

Wednesday 12 July 1995

K. Reece

*KRR*

Minutes of meeting: Radiation Safety Committee.

Date: Wednesday 12 July 1995

Present: H. Brown, I.H. Chiang, A. Etkin, R. Hubbard, P. Ingrassia, D. Lazarus,  
E. Lessard, W. McGahern, A. McGeary, R. Miltenberger, K. Reece, C. Schaefer,  
D. Trbojevic, M. Vasquez.

Subject(s): E898 (NASA) in the A1 primary cave.

An E898 overview (attached) was presented by the E898 liaison physicist, D. Lazarus, providing many of the relevant items for review by the Radiation Safety Committee. The experiment was reviewed and conditionally approved (RSC Check-off List items in minutes) to operate by the RSC for the fall of 1995. Some of the considerations were;

1. This will be a dedicated run of for E898 in the A1 primary cave only; no other experiments will operate simultaneously, (2 weeks total:  $\sim$  1 week set-up +  $\sim$  1 week operation).
2. The AGS extracted Fe beam momentum will be 1.64 GeV/c/amu.
3. The repetition period will be 1.5 - 2.0 seconds.
4. There is no concern for airborne contamination for access to the area.
5. EAG will have 2 technicians on shift throughout the run.
6. 24 hour Health Physics (HP) coverage will be required for the duration of the run.

Most of the discussion focussed on access restrictions & procedures to the A1 primary cave. Conclusions include;

7. The present Sweep Procedure for the A1 primary cave will probably be used; P. Ingrassia will review this procedure and, if necessary due to configuration of the cave, etc., issue a modified Temporary Sweep Procedure for E898 only. The procedure will still require a two-man sweep of the area. [A1-E898-CK-01]
8. E898 will require frequent, brief access to the area; therefore, either an EAG or HP technician will be available at the A1 primary gate at all times to control the access in the standard Controlled Access log in/log out manner.
9. A temporary Procedure for Controlled Access to the A1 primary cave for E898 only will be written, (Ingrassia, Hubbard, Lazarus, Schaefer) [A1-E898-CK-02] including;
  1. the initial check by HP of the cave and if no unexpected residual activity is found, the requirement for HP survey of each access can be eliminated.

2. transporting target material from the experimenters trailer to and from the A1 cave, may lay down an absorbent "carpet" from trailer to gate to control spills.
  3. method used to turn off the AGS beam for access.
10. All experimenters requiring access to the A1 primary cave must pass Ring & Cave Access Training.
11. A1D7 (in the A1 position) will be the beam dump. Expected maximum possible residual activity at this location for immediate access should be 100 mrem/hr (Lessard). For normal operation however, this activity should be only ~ 10 mrem/hr.
12. The present means of allowing access to the A1 primary cave is either,
1. AD5-8 AND AD4&9 OFF and reversed, or
  2. Close the Booster TTB beamstops.
- since the experimenter needs to assure stability of the beam on target for many very short term exposures, the preferred method of allowing access would be the Booster TTB beamstops, leaving all the transport elements On and at set-point.
13. The transport of target material from Medical Department to and from the AGS (Bldg. 912) will be reviewed by R. Miltenberger and M. Vasquez. Expected levels of radioactivity in these samples should be 1 $\mu$ Ci/ml. All radiobiological waste will be returned to Medical Department for disposal. [A1-E898-CK-03]
14. Beam fault study measurements will be done at the A1 secondary beam port, the A3 cave beam port and the A1 primary gate, (normal operating conditions at highest expected operating intensity). [A1-E898-CK-04]
15. Chipmunks (interlocking) will be placed at the A1 secondary beam port and the A3 cave beam port. [A1-E898-CK-05]

A related concern was how to allow E864 access to their A3 cave while E898 is operating. The present security logic requires A1D7 to be in the A1 position (satisfied), A1D5/6/7 above minimum current and uses A1D3&4 as the critical devices. An RSC sub-committee (Lessard, Lazarus, McGeary, McGahern, Reece) has studied the cave element layout (attached) and one solution is to install shielding (~2 ft.) immediately downstream of A1D7 in both the A1 and A3 beamline (before A1Q5 and A3Q5 respectively). This additional shielding with the existing shielding from magnet steel should be adequate to allow the security system to be modified for this run, [A1-E898-CK-06] and restored to the original configuration for HEP operation. [A primary- HEP-CK-01]. Again, beam fault studies will be conducted prior to allowing routine access to the A3 cave with E898 operating. After the sub-committee provides their recommendations (mid-August), an RSC review of the proposed interlock logic must be completed as part of the E898 check-off list for start-up. [A1-E898-CK-07]

cc: RSC RSC file  
Attachments - File Only