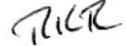


Thursday 1 December 1994

K. Reece



Minutes of meeting: Radiation Safety Committee

Date: Tuesday 22 November 1994

Present: L.Ahrens, D.Beavis, H.Brown, I.H.Chiang, A.Etkin, J.W.Glenn, D.Lazarus, E.Lessard, A.McGeary, S.Musolino, E.Njoku, K.Reece, A.Stevens, J.Spinner; A.Carroll, A.Stillman

Subject(s): 1. Integrating NMC's - A.Stillman  
2. C1 Beamstop - A.Carroll  
3. FEB zero degree port.  
Review of OPM section 9.1.\* procedures.

#### 1. Integrating NMC's.

Details of the changes made to the NMC's to allow them to be integrating rather than "peak detection" units were presented by A. Stillman. This modification will permit "beam intensity spikes" to not interlock the beamline given that the integrated intensity threshold is not exceeded. The committee had several questions;

1. What is being integrated ?
2. What is the transfer function between the PMT/scintillator and the integrator input ?
3. Is this integrator really proportional to beam rate ?

In order to more thoroughly understand this proposal, an RSC sub-committee was appointed to review additional bench tests and present their recommendations to the full committee; (L. Ahrens - chair, I.H. Chiang, A. Etkin, A. Stillman).

#### 2. C1 Beamstop.

A. Carroll reviewed the changes that have been made to the C1 beamstop (radiation estimates previously distributed). The external steel shield that was in place last run has now been removed but the configuration of the C1 (E850) magnet on their experimental platform has a significant amount of steel shield (8' pole piece + 8' in the pole piece support) and there is 4.5' of heavy concrete at zero degrees and outside the area. The committee approved the new configuration but expressed a few concerns;

1. The radiation levels on Thomson Road (at zero degrees) should be measured (CK - C1) when first operation of C1 begins at an energy of 12 GeV. Assuming standard 5% occupancy for roads and the anticipated running time, the annual integrated dose on this road should be less than 25 mrem.
2. The area outside the C1 experimental area (by the concrete shield) should be posted "Do not climb without notifying HP" (CK - C1).
3. The building manager and J. Spinner should be notified of this potential High Radiation Area at beam height (15') downstream of the C1 area (CK - C1).
4. The trajectory to the Collider Center should be documented.

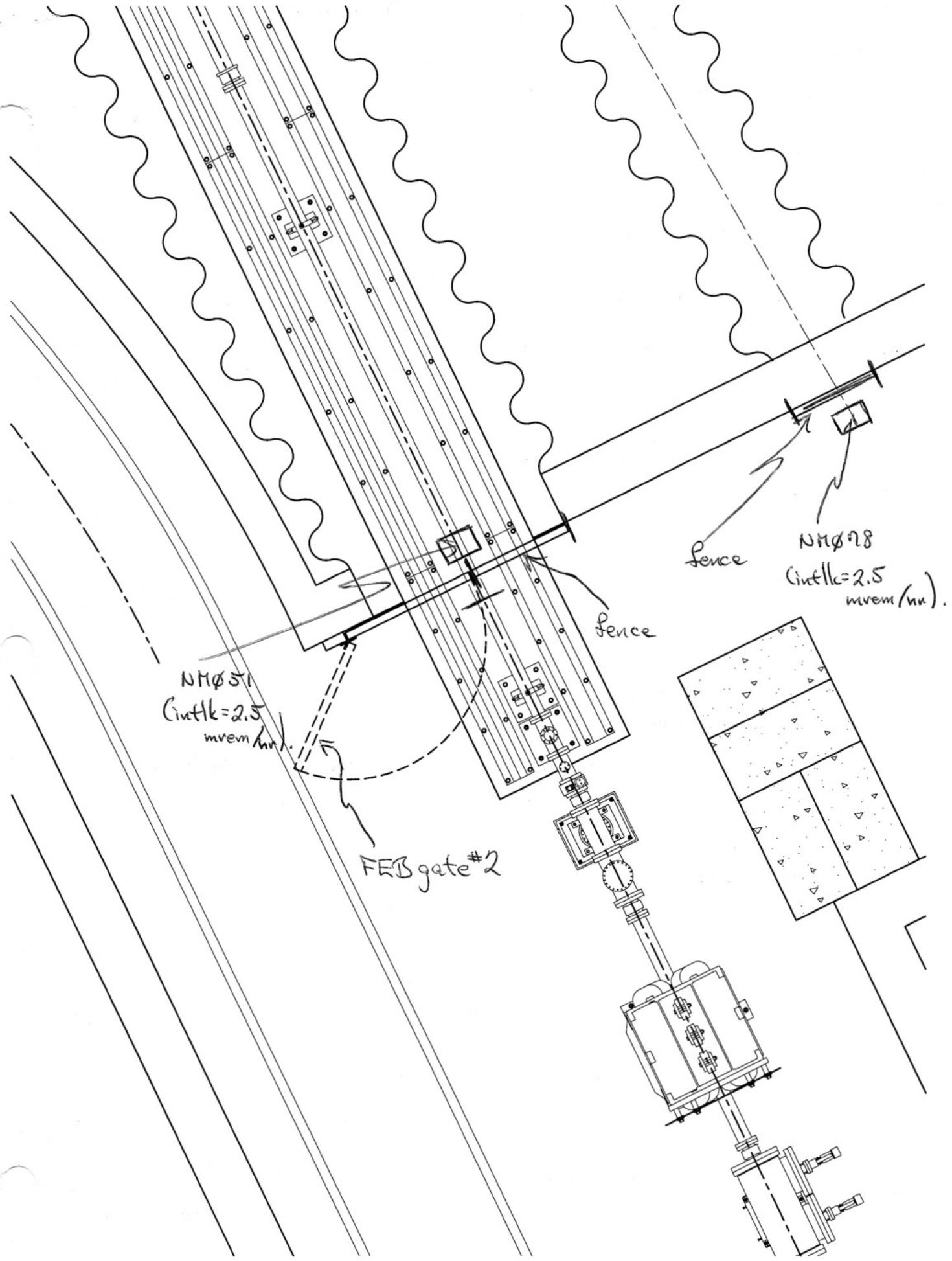
3. FEB zero degree port.

