Wednesday 5 March 1997
K. Reece

Minutes of Meeting: Radiation Safety Committee

Date: Tuesday 4 February 1997

Present: L. Ahrens, A. Etkin, W. Glenn, R. Heyder, E. Lessard, W. MacKay, A. McGeary, S. Musolino, K. Reece, T. Robinson, J. Rose, A. Stevens, R. Thern.

Subject: RHIC Sextant RF operation in "stand-alone" mode.

A sub-committee of the RSC met recently (ref: RSC mtg. minutes 2/26/97 and memorandum: Frankel to Etkin, et al., 2/27/97) to review options for operating the RHIC RF system (located in the 4 o'clock sextant) in a "stand-alone" mode, (Class II hazard). From a previous RSC review (ref: RSC mtg. minutes 1/15/97), the full committee had approved RF operation ONLY with the area completely secured and in the Beam Enabled mode.

In the sub-committee review, several options were discussed including operation in the "beam enabled" mode, "Controlled Access + RF ON" mode (operation from RHIC RF building), securing the entire sextant and securing only the RF area. Most of these options required changes to the existing PASS PLC software for implementation. Since, with a coding change to the PASS PLCs, the test procedures would also be required to be re-written and the 1004 PASS system completely re-tested, the sub-committee settled on a proposal (attached) that would leave the PASS PLC software unchanged.

<u>The RSC approved the proposed mode of operation for the RHIC sextant RF system</u> with the following recommendations and clarifications;

1. The chipmunk located at the 5GI2 gate (ALWAYS interlocking mode) would interlock at 2.5 mrem/hr and alarm at 0.5 mrem/hr.

2. Sweep and secure of the RF area would be done by the MCR Operations Group (including the EAG Watch).

3. Controlled Access (CA) would be permitted by a dedicated S&EP technician, (or MCR Operations Group personnel if necessary).

4. This dedicated S&EP technician must be trained by the Head of the MCR Operations Group (MCRH) in the relevant procedures.

5. There will be a limit of 4 persons allowed into the RF area under CA.

6. There will be a time duration limit for CA of 2 hours.

7. If either CA limit should be exceeded, or if the S&EP technician must leave the gate, the RF area must be dropped to Restricted Access (RA), (requiring a re-sweep prior to RF operation).

8. Only those identified on an RF Group list (provided by J. Rose) are permitted into the RF area under CA. If others require access to the area, the S&EP technician must drop the area to RA.

9. Those enterring the area under CA must have a film badge.

10. A limited number of others in the RF Group could be trained by the MCRH to act as "gate watch" ONLY. They can neither initiate the access nor re-secure the area for RF operation. This "gate watch" list (~ 3) will be provided by J. Rose.

11. The "gate switches" of the gates located in the area adjacent to the RF area (area 5C), can be bypassed (using RHIC ECN and AGS bypass apporval) to indicate they are ALWAYS closed. This is requested to allow personnel to work in the 5C area while the RF is being powered.

12. A complete functional test of the RF area gates must be done after the 5C area gates are bypasses.

13. The ATR Switching magnet and Y-arc power supplies must be redundantly LOTO OFF as long as the area 5C gate switches are bypassed, (W. MacKay, S. Musolino).

14. Sweep and Controlled Access procedures will probably require modification to permit this mode of operation, (W. MacKay, P. Ingrassia).

15. A check-off list must be completed prior to beginning RF operation, (W. MacKay, J. Rose).

16. An additional chipmunk should be placed near the RF cavity to both measure the radiation hazard once again and measure the attenuation (using the chipmunk located at the 5GI2 gate).

The committee raised a question for later consideration. That is the prompt radiation hazard possible from the HV separators and control of the areas where the separators are located when theyu are powered. K. Reece will try to find an answer from existing measurement data and if none is available, request these measurements be done and documented.

cc: RSC
RSC file.