FESHM 8060: NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) REVIEW PROGRAM

Revision History

Author	Description of Change	Revision Date
Teri L. Dykhuis	Revised to reflect that ESH&Q was changed to ES&H and updated the Fermilab NEPA review process flow chart.	March 2022
Teri L. Dykhuis	Revised to reflect the centralization of ESH&Q, the change from Division/Section/Center to Division/Section/Project and the replacement of references to "project" with "action."	December 2018
	Incorporated the new Environmental Review Form, replacing the former Project Information Form; a new NEPA Review Process Flow Chart; and a new Environmental Evaluation Checklist and accompanying directions and definitions.	November 2013
Teri L. Dykhuis	Revised Chapter to incorporate required formatting	December 2010
Teri L. Dykhuis	Chapter 8060 Rewrite	March 2003
Teri L. Dykhuis	Initial release Chapter 8060	March 1997

TABLE OF CONTENTS

1.0 INTRODUCTION

The purpose of this chapter is to ensure that actions contemplated/proposed by Fermilab receive the appropriate environmental impact review pursuant to the National Environmental Policy Act (NEPA) as found in 40 CFR 1500-1508, the Council on Environmental Quality regulations, the United States Department of Energy (DOE) NEPA Implementing Procedures (10 CFR 1021), the DOE Office of Science NEPA Procedures, and the Fermilab Director's Policy Manual.

NEPA requires federal agencies to consider the impact of contemplated/proposed actions prior to initiating those actions. Consequently, the terms of NEPA must be met during the early proposal phase of an action (or when substantial action changes are being considered) and NOT immediately preceding an action or after an action has been taken. Varying degrees of documentation are necessary for federal agencies to demonstrate compliance with NEPA. This chapter will serve to assure that potential impacts of proposed actions to be taken by Fermilab are reviewed in a timely manner and that the appropriate documentation, if necessary, is generated.

It is the intent of Fermilab to fully comply with the letter and spirit of NEPA. To ensure that impacts of contemplated/proposed actions are considered early in the decision-making process, Fermilab shall conduct necessary NEPA reviews in the initial phase of the activity planning process.

This program (for NEPA Review Process Flow Chart see Technical Appendix A) applies to all Fermilab actions[1] that will potentially impact the human environment (CEQ Guidance defines human environment as "the natural and physical environment and the relationship of people with that environment) during any phase of activity (design, construction, operation, decommissioning, demolition, and disposal). The Environmental Review Form shall be used as an aid to determine the potential for impacts (it is highly recommended that consultation with the NEPA Coordinator from the ES&H Section be sought). If any of the ERF Checklist items apply to an activity, a NEPA review should be conducted. Please note that many Fermilab activities are administrative and covered by 10 CFR Part 1021 Appendix A categorical exclusions that do not require formal documentation; furthermore, the Generic Routine Maintenance Categorical Exclusions, which are preapproved by DOE, applies to several routine maintenance activities conducted at Fermilab (this should be documented in the Environmental Review Form); and additional other activities may be covered by previously approved DOE NEPA documents (CXs, EAs or EISs). Periodically, a formal NEPA review requiring submittal of an Environmental Evaluation Notification Form (EENF) to the Fermi Site Office may be necessary. To initiate this process, an Environmental Review Form shall be completed, and assistance should be enlisted from your Division Safety Officer (DSO). This ERF is not exhaustive and therefore the ES&H NEPA Coordinator should be consulted if a potential impact applies but is not listed. The DOE Office of Science (SC) Environmental Evaluation Checklist, which is more exhaustive, is also included as Technical Appendix B to this chapter and may be used to screen

[1] Material purchases are not in themselves an action; however, these purchases may be part of an action that would potentially impact the environment. If material purchases are made in connection with routine operations or were considered as part of the initial NEPA review of an action, subsequent review is not necessary for repeat purchases of these materials (as long as they are used in the same manner and context originally described in the NEPA review). The focus of NEPA is to evaluate an action in its entirety including any necessary material purchases.

actions for potential impacts, especially when all or a portion of the action will take place somewhere other than the Fermilab site.

2.0 DEFINITIONS

Categorical Exclusion (CX): Actions that, by their nature, do not individually or cumulatively have a significant effect on the human environment. A list of these CXs is described at 10 CFR 1021, Subpart D, Appendices A and B.

