**Lab Status/ AEM Meeting Notes**
Monday December 19, 2016
https://indico.fnal.gov/conferenceDisplay.py?confId=13556

**Incidents:**

- An AD employee injured his finger on the sharp edge of a tube that he had just cut… working without proper gloves. Had to get sutures.
- A TD technician installing a pipe underneath the dished head of the Mu2e cryostat at HAB was poked by a short piece sticking through and needed sutures on his forehead.
- A PPD employee, as he was descending the stairs missed the last step, fell forward and struck the left side of his head against the wall. First aid.

**Accelerator Operations:**

- Linac, Booster running well. MI/RR slip-stacking 6+6. NuMI at 500kW.
- BNB running well.
- Weekly integrated intensity: NuMI 1.36E19, BNB 1.15E19.
- Switchyard: MI-52 septa short. Will coordinate repairs during scheduled two-day shutdown (Jan. 10-11, 2017). No SY beams until then.
- Master sub-station scheduled to be energized Jan. 17th.
- Future schedule: http://www-ad.fnal.gov/ops/schedule.html
- MI-12 Communication duct repair plan in place. Part of new duct installed. Rerouting remainder being planned. New cable expected in January/February. Repairs to be coordinated with Master substation outage downtime.
- MS1 Bus: All power supplies cabled into breaker panel and work completed.
- PIP-II Injector test: Leaking RFQ window replaced. Install emittance scanner during the one-week shutdown and perform maintenance.
- FAST: Shutdown for 300 MeV upgrade. Cave roof block installation complete. Shielding assessment ongoing. Magnet and stand installation. Working on IOTA proton injector source at MDB.
- LCLS-II prototype cryomodule: Cooldown holding at 4K. After control measurements at 4K, planning cooldown to 2K and further tests.
- ICW Reduction: Resolved issues, planning on early January.

**MicroBooNE:**

- DAQ uptime: ~96%. BNB uptime: 98.3%. Computing running smoothly.

**MINERvA:**

- Uptime 96.9%, with MINOS 96.6%.

**NOvA:**

- FD Uptime 100%; 500 kW beam; ND uptime ~100%. All going well.
- MC generation getting underway; Reco to run through the holidays.

**SeaQuest:**

- All ready to go and waiting for beam.

**PPD Operations:**

- CMS Heavy Ion run ended last week. Collected >1B events in 7 days at sqrt(s)=5 TeV and 187 nb-1 in 11 days at 7 TeV of p-Pb running. Efficiency ~96%. High-level trigger output ~30 kHz. CMS now begins the Extended Year-End Technical Stop which will have installation of the new forward pixel detector and upgraded hadron calorimeter electronics.

- Working with users to reschedule beam time at FTBF. Appreciate efforts of AD and lab management to limit impact of septum failure on users. First user now scheduled for January 18.

- SuperCDMS had successful SNOLAB review of 'early deployment infrastructure' items. These include cranes, cleanroom, electrical and water cooling utilities, base platform for the experiment. These will be procured using Canadian (CFI) funding and installed underground in 2017, well before the experiment deployment (2019) whose progress is subject to the DOE CD process.

**ND Operations:**

- DUNE: About 20 members of the DUNE team met in Ash River, Minn., for an engineering integration/installation meeting. A trial assembly, including an APA, CPA, endwall field cages and top/bottom field cages, is underway at the NOvA Far Detector Building. At last week's meeting, the team reviewed sequencing of components into the clean room and cryostat. It was agreed to expand the Ash River Trial Assembly to including a Temporary Construction Opening (700 mm).
- Near Detector task force performing simulations for various technology options.
- SBN having director's review today and tomorrow.
- SBN Near detector building work continues with mechanical and electrical. Aiming to complete the building envelope before the end of December. The LAr and LN2 dewars were installed at both the near and far detector buildings on Dec 14-15.

**TD Operations:**

- FESS and TD ICW experts had a very productive session on Friday, measuring the water usage at IB1. Another round will be required before we fully understand the impact of the January ICW reduction.
- All three vertical SRF test stands were active, with measurements for SRF R&D, LCLS-II R&D, and LCLS-II production. 10 cavities were measured in all.
- Warm measurements were performed on the LARP model quad and removed from Vertical Magnet Test Facility.

- Work has begun in ICB on the first production LCLS-II cryomodule. Completion maybe in mid- to late-January. In addition to building a high quality unit, focusing on refining procedures and analyzing the ergonomics. Testing of the prototype cryomodule is resuming after a shutdown to upgrade the cryo system. Schedule for subsequent cryomodules will depend on deliveries of acceptable cavities, a problematic issue at the moment.
- The fourth LCLS-II split quad has been measured. This is the last quad built by Fermilab. The first quad from industry arrived and is being checked out before cold testing.
- TD has started work on design of an injection chicane magnet system for the SNS Power Upgrade Project.
- On the Mu2e coil winding, Fermilab and General Atomics are working together on ideas to propose to GA's winding tooling subcontractor. In the first trials, the Production Solenoid conductor tended to twist as it was being wound. The GA conductor weld samples are looking very good.

**Computing Operations:**

CCD:

- Good week. Will respond to safety and security issues, if any, during Christmas and New Years' weekends. No other service will be called in unless in emergency.

SCD:

- Had a short scheduled outage.
- Minor problem with CMS local storage. PhEdEx and FTS server upgrades done.
- Intensity Frontier cluster now getting busy after a slow time following summer-conference-related peaks. Running ~90% of jobs onsite, 10% offsite.
- Mu2e jobs run on google cloud. First DEMO of IF on google cloud.
- CMS Tier-1, HEPCloud and LPC all running fine.

**Mission Support:**

- No report.

**Financial Report:**

- None.

**Office of Communication:**

- There will not be a Fermilab This week next Tuesday.
- An All-hands meeting scheduled for Jan. 11th to kick-off the Fermilab 50 celebrations.

**Directorate:**

- No report.