

End Week 49 (December 13th 2010) – Status of Accelerators

All machines in shutdown except CTF3

Linacs (R. Scrivens)

Linac 2: The door and opening for the beam pipe from linac2 to linac4 are done, with the hole through the second shielding wall foreseen after Christmas. Work is progressing. The schedule is very tight to be ready to close the machine at the end of January, but still on track.

Linac3: -

PS Booster (J. Tan)

- Magnet patrol on 2/12 (a few bus bars moving, shims problems, one water leak)
- H.V. test on 6/12. OK
- machine open since 7/12 afternoon (RP survey normal);
- cabling in BCER in progress;
- quite a lot of interventions around instrumentation this year : semgrids, PU, BLM, FWS.
- Ion distributor won't be removed this year
- Maintenance on PFNs finished

Safety inspection took place this morning. A few minor issues raised.

ISOLDE (E. Siesling)

The ISOLDE machine has been locked last Monday. REX still powered until 15th Dec. Water until the 15th Dec. for the REX tests.

Shutdown work started immediately after the power-supplies were locked with the preparations for the GPS front-end change for front-end #7: The GPS racks have been displaced in the faraday-cage and scaffolding has been put in place to access the Boris Tube.

Tests target-cooling water done but no direct cause found for the disturbances we had during the year on the flow.

Tests RFQ RF amplifier done but no direct cause found why the amplifier breaks when HT is cut.

Teslameters for the NMR probes will be placed outside the HRS separator zones. More convenient to access. They are working fine and there were no hick-ups on the HRS separator magnet this year.

Cabling work for the new picometers/faraday-cup system is ongoing.

Now preparing for the laser window change in the GPS separator magnet 70: New window necessary for alignment purposes of FE#7.

PS (R. Steerenberg)

PS beam operation was stopped last Monday. Tuesday an audio-visual patrol was made followed by a high voltage test on the main magnets. All this went well and no real problems were found.

Also on Tuesday the low energy correctors and quadrupoles were tested at close to maximum rms current. D. Bodart then went around the machine with a thermal camera in view of their possible use at 2 GeV for the possible injection energy upgrade.

The remainder of the week access was given for work in the different zones of the PS complex.

The access system has been converted to access without key, but since the CTF is still running the access to the zones is provided by OP from the CCC until next Monday, when also the CTF will be converted to access without key. The CSA will then take care of the access to the PS complex machines until the end of January.

All the doors of the PS complex zones were found in alarm this morning. In fact the doors were never really in alarm. However, the PC communicating the door status was blocked and showed alarm status, most probably following the Saturday power cut. Since the zones, apart from the CTF are not exploited with beam, all the doors will be reset and access without keys will be given again today. For CTF a proper patrol will need to be organised later this morning.

LEIR ()

AD (T. Eriksson)

The AD is in shutdown mode by now with OP8 procedure applied for the ring (free access) and OP9 procedure for the target area (restricted access with RP only).

Shutdown activities have started:

- Ej. septum 53 has been tested for leaks water-vacuum => no degradation of the existing leak. We will keep using this septum as is.
- A detailed planning of all activities has been worked out by N.Gilbert EN/MEF.

Restart of AD will take place towards end of March.

SPS ()

LHC (K. Foraz)

Access mode is general with list (using the Work Acceptance Tool: WAT)

Cryogenic : LHe emptying in progress (80% done)

Electrical sub-circuits: all locked except mains for RRR measurements

RRR measurements this week-end in sectors 56 and 67

Works: progressing as scheduled

TI (P. Sollander)

With the technical stop, the work load for the TI operators goes up (see phone and ODM stats below).

- Wednesday, December 8: Emergency stop tests at LHC point 3. Batteries run flat on a UPS (EBS402/3R) powering a converter RD34.LR33, the access system gets a veto on all points. A major event report is being edited pending information from TE-EPC and GS-ASE.
- 18kV cut in UJ33 late evening. EMD103/33 tripped at 22:19. During the emergency stop tests during the day, the electricians had tried to trip this breaker without success. Due to a mechanical problem, it did not trip when wanted, but eventually tripped in the evening. EN-EL will perform checks and maintenance of the remaining breaker of this type during the next long LHC shutdown (there are approximately 20 elements of this type in the LHC odd points RE, US, UJ)
- Thursday, December 9: "Test secours", main electrical test, switching OFF the EDF 400kV supply, inhibiting swiss backup and waiting for Diesels to start and power safety network. On the whole very successful, no major problems.
- Saturday 11: Auto transfer tests. Technical tests to see if the automatic transfer to Swiss power works as it should. Some perturbations seen on the PS access system and a partial cut of ATLAS power supply in the evening.