LERF/LCLS-II Cryomodule Commissioning Transition to Operations Review

November 2, 2018

2018-11-12

0.1 Reviewers

- **Chair**: Will Oren (Eng. Div)
- Karen White (SNS, Controls)
- Steven Hartman (SNS, Instrument Controls)
- Amber Boehnlein (JLAB: IT)
- Harry Fanning (JLAB: Acc. Div. Safety Officer)
- Bob May (JLAB: EHS&Q)
- Paul Vasilauskis (JLAB: Operations)
- Steve Suhring (JLAB: Operability)
- Matt Bickley (JLAB: Deputy/Software/Controls)
- Jonathan Creel (JLAB: Cryogenics)

0.2 Preamble

The use of the LERF vault to commission LCLS-II Cryomodules is a significant change to the nominal LERF operations as described by the LERF Operations Directives(LOD). The cryomodule commissioning operation will involve JLab staff (SRF-OPS, Accelerator-Operations, Eng) as well as Industrial Users from SLAC. The proponents are also proposing to have a mix

of local, remote and local-remote operations that will require strong coordination between the local and remote participants.

These changes and their potential impact on JLab staff and CEBAF/LERF operations drive the need for a thorough review of the LCLS-II cryomodule commissioning plans, roles and responsibility, safety and system readiness prior to the transition to operation.

Safe and effective operations of the CEBAF Accelerators is the responsibility of the Director of Accelerator Operations and as such will conduct a review of plans for Commissioning the LCLC-II Cryomodules in the LERF. This review will establish that the plans, processes and systems are ready for safe and effective operations. The charge for this review follows.

0.3 Charge

The charge for this review is to evaluate plans, organizations, roles and responsibilities, systems (hardware and software) involved in commissioning the LCLS-II cryomodules in the LERF vault. The reviewers are encouraged examine in detail the novel aspects of this plan and their potential to impact other on-going efforts at the laboratory.

Specifically, the review panel is requested to assess:

- Charge 1

  Has the potential risk to CEBAF (including Cryogenics) operations due to LCLS-II cryomodule commissioning in the LERF been identified and minimized? Are there additional mitigation measures that can reduce this risk? Is the level of risk acceptable?

- Charge 2

  Is the Cryomodule Commissioning OSP complete and comprehensive? Are the roles and responsibilities well defined for both local and remote personnel, including operational and support staff?

- Charge 3

  Is the "Safety Assessment" document complete and comprehensive? Is the hardware and software ready for safe and effective operation?

- Charge 4

  Are the Cryomodule Commissioning OSP and Safety Assessment documents consistent with Accelerator and LERF Operations Directives (AOD and LOD) and the Lab Accelerator Safety Envoleope (ASE), Final Safety Assessment Document (FSAD) and ESH&Q manual?

- Charge 5

  Are the remote access rules of engagement well defined, appropriate and comprehensive? Are the remote roles and responsibilities defined, appropriate, and understood by local and remote staff.

- Charge 6

  Is the Cryomodule Commissioning scope of work well defined? Is the plan and scheduling process compatible with the CEBAF and cryogenic operations and scheduling process.

- Charge 7

  How are configuration and process changes tracked and managed? Is the mechanism for planning, reviewing, authorizing and scheduling tasks, new or old, appropriate and understood by local and remote staff? Is there a change management process?