

Notes on the Linac Running-In Committee Meeting No 2

May 11th, 1959

1. Log Sheets

New forms for Injector and Tank I have been prepared.

Injector log sheet will be used as soon as HT can be applied on the column; but recording of pulses shapes will not be possible until monitoring scopes are installed on the HT platform.

Tank I log sheet has been established in order to fit either the operation of tank I only or of tank I together with tank II (with tank II log sheet in addition).

Another form will be made for the vacuum system and accelerating structure (PHS).

1 Desk 3 Stools 2 Filing Cabinets have been delivered to the linac control centre.

Information about photocopying machines has been obtained from Dopping-Hepenstal. The type which was recommended is in use by Mme Blachère; several others exist in CERN. The machine cost SF 985 less 5 o/o. Each copy (positive and negative) costs 40 centimes. A lower price per copy could perhaps be obtained for big quantities by placing orders directly in Germany.

The machine could be put in one of the small offices or huts near the linac control centre either downstairs or upstairs.

PL will ask Adams's permission to order that machine.

2. Progress

a) F. James reported on low power measurements on tank I.

E_z has been adjusted to the theoretical curve.

The corresponding $H\phi$ on the wall then increases 23 o/o from input to output.

Q has been found equal to 61.000 and loaded Q to 26.000.

Matching is satisfactory (slight overcoupling).

Monitoring loops have been calibrated.

Field flattening and Q measurement had to be done twice. The first time, frequency was slightly shifted and Q reduced to half its value. It looks as if there had been a parasitic contact in the reflectometer. Temperature can also have been changed when water circulation was put.

A short note will be issued.

b) Quadrupoles have been tested with H.T. These tests were satisfactory.

c) U. Tallgren reported on Ion Source tests. These tests have been made without H.T. : control rods to the platform have been changed during the week and it was not possible to apply H.T.

For the same operation conditions of the source (same RF level, extraction voltage, H_2 pressure) the current was the same. However the current pulse shape was a little less stable than in the laboratory. This shape looks to be very sensitive to the pressure and the vacuum in the column (of the order of $8 \cdot 10^{-6}$) oscillates when this pressure variations is not known but it looks to be correlated with the changes in current pulse shape.

To reduce the sensitivity of the current to pressure, the RF level has been slightly increased and the RF circuits slightly detuned resulting in somewhat less output current (50 mA) but more stable.

Lens has been connected and tested on HT.

d) C. Taylor reported on tests performed on tank II.

There is no evidence of any change in the behaviour of the tank with

water circulation or when the quadrupoles are excited. Air pressure can also be raised up to $80 \cdot 10^{-6}$ without any appreciable effect.

A note will be issued on RF tests on tank II (CT).

3. Programme

I Week - 11/15.5.1959

- a) Pumping of Tank I
 - Final cleaning
 - Closing and pumping
 - Leak detecting
- b) Quadrupoles adjustments and tests
- c) Ion source tests with HT.

As soon as tank I is closed, the measuring and focusing equipment will be installed between column and tank I. This equipment will be tested and used for the measurements on the beam.

- d) Repairs on tank II
 - Air leaks
 - Water leaks
 - Short and open circuit on quadrupoles.

II Week - 18/22.5.1959

- a) RF tests on tank I
- b) Ion source tests (continued)
- c) RF tests on tanks I and II.

III Week - 25/29.5.1959 (provisional)

- a) Beam acceleration at 10 Mev
- b) Beam acceleration at 30 Mev.

4) Next meeting

Next meeting will be held on Tuesday May 19th, 1959, 11 am.

P. Lapostolle.

PL/ac.

Distribution : (closed)

Parameter Committee

MM. Bramham	MM. Kracht	MM. Standley
Hereward	Lapostolle	Tallgren
Huguenin	Marsicanin	Taylor
James	Montague	Vosicki.