

Long Shutdown Integration

List of Issues

As of 1/26/2012

6 GeV/12GeV Accelerator

1. New 1/26/12: Argonne cavity processing
 - Plan being worked. Needs integration with other work, FEL work, 12GeV CM work, availability of test cave/VTA and labor. POC?

2. Hall A & C Beam Dump
 - K. Welch email 5 Jan 2012 regarding plans and potential scope/improvements for Hall C Beam Dump
 - These improvements help reduce or eliminate exposures to radiation and other health hazards, improve system reliability and reduce the chances of major system failures which could interrupt the physics program for long periods.
 - NEW: 1/19/12: POC? Plan/Funding/other concerns?
 - **1/26/12: Arne is working on developing the team and POC and funding for this work. He fully supports this work and the timing. Hall A Beam Dump to be included in the scope. Work to be done prior to beam to Hall A, Hall C**

3. PEPPO running at start of down
 - Meeting 1/17/2012 with L. Harwood to discuss compatibility of Peppo running concurrently with installation work in the NL. Seems feasible. To be discuss with the rest of the LDS Team.
 - **1/26/2012 Discussion Topic at LSD Meeting**
 - Per Leigh: In the north linac, 12GeV accelerator plans:
 - West Recombiner, OR section, warm gas piping
 - This work will occur at start of down and throughout the summer
 - Work to be done during the day and a half of the swing shift
 - This work schedule for the North Linac will allow for PEPPO to run in parallel (second part of swing shift and owl shift)
 - PEPPO requires cryogens and will have to delay warming up the North linac. Leigh states there is float for warming up the north linac work.
 - PEPPO requires a PSS system as well
 - Leigh states we wouldn't start de-certification of the North linac upgrade until Peppo is done, but staffing needs to be considered if this work is delayed (and spiked later)
 - Will Oren doesn't want to do transfer line work in parallel with other work so he doesn't want to delay the work much longer.
 - PEPPO (M. Poelker)
 - PAC wants two weeks
 - Want ~5 days (24/7) of beam time at the beginning of the down (after the open house), then convert to the swing/owl shift for running (until Aug 1st when CHL goes down)
 - Matt has the manpower to support this

- To be considered for integrating PEPPo:
 - Can they run for 5 days?
 - All feel this could be accommodated, but should be looked at in the schedule
 - Need to warm up the linac and can't run PEPPo at the same time (and delay of PSS upgrade for North Linac)
 - Matt to find out how long they need to run on the swing/owl shifts
 - Leigh & Will state 3 to 4 weeks can be accommodated and after this creates peaks in staffing for Cryo and PSS groups – Leigh and Will to review this.
 - Matt/Arne to take these 3 to 4 weeks to PEPPo collaboration and get feedback.
 - F. Pilat states we need a decision in 2 week timeframe.

4. ESR

- No major maintenance planned
- Hall B HDIce needs 10 days after beam delivery terminates in May; Hall C want until Nov/Dec for HMS recommissioning and then 12GeV power supply checkout
- Need to take a decision as this impacts staff/resources
- 1/18/12 update from W. Oren: Complete. Current plans have ESR operational until July 15, 2012. Warmup to 300 K after that.
- 1/19/12: Claus states to review Hall C power supply testing later in the down and need for ESR. Dianne to touch base with Glenn/12GeV Physics Team.
- 1/25/12: **H. Fenker (12GeV Hall C CAM):**
 - **His current schedule shows them cooling the HMS as soon as beam goes away so that they can test the first two SHMS power supplies -- finishing on July 3, 2012.**
 - **They would like to keep the HMS cold from then to the end of time, but realize this won't happen.**
 - **The final three SHMS power supplies are scheduled for testing, again using the HMS magnets as loads, beginning in November, 2012.**
- 1/26/12:
 - **W. Oren stated the ESR is planned to come back up Jan/Feb 2013 but can come up anytime. They want to keep it down as long as possible.**
 - **HMS cold for a few years (ops budget to support)**
 - **Claus asked if they could use Hall D solenoid as a load – G. Young to check**

5. CHL #1 Cooling tower maintenance & replacement

- Duration – 3 months? Need information from FML. Can Start Aug 1. This is a bank of 4 cooling towers. Bob is working up detailed schedule.
- One CHL is needed for CM commissioning (May 18-Aug 1) if CHL 1. Then CHL1 can go down and cooling towers can be replaced.
- FML working alternative plan without rental towers with switch in mid may (Can't run CHL1 and 2 at the same time with current configuration)
 - Interconnect will feed CHL 1 from CHL2 cooling towers, but cannot take CHL1 towers down.

- This interconnect will be removed Aug
- 1/18/12 update from Sperlazza: - Current plan to align with 3 month shutdown of CHL #1 - "Contract Award" in April, "Submittal Reviews" in May, "Materials Ordering" from June - July and "Construction/Commissioning of Towers 1&2" - Aug-Oct'12
- **1/19/12: Need to check interconnects/cross connects. B. Sperlazza states this is not funded currently and has an estimate of ~\$20K**
- **1/26/12: If CHL1 cooling towers goes down (because of issues/it fails), need this interconnect funded b/c we have to keep CHL1 cold until Aug 1st.**
 - **B. Sperlazza to discuss with Rusty about the funding and plan for interconnect (schedule) - this is a must item.**

6. NEW: How to cool accelerator back down?

- **1/26/12: Maintenance on existing CM and timeframe. Need a minimum load for cryo to function. This is a year from now. Rush to cool new modules?**

