

LBNE Reconfiguration Engineering/Cost Working Group 6th Meeting

May 11, 2012

Present Committee Members:

- Jim Strait, FNAL (deputy chair)
- Mike Headley, SURF
- Elaine McCluskey, FNAL
- Vaia Papadimitriou, FNAL
- Bob O'Sullivan, FNAL
- Jeffrey Appel, FNAL (Scientific Secretary)

Present Invitees:

- Jeff Dolph (LBNE Systems Engineer) - today's secretary
- Jeff Sefcovic (LBNE project controls for CF)
- Jim Stewart (LBNE (former) WCD project manager and expert-at-large)
- Tim Wyman (LBNE Near Site CF)
- Bill Louis (LBNE Near Detector)
- Jan Boissevain (LBNE Near Detector)

Draft Agenda:

News from the Steering Committee and plans for the next 2 weeks (Jim Strait)

Brief reports on status of cost estimating - 5 (FIVE) minutes each

- Beam including conventional facilities for beam (Vaia)

- Near Detector (Jan, Bill)

- Far Site Conventional Facilities (Elaine)

- Far Detector (Jim)

Discussion of next steps

Meeting:

The docdb event for this meeting, which has references with many details of what was presented and discussed, can be found at:

<http://lbne2-docdb.fnal.gov:8080/cgi-bin/DisplayMeeting?conferenceid=500>

1. Discussion of agenda for May 22-23 meeting, Face-to-Face with Steering Committee
2. Steering Committee draft report discussion – Draft by Young Kee
 - a. Supporting documents including this WG report to be ~30 pages
 - b. We will include summaries of all configurations and references to docdb for details
 - c. Recommendations have not been asked for and will not be given
 - d. Marvin - How is the spokesperson's letter addressed with regard to uncertainty of cost estimates? Jim – we need clear direction by end of summer. Marvin – quantitative estimate of uncertainty is necessary. Jim – agree. Jeff A. – alternatives analysis is needed for CD-1, baseline cost by CD-2. Jim Stewart – uncertainties Jeff A. – must be careful to include all cost items
3. 5 minute reports from subprojects
 - a. NSCF – Tim Wyman - scenarios needed addressed by changes to Beamline CF. Bob O' is meeting with Tim and Mike to discuss how to roll in cost reductions.
 - b. Beamline – Vaia - partial credit had been taken earlier for remote handling. Other scenarios were discussed, Vaia's term is scenarios.
 - c. NDC – Bill Lewis – six options now being considered, three LBNE, three NuMI. Shown cylindrical LAr TPC in pit would satisfy all requirements ~\$15.3M. ND in pit basic option, high-pressure Ar in

steel cylinders ~\$8.5M and another very basic option. TPCT in MINOS ND Hall. Docdb postings cover all of these options and costs.

Discussion of magnetized options for NuMI beamline given certain features. Studies of advantages and disadvantages of ND options is not accounted for in GLOBES so no Physics WG accounting, but Bill to work with them to give input on ND options

- d. FSCF – Elaine - summary of cost changes since last week. UGI changes have been significant. All discussed items are in new posts to docdb. Cryo-building was missed in the reference design. Phases have been removed from documentation. Soudan costs may not be ready by next Friday, but will have very good sense of where we are. CM costs for MN estimate total approximately 19%, other U of MN considerations will be taken into account for all MN options. Continued email traffic concerning construction costs for MN, so still in development. Early Science costs need to be tracked as they relate to LBNE needs.
- e. FD – Jim Strait in lieu of Bruce - one cryostat vs. two within a cavern is not accounted for in spreadsheet, must consider over the next couple of days to account for LAr storage and LAr1kt for a 10kt detector. Also discussed VE items.

4. Jim Strait shows some current cost roll-ups