Action Owner: A person in the D/S/P who is responsible for all phases (design, construction, operation, decommissioning, demolition, and disposal) of an action; this person is knowledgeable about the action and will most likely originate requisitions connected with the action and/or have signature authority over the action's funding.

Environmental Assessment (EA): A document that assesses whether a proposed action is a "major Federal action significantly affecting the quality of the human environment," and that serves as the basis for a determination by DOE as to whether an environmental impact statement is required.

Environmental Review Form (ERF): A documented internal evaluation that provides information about a proposed action relevant to any potential environmental impacts.

Environmental Evaluation Notification Form (EENF): A comprehensive document describing proposed Fermilab actions that serves to notify DOE of potential impacts and to recommend an appropriate level of NEPA review to the DOE Fermi Site Office (FSO) decision maker. The EENF document is submitted to DOE for evaluation and approval. Actions may not proceed until a DOE determination is secured.

Environmental Impact Statement (EIS): A document prepared by DOE in accordance with the requirements of section 102(2)(c) of the National Environmental Policy Act and CEQ Regulations at 40 CFR 1500-1508.

Generic CX (See Appendix C): A CX determination by DOE that covers multiple and/or repetitive actions conducted routinely at a site over a period of time, and that sets appropriate bounding criteria.

NEPA Reviewer: Personnel who are designated by D/S/P policy/procedures to determine the appropriate disposition of proposed actions in the NEPA context.

3.0 SPECIAL RESPONSIBLILITIES

3.1 Chief Safety Officer (CSO):

- Act as formal liaison between the laboratory and DOE regarding NEPA issues.
- Review all Environmental Evaluation Notification Forms (EENFs) prior to submission to DOE.

- Coordinate NEPA review with other administrative procedures such as funding requests and schedule considerations.
- Transmit EENF forms to the Fermilab Site Office (FSO).

3.2 Division/Section/Project Head:

- Ensure that an Action Owner is designated for each D/S/P action initiated and that the Action Owner is aware of their responsibility for NEPA compliance.
- Provide resources as necessary to support Action Owners in fulfilling their responsibilities.

3.3 Division/Section/Project or Activity Owners:

- Ensure that impacts of their proposed activities/actions are considered early in the planning process and that necessary NEPA reviews are conducted by following the steps enumerated in this chapter. The D/S/P Activity Owner shall be responsible for ensuring that the action is screened for potential impacts; assistance may be obtained from the ES&H NEPA Coordinator. If the action is determined to require a formal NEPA review, the D/S/P Activity Owner shall ensure that this review is conducted.

3.4 Fermilab NEPA Coordinator:

- Review ERFs submitted by D/S/Ps and when necessary, utilize information for transmittal of EENF to FSO to determine NEPA compliance.
- Prepare EENFs (when required) for proposed actions and submit the EENF documentation to the CSO for review (the CSO will then transmit the EENF to the DOE), utilizing information gleaned from the ERF and other input from D/S/P personnel.
- Assist Activity Owners from D/S/Ps in preparing Environmental Assessments and other necessary NEPA documents.
- Assess D/S/P implementation of NEPA procedures through periodic formal audits.
- Serve as the primary point of contact between DOE FSO and Fermilab on all NEPA matters at the Laboratory.

4.0 PROGRAM DESCRIPTION

Early in the activity concept and planning process, Activity Owners shall do the following (see Technical Appendix A for flow chart of these steps):

1. Evaluate proposed action, utilizing the online ERF to identify potential impacts. (If the proposed action will take place at a location other than the Batavia Fermilab site or the South Dakota Long Baseline Neutrino Facility leased spaces, then it is recommended that the EE Checklist, in Appendix B, be utilized to evaluate the proposed action). If there is a potential environmental impact or any of the ERF or EE checklist items apply to the activity, it is considered a NEPA action and a NEPA review is required so the ERF shall be completed. Proceed to step 2 below. NOTE: If further NEPA review is not applicable, other ES&H review requirements still apply.
2. Once the ERF is submitted, the Fermilab NEPA Coordinator, will decide whether the proposed activity is found in the categories of activities listed in 10 CFR 1021 Appendix A; meets the

criteria for a Generic Routine Maintenance Categorical Exclusion (CX), as listed at the end of this chapter; or is covered by an existing NEPA approval (CX, EA, or EIS). If the action does not meet the criteria for any of the above, then proceed to step 3 below.

