Fermilab

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Memorandum

November 9, 2016

To: Mike Lindgren, Chief Project Officer

From: Nigel Lockyer, Director

Subject: Director's Progress Review of the Short Baseline Neutrino Program

Please organize and conduct a Director's Review on December 19-20, 2016 to assess the progress of the Short Baseline Near Detector (SBND) portion of the Short Baseline Neutrino Program. This review should cover the design, construction, and installation of the SBND detector system (TPC, cosmic ray tagger, light collection, electronics, DAQ) and its cryostat and cryogenic system.

The focus of this review is progress to date versus plan and the forecast for completion of the SBND. Topics will include cost, schedule, management, ES&H, and technical readiness for the execution of the remainder of the SBND. The review committee should respond to the following questions:

1. **Design and Scope.** Is the overall progress on the design and construction of the SBND technical scope consistent with the planned milestones? Have independent design reviews been conducted? Based on the design reviews, are the designs sound and likely to meet the performance requirements? Are interfaces adequately defined?
2. **Cost and Schedule.** Are the cost and schedule estimates for remaining DOE-funded SBND work credible and realistic? Is the proposed spending profile of DOE funds consistent with the projected available budget? Has adequate scope and schedule contingency been identified?
3. **Non-DOE Contributions.** Are the non-DOE deliverables on track for completion of the SBND?
4. **Management.** Is the program being properly managed for the successful execution of the SBND? Are the projected resources sufficient to complete design, construction, and installation of the SBND and are these resources likely to be available when needed? Are the significant risks that remain understood and being adequately managed?
5. **Environment, Safety, and Health.** Is ES&H being appropriately addressed? Are the required environmental approvals, permits, and safety approvals on track to meet the schedule?

The committee is asked to present a draft of their report at the review closeout and to issue the final report within three weeks of the review's conclusion.

Nigel Lockyer
Director
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