



Department of Energy  
Washington, DC 20585

JUN 17 2009

MEMORANDUM FOR LK LEN

LARP PROGRAM MANAGER  
FACILITIES DIVISION  
OFFICE OF HIGH ENERGY PHYSICS

FROM:

DENNIS KOVAR *DK for DK*  
ASSOCIATE DIRECTOR OF SCIENCE  
FOR HIGH ENERGY PHYSICS

SUBJECT:

U.S. Large Hadron Collider Accelerator Research Program Annual  
Technical and Management Review

This memorandum is to request that you organize and conduct a Technical and Management review of the U.S. Large Hadron Collider (LHC) Accelerator Research Program (LARP). This review should appropriately involve the input and participation of related programs in the Office of High Energy Physics.

The LHC Accelerator Research Program, encompassing research and development activities in superconducting materials and magnets, accelerator systems, beam instrumentation, and LHC accelerator commissioning efforts, plays an important role in the nation's high energy physics program as it begins to participate in experiments at the LHC at CERN. It is important for the Office of High Energy Physics to understand the progress and future plan of the research program, the effectiveness of its management and whether resources and planning are being directed optimally to support the scientific goals of the nation's high energy physics program.

It is requested that your review evaluate:

- The quality and significance of the LARP scientific and technical accomplishments, and the merit, feasibility and impact of its planned research program;
- The effectiveness of management in strategic planning, developing appropriate core competencies, implementing a prioritized and optimized program for potential participation in future accelerator upgrades at the LHC at CERN;
- The effectiveness and appropriateness of the laboratory interactions to maximize the leveraging of existing infrastructure and expertise available at those laboratories.

In the context of these general review criteria, there are special circumstances that the nation's high energy physics program is facing where additional information at this time would be helpful for this office in its planning. In particular, what should be the priority and levels of R&D effort for LARP to undertake in the superconducting magnet and accelerator systems that would be



most effective and optimum in positioning the U.S. for participation in the upcoming LHC upgrades and is the multi-year plan developed by the LARP management consistent with this goal, what is the timeline and the resources needed to mount this program, what are the scientific and technical risks associated with the proposed program, and are the available resources for LARP being optimally used to achieve the planned goals.

The review should also comment upon what progress has been made towards addressing action items, if any, from previous LARP Reviews.

I would appreciate receiving the review reports, suitable for transmission to the laboratories, within 45 days after the review.

cc: Eric Prebys, FNAL  
Michael Procaro, SC-25  
Bruce Strauss, SC-25