

# Long Shutdown Integration Meeting

May 9, 2013

**F224-225, 10 am**

## MINUTES

[https://www.jlab.org/div\\_dept/directorate/proj\\_mgmt/lsd/index.html](https://www.jlab.org/div_dept/directorate/proj_mgmt/lsd/index.html)

### NOTE: Correction to 25 April 2013 minutes:

- **Under LSD March progress (D. Napier)**

- “Deferred 6GeV maintenance – not mission critical items deferred (HCO and RF re-commissioning)” →
- Only DC Power supported 6GeV Maintenance to be deferred until after Sept 2013 (due to resource conflicts). These items were identified to be non-mission critical items. HCO & RF Re-commissioning/ maintenance will not be deferred.

- **Intro**

F. Pilat

- Lehman closeout today at 11:00
- Internal review of Hot Checkout done. Report coming out. Review went well.
  - Different system owners will have checklists and will interact with software. Dependencies in the software will improve communications/links between systems. Ongoing software checklist development and software. Will tie in to a database that will provide downtime/accounting additional information. Ties to CED database as well.
  - 6 weeks of hot checkout planned with a better estimate coming in June (and when checklists are completed)

- **LSD Schedule update**

D. Napier

- See presentation for full details
- Will have April progress completed by 17 May → delayed to 17 May to implement the following changes:
  - 11GeV Separator – De-Scope cavity work
  - FEL Admiral (Test Lab work) & Buncher Cavity schedule updates (VA funded activities)
  - 12GeV ETC
- Changes still to be implemented (can be implemented in April progress if received this week):
  - Hall C Polarimetry schedule:
    - This will not be needed in the LSD timeframe
    - Work may be outside the LSD (after Sept timeframe)
    - Engineering resources looking at it in June
  - Halls A, B, D (non-physics labor) activities defined
  - Cryogenics Schedule

## • LSDD Report

R. Michaud

- See presentation for full details
- April 24 – May 8
- Machine lockup still at 3:30 everyday
- RF/CM commissioning ongoing
- Alignment:
  - West arc final
  - Stands
  - PEPPo as founds
  - End of SL (5 zones)
- Note: 2 laser trackers for S&A are down and using older equipment. Reviewing rental options for equipment. Also in recruit mode (interviews today and next week) to fill a term position.
- Installation:
  - 2R LCW
  - 1R LCW filtering system
  - Hall D transport line girders
  - Majority of extraction dipoles and girders are in
  - 2R BComm
  - 2L10 baseplates and forms
- I&C (East arc temp monitoring, BPM, viewer maintenance)
- PSS (Hall D truck cable pulls, ODH sensor heads in linacs replaced/maintenance)
- FML (B85 ongoing – power outage next week planned)
- Vacuum (NE extraction beam pipe installation, 1R+ beam pipe installation)
- DC Power (1S, 1R, 2S magnet hookups)

## • Cryogenics Schedule

W. Oren

- Schedule presented at meeting
- Red color = warm
- CHL1
  - 2K cold box recommissioning end of Aug when CM recommissioning is completed. Duration is 3 to 6 weeks. Instabilities during this commissioning – don't want to operate during this commissioning
  - Major maintenance needed (4 months minimum) and can be done during UIM shutdown (May – Sept 2014) → NOTE: this UIM down is not confirmed (dates).
- CHL2
  - Transfer line U-tube – march to end of June and then warm (CHL2 @300k) to repair CHL2 Dewar.
  - CHL2 to 4K end of Sept with 2K ops late Oct 2013
- CHL1/2 Tandem Operations
  - Commission 2K SCM – 4/2K operations w/ chl 1 – N&S linac end of Aug to early Oct
  - After CHL 2 at 4: (early Oct) → Uncouple N&S Linacs (CHL1-N, Linac, CHL2-SLinac/FEL) & stabilize @2K – early Oct through end of Oct.