3. The D/S/P Activity Owner will select the option: "requires DOE approval," when appropriate, which will automatically transmit the ERF electronically to the ES&H Section, Fermilab NEPA Coordinator. An EENF will be completed by the Fermilab NEPA Coordinator and forwarded to the Action Owner for his/her review and signature. Upon receipt of the signed EENF, it is then forwarded to DOE FSO NEPA Compliance Officer for a determination. (The activity may not proceed until the DOE determination is secured.)

   NOTE: If a proposed action is deemed by the DOE FSO to have the potential for "significant" impact, it may be necessary for the D/S/P Activity Owner to develop an Environmental Assessment (EA) and/or Environmental Impact Statement (EIS). The need for an EA and/or EIS is infrequent; however, if necessary, it can take from 8 -12 months, depending upon the complexity of the action. So please consult with the Fermilab NEPA Coordinator early in the contemplation/proposal of any potentially large, complex, or major expenditure type action.

See Section 6.0 for Technical Appendices.

5.0 REFERENCES

1. National Environmental Policy Act, P.L. 91-224, 42 U.S.C. 4371-4374.
2. President's Council on Environmental Quality Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act, 40 CFR 1500-1508.
3. DOE NEPA Implementing Procedures, 10 CFR Part 1021
4. DOE Floodplain/Wetlands Regulations, 10 CFR Part 1022
5. NEPA Compliance Program: DOE Policy 451.1
6. FESHM Chapter 8012

6.0 TECHNICAL APPENDICES

6.1 Technical Appendix A – FERMILAB NEPA REVIEW PROCESS FLOW CHART

It is recommended that the ES&H NEPA Coordinator be consulted when initiating this review process. This flow chart is for those activities that have a potential to impact the human environment.

Does the activity fit one of the items listed in Appendix A of 10 CFR Part 1021 (administrative, financial, and personnel related activities)?

Yes → Note the Appendix A citation (e.g., A9) on the requisition. No further documentation is required, however, some D/S/Ps prefer to complete an Environmental Review Form.

Action may proceed.

No ↓

Does the activity fit one of the items listed in the Fermilab Generic "Routine Maintenance" or "Small Scale R&D Projects and Conventional Lab Operations" Categorical Exclusions (CX)?

Yes → Complete the Environmental Review Form (ERF).
Once it is reviewed in the ERF Database then the Action may proceed.

No ↓

Is the activity covered by a CX listed in 10 CFR 1021, or an EA, or an EIS **that was previously approved by the DOE?**

Yes → Complete the Environmental Review Form.
Once it is reviewed in the ERF Database then the Action may proceed.

No ↓

Complete the Environmental Review Form (ERF)
The NEPA Coordinator will select "DOE Determination Required"
Help in completing the ERF can be found here on this website, within the form itself or from the ES&H NEPA Coordinator.
Once complete, the ERF will be used to create an Environmental Evaluation Notification Form (EENF). The NEPA Coordinator will submit the EENF to DOE FSO for approval.
Allow at least 7-10 days for approval.
Additional information may be requested.

6.2 Technical Appendix B – ENVIRONMENTAL EVALUATION CHECKLIST

(Instructions and definitions follow this checklist)

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	☐	☐
2.	Other Protected Species (e.g., Burros, Migratory Birds)	☐	☐
3.	Sensitive Environments (e.g., Tundra/Coral Reefs/Rain Forests)	☐	☐
4.	Archaeological/Historic Resources	☐	☐
5.	Important Farmland	☐	☐
6.	Non-Attainment Areas for Ambient Air Quality Standards	☐	☐
7.	Class I Air Quality Control Region	☐	☐
8.	Special Sources of Groundwater (e.g. Sole Source Aquifer)	☐	☐
9.	Navigable Air Space	☐	☐
10.	Coastal Zones	☐	☐
11.	Areas with Special National Designation (e.g. National Forests, Parks, Trails)	☐	☐
12.	Floodplains and Wetlands	☐	☐

