JAN 15 2014

Ms. Victoria A. White
Chief Operating Officer
Fermilab
P.O. Box 500
Batavia, IL 60510

Dear Ms. White:

SUBJECT: NATIONAL ENVIRONMENTAL POLICY ACT DETERMINATION AT FERMI NATIONAL ACCELERATOR LABORATORY – MINIBOONE BERM REPAIR

Reference: Letter, from V. White to M. Weis, dated January 8, 2014, Subject: National Environmental Policy Act Environmental Evaluation Notification Form for MiniBooNE Berm Repair

I have reviewed the National Environmental Policy Act (NEPA) Environmental Evaluation Notification Form (EENF) for the MiniBooNE Berm Repair. Based on the information provided in the EENF, I have approved the following categorical exclusion (CX):

Project Name	Approved	CX
MiniBooNE Berm Repair	1/15/2014	B2.5

I am returning a signed copy of the EENF for your records. No further NEPA review is required. This project falls under categorical exclusions provided in 10 *CFR* 1021, as amended in November 2011.

Sincerely,

Michael J. Weis
Site Manager

Enclosure:
As Stated

cc: N. Lockyer, w/o encl.
M. Michels, w/encl.
A. Kenney, w/o encl.
T. Dykhuis, w/encl.

bc: J. Scott, w/o encl.
R. Hersemann, w/encl.

FERMILAB ENVIRONMENTAL EVALUATION NOTIFICATION FORM (EENF) for documenting compliance with the National Environmental Policy Act (NEPA), DOE NEPA Implementing Regulations, and the DOE NEPA Compliance Program of DOE Order 451.1B

Project/Activity Title: Mini Booster Neutrino (MiniBooNE) Berm Repair
ES&H Tracking Number: 01116

I hereby verify, via my signature, the accuracy of information in the area of my contribution for this document and that every effort would be made throughout this action to comply with the commitments made in this document and to pursue cost-effective pollution prevention opportunities. Pollution prevention (source reduction and other practices that eliminate or reduce the creation of pollutants) is recognized as a good business practice which would enhance site operations thereby enabling Fermilab to accomplish its mission, achieve environmental compliance, reduce risks to health and the environment, and prevent or minimize future Department of Energy (DOE) legacy wastes.

Fermilab Action Owner: Steven Dixon (X8501)
Signature and Date 02JAN14

Fermilab ES&H Officer: Kate Pripusich-Sienkiewicz (X4313)
Signature and Date 12/30/13

I. Description of the Proposed Action and Need

Purpose and Need:
The MiniBooNE target station would be used for future experiments and as such needs to provide a reliable means of preventing groundwater infiltration. The purpose of this project is to repair a section of the MiniBooNE berm bay and enable conveyance of stormwater to Indian Creek, thus preventing the stormwater from infiltrating deeper into the ground at MiniBooNE and limiting the probability of the water becoming tritiated.

Proposed Action:
This project would repair the north half of the existing MiniBooNE berm bay (see attached drawing) improving grading and installing a membrane liner and drainage system. The drainage system would drain storm water into a tributary of Indian Creek adjacent to the MiniBooNE berm.

Alternatives Considered:
One alternative considered was installing a dewatering well, which would create a zone of depression that would draw groundwater away from the berm; however, this would not repair the current deteriorated condition.

II. Description of the Affected Environment

See section VI of this EENF.

III. Potential Environmental Effects (If the answer to the questions below is "yes", provide comments for each checked item and where clarification is necessary.)

A. Sensitive Resources: Would the proposed action result in changes and/or disturbances to any of the following resources?

☐ Threatened or endangered species
☐ Other protected species

☐ Wetland/Floodplains
☐ Archaeological or historical resources
☐ Non-attainment areas

B. Regulated Substances/Activities: Would the proposed action involve any of the following regulated substances or activities?

☒ Clearing or Excavation
☒ Demolition or decommissioning
☐ Asbestos removal
☐ PCBs
☐ Chemical use or storage
☐ Pesticides
☐ Air emissions
☐ Liquid effluents
☐ Underground storage tanks
☐ Hazardous or other regulated waste (including radioactive or mixed)
☒ Radioactive exposures or radioactive emissions
☐ Radioactivation of soil or groundwater

C. Other Relevant Disclosures: Would the proposed action involve any of the following actions/disclosures?

☐ Threatened violation of ES&H permit requirements
☐ Siting/construction/major modification of waste recovery or TSD facilities
☐ Disturbance of pre-existing contamination
☐ New or modified permits
☐ Public controversy
☐ Action/involvement of another federal agency
☐ Public utilities/services
☐ Depletion of a non-renewable resource

IV. Comments on checked items in section III.

Clearing and/or Excavation
Less than 1/2 acre would be disturbed and the material would be stockpiled on site and regraded as required. Soil and erosion control methods would comply with Fermilab standards. Any spoils not used as backfill would be hauled to the berm North of KTev where it would be graded out at a later time.

Demolition and Decommissioning
A concrete slab and a portion of pavement would be removed to allow for liner installation and then this would be reconstructed. This material would be recycled in a manner consistent with Fermilab policies and procedures.

Radioactive Exposures or Radioactive Emissions
This project would include the reworking of an existing shielding berm. As such, proper precautions, including training, would be included in the subcontract documents.

