

OCT 29 2014

Ms. Martha E. Michels  
Assistant Director for ESH&Q  
Fermilab  
P.O. Box 500  
Batavia, IL 60510

Dear Ms. Michels:

SUBJECT: NATIONAL ENVIRONMENTAL POLICY ACT DETERMINATION AT FERMI  
NATIONAL ACCELERATOR LABORATORY – GENERIC CATEGORICAL  
EXCLUSION: SMALL-SCALE RESEARCH AND DEVELOPMENT PROJECTS  
AND CONVENTIONAL LABORATORY OPERATIONS

Reference: Letter, from M. Michels to M. Weis, dated October 24, 2014, Subject: National  
Environmental Policy Act Environmental Evaluation Notification Form for the  
Generic Categorical Exclusion: Small-scale Research and Development Projects  
and Conventional Laboratory Operations

I have reviewed the National Environmental Policy Act (NEPA) Environmental Evaluation  
Notification Form (EENF) for the Generic Categorical Exclusion: Small-scale Research and  
Development Projects and Conventional Laboratory Operations. Based on the information  
provided in the EENF, I have approved the following generic categorical exclusion (CX):

<u>Project Name</u>	<u>Approved</u>	<u>CX</u>
Generic Categorical Exclusion: Small-scale Research and Development Projects and Conventional Laboratory Operations	10/28/2014	B3.6

I am returning a signed copy of the EENF for your records. No further NEPA review is required  
for projects and/or activities meeting the conditions specified in the approved CX, which fall  
under CXs 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.  
J. Lykken, w/o encl.  
T. Meyer, w/o 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:** Generic Categorical Exclusion: Small-scale Research and Development Projects and Conventional Laboratory Operations  
**ES&H Tracking Number:** 01128

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: Nigel Lockyer (x6723)**  
 Signature and Date  10-24-14 FOR N. LOCKYER

**Fermilab ES&H Officer: Eric Mieland (x2248)**  
 Signature and Date  10-23-14

**I. Description of the Proposed Action**

This Categorical Exclusion covers small-scale research and development projects and conventional laboratory operations conducted in established buildings at Fermi National Accelerator Laboratory, as well as offsite collaborations with other state, federal, or international entities. Specifically small-scale chemical, physical, and theoretical studies, experiments, and related activities including the assembly/disassembly of experimental instrumentation and research equipment are within the scope of the proposed actions.

**II. Description of the Affected Environment**

The Fermilab site is located 38 miles west of downtown Chicago, Illinois. Its 6,800 acres straddle the boundary between eastern Kane and western DuPage Counties in an area of mixed residential, commercial, and agricultural land use. Fermilab has operated on the current site since 1967. Immediately to the east is the town of Warrenville (13,363 population), to the west is Batavia (23,866 population), to the north is West Chicago (23,469 population), and to the south and southwest is Aurora (142,990 population). Fermilab is in close proximity to major transportation resources (Interstate 88, Route 59 and the Railhead) and surrounded by the communities of Geneva, Batavia, and West Chicago.

**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: Will the proposed action result in changes and/or disturbances to any of the following resources**

	Yes/No
1. Threatened/Endangered Species and/or Critical Habitats	No
2. Other Protected Species (e.g. Burros, Migratory Birds)	No
3. Wetlands	No
4. Archaeological/Historic/Cultural Resources	No
5. Prime, Unique, or Important Farmland	No
6. Non-Attainment Areas for Ambient Air Quality Standards	Yes

*Fermilab is located within a non-attainment area, therefore, all proposed activities*

are carefully reviewed to determine whether a criteria pollutant would be emitted and whether an air permit is necessary.

- 7. Class I Air Quality Control Region No
- 8. Special Sources of Groundwater (e.g. Sole Source Aquifer) No
- 9. Navigable Air Space No
- 10. Coastal Zones No
- 11. Areas w/ Special National Designations (e.g. National Forests, Parks, Trails) No
- 12. Floodplain or Wetlands No

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

- 13. Natural Resource Damage Assessments No
- 14. Invasive Species or Exotic Organisms No
- 15. Noxious Weeds No
- 16. Clearing or Excavation (indicate if greater than one acre) No
- 17. Dredge or Fill (under Clean Water Act, Section 404, greater than one acre) No
- 18. Noise (in excess of regulations) No

**19. Asbestos Removal Yes**

*Some activities may involve penetration of asbestos containing walls, asbestos tile removals etc. These activities would require support from an asbestos certified subcontractor. The removal would comply with the Fermilab ES&H Manual.*

- 20. Polychlorinated biphenyls (PCBs) No
- 21. Import, Manufacture, or Processing of Toxic Substances No