Facilities

-

6 GeV/12GeV Physics

Hall A

-

Hall B

-

Hall C

-

Hall D

-

FEL

- 1/26/12: They have run plans. Schedule being worked. Prelim plans are in the integrated schedule and will be updated as they firm up details/plans with resources. CM (construction & refurbishment) plans need evaluation against other work for 12GeV (labor)

ES&H

- 1/26/12: ARR: Mary sent slides. The plan is good per Leigh. Need to fold in schedule/plan into integrated schedule

Lab-wide integrated schedule

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Closed Issues

1. FML needs schedule information for contracts (but may have changed due to budget cuts):
 - Acc Tie Feeder – not an issue – all decided after June 15th sometime
 - 1/18/12 update from Sperlazza: Construction scheduled during CHL#1 down - Aug-Sept'12.
 - **1/26/12: Issue closed. Information will be captured in the schedule. Work planned for one 8-hour outage and on the weekend. Exact date being worked out, but will be between Aug & Sept 2012**
 - Backup towers and header mods
 - 1/18/12 update from Sperlazza: North and South Back-up Towers and Bldg 92 Headers not scheduled until FY 14
 - **1/19/12: Issue Closed**
 - CHL cooling tower upgrade (CHL #1 cooling tower upgrade (electrical outages coordinated by P. Powers (FML) and J. Creel (Cryo group) – status on coordination)
 - 1/18/12 update from Sperlazza: Current plan to align with 3 month shutdown of CHL #1 - "Contract Award" in April, "Submittal Reviews" in May, "Materials Ordering" from June - July and "Construction/Commissioning of Towers 1&2" - Aug-Oct'12
 - **1/26/12: Issue closed. Timeframe for work and duration will be captured in FML schedule, no concerns from the team (other than the interconnect listed as a separate issue).**
2. (FML): Counting house rehab and Hall C spectrometer commissioning impacts/coordination & Hall B
 - 1/18/12 update from Sperlazza: Current Rehab schedule has construction from mid to late June'12 - Apr'13
 - 1/19/12: Most of work in the FML scope is for the 1st floor of the counting house. Walt states only electrical and network need to be up and running. Hall B room also has scope that needs review for impacts with Hall B. W. Akers coordinating with FML
 - **1/26/12: All seems to be going right. Issue closed. 2nd floor work is where the impact would be, but FML doesn't have plans for the 2nd floor now. If additional funds come available (maybe FY14).**
3. (FML): Switch for 40MVA
 - Rusty's needs funding for switch to allow for power loops or there will not be enough power in the current 37MVA.
 - The switch will be include in this year's Tie Line package as an option - **12 GeV management will need to decide if they will fund it**
 - If not funded, there will not be enough power in 14/15.
 - Switch will buy time until 40MVA can be upgraded
 - 1/19/12: C. Rode stated he (12GeV) cannot fund the switch. If UIM is planned for FY14 and covers the scope needed (ie, switch not needed), then this issue is closed. C. Rode noted that we need 10GeV for CD4B. B. Sperlazza to follow up.
 - **1/26/12: Not funded with UIM, but needs to be done during the same timeframe. Tie line will still be done (22MVA will be connected to the 40MVA). Issue is closed. Will track work in FML schedule.**
4. (6GeV/12GeV Accelerator): Transfer Line work
 - When to do?

- 1/19/12: L. Harwood states this work is currently planned to be done in parallel with the warm gas work at the beginning of the down and then complete the south linac. Leigh noted that the dummy CM in the SLinac will be pulled when the south linac is warm (5th CM will go into the north linac). Issue closed?
- **1/26/12: Issue is closed. Work will happen as soon as CHL goes down and gets fit in with labor**
- 5. (6GeV/12GeV Accelerator): CHL #1
 - Major maintenance needed (with full warmup of 3 months)
 - If not doing maintenance, then staff can work on CHL2 – need decision ASAP and if so – need to start design on transfer line ASAP for CHL2
 - 1/18/12 update from W. Oren: CHL 1 & 2 "dance" is decided. Scheduling of actual maintenance work for CHL1 needs to be done as does the Transfer Line work and cooling tower "dance". Won't do maintenance until CHL #2 up and running (December timeframe)
 - 1/19/12: CHL will run until August 1st. If CHL2 is late, then CHL1 is up.
 - **1/26/12: Issue is closed. Need to watch progress of CHL2 – but will be done in the schedule**
- 6. (6GeV/12GeV Accelerator): Steve Suhring's alternate proposal for 12gev accelerator work – review/feedback from Leigh
 - Warm gas piping not in the North Linac (per Claus/Leigh)
 - PSS work ~6 weeks (2 weeks in Suhring proposal)
 - **1/19/12: Leigh stated this proposal will not work as the plan is to warm up the north linac on the 1st day of the down. Issue is closed.**
- 7. (FML): CHL #2 cooling tower – elevate structure
 - CHL #2 cooling towers shutdown? (length?) to elevate the structure for access – need information from FML
 - **1/18/12 update from Sperlazza: work has been cancelled**
 - **1/19/12: Issue is closed**
- 8. (FML): FML needs schedule information for contracts:
 - Backup towers and header mods
 - **1/18/12 update from Sperlazza: North and South Back-up Towers and Bldg 92 Headers not scheduled until FY 14**
 - **1/19/12: Issue Closed**