

Memorandum of Agreement
between
Stanford Linear Accelerator Center
Environment Safety and Health Division
and
Linac Coherent Light Source Directorate

1. Introduction

1.1 General Description

This Memorandum of Agreement between SLAC ES&H Division and the Linac Coherent Light Source Construction (LCLS) Project documents the understanding between SLAC's ES&HD and LCLS line management. The primary and overriding goal is for these organizations to achieve the safe and successful completion of the LCLS Construction Project. This MoA outlines the Roles and Responsibilities of the LCLS Construction Directorate and the ES&H Division with respect to oversight of the execution of work on the LCLS construction project.

The LCLS Construction Directorate was established within SLAC for the purpose of delivering the LCLS Project within requirements and technical standards and specifications set by the Department of Energy and SLAC. Implicit in these requirements is that line management is expected to implement the intent and spirit of the guiding principles and core functions of the Integrated Safety & Environmental Management System (ISEMS).

It is the LCLS Line Management responsibility to ensure that the standards and specifications followed by the Project are based on SLAC Work Smart Standards (WSS). Interpretation and means of implementation of the WSS are found in SLAC ES&H policies and procedures and the SLAC ES&H Manual. LCLS is also responsible for implementing project-specific policies and procedures that are approved by SLAC, such as the *LCLS ISEMS Plan* and *LCLS Project ES&H Plan*. The LCLS project has put into place an ES&H group which will guide the Project's line management in assuring that all project-related work is executed consistent with these expectations. LCLS will endeavor to continuously improve its safety program to implement new DOE requirements, SLAC policies and best practices developed from lessons learned in the course of the Project.

2. General Agreement

2.1 Terms and Conditions

The LCLS Construction Project Management is responsible for stewarding and monitoring the implementation of the Turner Construction Company (TCCo) Safety Program. TCCo's Safety Program as well as the safety program of TCCo sub-contractors, must comply with SLAC ISEMS including the requirements of the *ES&H Manual* Chapters and other documents that provide for the implementation of the laws, regulations and standards contained in the SLAC Work Smart Standards (WSS) Set. SLAC Subject Matter Experts (SMEs) will work with LCLS Construction Project Management to ensure that the LCLS Construction Project's ES&H programs are consistent with SLAC ISEMS.

The ES&HD will support the LCLS project, in keeping with its mission of providing SLAC management and staff with the technical assistance to help ensure a safe and healthy workplace, minimize adverse impact to the general public and environment, and ensure compliance with ES&H policies, regulations, and standards.

2.2 Stopping Imminent Hazard Activities

Any individual at SLAC, ES&HD or the LCLS Project observing an activity presenting an imminent hazard has the authority to interrupt work and alert workers engaged in that activity. Following a discussion with the individual at risk, the UTR or LCLS ES&H Coordinator is to be contacted. The procedure described in *ES&H Manual* Chapter 2, Work Authorization, section 5.3, Stopping Unsafe Activities and section 5.3.4, Line Management Response to a Stop Activity Incident shall be used.

2.3 Amendments

Amendments to this MoA will be issued on an as needed basis in response to events such as major changes in Laboratory safety policy or Department of Energy directives. Any changes to this plan will be formalized as an addendum to this support agreement and changes documented within one week of agreement to make the addendum.

3. Specific Agreements

3.1 Roles and Responsibilities

LCLS responsibilities include the design, facility construction, fabrication of technical systems, assembly, and installation of the LCLS project in a manner that is consistent with ISEMS policies and practices and the SLAC WSS Set including requirements set in *ES&H Manual* chapters.

LCLS operations also shall comply with the SLAC 10 CFR Part 851-mandated Worker Safety and Health Plan (WSHP). The WSHP requires that LCLS shall flow down all worker/workplace safety requirements from the WSHP to all tiers of subcontractors involved in all construction, testing, and operation of LCLS.

3.1.1 LCLS Construction Project Management

LCLS Line Management is responsible for the implementation of ISEMS on the LCLS Project. LCLS line management is responsible for ensuring that the construction of the facility is conducted in a safe manner and that the safety requirements for LCLS Construction are in conformance with the SLAC ES&H Program, primary policy for which is in the *ES&H Manual* and is accountable to the SLAC Director.

LCLS will establish a process to assure that the requirements of the Project -specific ES&H Plan are implemented, and to maintain regular stewardship of its implementation throughout its duration. In cases where equivalent work authorization and safety assurance processes and procedures need to be substituted for SLAC ISEMS processes and procedures as documented in the SLAC ES&H Manual, the ISEMS-equivalent process or procedure shall be identified and documented, reviewed and approved by the responsible SME listed on the WSS Set (also known as the Responsible Person) such that the integrity of SLAC's ISEMS is maintained.

All requirements contained in SLAC's DOE-approved ISEMS shall be observed during all phases of the LCLS project, unless an ISEMS-equivalent process or procedure has been authorized by the ES&HD, and substituted. The project will conduct regular stewardship and oversight of the contractor's safety performance in this regard.

LCLS will provide SLAC with regular feedback on the progress of the Project such as daily Conventional Facilities notification of activities and ES&H developments.

Notification to SMEs will also be expeditiously provided as required in the SLAC *ES&H Manual* for:

- Incidents (near misses, injuries, spills, etc.);
- Changes in construction site access and egress routes; and

- Any utility strikes or unknown/undocumented underground utilities discovered.

