



Department of Energy

Fermi Site Office
Post Office Box 2000
Batavia, Illinois 60510

March 22, 2017

Ms. Martha E. Michels
Chief Safety Officer
Fermilab
P.O. Box 500
Batavia, IL 60510

Dear Ms. Michels:

SUBJECT: NATIONAL ENVIRONMENTAL POLICY ACT DETERMINATION AT FERMI NATIONAL ACCELERATOR LABORATORY – INTRODUCTION OF EASTERN PRAIRIE FRINGED ORCHID AT FERMILAB

Reference: Letter, from M. Michels to R. Hersemann, dated March 3, 2017, Subject: National Environmental Policy Act Environmental Evaluation Notification Form for the Introduction of Eastern Prairie Fringed Orchid at Fermilab

The Fermi Site Office (FSO) has reviewed the National Environmental Policy Act (NEPA) Environmental Evaluation Notification Form (EENF) for the Introduction of Eastern Prairie Fringed Orchid at Fermilab. Based on the information provided in the EENF, the following categorical exclusion (CX) is approved:

<u>Project Name</u>	<u>Approved</u>	<u>CX</u>
Introduction of the Eastern Prairie Fringed Orchid at Fermilab	3/16/2017	B1.20, B2.5, B3.1, B3.3, B3.8

Enclosed is 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.
J. Lykken, w/o encl.
T. Meyer, w/o encl.
B. Iverson, w/o encl.
T. Dykhuis, 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: Introduction of Eastern Prairie Fringed Orchid at Fermilab
ES&H Tracking Number: 01141

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: Ryan Campbell (X5392)

Signature and Date _____

R. Campbell
11824N 3/2/17

I. Description of the Proposed Action and Need

Purpose and Need:

The U.S. Fish and Wildlife Service (USFWS) and the U.S. Department of Energy (USDOE) are exploring the possibility of an agreement to introduce the federally-threatened eastern prairie fringed orchid (EPFO) through seed dispersal on the Fermilab site. Fermilab has extensive, well-managed wet prairies that could sustain EPFO populations and contribute to the USFWS Recovery Plan. Such an agreement would include assurances that introduction and management of this species would not affect current or future operations and/or development necessary to fulfill the Fermilab science mission. The Fermilab site is well suited for introduction of this species. All locations where seed would be introduced are secure and not accessible to the public. White tailed deer, a threat to EPFO due to excessive browse, are managed at Fermilab, keeping herd size at ecologically-healthy levels. The Fermilab National Environmental Research Park (NERP) Coordinator would be working with USFWS to design an EPFO seed introduction science experiment, helping to answer questions about national recovery efforts for this species. Chosen introduction sites are located in areas with a very low probability of development for the Fermilab science mission. Additionally, federal agencies are encouraged to work together on environmental initiatives.

Proposed Action:

The USFWS has done a preliminary evaluation of the relative costs and benefits, to the species, of creating EPFO populations at Fermilab given the constraint that they might later be altered or eliminated if Fermilab's mission required an alternative use of the sites. Given the net benefit to the species, the USFWS can offer regulatory assurances through the section 7 consultation process under the Endangered Species Act, and remove disincentives that might otherwise exist and prevent USDOE from providing endangered species habitat at Fermilab. The regulatory assurances can be provided through the Biological Opinion (BO), which was issued on February 27, 2017, evaluating USDOE's proposed project of creating, and later, at some point in the future removing, one or more EPFO populations at Fermilab. The BO authorizes orchid seed dispersal at Fermilab, management of any successfully created populations, and at some point in the future removal of those populations if needed in fulfillment of Fermilab's mission.

Alternatives Considered:

USDOE and USFWS have the opportunity to partner on a mutually-beneficial, cooperative venture. Doing nothing would negate this venture and not fulfill the above mentioned Purpose and Need.

II. Description of the Affected Environment

Seed of EPFO would be dispersed in a number of potential locations on the Fermilab site (see attached map and list). This activity is identical to the seed enrichment efforts of the Fermilab Roads and Grounds department across the site natural areas. Additional environmental effects are included in Section III.

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.

