Friday 28 March 1997
K. Reece
RKR.

Minutes of Meeting: Radiation Safety Committee

Date: Friday 28 March 1997

Present: L. Ahrens, D. Beavis, A. Carroll, W. MacKay, Y. Makdisi, D. Phillips, K. Reece, R. Thern.

Subject: B1 Secondary Operation with ~ 5 GeV Negative Beam.

A. Carroll presented the proposal (attachment #1) for B1 operation using a negative beam of nominal energy of 5 GeV. [Another RSC review will be necessary if a proposal is later made to operate B1 using high momentum positive secondary beams or the direct primary proton beam]. For this initial period though, the ~ 5 GeV (-) secondary beam will be used by PHENIX, E926 (test) and E925 (p↑).

Referring to Alan's handout(attachment #1) and summarizing the operating conditions;

1. A "new" target (B1 Target) will be installed between B1D1 and B1D2 to produce the secondary beam for the B1 line users. This target will consist of 0.25" x 0.25" x 1.25" Al and will be horizontally adjustable. The exact location of this target will depend on the trajectory of the B primary beam as it is transported from the B target station to the B5 target station.

2. This "new" target (B1 Target) must be reviewed by the AGS Chief Mechanical Engineer and be able to withstand a focussed beam of 20TP, (**CK-B1-01**). This target should also be initially installed in the "fully retracted" position, (**CK-B1-02**).

3. From Alan's handout, item#11, if ~ 10% of the full intensity (20TP) B5 beam were to be intercepted by the "B1 Target", the resultant secondary beam intensity should be ~ 2 x 10^6/spill. The area classification is a Class IV area with a fault to Class III. A single NMC unit limiting the secondary beam intensity to ~ 1 x 10^5/spill (**CK-B1-03**) is appropriate for this area classification.

4. The upstream area will be swept and reset by HP/EAG, (**CK-B1-04**).

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5. The downstream experimental area will remain under HP/EAG control for sweep and reset for the initial operation of the area, (**CK-B1-05**). This can be reviewed later by the RSC.

6. The Current Limit of B1D4/D5/D6 power supply is NOT necessary for this run.

7. Chipmunks used for this run should be located as in previous B1 operation and documented on an area map, (**CK-B1-06**).

8. All chipmunks that are to be interlocking MUST have their "interlock devices" verified to assure that they operate on the B1 beam and not adjacent beamlines, (**CK-B1-07**).

9. A fault study should be conducted to explore possible prompt radiation along the perimeter of the experimental area (and the location of chipmunks) for mis-steering through the quadrupoles in the B1 area (B1Q3-7), (**CK-B1-08**).

Attachments:
#1. Negative ~ 5 Gev operating requirements, (**includes additional RSC Check-Off List items**).
#2. B1 Target design.
#3,4,5. B Primary cave, B1 secondary transport and B1 experimental area.

cc: RSC w/attachment #1 only.
RSC file w/attachments
D. Phillips