

DB

**Minutes of the AGS Radiation Safety Committee**

Wednesday, March 20, 1991

Present: A. Berdoz, D. Beavis, G. Bennett, R. Chrien,  
A. Etkin, J.W. Glenn, A. McGeary, F. Merrill,  
S. Musolino, W. Pemberton, K. Reece, H. Schmitt,  
R. Sukaton, F. Takeutchi

Subject: E813/E836 in 2 GeV/C Beam Line

The first discussion focused on unresolved issues from the previous meeting of December 28, 1990, and the proposed resolutions distributed (Attachment #1).

The following items are listed in Attachment #1:

1. Administrative limit of  $10^{13}$  protons/spill approved. A preliminary memo on Action Item 7 for long-term limits of primary beams discusses using present computer/instrumentation to assist operators in monitoring this limit and possible future solutions.
2. No interior gate approved.
3. The separators be operated with present procedures. Attachment #2 is a review of those procedures. These procedures do not allow for access in caves while the separators have high voltage. The access procedure for these caves will reflect this. However, the committee recommends that an appropriate procedure be developed for entering all separator caves with the high voltage on when necessary and certain well-defined conditions are met and then the access procedures to all separator caves be modified to reflect this option (ACT-015, R. Hubbard and D. Beavis).
4. It is recommended that if the downstream cave is downgraded to a radiation area during non-operational periods, that appropriate hardware be used such as pushbutton striker energize which H.P. could enable if the separators are disabled.
5. It is recommended that the experimenters take the appropriate standard training for entering primary areas for expediency.

6. Covered in Item #3 above.
7. Both NMCs downstream of D6Q9 noted and approved.

The next discussion followed the proposed interlocks on the beam line parameters as discussed in Attachment #3.

The following recommendations were made:

1. Provide for proper polarity states on D6D2, D6D3, and 48D48 either with microswitches or locks and tags. CK-D6-10.
2. Current comparator monitor relative current of D6D2 to D6D3. CK-D6-11.
3. Place a chipmunk in the area of D6D3 to provide protection of experimental target platform and associated floor areas. CK-D6-12.
4. If the 48D48 is allowed to bend the beam upward, that additional beam constraints (determined by fault studies) are used and appropriately logged on the check-out sheet.
5. That the current comparator, chipmunk and polarity interlocks only disable D6D1. CK-D6-13.
6. Fault studies be conducted to verify shielding and interlocks provide the appropriate levels of protection. CK-D6-14.
7. At present, because of the large possible pion intensities, there is no allowed sweep and securing of the experimental area by the user. If one is developed, an appropriate sub-committee can be convened by the Chair for review.

The committee discussed several issues related to the D line as discussed in Attachment #3.

Recommendations and comments were:

1. Wrong polarity in DD15 (2 degree bend) be protected by locks and tags or microswitches detecting the position of the polarity switch and interlocking as necessary. CK-D-10.
2. A chipmunk be placed on the trench near N13800. CK-D-11.

3. That due to limited resources, a current comparator not be placed on DD15 at this time if the chipmunk provides the appropriate protection for faults due to mis-steering.
4. The committee recommends the squeeze box be removed from the South D Gate and if possible (Life Safety Code allows) the labyrinth be completely removed (ACT-016; D. Beavis and E.T. Lessard).
5. Extensive fault studies be done to verify the existing transport shielding and the new beam dump. CK-D-12.

The conceptual design reports for the secondary beam dump (Attachment #4) and the primary beam dump (Attachment #5) were distributed to the committee.

Attachments (file copy only)

- #1 - Note from D. Beavis, unresolved items from the 12/28/90 2 GeV/c RSC Meeting, 3/18/91.
- #2 - E.T. Lessard, BNL Memorandum, 2/1/90, AGS Accelerator Systems Safety Review Committee, January 26, 1990 Meeting Minutes.
- #3 - Proposed Interlocks for the 2 GeV/c Beam Line Parameters.
- #4 - D. Beavis, AGS/EP&S/Tech. Note No. 134, Dump Me, Two: Beam Stop Design for the 2 GeV/c Beam Line, 10/18/89.
- #5 - D. Beavis, AGS/EP&S/Tech. Note No. 130, Dump Me: Beam Dump Requirements for a  $10^{13}$  Primary Beam, 7/6/88.

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