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Date: February 28, 2024

To: Alexander Valishev, Head – AD

From: Matthew Quinn, Senior Radiation Safety Officer Matthew Quinn 2/28/2024

Re: Approval of Booster Neutrino Beam Maximum Credible Incident Document

Message:

I have reviewed the document *Booster Neutrino Beam Maximum Credible Incident*, version 0 dated February 28, 2024. This analysis details the maximum credible incident for the Booster Neutrino Beam of 3.78 E17 protons at 8 GeV in one hour and the required credited controls to ensure doses are kept below 5000 mrem inside of buildings, 500 mrem outside of buildings, and 100 mrem to members of the public. A combination of passive shielding and active interlocked detectors are required to meet these dose limits. I concur that the analysis is satisfactory in terms of methodology, completeness, and compliance with the Fermilab Accelerator Safety Envelope dose requirements, and thus approve of this MCI analysis and planned operations within its scope. This approval supersedes the BNB MCI approval dated 2/27/24.

Cc:
G. Annala
M. Clay
M. Convery
J. Crnkovic
J. Fulgham
T. Kobilarcik
J. Malo
W. Schmitt
M. Schoell