

Lab Status / AEM Meeting Notes

Monday December 12, 2016

<https://indico.fnal.gov/conferenceDisplay.py?confId=13464>

Incidents:

- A PPD employee tripped and fell. First aid.
- A FESS employee slipped on ice and landed on his right knee and hand. First aid.
- CCD employees evacuated because of bad odor ... turned out to be WD40 in vents.
- A TD employee helping to install a 1.5 in pipe, was contacted by the pipe above his right eye. Under investigation.

Accelerator Operations:

- LINAC, Booster & BNB running well. Just started slipstacking 6+6. NuMI at ~400 kW.
- Septa has shorted again. It will take an estimated 2.5 day shutdown to repair. Since there is not yet a deep understanding of the problem, and AD needs to work on increasing NuMI intensity in the few days before the holidays, the septa repair is to be scheduled in January. No SY beams until then.
- Delivered $8.83E18$ POT to NuMI.
- Delivered $1.10E19$ POT to BNB for MicroBooNE.
- 1.9 hours of beam to SeaQuest, at their request.
- 25.3 hours of beam to MTest.
- Future schedule can be found: <http://www-ad.fnal.gov/ops/schedule.html>
- PIP-II Injector test: Performed two 24 hour CW RFQ operations tests. Went well.
- FAST: Shutdown for 300 MeV upgrade continues. Working on magnet and stand installation, and on IOTA proton injector source.
- LCLSII prototype cryo module: Awaiting approvals for cryo cooldown.
- ICW Reduction: Measurements revealed higher than expected usage at some locations. Need to resolve before January reductions.

MicroBooNE:

- Good week. 97.7% uptime. Supernova run successfully completed for first time.

MINERvA: (Dec 1-7)

- 94.8% uptime (83% with MINOS ND live).

NOvA:

- 95% FD uptime.
- ND running smoothly.

SeaQuest:

- DAQ & Trigger commissioning complete. Ready for data once septa is repaired.

PPD Operations:

- The g-2 solenoid was warm on Thursday. Many subsystems are working in the hall during the shutdown: vacuum chambers, calorimeters, laser calibration. Helium leak repair is ongoing as is work on moving the purifier. However, that may be delayed until after startup as a result in delays obtaining parts.
- Meeting Tuesday with scientists at PNNL to discuss projects where PPD technical groups can contribute: electrical engineering department (ASICs and low-noise circuits), SiDet, scintillator extruder.
- The last of the high-intensity lamp at DABs over the deep pit failed catastrophically (No injuries.) Working with FESS to find a solution.

ND Operations:

- Preparation for the SBND Director's Progress Review (Dec. 19-20) continues.
- Beneficial occupancy of SBN FD building last week. Network and Communication racks prepared and delivered.
- ProtoDUNE: much work going into planning for installation, informed by work at Ash River.

TD Operations:

- All three vertical SRF test stands were active, with measurements for SRF R&D, LCLS-II R&D, and LCLS-II production. 11 cavities measure in all.
- Finished the LARP model quad testing on Friday. Trained to slightly higher current, did a sustained run at nominal current.
- Fourth LCLS-II split quad ready for measurements. Will ship to J-Lab in next week. First article quad from industry shipped on Friday.
- First production LCLS-II string assembly is moved from MP9 to ICB last Tuesday. Both cavity vendors having difficulty producing good cavities, though in different ways
- Exactly enough conductor for the Mu2e production solenoid is in hand. It's agreed that a little surplus would be good, but that will require buying more strand and turning into cable before the cable can be made into conductor next summer. ASG plans to insert the model coil into the model shell this week. General Atomics is currently winding a model coil, their Frankencoil, a mish-mash of different conductors, splices, and such. They are having trouble with the Production Solenoid (PS), which is the hardest of all the coils to wind. The technicians from the Italian company that built the coil winder will be back in January to try to solve the problems. Preparation work at HAB moving ahead nicely, except for a contract technician injury. We are preparing our own Frankencoil to explore a number of issues with splices in the Transport Solenoid. That testing is scheduled to start in January in VMTF (Vertical Magnet Test Facility).

- Weekly teleconferences have begun to coordinate work on the U.S. Magnet Development Program.
- Mu2e vendor visit to General Atomics in Tupelo for production readiness review of the model solenoid.

Computing Operations:

- CCD: Thursday 12/8 Loose fiber connection caused issues with Elog & Ch.13. 2 hour outage. There were also various vendor issues that caused problems on Tuesday, Thursday and Friday.
- SCD: Good week. Completing computing systems in LCC relocation; Wilson cluster back next week. Mu2e jobs demo on Google Cloud ... first demo of Intensity Frontier on Google Cloud.

Office of Communication:

- All Hands Meeting well attended with 550 people viewing online.
- Science of Star Wars was sold out Saturday. There will be screenings at lunchtime on Tuesday and Thursday.

Directorate:

- Joe: Various interesting retreats coming up including the 2nd annual retreat in which Fermilab and SLAC leadership get together.

AOB:

- ICW work: Area in front of A0 will be closed most of the week.