

Minutes of the SE 16 Meeting on 22.12.1971

<u>Present:</u>	O. Barbalat	U. Jacob	M. Reinharz
	R. Bertolotto	R. Keizer	P. Riboni
	D. Bloess	H. Koziol	F. Rohner
	K. Braun	J.H.B. Madsen	C. Serre
	P. Brummer	P. Mann	S. Turner
	D. Dekkers	A. Millich	R. Tinguely
	J. Gruber	G. Plass	W. van Cauter

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A. Millich left the MPS. His duties (instrumentation, controls) will be taken over by C. Serre (J.H.B. Madsen).

Dipoles and their Power-Supplies

The dipoles for orbit deformation in s.s. 83 and s.s. 85 will be installed in the PS during the shut-down (s.s. 80, s.s. 82, s.s. 88 and s.s. 90) (F. Rohner, P. Riboni). A Tekelec supply will be used to pulse these dipoles (F. Rohner, J. Gruber). For the orbit deformation in s.s. 16 the Heritier supply is now ready and will come into operation after the shut-down. However, the existing supply will be available as back-up for 6 month. A 30% decrease of current, when passing from FE to SE is probably not possible with the Heritier supply. An additional capacitor discharge supply might be the easiest and cheapest solution. (J. Gruber) A final decision has to be taken early next year.

The Semi-Quadrupole (SQ) will be placed in s.s. 53 and will be pulsed with a Tekelec supply (F. Rohner).

The Booster Quadrupole (BQ 23) will be powered with a Tekelec supply or with an F 300 supply.

The Electrostatic Septum (ES 83) will be installed during the shut-down (~ 25.1. due to delay of vacuum chambers). It will be equipped with a mini-scanner. Everything including mini-scanner and HV supply will be ready at the end of the shut-down (R. Tinguely).

The Thin Septum Magnet (TSM 85) will be installed on ~ 15.1. in the PS. The foreseen Toposcope will only be ready in April. It is very important to have a mini-scanner (old) and TV screen available for the first ejection tests. The mini-scanner and screen have to be mounted before 15.1. (M. van Rooy). High priority was given to this item (J.B.H. Madsen, G. Plass). The power supply (SPG II) will be ready (D. Bloess) as well as power and control cables (H. Reitz) and cooling water (W. van Caüter, K. Braun). Only the heat exchanger will have some delay. However, this item is not important for SE 16 tests. To improve the vacuum and keep the pumping-down time short, the TSM has to be heated up before installation (P. Riboni).

The Ejector Magnet (SM 16) is ready for installation in the PS on 24.1. (R. Keizer). A mini-scanner and TV screen should be installed on the magnet before that date (M. van Rooy). P. Mann pointed out that a check of the alignment of the SM 16 should be carried out before installation. Also the SM 16 has to be heated up to get quickly a good vacuum. The capacitor discharge power supply (SMIT II) and the present septum magnet will stay available until a spare slow septum is ready. The spare septum magnet will be mounted on the present spare mechanism (now equipped with a spare fast septum magnet). The power supply for the SM 16 (SPG 1) will be ready at the end of the shut-down (D. Bloess). However, the 10% increase in current between fast ejection and the following slow ejection will not be possible before June. Cables (H. Reitz) and water installation (W. van Caüter, K. Braun) will be ready at the end of the shut-down.

Instrumentation and Control

As already mentioned, the toposcopes on TSM 85 and SM 16 will not be available before April. The same is true for the toposcope in the external beam (for emittance measurement). At the beginning mini-scanners and TV screens will be hopefully available on TSM 85 and SM 16. The Varian function generator will be ready for SE 16 in the middle of March (C. Serre). Until then the Tecelek power supplies can be controlled by manual controllers (J. Gruber). 10 special beam loss monitors will be installed in the PS during the shut-down (C. Serre). All instrumentation provided by ISR will be installed in the external beam line during the shut-down, but the associated electronics will not be ready before the middle of March (S. Turner). Priority should be given to the split-foil monitor electronics which will be used for servo-spill. Computer control of SE 16 can start in April (C. Serre). Acquisition by computer of the positions of septum magnets and electrostatic septum are already available. Current acquisition for SPG 1 (SM 16) and SPG 2 (TSM 85) will be ready after the shut-down, acquisition of high voltage of ES 83 will be available in April. For the servo spill the elements are in the PS. A power-amplifier exists. It has to be found out on which elements to attack best. C. Steinbach will take over the servo-spill problem from G. Shering, who left the MPS (J.H.B. Madsen).

Decision on a modification of the HB 101 and HB 102 supply, in order to compensate for the 0.5% momentum change during the spill, will be taken after some experience on SE 16 has been gained during MD's. This modification can only be carried out during a non ISR-time.

Schedule

Start-up of SE 16 is scheduled for the beginning of June (unchanged with respect to earlier indications). It is therefore essential to begin all MD's for SE 16 soon after the shut-down, as soon as the machine works reliably (O. Barbalat, D. Dekkers, G. Plass).

There appeared a conflict of priority between the development of a target for the Booster and the development of toposcopes or at least mini-scanners for SE 16, which are essential for MD's. In view of the tight overall schedule, priority must be given to providing observation equipment for SE 16 (J.H.B. Madsen, G. Plass).

D. Bloess

Please contact me immediately if any problems turn up during the shut-down, or if you discover that something has been forgotten somewhere.

Distribution:

A. Asner	P. Brummer	W. Kubischta	H. Reitz
O. Barbalat	A. Burlet	H. Koziol	P. Riboni
H. van der Beken	D. Dekkers	J.H.B. Madsen	F. Rohner
R. Bertolotto	C. Germain	P. Mann	C. Serre
E. Boltezar	J. Gruber	G. Merlo	G. Sherring
D. Boussard	L. Henny	A. Millich	P.H. Standley
K. Braun	L. Hoffmann	G.L. Munday	Ch. Steinbach
G. Brianti	U. Jacob	D. Neet	B. Szeless
L. Brouwers	C. Johnson	G. Plass	R. Tinguely
E. Brouzet	R. Keizer	M. Reinharz	S. Turner
			W. van Cauter
			M. van Rooy