Fermilab

SNuMI Working Group Meeting

October 05, 2006

1:30 – 2:30 PM

Snake Pit

Meeting Agenda

1) SNuMI's Preliminary Review Preparation [Alberto/Nancy]
   a) General Progress and Status
   b) Presentations (direction on content, format and schedule)
   c) SNuMI Schedule
   d) Cost estimates
   e) SNuMI's Review Webpage (material to post and schedule for posting)
2) Discuss Draft Review Agenda [Dean/All]
3) Discuss Closeout Report Outline and Reviewer Assignments [Dean/ All]
4) Next Meeting

Draft Agenda

Tuesday, November 14 – Comitium (WH2SE)

8:00 – 8:45 AM	45’	Executive Session (Comitium - WH2SE)	Ed Temple
8:45 – 8:55 AM	10’	Introduction	Steve Holmes
8:55 – 9:10 AM		NOvA beam requirements	Mark Messier
9:10 – 9:35 AM	25’	SNuMI Plan overview	Alberto Marchionni
9:35 – 9:55 AM	20’	Beam physics overview	Robert Zwaska
9:55 - 10:10 AM	15’	**BREAK**	
10:10 - 10:30 AM	20’	Booster present performance and upgrades	Eric Prebys
10:30 - 11:05 AM	35’	Recycler upgrades	Paul Derwent
11:05 - 11:25 AM	20’	Main Injector present performance and upgrades	Ioanis Kourbanis
11:25 – 12:00 AM	35’	NuMI upgrades	Mike Martens
12:00 - 1:00 PM		**Lunch (2nd Floor Crossover)**	
1:00 - 1:40 PM	40’	Overview of phase II	Ioanis Kourbanis
1:40 - 2:00 PM	20’	SNuMI Civil construction (phase I + II)	Dixon Bogert
2:00 - 2:20 PM	20’	Booster and MI tunnel radiation safety	Anthony Leveling
2:20 - 2:40 PM	20’	NuMI radiation safety	Kamran Vaziri
2:40 - 3:05 PM	25’	Strategy, cost and schedule	Nancy Grossman
3:05 - 3:15 PM	10’	Proton projections	Robert Zwaska
3:15 - 3:30 PM		**BREAK**	
3:30 – 4:30 PM	60’	Breakouts Sessions 1-4 (See Breakout Details for Room Assignments)	
4:30 – 6:30 PM		Executive Session (Comitium WH2SE)	Ed Temple

Draft Agenda (continued)

Wednesday, November 15, 2006

8:00–8:30 AM	Cost and Schedule Executive Session (Comitium WH2SE)	Ed Temple
8:30–10:30 AM	Breakouts Sessions 5-7 (See Breakout Details for Room Assignments)	
10:30–10:45 AM	**BREAK** (Outside of Comitium)	
10:45 – 12:45 AM	Breakouts Sessions 8-10 (See Breakout Details for Room Assignments)	
12:45–1:45 PM	**LUNCH** (2nd Floor Crossover)	
1:45–2:45 PM	SNuMI's Respond to Committee Questions (Comitium, WH2SE)	Nancy Grossman Alberto Marchionni
2::45 PM-6:30+ (Break at 3:45)	Executive Session and Report Writing (Comitium, WH2SE)	Ed Temple

Thursday November 16, 2006

8:30–2:00 PM	Closeout Dry Run with working lunch (Comitium - WH2SE) Breaks taken as necessary.
2:00 PM	Closeout (Curia II - WH2SW)

Draft Agenda (continued)

Breakout Session Details

Tuesday, November 14

3:30 – 4:30 PM	**1) Main Injector and Booster: RF system (phase I + phase II)** (One North – WH1W)	Ioanis Kourbanis
	2) Recycler: injection line, extraction line (Black Hole – WH2NW)	Paul Derwent
	3) NuMI: primary proton line, decay pipe & hadron absorber (phase I + II) (Snake Pit – WH2NE)	Mike Martens
	4) Management/Cost/Schedule/Strategy (phase I + II) (Comitium - WH2SE)	Nancy Grossman

Wednesday, November 15

8:30 - 10:30 AM	**5) Recycler: kickers, slip-stacking scheme, RF systems (phase I + II)** (Black Hole – WH2NW)	Paul Derwent
	6) NuMI: target chase cooling, target and horns (phase I + II) (Snake Pit – WH2NE)	Mike Martens
	7) Management/Cost/Schedule/Strategy (phase I +II) (Comitium - WH2SE)	Nancy Grossman
10:45 – 12:45 AM	**8) Accumulator: transfer lines, momentum stacking, RF systems** (Black Hole – WH2NW)	Ioanis Kourbanis
	9) Radiation safety/shielding(phase I + II) (Snake Pit – WH2NE)	Anthony Leveling Kamran Vaziri
	10) Civil Construction (phase I + II) (One North – WH1W)	Dixon Bogert

Draft Breakout Assignments

November 14, (3:30 – 4:30 PM)	
1) Main Injector and Booster: RF system (phase I + phase II) (One North – WH1W)	**Stuart Henderson** **Erk Jensen** **Ali Nassiri**
2) Recycler: injection line, extraction line (Black Hole – WH2NW)	**Phil Martin** **Thomas Roser**
3) NuMI: primary proton line, decay pipe & hadron absorber (phase I + II) (Snake Pit – WH2NE)	**Tony Gabriel** **Sayed Rokni** **Yoshi Yamazaki**
4) Management/Cost/Schedule/Strategy (phase I + II) (Comitium - WH2SE)	**Greg Bock** **Karen Hellman** **Dean Hoffer** **Ed Temple**

