Facilities Subcommittee
Scope & Plans

Robert Zwaska
Fermilab

February 14, 2012
Fermilab Short Baseline Study Group

Status

- Group Members: Andre Rubbia, Bob Tschirhart, Richard Van de Water, Bob Zwaska
- Met once over the phone February 9
- Decided on scope and manner of gathering
  - Scope
    - What type of facilities?
    - What information?
  - Manner
    - Gathering by committee
    - Cross-checking internally and externally
- Data will be collected in the next month and compiled internally, checked externally
  - Bob Z is preparing a data template

Which Facilities?

- Concentrate on the capacity to make neutrinos – predominantly protons
  - Also cover existing neutrino facilities
- Understand the line between *Facilities* and *Options*
- Focus on active Neutrino Facilities
  - Fermilab, CERN, J-PARC
    - Others can be considered on request
- Consider recent past, present, planned, and potential machines
  - For example at Fermilab: 8 GeV program, 120 GeV program, Project X

What Information?

- First priority has to be to clearly document the facilities' capabilities in terms of the proton beam
  - Historical proton production statistics
  - Planned and Potential upgrades
  - Programmatic interactions
    - E.g. how much beam at CERn will be dedicated to LHC or other fixed-target programs

- Next priority is to detail a $1^{st}/2^{nd}$ order description of the existing/planned neutrino facilities
  - Simple descriptions of fluxes
    - Plus scheme for off-axis calculations
  - Some information on uncertainty
  - Narrative on available facilities and knowledge

Sources

- Subcommittee has experts on the primary facilities, at minimum:
  - Bob T, Richard, Bob Z on Fermilab
  - Andre, Bob T on J-PARC
  - Andre on CERN

- Bob Z will prepare a data entry template for gathering the necessary information
  - Internal experts will provide the data and cross-check among ourselves
  - Data will be sent to external experts at the labs or experiments for verification