

DEC 16 2013

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 – SMALL MAGNET PROTOTYPE
AND RESEARCH AND DEVELOPMENT

Reference: Letter, from V. White to M. Weis, dated December 5, 2013, Subject: National
Environmental Policy Act Environmental Evaluation Notification Form for the
Small Magnet Prototype and Research and Development

I have reviewed the National Environmental Policy Act (NEPA) Environmental Evaluation
Notification Form (EENF) for the Small Magnet Prototype and Research and Development.
Based on the information provided in the EENF, I have approved the following categorical
exclusion (CX):

<u>Project Name</u>	<u>Approved</u>	<u>CX</u>
Small Magnet Prototype and Research and Development	12/10/2013	B1.15

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: Small Magnet Prototype and Research and Development (R&D)
ES&H Tracking Number: 01113

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: Thomas Wokas (X8122)

Signature and Date Thomas Wokas 12-2-13

Fermilab ES&H Officer: Bridget Scerini (X3382)

Signature and Date Bridget Scerini 12/2/13

I. Description of the Proposed Action and Need

Purpose and Need:

The purpose of the Fermilab Technical Division Small Magnet Prototype and Research and Development Process is to supply working models of desired components for future projects. It is needed to obtain operation and performance data and to establish assembly procedures.

Proposed Action:

The process would involve winding coils and coil packages and assembling into complete units including all conductor wire splicing and terminations [see Appendix A]. All work would be done in the Industrial Building 2 Small Magnet Research Facility.

Alternatives Considered:

This is a customized process specifically for Research and Development of accelerator magnets and could not be provided by private industry because it would be cost and time prohibitive. The No Action alternative would not fulfill the purpose and need stated above.

II. Description of the Affected Environment

Insulstrip liquid and gel electrical insulation remover would be used. A small amount of smoke would be produced during soldering operations and waste rags would be generated when removing flux residue with flux removal spray.

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.

Chemical Use or Storage

Insulstrip liquid and gel electrical insulation remover would be used. The material is a wire insulation stripper used for removing enamel, lacquer, and resinous insulations from magnet wire, conductors, and resistance wire. Hazardous ingredients include dichloromethane, formic acid, phenol, and toluene. Any excess Insulstrip would evaporate off so there would be no waste Insulstrip. The only waste that would be generated is a small amount of the polymer material that is being stripped off that is thrown in the regular trash.

Air Emissions

A small amount of smoke would be produced during soldering operations. The soldering is typical soft soldering for wires. The work is performed in a well-ventilated area.

Hazardous or other Regulated Waste

Waste rags would be generated when removing flux residue with flux removal spray. The rags would be collected in red cans and handled as hazardous waste.

V. NEPA Recommendation

Fermilab staff has reviewed this proposed action and believe a Categorical Exclusion is appropriate. It is believed that the proposed action meets the description found in DOE's NEPA Implementation Procedures, 10 CFR 1021, Subpart D, Appendix B1.15 which states:

"Siting, construction or modification, and operation of support buildings and support structures (including, but not limited to, trailers and prefabricated and modular buildings) within or contiguous to an already developed area (where active utilities and currently used roads are readily accessible). Covered support buildings and structures include, but are not limited to, those for office purposes; parking; cafeteria services; education and training; visitor reception; computer and data processing services; health services or recreation activities; routine maintenance activities; storage of supplies and equipment for administrative services and routine maintenance activities; security (such as security posts); fire protection; small-scale fabrication (such as machine shop activities), assembly, and testing of non-nuclear equipment or components; and similar support purposes, but exclude facilities for nuclear weapons activities and waste storage activities, such as activities covered in B1.10, B1.29, B1.35, B2.6, B6.2, B6.4, B6.5, B6.6, and B6.10 of this appendix."

Fermilab NEPA Program Manager: Teri L. Dykhuis

Signature and Date

Teri L. Dykhuis 12/5/2013

VI. DOE/FSO NEPA Coordinator Review

Concurrence with the recommendation for determination:

Fermi Site Office (FSO) Manager: Michael J. Weis

Signature and Date

Michael J. Weis 12/16/2013

FSO NEPA Coordinator: Rick Hersemann

Signature and Date

Rick Hersemann 12/10/2013

Appendix A



