

Minutes of the AGS Radiation Safety Committee

Tuesday, January 29, 1991

Present: D. Beavis, G.W. Bennett, P. Braun-Munzinger,
H. Brown, D. Dayton, A. Etkin, J.W. Glenn,
E. Lessard, A. McGeary, S. Musolino, W. Pemberton,
L. Remsberg

Subject: Small Beams and Heavy Ions (E859 and E814)

The discussion centered on the handout prepared for the meeting (Attachment 1).

Small Beams

The committee recommends that S&EP be requested to consider if the definition of reduced dose equivalent can be extended beyond the present limitations. The memo from E.T. Lessard and J.W. Glenn dated December 1, 1989, will accompany this request and it will be sent after a few appropriate corrections have been made (ACT-10, D. Beavis and E.T. Lessard).

Experiment 814

The committee recommends that the interlocks for this area be upgraded for a Class I in-beam hazard. This will include:

1. Redundant door switches.
2. Several crash buttons (on the beam side opposite the crashable gates).
3. Two independent means of shutting down the beam. The committee would prefer to see C1D3 and C1D4 as independent shutoffs, but if this is not possible in a short time frame, then using C clearance as the second means would be satisfactory. However, if C clearance is used, this will require modification before the proton run.

Note added after the meeting. D. Beavis, H. Brown, and J.W. Glenn approved that the experiment be allowed to run until an appropriate time to install the upgraded interlocks. Should the experimenter need to gain access to devices directly in the beam path, then MCR must be notified to lock out C clearance.

The upgraded interlocks will be tracked as an Action Item (ACT-11, H. Brown and E.T. Lessard).

The present reset stations allow for only a 2 minute sweep which is not sufficient for this area and, therefore, the committee will not require them to be installed. Also, dramatic visual and audible warning devices are not available for this area. They are, therefore, not required for this area at this time. However, the sweep procedure will have the sweep team call out during the sweep of the area.

The committee recommends that hardware be examined that can provide for dramatic visual or audible warnings to a specific area and for reset stations with timing that is not limited to 2 minutes (ACT-12, E.T. Lessard and G. Bennett).

The requirement for the area to be fully enclosed is waived.

Experiment 859

The committee discussion centered on the prepared analysis of normal and fault levels for the requested running intensity of 4×10^6 Si ions/spill. The area will be rated a Class I area. The requirement for the area to be fully enclosed is waived.

The committee approved the increased running intensity with the proposed upgrade of the interlocks. Again, the dramatic visual/audible warning device requirement was waived due to lack of the appropriate hardware, but the sweep procedure will require calling out. A sub-committee of D. Beavis, A. Etkin, J.W. Glenn, A. McGeary, and W. Pemberton will review and approve the final interlock design. The committee suggested not putting the chipmunk in until fault studies are done. The committee requested that the low current fault in B1D4-6 be tested and the gate valve near the experimental target be struck.

Note added after meeting. The design was approved and installation and testing are complete (see interlock design review, 2/11/91, attachment) and the upgraded interlock logic attached.

Note added after meeting. Fault studies were conducted. As a result, a shield wall was placed on the east side of the beam line and an interlocking chipmunk on the west side and one on the east side near the experimental target.

It was noted for both E814 and E859 that it requires several minutes to energize the dipoles and introduce the radiation field to the areas.

Elevated Platforms

The committee recommends that various elevated platforms, walkways and stairs be examined to see if there are some locations where the distinction between a guard rail and an area radiation barrier may be confusing (ACT-13, W. Pemberton and E.T. Lessard).

Attachments (file copy only)

- #1 - Note by D. Beavis.
- #2 - ACT-010.
- #3 - ACT-011.
- #4 - ACT-012.
- #5 - Update B1B5 Logic Sheet.
- #6 - Interlock Review for B1.
- #7 - ACT-013.

mvh

minutes.mtg

Distribution: Radiation Safety Committee
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AGS Main Control Room