

Tuesday 4 April 1995

K. Reece

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Minutes of meeting: Radiation Safety Committee, sub-committee.

Date: Monday 27 March 1995

Present: D.Beavis, H.Brown, R.Connolly, H.Kahnhauser, E.Lessard, K.Reece

Subject(s): Air contamination sub-committee recommendations.

The meeting agenda was to close-out recommendations from this and the previous (22 February 1995) meeting of this sub-committee. Several items are from the 22 February meeting but are re-stated here in a comprehensive note.

1. Modify AGS OPM 9.1.15 to include the following, (ACT_01_95, Reece).

5.8.1 In the beamline design for an area, reduce or eliminate regions where primary beam goes through air, (including after the primary target station).

5.8.2 Design targets and known loss points with close-in shielding in order to reduce hadron showers in air. The close-in shielding material should be reviewed prior to installations, (ALARA).

5.8.3 Liaison physicists should define expected beam efficiencies for a facility and/or beamline and develop methods to monitor (relative SEC's, Telescopes or Ion Chambers and area loss monitors) and control these efficiencies, (specifically in serial or sequential primary beamlines, eg. "C" primary to "C3" primary beamline).

5.8.4 Design "beam switches" such that beam interactions in air are minimized.

5.8.5 Refer to EP&S Tech. Note #136, "Activate Me" - D. Beavis, for air activation.

2. The sub-committee believes (without specific corroboration) that it is unlikely that a 3 ft² opening around the new AD2 dipole in the SEB Switchyard is responsible for a significant change in the air circulation pattern of the primary beam caves. In all cases, the connecting apertures to these primary beam caves are too small for any appreciable conductance of air into or out of these areas.

3. The "B" target downstream gate and the "C" target gate have both been identified as possible contamination areas in previous operating periods.

4. Primary target caves gates should be covered to eliminate these openings as air conduits.

5. S&EP has documented the predominant component of the contamination to be Carbon 11 and the documented levels are far below the DAC that would require respirator use.

6. AGS Operating Procedures should be modified (ACT_02_95, K. Brown) to specifically address the "C" to "C3" beamline transport and operation of the B5 beamline at high intensity.

1. C-line should not operate for extended periods with C3P1 OFF. To turn the C6/C8 lines "safely off", they should;

1. turn C3P1 OFF.
2. turn C6D1 OFF.
3. turn C3P1 ON (bringing the C3 primary beam back onto & through their primary target and into the primary beam dump).

2. If the B5 User turns off their B5 beamline, either;

1. reduce the B primary beam intensity to 2TP and ensure 100% targeting at the "B" primary target, or
2. remove the primary beam from the B beamline.

3. Operations and the respective liaison physicists should establish a maximum total loss (eg. % per TP) for each primary beamline using the Loss Monitor System. This includes Switchyard, A, B, B5, C, C3 & D.

This closes-out the RSC present review of the air contamination issues at the AGS facility.

cc: RSC
RSC file