

Lab Status / AEM Meeting Notes

Monday May 8, 2017

<https://indico.fnal.gov/conferenceDisplay.py?confId=14461>

Incidents:

- FESS: potential injury under investigation.

Accelerator Operations:

- Flanges in ecloud area welded to address MI52 vacuum issues. LINAC & BNB running well.
- NuMI: 1.37E19 POT.
- BNB: 1.15E19 POT.
- SY120: 117.7 hours of beam to SeaQuest, 53.5 hours to MTest, 94.8 hours to MCenter for LArIAT.
- Downtime planned for May 15 (ComEd Switch repair). There will be associated (~30 min) power outages at beginning and end.
- Future schedule can be found: <http://www-ad.fnal.gov/ops/schedule.html>
- PIP-II Injector test: Shutdown to install full MEBT.
- FAST: 300 MeV beamline construction continues.
- LCLSII: Cold testing proceeding.

MicroBooNE:

- Stable running. 95.3% uptime.

MINERvA: (April 27- May 3)

- 95% uptime (85.1% with MINOS ND).

NOvA:

- Running smoothly. 96.3% FD uptime.

SeaQuest:

- Running smoothly when there is beam, except lost D2 target on Monday ... back in operation on Saturday. 91% good proton utilization.

g-2:

- Kicker installation continues.
- Magnet system testing completed.
- Detector installation & trolley commissioning continues.

CMS:

- Recommissioning with beam started. Test collisions this week and probably next week. Stable beams expected week of 22 May.
- Magnet up at full field.
- Preparing for legacy reconstruction of 2016 data.

- Phase 2 TDRs being finalized.

PPD:

- In addition to g-2 regular report: PPD is working with g-2 to identify a stop-gap power supply to temporarily replace the failed inflector power supply.
- In addition to CMS report: The Phase-I upgrade is working on closing out the Project and expects to have a first draft of CD4 documentation in mid-July.
- Summer students: PPD is developing guidance for summer students supervisors on how to check student training plans (ITNAs) and how the supervisor can work with ITNA coordinators to ensure that training plans are correct and completed by the student.

ND:

- SBN-ICARUS: CERN/INFN technical team arrived at Fermilab and started to work on warm vessel assembly and installation this week.
- protoDUNE: APA #1 winding is complete at PSL. The UK has completed construction of their first APA frame. Various protoDUNE-SP Production Readiness Reviews last week & this week.
- LArIAT ran smoothly last week. The 3-mm wire plane PCBs have been ordered and wires have been pre-wound at Lab 6 in anticipation of their arrival.

LBNF:

- No report.

TD:

- SRF R&D: One 3.9 GHz 1-cell cavity in processing for nitrogen doping/infusion. One 2.6 GHz cavity in processing. Six 1.3 GHz 1-cell cavities in different stages of processing. Two 1.3 GHz 1-cell Cavities tested.
- SRF LCLS-II: Zanon cavities new series performed excellently. Problem at Zanon fixed. CM02 test going well. Microphonics suppressed. Low field emission levels. CM03 WS5 with instrumentation. CM04 is in WS3 stage with thermal strapping & instrumentation. CM05 WS1 string assembly. CM06 now has 6 qualified cavities.
- SRF: PIP-II: Two 650 MHz 1-cell cavity tested. One 650 MHz 1-cell cavity in processing. One spoke cavity horizontal test assembly in progress. Two 1-cell 650 MHz cavities vertical tested.
- Magnets LCLS II – The Quad in Cryomodule #2 powered in CMTF to 20 A for 1 h w/o quench or temp rise. SPQA105 will be delivered for assembly this week. Started prep for SPQA106 test.
- Magnets LARP – Two 4.2 m production-length coils in different stage of production. Short model MQXFS1c connected to top plate, leads spliced, final electrical checkout before cool down expected this week. This is short 2 m-long model (150 mm aperture) for the HL LHC IR quadrupole upgrade.
- Magnets Other: AS – A remanufactured MR quad IQBB401 under test. The final short/fast Booster BKEF kicker has been potted. Mu2e – Making steady

- progress toward testing TS proto module in HAB facility. Completed Mu2e Test Stand Dished Head "A" wiring & started electrical checkout at HAB. Run plan in preparation. PIP-II – Magnetic measurements of MEBT triplet completed, data analyzed. G-2 – Inflector: discussion of muon beam optics analysis continues, samples of NbTi superconducting shield material have been prepared for testing, winding tooling preparation IB2 in progress. MDP 15-16 T dipole R&D – Coil fabrication in progress for 15T magnet: Layer #4 winding started, end spacers modified.
- Cryogenic Operations: Extending MTA operational support. NML being prepared for cooldown: Kinney booster delivery on schedule (May 10). LCLS-II CM2 being tested. MDB: cryogenic plant at cold (4.5 K); Spoke cavity being installed in STC. VCTF is operational; VMTF – preparing for MQXFS1c. LCLS-II split quad SPQA-106 being prepared for testing

Computing Operations:

- CCD: Good week.
- SCD: Good week. Better IF usage of empty slots.

Office of Communication:

- Coming this Saturday: 1pm – “The Place of Art at Fermilab.” 8pm – “The Other Mozart.”
- Friday 19 May: “We have no idea – A Guide to the Unknown Universe.”

Directorate:

- Appropriations Bill passed ... good news for us.