

Notes on the Linac Running-In Committee Meeting No 5

June 2nd, 1959

Present : H.G. Hereward - F.H. James - P. Lapostolle - B. Marsicanin -  
P.H. Standley - U. Tallgren - C.S. Taylor - B. Vosicki.

1. Log Sheets

The copying machine has been ordered.

A new set of log sheets for RF in tanks I, II and III including phase bridges and servo-tuners will be prepared and discussed at the next meeting (F.J.).

On the ion source log sheet HT indication voltage and current will be added.

Another log sheet will be prepared for focusing and beam measurement (B.V.).

2. Progress

a) Ion source

Ion source has been dismantled, cleaned, and reinstalled. Now it works again but at a lower level to start with (about 25 mA).

The glass of the source was slightly brown.

A small bead of glass has been put at the end of the anode connection to prevent bombardment of the metal by fast electrons coming from the column. The cleaning of the source took less than a day.

As soon as a spare source will be ready it should be possible to replace

the source and pump it down in about one hour.

Spare source and spare equipment for the laboratory are being prepared; they will be ready in August.

b) R.F.

For one afternoon the breakdown situation in tank I has been rather bad but was good again the following day and is still good since that time.

The HT stability is not perfect in the modulators; a modification will be made to have them working on their nominal maximum rating.

On Friday May 29th it was possible to accelerate 200  $\mu$ s protons up to 30 Mev.

The drive amplifier modulator cable should be shielded to reduce pick up on beam current transformers.

c) Servo-tuners

Calibration of the servo-tuners on tanks I and II has been made and found satisfactory. But the stability, particularly on tank I does not look to be good. The shapes of the pulse envelope, direct and reflected waves change. It can come from instabilities in voltage of the F.T.H. modulators especially on tank I which is run at a lower level. It could be improved by reducing input level on F.T.H. amplifier and increasing modulator voltage.

3. Programme

I Week - 1/5.6.1959.

a) RF

- Tilting experiments on tank I and tank II, RF amplitude and phase being adjusted around optimum.
- Put servo-tuners in order.

b) Ion source

- Repair solenoid lens and vacuum leaks, between column and linac.

c) Health physics

- Monitoring radiation level with 30 Mev beam.

II Week - 8/12.6.1959.

a) RF

- Servo-tuners adjustments (continued).

- Measure curves of output current versus RF amplitude and phase in tanks I and II (tilting and focusing being kept constant).

b) Ion source

-- Repair solenoid (continued).

c) Test on pulsing in conjunction with RF computer pulses (P. Germain).

III Week - 15/19.6.1959.

a) Ion source and beam

- Focusing tests on the ion source and linac.

- Emittance measurements of the source.

b) RF

- Collect information on stability.

IV Week - 22/26.6.1959.

a) Focusing tests in the linac

b) Acceptance measurements.

4. Next meeting

On Tuesday June 9th, 1959 at 10.30 a.m.

P. Lapostolle.

PL/ac.

Distribution (closed)

Parameter Committee - Machine Operation Committee -

MM. Bramham	MM. James	MM. Marsicanin	MM. Tallgren	(Linac control centre file).
Hereward	Kracht	Montague	Taylor	
Huguenin	Lapostolle	Standley	Vosicki	

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