

SCHEDULE FOR THE DEVELOPMENT OF SEPTA
AND THE NECESSARY VACUUM TANKS

From the commitments taken by MPS Division to supply the necessary ejection facilities and the Improvement Program results the following time schedule for the development of septa and the associated tanks:

1. For slow ejection to the West-Hall the following items have to be ready for installation at the beginning of 1972:

- a) A large aperture (30 mm vertical) slow ejection septum magnet (R. Keizer) with the associated mechanism for the movement and spares as defined by MPS/SR/Memo 70-5.
- b) A thin septum magnet (R. Bertolotto) and the necessary vacuum tanks (B. Szeless) including spares.
- c) An electrostatic septum (C. Germain).

For items b) and c) preliminary specifications are expected for mid 1970, which will allow to start the construction.

2. At the same time (beginning 1972) another unit of the thin septum magnet 1b) and tank might be installed for the East-Hall slow ejection (if one unit is not sufficient for both ejections).

3. At the beginning of 1973 new fast ejection septum magnets with large aperture (R. Bertolotto) should replace the existing magnets in SS 58 and SS 74 to allow fast ejection of high intensity proton beams. These necessitate new tanks (B. Szeless).

4. After a final decision on slow ejection to the East-Hall a large aperture slow ejection septum magnet and vacuum tank will have to be installed in 1974.

Though precise specifications for the required vacuum tanks are not yet available, the main design objectives can already be defined:

- 1) Exclusive use of metal joints and bellows.
- 2) Possibility of mounting a septum magnet with a total length (excluding the miniscanners and fluorescent screens, which could be mounted between the main magnet coils) of approx. 1 m.
- 3) The tanks with associated mechanism for FE septum magnets, SE thick septum magnets and thin septum magnets should be the same, where possible, and the construction as far as ever possible similar to the construction of the tank in SS 16 (even if the structure be somewhat heavier than necessary). It will be tried to find a place for the thin septum magnet where installation from the outside of the ring is possible.
- 4) It should be possible to align the septum magnets with the necessary precision (without the help of the surveyors?) in the laboratory in such a way that no further alignment is necessary in the ring in the case of the replacement of a septum magnet.
- 5) Special tools for fast mounting of the magnet and the support should be part of the project.

D. Bloess

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