A request was made to allow access to the area immediately downstream of the FEB zero degree port during this FY95 operating period. The port will be fenced (drawing attached) and an interlocking chipmunk (NMO78) will be placed at the exit of this port (intlk = 2.5mrem/hr). The U-line FEB port has an interlocking chipmunk (NMO51, intlk = 2.5mrem/hr) and these should be sensitive to the same loss mechanism. The committee made the following recommendations;

1. The permanent fences at these ports have "security wire" threaded through to provide an interlock should anyone try to open the fence.
2. The fences should represent a "credible barrier".

4. OPM procedures 9.1.\*

The committee was reminded of their responsibility to review these procedures by 1 January 1995. The assignments have been made previously (attached).



Reminder / Please review  
& submit to Penny by  
Friday 9 December [1994]. Ken

Item #3:

From the recent off-normal occurrence in the AGS North Conjunction Area, the Radiation Safety Committee is responsible for the following corrective action. 11/23/94

Corrective action #3. Due January 1, 1995, Radiation Safety Committee, W.Weng, P.Pile, D.Lowenstein.

- a) The suite of Radiation Safety Committee procedures will be reviewed by the Radiation Safety Committee and a Definitions Section will be added to each procedure. Each procedure will be reviewed to ensure clarity and to define terms.
- b) Division Head or other line manager approvals shall be inserted into the Radiation Safety Committee procedures. This change shall be done in consultation with the AGS Department Chair.
- c) The advisory role of the Radiation Safety Committee will be emphasized in the revised procedures.
- d) Subcommittee members or reviewers shall have the necessary expertise and experience to effectively cope with the topic. Procedures shall be revised to ensure this requirement is met.

With this guidance, at least two Radiation Safety Committee members (outside expert permitted with an RSC member) were selected for each of these procedures (section 9.1.\*) for the formal review. As always, any RSC member can and should make suggestions for changes to a procedure but these comment should be directed to one of the formal reviewers for consideration.

- 9.1.1 - Njoku, Connolly, Glenn
- 9.1.2 - Beavis, Spinner
- 9.1.3 - Njoku, Trbojevic, Chiang, Reece
- 9.1.4,6,7,8 - Musolino, Reece (combine into one procedure).
- 9.1.5 - Musolino, Reece
- 9.1.10 - Spinner, Pendzick
- 9.1.11 - Glenn, Musolino, Njoku
- 9.1.12 - Stevens, Pendzick
- 9.1.13 - Etkin, McGeary, Spinner
- 9.1.14 - Lazarus, Musolino, Sims
- 9.1.15 Brown, Lazarus, Chiang
- 9.1.16 - Etkin, McGeary

Consistent with the present process for procedure review, the formal review of this set is due in 30 days from when issued.