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

		Yes	No
13.	Natural Resource Damage Assessments	☐	☐
14.	Exotic Organisms	☐	☐
15.	Noxious Weeds	☐	☐
16.	Clearing or Excavation (indicate if greater than one acre)	☐	☐
17.	Dredge or Fill (under Clean Water Act, Section 404, indicate if greater than ten acres)	☐	☐
18.	Noise (in excess of regulations)	☐	☐
19.	Asbestos Removal	☐	☐
20.	PCB's	☐	☐
21.	Import, Manufacture, or Processing of Toxic Substances	☐	☐
22.	Chemical Storage/Use	☐	☐
23.	Pesticide Use	☐	☐
24.	Hazardous, Toxic, or Criteria Pollutant Air Emissions	☐	☐
25.	Liquid Effluents	☐	☐
26.	Underground Injection	☐	☐
27.	Hazardous Waste	☐	☐
28.	Underground Storage Tanks	☐	☐
29.	Radioactive Mixed Waste	☐	☐
30.	Radioactive Waste	☐	☐
31.	Radiation Exposure	☐	☐
32.	Surface Water Protection	☐	☐
33.	Pollution Prevention Act	☐	☐
34.	Ozone Depleting Substances	☐	☐
35.	Off-Road Vehicles	☐	☐
36.	Biosafety Level 3-4 Laboratory	☐	☐

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

		Yes	No
37.	Potential Violation of Environment, Safety, or Health Regulations/Permits	☐	☐
38.	Siting/Construction/Major Modification of Waste Recovery, or Waste Treatment, Storage, or Disposal Facilities	☐	☐
39.	Disturbance of Pre-existing Contamination	☐	☐
40.	New or Modified Federal/State Permits	☐	☐

41	Public Controversy	☐	☐
42.	Environmental Justice	☐	☐
43.	Action/Involvement of Another Federal Agency (e.g. license, funding, approval)	☐	☐
44.	Action of a State Agency in a State with NEPA-type law. (Does the State Environmental Quality Review Act apply?)	☐	☐
45.	Public Utilities/Services	☐	☐
46.	Depletion of a Non-Renewable Resource	☐	☐
47.	Extraordinary Circumstances	☐	☐
48.	Connected Actions	☐	☐
49.	Exclusively Bench-top Research	☐	☐
50.	Only a Laboratory Setting	☐	☐

Instructions and definitions regarding the Environmental Evaluation

A. SENSITIVE RESOURCES: Will the proposed action result in changes and/or disturbances to any of the following resources? The DOE NEPA Regulation 10 CFR 1021 (Appendix B, Condition B (4)) identifies categories of "sensitive resources" that, if adversely affected by the proposed project/action, would necessitate preparation of an environmental assessment or environmental impact statement. Some of these categories of sensitive resources also are regulated by other Federal agencies, which may require DOE to coordinate NEPA compliance or consult with them.

1. THREATENED/ENDANGERED (T/E) SPECIES AND/OR CRITICAL HABITATS. 50 CFR 402, which provides the implementing regulations for the Endangered Species Act of 1973 (ESA), provides for protection of animals, birds, fish, plants, and other living organisms that are in danger of extinction throughout all or a significant portion of their range. Critical habitats are those specific areas within the geographical area currently occupied by a species at the time it is listed in accordance with the ESA, on which are found those physical or biological features (i) essential to the conservation of the species, and (ii) that may require special management considerations or protection. The Act may also cover, specific areas outside the geographical area occupied by species at the time it is listed under a determination by the Secretary that such areas are essential for the conservation of species. Lists of T/E species and critical habitats are found in 50 CFR 17 and 226. Consultation with the U.S. Department of Interior, Fish and Wildlife Service (FWS) and the corresponding State agency should be documented. This item should be checked "Yes" if any State- or Federally-listed *or proposed* T/E species or critical habitat has the potential to be impacted by the project.

2. OTHER PROTECTED SPECIES. Other Federal laws that protect wildlife species include: The Bald and Golden Eagle Protection Act; Wild and Free-Roaming Horses and Burros Act; and the Migratory Bird Treaty Act. This should be checked "Yes" if these species have the potential to be affected by the project/action. Any consultation should be documented.

3. SENSITIVE ENVIRONMENTS. This item should be checked "Yes" if protected, sensitive environments including tundra, coral reefs, and rainforests are associated with the project/action. Describe the potential effect, and any project modification that could avoid or mitigate the effect.

4. ARCHEOLOGICAL/HISTORIC RESOURCES. The National Historic Preservation Act; the Historic Site, Buildings and Antiquities Act; Archeological Resources Protection Act; implementing regulations found in 32 CFR 229; and the Archeological Recovery Act provide for the preservation of sites, buildings, structures, or objects of historic or architectural significance designated by Federal, State, or local Governments or listed or eligible for listing on the National Register of Historic Places. If the proposed project/action is on Federal land, the Archeological Resources Protection and Antiquities Acts also apply. Indicate "Yes" if the Act(s) apply. If so, explain.

