Charge for the

Technical Design Review of the Mu2e Beamline, Controls and Instrumentation

October 6-7, 2015

The Mu2e project has recently received CD-2/3b approval from the DOE (March 2015). The project is in the process of completing the final design and preparations for a CD-3c DOE review in early CY-2016. External peer reviews of key technical elements of the project are a part of this process. Beam line design, controls and instrumentation are essential parts of the beam delivery to the experiment. The Mu2e project management would like the committee to review and comment on the current technical design. In particular, the committee is asked to address the following questions:

- 1. Is the technical design of the Mu2e beamline, controls and instrumentation technically sound? Have all the principal issues been appropriately evaluated, simulated, and calculated? Are all of these issues properly addressed in the design?
- 2. What are the technical risks of the design? Have all of the technical risks been accounted for? Have these risks been properly evaluated and have mitigation plans in place?
- 3. Is the technical design of the Mu2e beam lines, controls and instrumentation on track to satisfy the requirements for a DOE CD-3 review in early CY 2016.

The review is scheduled for October 6-7, 2015 with presentations and discussions during the first day; additional questions from the committee in the morning of the second day and executive session in the afternoon of the second day. The committee is requested to submit a report containing its answers to the charge questions and its recommendations to the Mu2e Accelerator project manager within two weeks after the conclusion of the review.