Subject: SAD/ASE Revision Project Kickoff

As you are all aware, it is a high priority for Fermilab to finalize and implement thorough safety requirements for our accelerator facilities and radiation generating devices (RGDs). To maximize our success, we will use project management principles and approaches to deliver the completed accelerator safety documents. If you are receiving this letter, you have been identified by your Directorate/Division leadership as an essential member of the team to successfully achieve this importance task.

**Goal**

In August 2023, we completed an Accelerator Readiness Review (ARR) of our recently revised Safety Analysis Document (SAD) and Accelerator Safety Envelope (ASE) documents to validate they met the requirements of updated DOE Order 420.2D, *“Safety of Accelerators”*. Although the review noted the Laboratory had made good progress, several notable opportunities for improvement were identified that need prompt resolution before Fermilab can resume full operations. Lia has asked me to lead a focused revision of these documents to make the necessary changes.

Our goal is to thoughtfully and intentionally make these final safety document revisions to enable the research mission, promote safe and effective operations, and ensure adequate protection of workers, the public, and the environment.

**Approach**

As an important first step, Fermilab senior mission and mission support leadership have worked together to assemble an experienced and talented team to execute this project. This means that you have all been specifically chosen to help get Fermilab to the finish line on this important effort. Thank you in advance for all the focus, hard work and commitment that will be required to reach this goal. I want to specifically thank Mary Convery for her leadership in the effort as Project Manager. As the Accelerator Directorates (AD) Beam Division leader, Mary is the perfect choice to enable AD’s lead role in completing these important accelerator safety documents to safely meet mission objectives.

Senior executive leadership has developed an overall phased approach to guide the delivery of the project. The phased approach first targets the completion of the SADs and ASEs for the main accelerator complex, progressing from the Linac to the Booster and then to the Main Injector and External Beamline areas. The intent is to “learn as we go” and work in parallel as much as possible to achieve the following schedule:

* Linac and MTA sections of the SAD and ASE ready by the first week of January 2024
* Booster, 8GeV and BNB (including the associated experimental areas) sections by the end of January 2024,
* Main Injector and NuMI (including the associated experimental areas) sections by the end of February 2024, and
* Muon Campus and SwitchYard/Meson (including the associated experimental areas) sections by the end of March 2024.

We will also be working on the remainder of the accelerator and RGD facilities that require compliance with DOE O 420.2D, with completion dates still being determined. Using the lessons we learn in completing the Linac and MTA sections, we will work in parallel on all areas as much as possible and identify potential efficiencies that can perhaps accelerate some aspects of the schedule.

To get the project started, we are conducting a two-day workshop (attendance required) on Thursday and Friday, September 28 and 29, where all project team members will be given an overview of the ARR results and progress to date on improving our SAD and ASE templates. The team will also be given guidance and work through examples on updating risk matrices and ensuring clear connections between the SAD and ASE for Credited Controls, expanding discussion of ODH and fluorinert Credited Controls, evaluating use of Compensatory Measures in the SAD and the process to ensure FSO approval, and evaluate Operating Limits. Please make every effort to attend both days of the workshop.

Most importantly, I want to remind everyone that we need to do this the right way. We don’t want to rush an answer just to get the documents complete. We need to be intentional, thoughtful and focused to ensure that we *simultaneously* protect each other, the public, and the environment, *and* that we enable the mission.

Thank you again for your dedication and commitment to this important project.

Sincerely,

Marc Clay, Deputy COO and SAD and ASE Project Director