**22. Chemical Storage/Use Yes**

*Some proposed experiments may require the use and/or storage of chemical. This Would be conducted in accordance with Safety Data Sheets and follow the requirements of the Fermilab ES&H Manual and applicable regulations.*

- 23. Pesticide Use No
- 24. Hazardous, Toxic, or Criteria Pollutant Air Emissions No

**25. Liquid Effluents Yes**

*Some liquid effluents may result from proposed activities. These effluents would be managed in accordance with the Fermilab ES&H Manual and applicable regulations.*

- 26. Spill Prevention/Surface Water Protection No
- 27. Underground Injection No

**28. Hazardous Waste Yes**

*Hazardous waste (e.g. solvent rags used for cleaning components) may be generated by some experiments, and would be managed by the Hazard Waste Control Technology Team and according to the Fermilab ES&H Manual.*

- 29. Underground Storage Tanks No

**30. Radioactive or Radioactive Mixed Waste Yes**

*Some proposed activities may involve the generation of radioactive waste. All chemical/radioactive material would be managed according to the Fermilab ES&H Manual and applicable regulations.*

**31. Radiation Exposure Yes**

*Some proposed activities may involve the use of radioactive materials or radiation generating devices. Radiological protection would be provided by the appropriate Radiation Safety Officer and the Fermilab Radiation Control Manual would be followed.*

- 32. Nanoscale Materials No
- 33. Genetically Engineered Microorganisms/Plants or Synthetic Biology No

**34. Ozone Depleting Substances (ODS) Yes**

*Some proposed activities may use and emit low levels of ozone depleting substances. The Operational Readiness Review process would dictate any restrictions on the use, and Disposal of ODS'.*

**35. Greenhouse Gas Generation/Sustainability Yes**

*Some proposed activities may emit low levels of greenhouse gases (gases that absorb and Emit infrared radiation within the thermal infrared range). Suitable alternatives would always be investigated and used whenever possible and emissions would be kept to a minimum.*

- |                                    |    |
|------------------------------------|----|
| 36. Off-Road Vehicles              | No |
| 37. Biosafety Level 3-4 Laboratory | No |

**C. Other Relevant Information: Would the proposed action involve the following?**

- |   |    |
|---|----|
| 38. Existing, Modified or New Federal/State Permits                                       | No |
| 39. Disproportionate Nearby Presence of Minority and/or Low Income Populations            | No |
| 40. Action/Involvement of Another Federal Agency (e.g. license/permit, funding, approval) | No |
| 41. Action of a State Agency in a State with NEPA-type law                                | No |
| 42. Public Utilities/Services   | No |
| 43. Depletion of a Non-Renewable Resource   | No |
| 44. Other Pertinent Information Which could Impact Human Health or the Environment        | No |

**IV. Conditions of Determination**

The proposed action must fit within a class of actions that is listed in Appendix A or B3.6 to 10 CFR 1021 Subpart D. For this Generic Categorical Exclusion to be applicable, the proposed activities must meet the following conditions:

A. The proposed action must not:

1. Threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, including DOE and/or Executive Orders;
2. Require siting, construction, or major expansion of waste storage, disposal, recovery, or treatment facilities, but may include such categorically excluded facilities;
3. Disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that pre-exist in the environment such that there would be uncontrolled or unpermitted releases; or
4. Adversely affect environmentally sensitive resources.

B. There are no extraordinary circumstances related to the proposal that may affect the significance of the environmental effects of the proposal; and

C. The proposal is not “connected” to other actions with potentially significant impacts, and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211.

**V. NEPA Recommendation**

Fermilab staff has evaluated the 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 B3.6 – *Small-scale research and development, laboratory operations, and pilot projects.*

B3.6 “Siting, construction, modification, operation, and decommissioning of facilities for small-scale research and development projects; conventional laboratory operations (such as preparation of chemical standards and sample analysis); and small-scale pilot projects (generally less than 2 years) frequently conducted to verify a concept before demonstration actions, provided that construction or modification would be within or contiguous to a previously disturbed or developed area (where active utilities and currently used roads are readily accessible). Not included in this category are demonstration actions, meaning actions that are taken at a scale to show whether a technology would be viable on a larger scale and suitable for commercial deployment.”

Fermilab NEPA Program Manager: Teri L. Dykhuis  
Signature and Date

Teri L. Dykhuis 10/24/2014

**VI. DOE/FSO NEPA Coordinator Review**

Concurrence with the recommendation for determination:

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

MJW 10/29/2014

FSO NEPA Coordinator: Rick Hersemann  
Signature and Date

Rick Hersemann 10/28/2014