   This item should also be checked "Yes" if a proposed project/action is in an undeveloped or historic area for which an archeological survey has not yet been performed. Federal consultation with

the State Historic Preservation Officer (SHPO) will be necessary if it is the type of activity (e.g., earth moving, demolition) which has potential for impact. Document the status of any preliminary consultations and if no potential for impact, explain.

5. IMPORTANT FARMLAND. The Farmland Protection Policy Act requires Federal agencies to consider ways to avoid converting or adversely affecting farmland that is not already in or committed to urban development or water storage.

   Definitions

   - Prime Farmland: Land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor, and without intolerable soil erosion. (7 U.S.C. 4201(c)(1)(A))

   - Unique Farmland: Land other than prime farmland that is used to produce specific high-value food and fiber crops such as, citrus, tree nuts, olives, cranberries, fruits, and vegetables. (7 U.S.C. 4201(c)(1)(B))

   - Additional Farmland of Statewide or Local Importance: Land identified by State or local agencies for agricultural use, but not of National significance. (7 U.S.C. 4201(c)(1)(C))

   The U.S. Department of Agriculture, Natural Resources Conservation Service field office serving the area can provide assistance in determining whether a proposed project/action could affect protected farmland. Agriculture Department Form 1006, the Farmland Conversion Impact Rating Form, available at Natural Resources Conservation Service offices, should be used for this purpose. If the proposed project/action could have an effect on protected farmland, indicate "Yes". An evaluation of the effect using the criteria provided at 7 CFR 658.5 will need to be performed.

6. NON-ATTAINMENT AREAS FOR AMBIENT AIR QUALITY STANDARDS. Non-attainment areas are geographic areas that do not meet one or more of the National ambient air quality standards (NAAQS). Non-attainment areas are designated by the Environmental Protection Agency (EPA) at 40 CFR 81.300. NAAQS have been established for six criteria pollutants (sulfur dioxide, particulate matter less than the 10 microns (PM10), carbon monoxide, ozone, nitrogen dioxide, or lead). Indicate "Yes" if the proposed project/action would result in the emission of a criteria pollutant in an area that has been classified non-attainment for any criteria pollutant. The air-permitting branch of the State or Federal regulatory agency can assist in providing this information. Also see related items 25 and 40.

7. CLASS I AIR QUALITY CONTROL REGION (AQCR). Class I AQCRs are special attainment-status geographic regions designated for allowance of only minor air quality deterioration. These are commonly National parks or wilderness areas greater than 5000 acres in size (see 40 CFR 81.400-437). If the proposed project/action would qualify as a major source (or major modification) of criteria pollutant emissions, check "Yes" if there are any Class I air quality areas within 10 km. See related item 11.

8. SPECIAL SOURCES OF GROUNDWATER. EPA designates Critical Aquifer Protection Areas and Sole or Principal Source Aquifers, and States designate Wellhead Protection Areas in accordance with Section 1427, 1424(e), and 1428 of the Safe Drinking Water Act, respectively (also see 40 CFR 149). Such areas are accorded special protection to assure the quality and availability of public water supplies. Indicate "Yes" if the location of the proposed project/action has been designated for protection (e.g., is included in an area-wide groundwater quality protection plan) or would constitute a potential source of contamination within an existing or expected wellhead protection area serving a public water supply.

9. NAVIGABLE AIR SPACE. The U.S. Department of Transportation, Federal Aviation Administration (FAA), regulates objects that invade navigable air space or otherwise constitute an obstruction to air navigation, and determines whether such activities constitute a navigation hazard. Indicate "Yes" if the proposed project/action would involve construction or alteration of a structure more than 200 feet above ground level, any construction/alteration located in an instrument approach area, or other construction or alteration identified in 14 CFR 77.13(a). Document notification of the Manager, Air Traffic Division of the FAA Regional Office having jurisdiction over the area within which the construction or alteration will be located. Copies of FAA Form 7460-1, Notice of Proposed Construction or Alternation, may be obtained from the Regional FAA Office.

