

United States Government
Department of Energy

memorandum

DATE: September 6, 2006

REPLY TO

ATTN OF: SC-22

SUBJECT: DOE Review of the Linac Coherent Light Source (LCLS) Project

TO: Daniel R. Lehman, Director, Office of Project Assessment, SC-1.3

I would like to request that you organize and lead an Office of Science (SC) semi-annual status review of the Linac Coherent Light Source (LCLS) project at the Stanford Linear Accelerator Center (SLAC) during October 24-26, 2006. The purpose of this review is to evaluate progress in all aspects of the project: technical, conventional facilities, cost, schedule, management, and environment, safety and health (ES&H). In addition, the Committee should provide a thorough assessment of existing SLAC laboratory and office space, and judge whether this space would be adequate to support the operation of the LCLS facility and other reasonably foreseeable activities at SLAC beyond FY2008 without a LCLS Central Laboratory and Office Complex (CLOC).

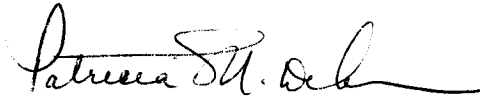
During the past several months, substantial progress has been made in fabricating the LCLS technical hardware, and overall, the project was about 29 percent complete as of June 30, 2006. Although limited civil construction began in March 2006, the project has just recently begun to award fixed-price subcontracts (via its Construction Management contractor – Turner Construction) for the bulk of the civil construction work, including tunneling. Cost growth and contingency usage in this area have been an ongoing cause for concern, and the final group of civil construction subcontract bids due in early October 2006 will enable the project to determine the full extent of the cost impact. These bids are mainly associated with construction of the CLOC.

In carrying out its charge, the Committee should respond to the following questions:

1. Are the project's cost, schedule, and technical baselines consistent with those in the FY2007 LCLS Construction Project Data Sheet and the current DOE-approved LCLS Project Execution Plan (i.e., Total Project Cost of \$379 million and CD-4 in March 2009) and is there adequate progress to meet the baseline objectives? Is the information in the DOE Project Assessment Reporting System consistent with physical progress?
2. Are the designs of the technical systems sufficiently mature to support the hardware procurements planned in FY2007? Will the procurement plans and equipment installation and commissioning plans support the project schedule?
3. Is there a credible scenario that allows the LCLS operations to be fully functional without a LCLS Central Laboratory Office Complex?

4. Is there adequate contingency (cost and schedule) to address the risks inherent in the remaining work and is it being properly managed? Is the contingency supported by and consistent with an appropriate project-wide risk analysis?
5. Is the project being managed (e.g., properly organized, adequately staffed) as needed to proceed with construction? Is there adequate support from SLAC in all necessary areas (e.g., procurement, human resources)?
6. Are ES&H aspects being properly addressed given the project's current stage of development?
7. Has the project responded appropriately to recommendations from prior DOE/SC reviews?

Jeff Hoy, the LCLS Program Manager, and Tom Brown, the LCLS Ultra-fast Science Instruments Program Manager, will serve as the Basic Energy Sciences point of contacts for this review. I would appreciate receiving your committee's report within 60 days of the review's conclusion.



Patricia M. Dehmer
Associate Director of Science
for the Office of Basic Energy Sciences

cc:

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