Reporting of incidents (such as injuries or environmental releases) will follow standard SLAC protocols, such as the immediate provision of information to the DOE Stanford Site Office through the Facility Manager. Accident investigations and documentation shall be conducted in accordance with the requirements of *ES&H Manual* Chapter 28, "Incident Investigations" which requires non-ORPS investigation to be completed within 15 days from the date of the incident.

3.1.2 ES&H Division

The ES&HD has oversight responsibilities for construction and other activities carried out at SLAC as specified in the *ES&H Manual* and other primary policy documents (such as the *SLAC Radiological Control Manual* and ES&H policy documents signed by the Director). ES&HD SMEs are responsible for providing consultation support, expertise and counsel to LCLS in accomplishing the safe completion of LCLS construction.

The ES&HD will provide LCLS management and its staff with technical support and conduct periodic oversight to ensure a safe and healthy workplace is in place on the construction site.

Technical support provided by ES&HD includes, but is not limited to:

- Review of the LCLS Project ES&H Plan and other LCLS ES&H Plans to ensure consistency with the SLAC ISEMS
- Review required permits (excavations, critical lifts, confined spaces, radiation sources, hot work [burning], air emissions, etc.)
- Tunnel rescue plan coordination
- Storm Water Pollution Prevention Plan (SWPPP) implementation assessment
- Coordination of waste recycling and disposal

ES&HD SMEs will have access to the project site. SMEs will comply with the construction work site access procedures mutually agreed to by ES&HD, LCLS ES&H Coordinators and the TCCo Safety Coordinator and their designees.

The frequency and extent of the construction sites oversight walkthroughs are to be determined based on the work hazards recognized on the LCLS Construction's daily schedule. ES&HD SMEs and LCLS will develop a call-down list of LCLS personnel who will accompany the SMEs on walk-throughs. An ES&H SME may schedule a walkthrough at any time by contacting a listed LCLS manager, UTR or ES&H Coordinator on the call-down list, who will accompany the SME. LCLS will endeavor to respond to every such request as quickly as their immediate duties allow.

3.1.3 Protocol when ESH Issues or Concerns are Identified

Where an ESH Issue or Concern is identified by an ES&HD SMEs, they are to clearly bring it to the attention of the LCLS project personnel accompanying them.

The ES&HD SME should request acknowledgement that the Issue/Concern has been understood.

The ES&HD SME will offer a resolution to the identified Issue/Concern.

The ES&HD SME may request an affirmation of the LCLS project person's proposed action to address the Issue/Concern to assess if they have correctly understood the situation.

The ES&HD SMEs are not responsible for the implementation of any corrective actions to address the identified Issue or Concern. (LCLS project personnel are accountable to the LCLS Project Director for the management of their assigned work.) If the ES&HD SME judge that the LCLS project person does not understand or will not implement an effective control to the identified issue or concern the ES&HD SME will bring this situation to the attention of their respective supervisor for management intervention.

The ES&HD SME will document any Issues or Concerns on the ES&HD site Sharepoint e-log and copy the LCLS project person who had accompanied the ES&HD SME. LCLS will document the corrective actions or other mitigations taken in the e-log.

The Associate Director, ES&H, Director of Operations, or Laboratory Director will resolve the concern with the LCLS Construction Director.

3.1.4 Other Safety Oversight

LCLS will comply with SLAC policy defining the responsibilities and authorities of the Radiation Safety, Laser Safety, Fire Marshal, Electrical Safety, and Pressure & Vacuum Vessel Safety Officers as required in their appointment letters.

3.2 Building Code Compliance

Design changes and other reviews will be coordinated on an as-needed basis by the LCLS Conventional Facilities staff.

Construction must be compliant with applicable requirements and design documents which includes conformance to all applicable Model Building Codes and Standards. Building Inspections are the means to verify that actual construction is in compliance with Building Codes. In addition, the Uniform Building Code (UBC), Chapter 17, requires Special Inspections and structural tests for certain critical construction activities. The ES&H Building Inspection Office will provide inspection oversight of the LCLS project. The LCLS line management is responsible for insuring compliance with model building codes.

4. Coordination

LCLS and ES&HD have developed a process for coordination to review processes, LCLS requests for technical support, and walkthroughs.

ES&H Division SMEs will meet with the LCLS staff and ES&H Coordinators on a regular basis to coordinate activities and facilitate communications.

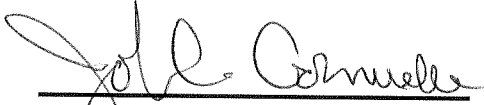
5. Execution

5.1 Effective Date

This Memorandum of Agreement shall become effective upon the latter date of signature of all parties. It shall remain in effect for the duration of the construction project or until superseded, whichever occurs first.

5.2 Approvals

The undersigned concur to the terms of this Memorandum of Agreement.



John C. Cornuelle

Director of Operations

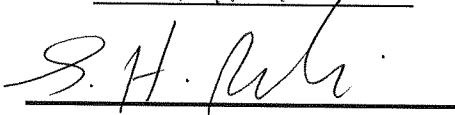
Date: 4/19/07



John N. Galayda

LCLS Construction Project Director

Date: 4/18/07



Sayed H. Rokni

ES&HD Acting Associate Director

Date: 4/18/07



Jess Albino

LCLS Associate Director

Date: 4/18/07