V. NEPA Recommendation

Fermilab staff has reviewed this proposed action and believe a Categorical Exclusion is appropriate. The MiniBooNE activity is covered by an Environmental Assessment/Finding of No Significant Impact of the '8 GeV Fixed Target Facility at the Fermilab Booster and for the Booster Neutrino Detectors' that was signed by DOE on April 29, 1999. It is believed that the proposed action meets the description found in DOE's NEPA Implementation Procedures, 10 CFR 1021, Subpart D, Appendix B2.5 – *Facility safety and environmental improvements* - which states:

"Safety and environmental improvements of a facility (including, but not limited to, replacement and upgrade of facility components) that do not result in a significant change in the expected useful life, design capacity, or function of the facility and during which operations may be suspended and then resumed. Improvements include, but are not limited to, replacement/upgrade of control valves, in-core monitoring devices, facility air filtration systems, or substation transformers or capacitors; addition of structural bracing to meet earthquake standards and/or sustain high wind loading; and replacement of aboveground or belowground tanks and related piping, provided that there is no evidence of leakage, based on testing in accordance with applicable requirements (such as 40 CFR part 265, "Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage and Disposal Facilities" and 40 CFR part 280, "Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks"). These actions do not include rebuilding or modifying substantial portions of a facility (such as replacing a reactor vessel)."

Fermilab NEPA Program Manager: Teri L. Dykhuis
Signature and Date Teri L. Dykhuis 1/8/2014

VI. DOE/FSO NEPA Coordinator Review

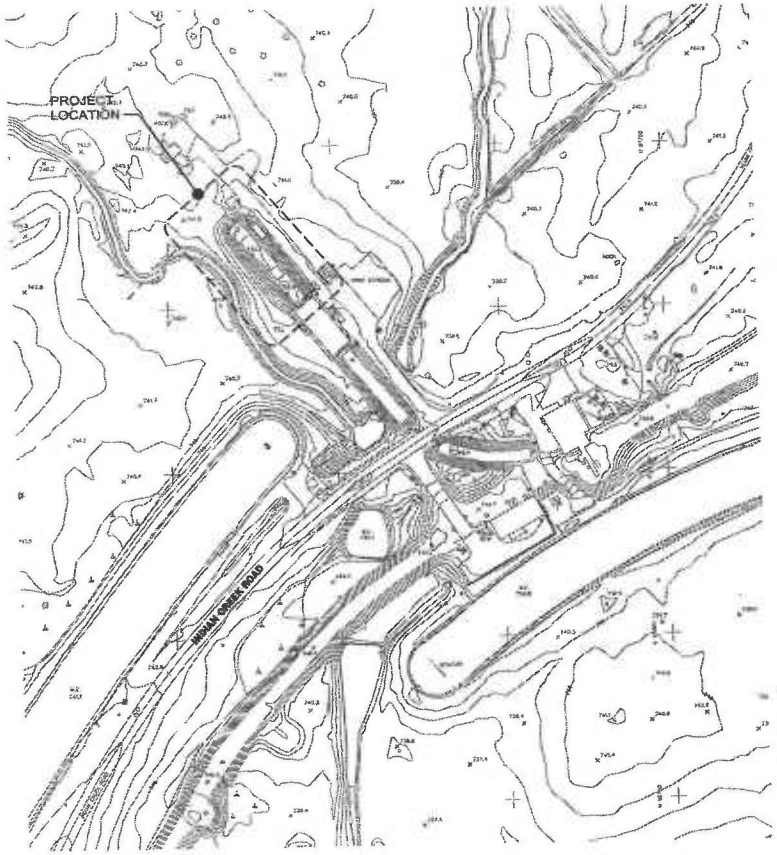
Concurrence with the recommendation for determination:

Fermi Site Office (FSO) Manager: Michael J. Weis
Signature and Date 1/15/2014

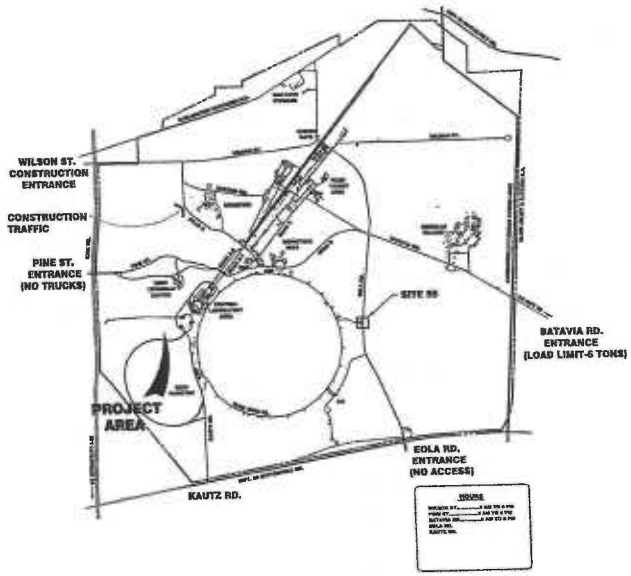
FSO NEPA Coordinator: Rick Hersemann
Signature and Date Rick Hersemann 1/15/2014

See attached drawing of project location on following page.

MINI BOONE TARGET HALL/8 GEV BEAMLINE



LOCATION PLAN



VICINITY PLAN

LIST OF DRAWINGS

	A/E CONSULTANT	DATE	FROM LAB	DATE
DESIGNED	J. HOLZINGER	12-11-13		
DRAWN	J. HOLZINGER	12-11-13	R. MERCHUT	12-11-13
CHECKED	J. STEENKEN	12-11-13	R. ORTGIESEN	12-11-13
APPROVED	J. STEENKEN	12-11-13	R. KEPHART	12-11-13

Burns & McDonnell SINCE 1898

BMcD PROJECT NUMBER 75199

SCALE:

FERMI NATIONAL ACCELERATO

UNITED STATES DEPARTMENT OF

Mini BooNE TARGET HALL

COVERSHEET AN

DRAWING NO.

Attachment