

Accelerator complex status

End week 25 (Sunday 22nd June 2014)

TI (Jesper Nielsen)

<https://wikis/display/TIOP/2014/06/16/TI+summary+week+25%2C+2014>

Still a very, very busy week, but fortunately no incidents worth mentioning!

LEIR (Michael Bodendorfer)

ABT, CO, BI and RF have finished their dry runs in the LEIR machine. Minor open issues with controls and BI exist and will be attended as soon as possible. We see no show-stoppers so far. Next week, commencing with June 23rd, we will start the cold checkout with the generation of two new Ar cycles from CCC.

For your information, the LEIR visitors observation platform will be closed from June 30th after the last guided visitors tour is finished. From then onwards the observation platform will be locked and bolted until the radiation protection group, RP, releases a statement that the radiation level is low enough for visitors, with Ar beam in LEIR. We will ask for the beam permit on Monday, June 30th after closing the LEIR platform.

Booster (Elena Benedetto)

For the PS Booster, the week was characterized by few hardware issues, the setting up of the beams for the PS and increasing the intensity in the PSB, plus a lot of debugging and commissioning of controls, instrumentations and RF.

Two major hardware issues:

- The week started with a problem on BT.BHZ10, i.e. it was not possible to pulse it with the correct value to send the beam to the PS. It was suspected a grounding problem and indeed a magnet inspection on Monday afternoon revealed a short-circuit between the lower coil and the thermal switch. The beam was stopped for the night.

On Tuesday morning the intervention to repair the BT.BHZ10 took place and the beam was back in the afternoon.

- On Friday afternoon, the MPS tripped several times because of a temperature problem on QDE41. After few hours and a lot of phone calls to get all the EDH signatures (thanks Marc Tavlet and Rende for help!) finally A. Newborough and P. Tonet could enter the machine in Special Permit mode with MPS pulsing and saw that one of the water circuits was blocked because the temperature was too high. They decided to consign the MPS and purged the water circuit. In the night the MPS was in fault once more, again because of the QDE41 temperature. To avoid further trips, the operator cleaned up the Supercycle. One more MPS trip on Sunday afternoon, again cleaning the Supercycle helped. To be followed up on Monday morning.

Beams:

- On Thursday evening, the PS got its first beam.
- The setting up of the large emittance beam, which is needed for tune scans in the PS before the realignment, is ongoing.
- During the weekend, the beam intensity has been pushed up to 8 turns, injected with 70% efficiency (good) thanks to improved injection steering. Capture still needs fine tuning. Accelerated up to 470×10^{10} protons even through the well-known instabilities along the ramp. Extraction difficult to optimize steering with only the Oasis signals available for the extraction pickups.

PS

First (real) beam on Friday – debugging, setting up for alignment over the weekend.