

LBNE Reconfiguration Steering Committee 2nd Meeting

April 11, 2012

Present:

Steering Committee: Appel, Bagger, Baltay, Feldman, Kim, Nelson, Shochet, Svoboda, Symons

Ex-Officio Members: Marx, Oddone, Ritz, Seestrom, Strait

Pier will speak to Siegrist, and possibly Brinkman after that to see if there is any guidance on what is expected on the subject of developing an underground laboratory for dark matter and/or double beta decay experiments at Homestake in response to the Brinkman letter.

The current expectation is to examine the estimates in the Marx/Reichanadter report to see if there is a stripped down version which could still be cost effective and of useful physics reach. Examples include other cavity ideas, upgradable (phased) solutions, etc. There is information available from a recent LBNE Project study for a 5 kT LAr cavern. A separate group will be empaneled to work on this in parallel with the existing working groups. Candidates for this new group include those who volunteered already (Lesko, Marx, Strait, Seestrom), Headley, and Sadoulet – with Ritz as an observer. Rick Gaitskell (Brown, Head of the DURA Executive Committee) also offered to help.

[Post meeting: Jim Siegrist does not wish for us to undertake a study of the path and costs associated with developing the Homestake site just for dark matter and/or double beta decay experiments. This would mean that we will not have the Homestake subgroup.]

A link to the Marx/Reichanadter report will be added to the Steering Committee web page.

There was a second discussion of the decision not to include an LBNE Phase 1 option of a far detector alone at Homestake (no new beam). There is significant interest in this option inside the LBNE Collaboration. However, Committee members from P5 and HEPAP reiterated the view, accepted by the research community and in the DOE and more widely in the Government, was that sensitivity to CP violation was driving support for any such project. Nevertheless, if the LBNE Collaboration has a preference for this option, or another option not currently in the list, the Collaboration can suggest such to the Steering Committee for further consideration. Pier and Young-Kee will attend the LBNE Executive Committee meeting scheduled for the next day to communicate directly with LBNE collaborators. Any proposal out of the LBNE Collaboration will have to be reviewed using the same parameters and costing criteria that are used for other options.

The Steering Committee asked that guidance be given relating 700 kW to a number of protons on target (POT) per year. NOvA was reported to use 6E20 POT, which uses a net 61% uptime percentage. [This number has now been confirmed for use.]