Breakout Assignments (continued)

November 15, (8:30 – 10:30 AM)	
5) Recycler: kickers, slip-stacking scheme, RF systems (phase I + II) (Black Hole – WH2NW)	**Stuart Henderson** **Erk Jensen** **Phil Martin** **Ali Nassiri** **Thomas Roser**
6) NuMI: target chase cooling, target and horns (phase I + II) (Snake Pit – WH2NE)	**Tony Gabriel** **Sayed. Rokni** **Yoshi Yamazaki**
7) Management/Cost/Schedule/Strategy (phase I +II) (Comitium - WH2SE)	**Greg Bock** **Karen Hellman** **Dean Hoffer** **Ed Temple**

Breakout Assignments (continued)

November 15, (10:45 – 12:45 PM)	
8) Accumulator: transfer lines, momentum stacking, RF systems (Black Hole – WH2NW)	**Stuart Henderson** **Erk Jensen** **Ali Nassiri** **Thomas Roser** **Yoshi Yamazaki**
9) Radiation safety/shielding(phase I + II) (Snake Pit – WH2NE)	**Greg Bock** **Tony Gabriel** **Sayed Rokni** **Ed Temple**
10) Civil Construction (phase I + II) (One North – WH1W)	**Karen Hellman** **Dean Hoffer** **Phil Martin**

Report Outline/Assignments

Executive Summary	Ed Temple
1.0 Introduction	Dean Hoffer
2.0 Phase I	
2.1 Technical	
2.1.1 Booster Upgrades	Stuart Henderson Erk Jensen
2.1.2 Recycler Upgrades	Erk Jensen Phil Martin Ali Nassiri
2.1.3 Main Injector Upgrades	Ali Nassiri Stuart Henderson Erk Jensen
2.1.4 NuMI Upgrades	Tony Gabriel Sayed Rokni Yoshi Yamazaki
2.2 Civil Construction	Karen Hellman Phil Martin
2.3 Project Management	
2.3.1 Cost	Dean Hoffer All
2.3.2 Schedule	Dean Hoffer All
2.3.3 Management	Greg Bock Karen Hellman

Report Outline/Assignments (continued)

2.4 Charge Questions		
	2.4.1 Are the physics requirements that SNuMI addresses appropriately stated?	Stuart Henderson Thomas Roser
	2.4.2 Have these physics requirements been translated into accelerator technical performance requirements / specifications?	
	2.4.3 Are the design features of the defined elements of SNuMI documented in a Conceptual Design Report, Design Handbook, or other appropriate manner?	
	2.4.4 Are the prototype plans and decision paths appropriate for the less well-developed elements?	
	2.4.5 Do the elements of SNuMI address the performance requirements / specifications? Are the designs of these elements reasonable?	
	2.4.6 Has a Work Breakdown Structure (WBS) been developed?	Dean Hoffer
	2.4.7 Do the cost estimates for each WBS element have a sound basis and are they reasonable?	
	2.4.8 Is there a schedule for the project?	
	2.4.9 Are the activity durations reasonable for the assumed resources?	
	2.4.10 Has the schedule been “resource loaded?”	
	2.4.11 Has the schedule been developed with contingency or slack included?	
	2.4.12 For the less well-developed technical elements have decision milestones been included in the schedule?	

Report Outline/Assignments (continued)

	2.4.13 Is there an appropriate management organizational structure in place or proposed to accomplish the design and construction?	Greg Bock
	2.4.14 Have responsibilities been assigned or have they been proposed?	
	2.4.15 Is there a Project Management Plan outlining the organizational structure, summarizing the technical, cost and schedule (including milestones) baselines, and setting forth the change control procedures and reporting processes that will be used?	
	2.4.16 Are there adequate staffing resources available or planned for this effort?	
	2.4.17 Is there a funding plan available or proposed to meet the resource requirements to realize SNuMI?	

Report Outline/Assignments (continued)

3.0 Phase II	
3.1 Technical	
3.1.1 Accumulator Upgrades	Stuart Henderson Erk Jensen
3.1.2 Recycler Upgrades	Erk Jensen Phil Martin Ali Nassiri
3.1.3 Main Injector Upgrades	Ali Nassiri Stuart Henderson Erk Jensen
3.1.4 NuMI Upgrades	Tony Gabriel Sayed Rokni Yoshi Yamazaki
3.2 Civil Construction	Karen Hellman Phil Martin
3.3 Project Management (Cost, Schedule and Management)	Greg Bock All
3.4 Charge Questions	
3.4.1 Does the design concept for Phase II support the objective of delivering at least 1 MW beam power onto the neutrino production target?	Thomas Roser Stuart Henderson
3.4.2 Is the strategy for Phase II viable and does it support the implementation of Phase II in the timeframe presented?	Greg Bock Karen Hellman

Next Meeting

- Suggest meeting approximately 2 weeks before review
  - Potential time: Tuesday, October 31 from 3:00-4:00 PM