- ESR
  - HMS cooldown, 300-4K for PS testing (ESR/CHL transfer) early June 2013 to mid-July 2013
  - HMS PS testing mid July to end of Oct
  - ESR cooldown to support Hall A end of Oct
  - Hall A & C cooldown w/ESR end of Oct to mid Nov 2013
- HDR operations
  - Dewar transfers (once every two weeks) if operational (12GeV planning to be operational)
    - If Operations for Magnet Testing goes past one month (planning finishing 20 May) → Conflict with cooldown Hall C or go to CTF
- FEL Operations
  - F100 delivery expected March 2014 time frame and want to install and commission during this timeframe
  - Would like to run Summer 2014 → supportable from cry standpoint, but FEL is juggling budget and UIM shutdown impacts (if during this timeframe)
  - G. Neil to review and provide information to W. Oren for their needs
- CTF
  - Suggesting maintenance down/recovery end of July to end of Dec 2013 → SRF to review
  - LN2 Dewar needs repairs. We have the spare (here on site), but plumbing needs to be done before hand. Oct 2013 – Dec 2013 (same time period)
    - If this fails, CTF will be down.
    - CTF would be down for some time during cut ins.
- Summary:
  - Dewar transfers with Hall D & CHL transfer line
  - Will Oren will send around & will be posted to LSD website

- **Test Lab Addition**

**R. Yasky**

- Clean room ops reliable → 15 Sept 2013
  - Final air balancing, VAA tie in schedule for mid-June
  - Failure mode analysis – PO placed
    - Also identifying connections to determine reliability
    - Team will be formed and kicked off soon
  - Permanent humidification in place
- Hot UPW → now June 14, 2013. SRF can use HUPW, FML working boiler issues
- GN2 systems → 15 Aug. 2013
  - Waiting delivery of filters, then purge lines and install filters, HPG consultant evaluates permanent solution
- Test Lab Renovation
  - Phased acceptance planned
  - Office areas G – people moving in beginning of June (still confirming exact date) May 21<sup>st</sup> life safety system inspection & will drive move in date
  - High bay – mid July

- **Cryomodule tests update**

M. Drury

- See presentation for full details
- C100s
  - 1L22 SRF commissioning complete (except for microphonics)
  - Eight cavity run complete at 118.4MV
  - 1L24 – cavities tuned, HOM survey complete
    - Waiting on pss certification
  - 2L26 – installed waiting for cooldown
  - 2L25 – installed, waiting for commissioning
- C20's/C50's
  - See presentation for full details
  - Making great progress
- CMs for Helium processing are being defined as commissioning continues
  - HP for 2L16 identified
- RF:
  - 1L23 power testing started
  - Installation of klystrons and circulators 1L25, then on to 1L26
  - South side circulators that needed to be reworked are back at the vendor
  - Circulators back from vendor coming in (all done by end of May will slip, but ties in with recommissioning with the CMs on this side)
  - Remainder of PM work continues and identifying problems (transformer 1L04)
  - Reviewing entire 1L04 system to identify switches/transformers

- **Around the room**

- 12 GeV C. Rode
  - Lehman closeout at 11 today
- 12GeV accelerator L. Harwood
  - Bill Merz: still have conflicts with electrician support. Have not received a lot of resumes. Existing electricians being diverted for small work. Will talk with FML for support.
  - If you know of any electricians – please send them to NSC technologies (or Will/Bill)
- 12 GeV physics G. Young
- Physics R. Ent, J. Gomez, W. Akers
- FEL G. Neil, R. Walker
- Operability S. Suhring, A. Freyberger
  - Review of Hot Checkout process – report went in yesterday. Path forward to both support ARR and a machine in working order ready for turn-on
- Commissioning, CASA M. Spata
  - Bteam meetings restarted and are every Tuesday
  - CASA/High level apps group working
  - Starting early monitoring for hot magnets – working with IH and others on this
  - CASA firmed spec for 11GeV deflector – great shape
  - On May 23<sup>rd</sup> – dry run for commissioning review with commissioning review board (getting ready for 1<sup>st</sup> week of June)
- Engineering, Cryogenic W. Oren
  - Helium processing dates needed and when to fit this in

- Facilities (CHL pipe) B. Sperlazza
  - Counting House contract completion is end of May → slipping to June
  - MCC will still be done end of May as planned
- ESH&Q M. Logue, D. Owen
  - Cumulative trauma (overuse) incidents
    - Forceful gripping of the hand for extended hours of a day
    - Starts out with intermittent pain and people think it will go away
    - Get Smitty to review your work and ergonomics view
    - Will reviewing rotating people out to reduce repetitive work
- PMI P. Collins, K. Krug