

Long Shutdown Integration Meeting

April 11, 2013

F224-225, 10 am

MINUTES

For presentations, please visit:

https://www.jlab.org/div_dept/directorate/proj_mgmt/lsd/index.html

• **Intro**

F. Pilat

- Linac is cold and tunnel lockup for cryomodule commissioning
- Need for long-term coordination since tunnel is locked up – weekly Wednesday 1:30 meeting will resume starting April 17th. LSDD will run this meeting. Matt Bickley is the upcoming LSDD and will run/coordinate this meeting for next week. Meeting will also give resource providers opportunity to speak about issues/concerns. Meeting is open to all, required attendees have been put on calendar meeting. Content, form, attendance will naturally evolve as we progress through the down.
- Preparation for commissioning in progress. Review scheduled for June 6 & 7th.
- Cryogenic challenges, HDR – Will/Dana will speak (see below)
- Fulvia out Friday through Tuesday this week/next week.

• **LSDD Report**

B. May

- See presentation for full details
- Note: Thanks to all (From Bob) for the assistance during his LSDD tenure
- CHL to 2K as of this morning
- Dominion power transformer maintenance completed
- Many pedestals installed & grouted
- Girders, dipoles, stands installed and aligned
- Magnet cables & LCW installation continues
- C100 RF work (LLRF, circulators)
- Cryomodules installed and cold - Cryomodule testing to start (lockup to start today)
- Movable shield wall at Hall D/Tagger closed & locked
- PSS system nearing certification – main system certified, performing other certifications as systems come on line – final certification August 2013
- Accelerator Bypass Interlock Log (ABIL) is being used very well. Physics likes the approach/use and considering for their uses.
- Emergency exits cleaned and cleared in the tunnel (exit stair #6 cleared).
- Matt Bickley is LSDD now.

• **Update on TLA milestones**

R. Yasky

- Hot UPW slipping now to May 6, 2013, but SRF is authorized to use it. See presentation for full details of other milestones.

- **Cooldown update and cryomodule test plans**

M. Drury

- Some CMs have cooled down on their own, and some had to be warmed back up (venting the insulating vacuum).
- No CMs broken & no insulating vacuum leaks during cooldown.
- 9 left to do. None of these are critical to get started next week (R100, 2L26, 2L21....). One is a C100, two C-50s (with transfer line issues), R100, remaining are C20s. Will review in a week or two.
- All commissioning carts are in place in NL and SL, software being setup now. Decarads in place. LLRF control modules to be set up in the next day.
- 1L22 starts commissioning Monday night.
- 1L04 Wednesday with two more zones the following week
- High power work at night and HOM survey/cavity tuning for C100s that are cold during day shifts.
- Final date holding for CM commissioning.

- **Cryogenics: CHL-1, CHL-2, HDR, CTF**

D. Arenius

- CHL1 to 2K today/tomorrow.
- No shortage of He at this time.
- CHL2 – vendor for 4.5K Cold box is on site and is checking out turbine housing fit up, controls, dummy turbines installed & allow gas to be circulated to get impurities out of system – this will start soon. Nitrogen cooled 80K starting next week, Thursday. Progressing well.
- HDR – Refrigerator/compressors given by Hall D to cryogenics to install and commission and then design/install transfer line to hall & solenoid can in the Hall. Compressors had repairs done. Liquid was placed in local Dewar with no problems. Solenoid cooled to 80K smoothly.
- Solenoid Cooldown from 80K to 4K. Getting to 10K, problem occurred at cold box. The charcoal that gets rid of impurities turned to dust (over time). It is held in with filter pad, but started getting through the pads in the refrigerator. Dust has been building up on inlet filter and capacity to produce refrigeration has been reduced. Some sections warmed and charcoal blown out. Liquid He was taken from the CTF, but has to be shared with VTA. Current plan (short term), is to continue augmenting with liquid He (instead of CTF – take from CHL but takes about 1 full day (6 people) every other day to do this). Want to get solenoid in condition for testing.
- Meeting planned for Monday to discuss the refrigerator, current operations, what can be done, path forward.
- CTF/VTA: VTA has liquid.