Threatened or endangered species

In the BO, it was concluded that the Establishment within Suitable Habitat of a Temporary Population of the Eastern Prairie Fringed Orchid at the DOE owned Fermilab Facility, as proposed, is not likely to jeopardize the continued existence of the eastern prairie fringed orchid. No critical habitat has been designed for this species; therefore, none will be affected.

Action/involvement of another federal agency.

The Fermilab National Environmental Research Park (NERP) Coordinator would be working with USFWS

to design an EPFO seed introduction science experiment, helping to answer questions about national recovery efforts for this species.

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 B1.20, B2.5, B3.1, B3.3, and B3.8 as follows.

B1.20 Protection of cultural resources, fish, and wildlife habitat

Small-scale activities undertaken to protect cultural resources (such as fencing, labeling, and flagging) or to protect, restore, or improve fish and wildlife habitat, fish passage facilities (such as fish ladders and minor diversion channels), or fisheries. Such activities would be conducted in accordance with an existing natural or cultural resources plan, if any.

B2.5 Facility safety and environmental improvements

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).

B3.1 Site characterization and environmental monitoring

Site characterization and environmental monitoring, (including but not limited to siting, construction, modification, operation, and dismantlement and removal or otherwise proper closure (such as of a well) of characterization and monitoring devices, and siting, construction, and associated operation of a small-scale laboratory building or renovation of a room in an existing building for sample analysis). Such activities would be designed in conformance with applicable requirements and use best management practices to limit the potential effects of any resultant ground disturbance. Covered activities include, but are not limited to, site characterization and environmental monitoring under CERCLA and RCRA. (This class of actions excludes activities in aquatic environments. See B3.16 of this appendix for such activities.) Specific activities include, but are not limited to: (a) Geological, geophysical (such as gravity, magnetic, electrical, seismic, radar, and temperature gradient), geochemical, and engineering surveys and mapping, and the establishment of survey marks. Seismic techniques would not include large-scale reflection or refraction testing; (b) Installation and operation of field instruments (such as stream-gauging stations or flow-measuring devices, telemetry systems, geochemical monitoring tools, and geophysical exploration tools); (c) Drilling of wells for sampling or monitoring of groundwater or the vadose (unsaturated) zone, well logging, and installation of water-level recording devices in wells; (d) Aquifer and underground reservoir response testing; (e) Installation and operation of ambient air monitoring equipment; (f) Sampling and characterization of water, soil, rock, or contaminants (such as drilling using truck- or mobile-scale equipment, and modification, use, and plugging or boreholes); (g) Sampling and characterization of water effluents, air emissions, or solid waste streams; (h) Installation and operation of meteorological towers and associated activities (such as assessment of potential wind energy resources); (i) Sampling of flora or fauna; and (j) Archeological, historic, and cultural resource identification in compliance with 36 CFR part 800 and 43 CFR part 7.

B3.3 Research related to conservation of fish, wildlife, and cultural resources

Field and laboratory research inventory, and information collection activities that are directly related to the conservation of fish and wildlife resources or to the protection of cultural resources, provided that such activities would not have the potential to cause significant impacts on fish and wildlife habitat or populations or to the cultural resources.

B3.8 Outdoor terrestrial ecological and environmental research

Outdoor terrestrial ecological and environmental research in a small area (generally less than 5 acres), including, but not limited to, siting, construction, and operation of a small-scale laboratory building or renovation of a room in an existing building for associated analysis. Such activities would be designed in conformance with applicable requirements and use best management practices to limit the potential effects of any resultant ground disturbance.

Fermilab NEPA Program Manager: Teri L. Dykhuis

Signature and Date

Teri L. Dykhuis 3/2/2017

VI. DOE/Fermi Site Office (FSO) NEPA Review

Based upon my review of information conveyed to me and in my possession concerning the proposed action, as NEPA Compliance Officer (as authorized under DOE Order 451.1A), I have determined that the proposed action fits within the specified class of actions, the other regulatory requirements set forth above are met, and the proposed action is hereby categorically excluded from further NEPA review.

FSO NEPA Compliance Officer: Rick Hersemann

Signature and Date

Rick Hersemann 3/16/2017

VII. Appendix – Map of Possible Orchid Locations (next page)

