

MACHINES AND AREAS COMMITTEE

summary of meeting No 3 (February 21, 1973)

Present : O. Barbalat (Secretary), M. Georgijevic, L. Hoffmann,  
J.H.B. Madsen, G.L. Munday (Chairman), G. Plass, K.H. Reich,  
Ch. Rufer, C.S. Taylor

1. Responsibilities and work programme of BR group

This topic is outlined in a note of K.H. Reich (MPS/BR/Note 73-6) which was discussed at the meeting.

This programme covers the next one or two years; the main tasks of the BR group are :

- completion of the PSB running-in,
- making the machine operational,
- running it for PS MD and physics sessions until routine operation can be performed by the MCR staff,
- studying improvements.

Experts from the other MPS groups will be invited to participate in the studies for the improvement or the design of PSB components (e.g. front clipper/slow chopper for the injection line).

An unsettled point is the fate of the portion of the 800 MeV transfer line from the shielding wall separating the 2 machines to the PS vacuum chamber.

So far it has been confirmed that :

- TIK 45 is taken over by the SR/Fast Kicker section (D. Fiander)
- The septum magnet 42 is under the responsibility of the SR/Auxilliary Magnet section (F. Rohner)
- The power supplies located in the Booster building are under BR responsibility.

Until the completion of the running-in, BR will keep the responsibility of the operational and beam optics problems necessary to achieve the production of a beam of adequate quality for the PS. The lenses are still under the responsibility of A. Asner and the vacuum system is with Ch. Rufer.

2. Booster operation

Because of the restrictions in Lab.I staff, the 6 posts initially

requested for the Booster operation have never been granted.

This creates a serious manning problem since in 1973 it is planned that in addition to the Running-In sessions, about 800 hours of Booster operation should be scheduled for PS MD and physics runs.

In the immediate future, the BR group will recruit two full time visitors, physicists/engineers, for a limited period (18 months). In addition, about 5 other engineers and 7 senior technicians from BR will be trained to do part-time operation during the present transition period. However, even if after the transition period, the routine operation is covered by the MCR staff of CO, a team of dedicated PSB operation specialists (as for the Linac) will remain indispensable.

The question was raised whether the CO group will be able to ensure in the future the operation of the Booster from the MCR without additional staff. It seems likely that at least one additional PSS specialised on the PSB will be needed.

### 3. Relation between Committees dealing with beam studies and their preparation

At the first meeting of CRASH (Combined Running-In And Studies Harmonization) (see MPS/DL/Min. 73-4), the terms of reference of this new body were discussed and in particular its relation with the Booster RIC (Running-In Committee) and the Linac-Booster co-ordination meetings.

A question of priority appeared at the first CRASH meeting (emphasis on producing a stable and reproducible 5 bunch beam from ring 3/ versus recombination studies). It was felt that in the future such conflicts would be less likely as the RIC objectives would be better known by the PS machine people and the RIC programme would automatically adapt itself with the input from MAC and CRASH.

Linac-Booster co-ordination meetings deal with more detailed technical problems of hardware design and do not appear to overlap with CRASH.

As to the Joint Working Party on beam quality, CRASH should set up the conditions to allow it to do its work.

### 4. Miscellaneous

- It has been decided to install DB4 in the Booster injection line, 1,5 m downstream of IBH1 at the next machine stop (see Minutes of 31.1.1973 meeting by T.R. Sherwood) unless new duly founded objection can be put forward. However its routine operation will have to be confirmed by MAC.
- The schedule for the  $\gamma$ -transition jump quadrupoles appears very tight. All the design decisions have now been taken and it is still hoped to have all the material available for July.
- The seminar on internal beam dumping will be organised during the week of March 12.

- L. Hoffmann expressed reservations as to placing the future external dump in the 62 ejection channel since this will be the main outlet for future 25 GeV physics. The problem requires obviously further study.

5. Items for future meetings

The order of priority among the items listed in the previous minutes was fixed as :

- 1) Low energy corrections,
- 2) Additional elements for flexible beam utilisation
- 3) Implications of SPS cycles and variable intensity
- 4) New pole face windings.

The Linac group will prepare a work programme for discussion similar to the BR group note (within 4 weeks).

The other items (tasks for the manipulator , radiation estimates, high intensity operation in the East Hall) are less urgent.

NEXT MEETING :

WEDNESDAY, MARCH 7 AT 14H30 MPS Small Conference Room
--

O. Barbalat

Distribution

PS scientific staff

/ed