L4-BCC-Actions 8 September 2009

Linac4 Beam Coordination Committee – Actions, Status 25 August 2009

1. Status and test programme of the ion source (Meeting 1 - 20090602)

Action: For clarity, the BCC requests to supply a schedule on the source commissioning and production of beam, and to present it at one of the forthcoming BCC meetings until September **(D. Küchler).**

2. Status and upgrade options for the 3 MeV chopper (Meeting 2 - 20090616)

Action: Study where unchopped bunches will be exactly lost and provide phase space plots. **(A. Lombardi)**

3. Design of EMQs for the CCDTL inter-tank area (Meeting 3 – 20090825)

Action: Clarify the reference for the flat top stability. (**Th. Zickler**)

Action: A new iteration for longer magnets in the PIMS area shall be undertaken. A. Lombardi provides the aperture and good field region required. Th. Zickler provides the required length. A. Lombardi verifies beam optics with the new magnet length. (**A. Lombardi, Th. Zickler**)

Status: done; parameters integrated in the new design. (Th. Zickler)

Action: Th. Zickler and D. Nisbet need to find a compromise in the magnet and power converter specifications. (R. Maccaferri, Th. Zickler, D. Nisbet)

Status: done; already included in the new design as presented at BCC-5 (Th. Zickler)

Action: M. Vretenar proposes to have another meeting on the same subject in a month's time where the results on all actions shall be discussed. (BCC, R. Maccaferri, Th. Zickler, D. Nisbet)

Status: done; see BCC-5.

4. Design of PMQs for the CCDTL inter-tank area & consequences for beam dynamics (Meeting 3 - 20090825)

Action: Analysis of beam transport with increased longitudinal emittance (**A. Lombardi**).

5. Test results of the distributor pulse generator (Meeting 4 - 20090908)

Action: M. Vretenar requests that the transmission of partly chopped pulses in the Linac4 shall be checked (**A. Lombardi**).

6. The Linac4 pre-chopper (Meeting 4 - 20090908)

Action: It shall be checked if the pre-chopper could create the required distributor gap and what would be the neutralisation in the LEBT in that case. (**R. Scrivens**).

Action: Operation without chopper using the pre-chopper and other means of beam shaping (source modulation, head and tail dumps) shall be studied. (**M. Vretenar**).

7. Integration of the intertank areas (Meeting 5 - 20091006)

Action: The interference between magnets needs to be simulated (**T. Zickler**).

Action: It shall be checked if a common steerer design can be found (T. Zickler).

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Action: A table on intertank spacings is to be kept up-to-date (R. Maccaferri).

8. Linac4 Pick-ups: Position, Intensity and Phase (Meeting 5 - 20091006)

Action: The specification parameters have to be corrected (L. Søby).

9. Intertank areas: Discussion (Meeting 5 - 20091006)

Action: The scheme in the PIMS intertank areas needs to be verified (K. Hanke).

Status: done; R. Maccaferri has sent around an updated scheme, that was verified and accepted (K. Hanke)

Suitbert Ramberger