profile provided by OHEP?			
1	Show the “additional contingency” explicitly in the obligation profile.			
2	Ensure that the sum of the total of the funding and obligation is equal at the end of the project, and that the summed obligations do not exceed the summed funding through any year.			
	2.2 Does this revised baseline meet / respond to the Recommendations (those that are appropriate to address at this time) of the DOE/OHEP Lehman Review?			

#	Recommendation	Assigned To	Status/ Action	Date
3	<p>Restrict the responses to the review questions to straightforward declarations of fact. Examples of responses to recommendations that could be condensed are:</p> <p>DOE Recommendation – 2.1 Consider decoupling the production of the commodities from the construction and occupancy of the Ash River detector building.</p> <p>Example condensation:</p> <p>Done - This is now a backup plan should funding be delayed. The suggested decoupling requires storage space to be rented, so there is a trade-off that has to be evaluated once the specific conditions are known.</p> <p>DOE Recommendation – 4.3 - DOE/CH, the Fermi Site Office, and Fermilab/NOvA parties, in coordination with the University of Minnesota, need to provide all necessary and sustained effort required to ensure that the NEPA process is successfully completed. NOvA can then address any comments on the EA that may arise during the state/public comment period in Illinois, and move successfully on to the next stage.</p> <p>Example condensation:</p> <p>Done/in progress - Progress has been steady, and we are close to finally having a completed document. The EA was sent out for public comment on March 27, 2008. There are no comments from the public to date, but the project is prepared to address them when they are received.</p>			

#	Recommendation	Assigned To	Status/ Action	Date
	<p>2.3 Does this revised baseline meet / respond to the Recommendations of the DOE External Independent Review (EIR) Recommendations? Including, has NOvA provided updated responses as applicable to the 17 Lines of Inquiry (where there are changes as a result of the Omnibus Budget)? Evaluate where NOvA stands on developing responses in the EIR CAP (Corrective Action Plan).</p>			
4	<p>Review and where necessary revise responses in the EIR Corrective Action Plan to improve clarity and objectivity.</p> <p>For example:</p> <p>Slide 36: Risk Management – Acknowledge the potential existence of programmatic risks associated with the capabilities/performance of University of Minnesota, but note the low probability of occurrence and the manner in which this risk is mitigated (e.g., oversight).</p> <p>Slide 37: Funding Profile – Revise the response to take credit for the fact that the project continuously evaluates opportunities for compressing the project schedule as part of the management review process.</p>			