

CO IR Review Recommendations

Magnets

- 1) Provide the required funds in FY2005 to allow purchase of long lead items (steel, sc cable, ...). (Committee Comment: Re-examine specification of the sc wire in light of recent experience with cable.)
- 2) Decide on configuration of the HTS leads and start the procurement process.
- 3) Provide the required technical manpower to develop the corrector and spool designs to the level required for the project baseline.
- 4) Identify the lead personnel for the magnet task, and define their responsibilities.

(Committee Comment: The plan to use the LHC collared coil design for the BTeV quads is appropriate.)

Accelerator Physics

- 1) Current lattice design should be used as the project baseline. (*ie, Don't review it again.*)
- 2) Continue dynamic aperture calculations.
- 3) Continue beam halo calculations and include detector sensitivities.
- 4) Do not use a new corrector coil design (*flatcoil*)
- 5) Make an analysis to determine field quality requirements of corrector coils.

Installation and Operation

- 1) Assess the possibility of implementing a better way to connect the magnets and spools than is done at B0 and D0.
- 2) Involve FNAL alignment group early in design stage.
- 3) Investigate HTS design to avoid tunnel hipot problems.
- 4) Assess the vacuum requirements of the beampipe in the C0 collision hall.
- 5) Include C0 analyzing magnets in future simulations.
- 6) Develop sufficient engineering designs so installation shutdowns can be well-planned.
- 7) Establish interlock enclosure boundaries.
- 8) Establish final names for magnets, power supplies, etc.
- 9) Involve operational person from Tevatron or Operations group.
- 10) Consider other possibilities at A4/B1 for replacing Q1/TSP.
- 11) Consider a completely new collimator installation at B48.

Schedule

- 1) Provide help to M Church in developing the IR schedule.
- 2) "Commissioning" scope needs to be revised to contain technical commissioning only.
- 3) Replacement of the Q1/TSP at A4 and B1 should be moved up in the schedule.

Cost Estimate

- 1) Continue efforts to complete the BoE, contingency analysis, and inclusion of cost estimate prior to upcoming CD-1 reviews.
- 2) Provide clear definition of which costs are included as part of the project baseline and which are funded from operating budget (*spares,...?*)

Management

- 1) Clearly define a CD-4 goal and final goal for the IR project.
- 2) Identify accelerator physics support as a level 3 WBS item and appoint a level 3 manager.