- **Manpower**

W. Oren

- Will Oren is seeking help from the halls for Dewar transfer and is being reviewed by physics.
- Manpower for DC power & SSG – similar to installation and alignment groups, there are assumptions to make it work.
 - DC power – ok with technicians, workload increasing, but manageable; only 2 engineers and are fully loaded. Need to add an engineer.
 - Work to move to the right:
 - Major Hall support – Walt/Javier reviewing
 - PM – Steve Suhring to review
 - Dogleg procurements to November – Dianne to review
 - Power supply checkout (Arcs 3 and higher) – Merz/Harwood to discuss
 - SSG has an ops guy and can keep until November
 - No new major jobs can be supported
 - FEL support move to Oct/November – George to review (ODH system update, Franken gun, cavity work, etc.).

- **FEL status and plans**

G. Neil/G. Williams

- VA money came in. Codes open for charging.
 - 2/3 to F100 construction can now move forward (procurements being signed). Originally planned for installation in Sept 2013, but awaiting updated schedule for SRF support for F100. At earliest late Dec.
 - 1/3 to procurement of buncher system and beamline around it. Buncher system is a major procurement including the RF system. Jan/Feb/March 2014 for installation (requires shutting down of the machine). Need designer support for the buncher system and can be supporting by engineering group. Revising plans for this now.
 - Middle CM to first zone, F100 in middle zone. Will return the existing module in zone 2 to SRF to re-build.
 - 2L21 (now in the FEL) is considered the hot spare for the accelerator.
 - Navy money – don't know anything yet (this is the money that runs the FEL/people).
 - People matrixed from FEL – some will return in the Fall as this works for FELs budget, some need to be matrixed out – these details are being worked out now.

- **LSDD Schedule Status & Progress**

D. Napier

- Updated schedule will be completed end of this week and email notification to all when posted (Monday April 15th).

- **Around the room**

- 12 GeV Accelerator L. Harwood
 - Temple review – panel pleased from accelerator team, physics – detectors good, but not superconducting magnets, management/cost – contingency too low and expanded scope contingency list to be developed
 - Lehman review coming up end of May and preparing for this review with pre-brief to be ready in 2 weeks. ETC cannot be implemented until this review is held. Want to implement in June/July 2013
 - Workload for this FY – the fast feedback, nA BPMs shifted to FY14
- 12 GeV Physics G. Young
- Physics R. Ent, J. Gomez, W. Akers
 - Hall A coming on line first so Counting House needed 1st floor in May/June.
 - Leaks in Hall C (on-going). Penetrations, etc. All the drains in Hall C are blocked. Sperlazza walked job with A. Kenyon. Working with a plumber to snake the drains.
 - South ditch water sensor in Hall C is up and running.
 - Integrated installation within the Halls has been brought up before and noted in the Temple review. Discussions have been on-going.
- Power Systems B. Merz
 - 1L22 RF connected and functional certification to run this zone
 - Additional C100
 - Circulators worked out with vendor and receiving units. NL23 being installed
 - 12geV PS regarding manpower - have enough to do the 12gev work, and need to make choices for other work, but if there is another higher priority, then we can discuss what 12geV can move
- FEL G. Neil, R. Walker
- Operability S. Suhring, A. Freyberger
 - April 25th review of HCO process
 - K. Welch is working on beam dump plan for Hall A to support physics Operations in Spring of 2014. Working out details/challenges.
- Commissioning, CASA M. Spata
- Engineering, Cryogenic W. Oren
- Facilities (CHL pipe) B. Sperlazza
 - 1:30 FML coordination meeting today (VARC 53 (SSC)) – discussion of current jobs, future jobs, and ask for input on future jobs. Please attend if you have projects that FML is support.
- ESH&Q M. Logue, D. Owen
- PMI P. Collins, K. Krug