

ControlsMeetingMinutes-Mar-01-2006

Controls Group Meeting, March 1, 2006

<i>date:</i>	March 1, 2006
<i>subject:</i>	Controls Group Weekly Meeting
<i>from:</i>	Doug Murray
	x2235
<i>department</i> :	LCLS Controls

Attendees:

Arturo Alarcon	Bob Dalesio	Bob Fuller	Cecile Limborg
Dave Dowell	Dayle Kotturi	Debbie Rogind	Diane Fairley
Doug Murray	Hamid Shoaee	James Bong	John Dusatko
Ken Underwood	Kristi Luchini	Mario Ortega	Michael Cecere
Mike Browne	Mike Zelazny	Patrick Bong	Patrick Krejcik
Ron Chestnut	Sergei Chevtsov (<i>absent</i>)	Sheng Peng	Stephanie Allison
Stephen Norum	Stephen Schuh	Steve Lewis (<i>remote</i>)	Steve Smith
Terri Lahey	Till Straumann	Tom Porter	

Agenda:

1. Review the controls work schedule.
2. Review the commissioning schedule.
3. Discuss the controls group team organization.

Previous Actions:

1. Doug will check that a router can successfully route all required traffic, including AFS, to and from a private Class A IP Address range.

New Actions: (summary; see details below)

1. None this week.

Minutes:

1. We reviewed the schedule for our controls effort, including engineering, prototyping, cabling, installation and more.
 - a. The schedule completion date, including an integration test effort is December 1, 2006.
 - b. Hamid reminded us that procurement issues will be a concern, and he needs bad news as early as possible.
 - c. Kathleen Ratcliffe is coordinating installation details for the injector.
 - i. She has an excel-based schedule with details of mechanical effort, the injector vault access schedule, details for utilities, and more.
 - d. Bob took this schedule which shows an early start and finish; he's added more information out to Jan 2007.
 - i. To now, the long haul cables has been the major emphasis.
 - ii. Bob has added Ponce's cable plant info to this schedule.
 - iii. Cable not terminated until week 2 of July.
 - iv. We can see that the Personnel Protection System (PPS) needs more time; only 2 weeks allocated on schedule.
 - v. Racks arrive on April 21. We should populate them then move them to field.
 - e. Kathleen has included details, shift by shift, so hourly access will be coordinated.
 - f. It was mentioned there is limited space, and we need to control access.
 - g. Dave Dowell asked when the laser safety system would be ready? It was not on this version of the schedule, and needs to be added. Dave suggested mid June is optimal, since the vendor claims the laser will be available by the end of May.
 - h. Kristi asked if BC1 was included in the schedule. Bob said Yes.
 - i. Stephanie asked if there were plans to include many IOCs in the staging and test areas of Bldg 24.

- i. There would be more pre-checkout in Bldg 24, but it was noted there might not be enough support infrastructure, such as network, and more AC power might be needed.
 - ii. Kristi said the power supplies will be staged and tested in Bldg 24.
 - j. Hamid mentioned that the last month of the schedule, November, is reserved for end-to-end checking required from MCC.
 - i. Stephanie suggested that the blue box on the schedule, showing testing and integration through October and November, be divided in two pieces.
 - ii. Kristi mentioned that the PPS changes for the Linac need be integration tested before the injector, and before the date on the schedule.
 - iii. Doug suggested that we add servers and MCC equipment to the schedule for network.
 - iv. Bob agreed and said that we need to coordinate all disciplines. This schedule was intended to be a starting point for subsystem schedules, and expects it to be updated as we move forward.
 - k. Kristi asked if our schedules could allow us to test earlier? Everyone agreed that we can test whenever we're ready.
 - l. Hamid mentioned that each of us must drive the work in the test station areas; the required AC, test equipment that's needed, and other details should be thought out by each team.
 - m. Mario pointed out that details of the other cables, local to the Klystron gallery need to be documented prior to phase 2.
 - n. Bob reminded us that we need as much detail as is available in the electrical interconnect diagrams.
2. Cecile then reviewed the commissioning schedule with us.
- a. Her Presentation is [available online here](#). Click on the button labelled *Files Attached*.
 - b. She showed that injection commissioning will take place from December 1, 2006 to July 31, 2007, and will include the BC1 area.
 - i. 250 MeV beam will be needed in Dec 2006.
 - ii. All beam diagnostic and feedback systems will be required from January through March 2007.
 - iii. From April to July the focus will be on optimizing the beamline and measuring bunch length compression.
 - c. Cecile mentioned that BPMs will be in use as early as December.
 - i. It was asked if new BPMs will be required to run to the Beam Switchyard (BSY). The answer was No, only to BC1.
 - d. It was asked if we need to move the BC1 articulating chicane from control room? Can it be set up initially with local manual control? It wasn't clear, so Patrick or Cecile will determine the answer with Paul.
 - e. Cecile said that the schedule details are on the V: under V:\LCLS\Group\Commissioning\Commissioning Schedule\Injector_Commissioning.mpp
 - i. The first tasks include pre-beam checkout.
 - ii. For injector commissioning, they will create 2 standard configurations.
 - iii. The schedule is still being worked on, and list and order of tasks near completion; dates and durations are still evolving.
 - iv. There are definite priorities for commissioning requirements, and Cecile presented the top ones in her presentation.
 - f. Cecile mentioned that the YAG/OTR cameras should be used with the alignment laser to define screen centers.
 - g. Dave Dowell mentioned that the Faraday cups, OTRs and YAGs need timing interfaces, so a scope trace would be nice to have in the laser room.
 - h. In January, a few High-level Applications (HLA) will be required, including tools for QE scans, and thermal emittance measurement.
 - i. HLA for online model of steering into L0a will be required as well.
 - ii. Required feedback loops include Charge feedback and Transverse Orbit in GTL (MATLab driven).
 - i. Cecil said that by April all feedback systems should be operational; transverse orbit, charge and energy. Patrick said that he and Paul discussed giving the transverse feedback a lower priority. Dave Dowell said the LLRF and laser loops are important.
 - j. Automatic scans of parameters are important, such as MATLab driven multi parameter scans.
 - i. Stephanie asked if SCP correlation plots would be used, and Cecile said yes, but we should determine when they can be used.
 - ii. Dave Dowell said they will need correlation plots of some type when commissioning the gun.
3. The meeting went longer than expected. Hamid said we will review the Engineering Teams at our next meeting.