

MINUTESOF THE FIRST JOINT MEETING ON STUDIES OF BEAM TRANSFERCPS - SPSFebruary 10, 1972

Present : C. Bovet, D. Fiander, A. Krusche, W.C. Middelkoop,
G. Plass, B. de Raad, E.J.N. Wilson.

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1. Fast deflectors for continuous transfer tests

D. Fiander reported on the progress made with the design and construction of these magnets and the associated pulse generators:

- the vacuum tanks for the magnets have been received and tests will begin within a few days,
- tests on a first magnet confirmed the design parameters; if no major difficulties occur on the vacuum tanks, and the appropriate straight sectors can be cleared by that time, the magnets can be installed in the PS during the week after Easter,
- partial tests of the final 11-step pulse generators are planned for March and the final units will be finished after mid April,
- judging from the present state of the project, ejection experiments could begin in May.

In the discussion it was found that the parameters of the fast deflectors contain some reserve for unforeseen: some 20% in the specified deflection, the circulating beam can be shaved to smaller dimension, and the last of the eleven steps (which is rather large) could be suppressed temporarily.

2. Preparation of MD studies

A. Krusche presented two notes, Draft from 20.12.71 and MPS/SR/MD 72-1, on the preparations in particular of instrumentation for the ejection studies in the CPS. All instruments required to start MD's will become available during March and April.

3. Repetition pulsing of FAK for bunch-by-bunch transfer

D. Fiander presented a series of measurements laid down in a draft by P. Pearce, dated 8.2.1972, which have been carried out on a fast charging supply by A. Brückner connected to a fast discharge circuit simulating the final load. The investigations are continuing.

4. Miscellaneous

- a) The CPS has had difficulties to maintain the remaining beam in the machine after ejection of a few bunches at 10 GeV/c as well as after ejection of more than 10 or 12 bunches at higher energy. These are for the moment thought to be due to the old beam control system. The phenomenon will be investigated with the new beam control system in the forthcoming months.
- b) It was mentioned that the transfer of less than 11 complete turns could be of interest, in order to leave a gap for the decay time of the main ring inflector field and because of the wish to have a gap in the beam (for beam observation, and to avoid possible electron instabilities).

Distribution:

Persons present

J.B. Adams
P.H. Standley
H.O. Wüster
C.J. Zilverschoon