

SUMMARY RECORD OF THE 3rd MEETING OF TICTAC HELD ON 23.2.1984

Present: G. Benincasa, V. Chohan, D. Dekkers, H. Horisberger (Chairman), R. Horne, E. Jones, F. Malthouse, J.P. Quesnel, L. Rinolfi, J.C. Schnuriger, T.R. Sherwood, A. Sullivan, A. Susini, F. Völker

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Agenda

	<u>Action</u>
1. <u>Record of the Previous Meeting</u>	
1.1 <u>Correctness</u> No corrections to the record were received.	
2. <u>New ACOL Lattice</u>	
2.1 It was noted that the latest lattice put out by B. Autin and checked by R. Sherwood had been given the number 84-05. It had not yet been drawn pending an appraisal by J. Vlogaert of the dipole parameters.	
2.2 Lattice 84-05 will be traced on the floor of hall 193.	J.P. Quesnel
2.3 The difference between lattices 84-04 and 84-05 were indicated by L. Rinolfi (copies of transparencies herewith attached). 84-05 has a higher η so that power in the cooling systems placed in the $\alpha_p = 0$ region is minimized. Both these lattices have the same geometry as 83-12 and in the $\alpha_p = 0$ region maintain the difference between AA and AC axis at 1786 mm.	
2.4 The numbering system of the ACOL elements will be reviewed and a firm proposal made at the next meeting.	H. Horisberger B. Williams
3. <u>Status of Magnet Design</u>	
3.1 The quantity of ACOL magnets required was listed by L. Rinolfi as follows: Dipoles BHN - 8 BHW - 16 Quads QN - 26 QW - 28 Special quads for injection region - 2	
3.2 RAL has completed quadrupole design. The relevant specifications would be out for tender by March 5th. Copies of these specs. would be distributed to all TICTAC members. As well as the design of the quads and their vac. chambers RAL would ensure the manufacturing follow-up. Magnetic measurements would be made at CERN.	
3.3 Bending magnet design would be made by CERN (SPS) where the magnetic measurements would also be made. The question of where the bending magnet vac. chambers are to be designed remains to be answered.	
3.4 R. Sherwood raised the point of allowing an extra 18 mm in the BHN width for S. van der Meer's new scheme of cooled ejected beams.	
3.5 Vacuum chamber problems for the quads would be investigated by F. Malthouse.	F. Malthouse
3.6 The present lattice scheme needs 3 power supplies for the quadrupoles (QF, QD and special) and 1 main and 1 Trim for the dipoles. However, the closeness of the required currents in the QF and QD led to a proposal by F. Völker that QF and QD have the same power supply with a Trim. This is to be further studied, as will their future emplacement.	F. Völker

3.7 Eventual quadrupole cost estimates will determine the policy of motorising or not the support jacks.

4. Injection/Ejection Lines

4.1 R. Sherwood proposed that it may be possible to complete the necessary modifications, etc. for the ejection from AA to PS before the long shut-down for AC installation. This proposal will have to be looked at again later in the light of overall planning.

4.2 R. Sherwood gave the latest details on the injection line design (after the target). At least one new quadrupole would be required after BHZ 72 and a special coil is foreseen for BHZ 72.

The present proposal minimizes the number of elements but associated radiation problems remain to be resolved (e.g. mods to adjacent wall).

R. Sherwood
A. Sullivan

4.3 The ejection line optics are not complete but engineering problems are apparent at the point where the ejection line passes under the AC.

4.4 R. Sherwood was asked to indicate at the next meeting the total number of magnets for the injection and ejection lines: power supplies, etc.

R. Sherwood

4.5 For the problem of 1/2 quadrupole positioning R. Sherwood suggested that a solution with one element containing two 1/2 quads and one common mirror plate, might be studied.

5. New Service Building

5.1 H. Horisberger presented a diagram showing the position of the new fence that separates the new building site from the Hall 193. This fence would be completed prior to late AA start-up.

5.2 The HV cables running between buildings 193 and 366 had been re-routed to obviate their previous position on the site.

5.3 The question of power distribution to the new building is being studied.

5.4 A question to be soon resolved is where will the stochastic cooling power amplifiers be sited ?

6. Choice of Position for Re-bunching Cavity

6.1 A. Susini outlined the requirements for this element. It was hoped to recuperate some components from the ISR, and it was expected that with Regie Draughting assistance a cavity will be available this year.

6.2 It was decided that this cavity would be placed in the section between QFN26 and QDN 27 (old numbering scheme).

7. Miscellaneous

7.1 It was reported that the requested layouts showing the position of cable trays, pipes, etc. on the walls of the hall had now been completed.

8. Next Meeting - Thursday 15 March 1984 at 14.30 h in the Large PS Conference Room.