10. COASTAL ZONES. The term "coastal zone" means the coastal waters and adjacent shore of the Great Lakes, and the Atlantic, Pacific, and Arctic Oceans, the Gulf of Mexico, and Long Island Sound. The term "coastal state" includes the states bordering on those bodies, plus Puerto Rico, the Virgin Islands, Guam, the Commonwealth of Northern Mariana Islands, and the Trust Territories of the Pacific Islands and American Samoa. Coastal States have authority over actions which directly affect coastal zones in accordance with the Department of Commerce, National Oceanic and Atmospheric Administration (NOAA) regulations promulgated under the Coastal Zone Management (CZM) Act. Federal activities and Federal development projects must be consistent with State CZM programs to the maximum extent possible. Federal activities are those performed by *or on behalf of* a Federal agency in the exercise of its statutory responsibilities, but do not include the issuance of a Federal license or permit or the granting of Federal assistance. Indicate "Yes" if the proposed project/action would constitute a Federal activity directly affecting the coastal zone of a State with an approved CZM plan. If so, document whether a "consistency" or "negative" determination has been made/obtained. For proposed project/actions outside of, but in the vicinity of, coastal zones, or components of the National Estuarine Sanctuary Program or the Coastal Barrier Resource System, contact the authorized State CZM agency to determine whether they have a concern. In such instances, a "No" response should be provided only after consultation with NOAA that results in a determination of "no direct affect". The Federal consistency rules are codified at 15 CFR 930.

11. AREAS WITH SPECIAL NATIONAL DESIGNATION. Various Federal laws restrict the ability of Federal agencies to aid developments affecting the following areas that have attained National designation: wilderness areas, memorial parks, parks, monuments, primitive areas, preserves, recreational areas, wild and scenic rivers, grasslands, wildlife refuge, forests, lakeshores or seashores, and trails. Consider potential stationary or mobile source emissions, increased local development, the potential for a significant increased visitation, etc.

12. FLOODPLAINS AND WETLANDS.

    Check "Yes" if floodplains or wetlands could be impacted by the project/action. If floodplains or wetlands will not be affected, maintain maps in project files demonstrating such.

    "*Floodplain*" means lowlands adjoining inland and coastal waters with a one-percent or greater chance of inundation in any given year. The base floodplain is defined as the 100-year (1.0 percent) floodplain. The critical action floodplain is defined as the 500-year (0.2 percent) floodplain (10 CFR 1022.4). Appropriate documentation for determining whether a proposed project/action lies within the 100-year floodplain (or 500-year floodplain for certain "flood critical" actions) include: Flood Insurance Rate Maps or Flood Hazard Boundary Maps prepared by the Federal Insurance Administration of the Department of Housing and Urban Development. Executive Order 12148, Floodplain Management, requires Federal agencies to avoid incompatible development in floodplains, and consider the conformance of the proposed project/action to floodplain standards, potential effect of floodplain modification on other local properties and improvements. If the proposed project/action would be undertaken in a floodplain, a Floodplain Assessment would need to be prepared in accordance with 10 CFR 1022.

"*Wetlands"* means those areas that are inundated by surface or groundwater with a frequency sufficient to support (and under normal circumstances does or would support) a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflow, mudflats, and natural ponds year (10 CFR 1022.4). Federal agencies must consider the effects of proposed project/actions on wetlands and to avoid, to the extent possible, destruction and modification of wetlands. If the proposed project/action is to be undertaken in, or could affect, a wetland, it will be necessary for DOE to prepare a Wetlands Assessment in accordance with its regulation. Additional consultation with the Army Corps of Engineers will also be required.

B. REGULATED SUBSTANCES/ACTIVITIES: Will the proposed action involve any of the following regulated items or activities? The following substances and activities have the potential for environmental impacts. To enable DOE to determine whether the proposed project/action falls within a categorical exclusion (DOE NEPA Rule, 10 CFR Part 1021, Appendix B), or whether an environmental assessment or environmental impact statement must be prepared and considered as part of the selection decision, "Yes" entries should be quantified to the extent possible. For purposes of the EENF, rough estimates are acceptable. Conclusions and/or subjective statements of the magnitude of the impact (such as "minimal", "insignificant", "negligible") should be avoided. Documentation of preliminary consultation with State or Federal regulatory agencies is recommended.

1. NATURAL RESOURCE DAMAGE ASSESSMENTS. The goal of Natural Resource Damage Assessments is to restore natural resources injured as the result of oil spills or hazardous substance releases into the environment. In partnership with other affected State, Tribal, and Federal trustee agencies, damage assessments provide the basis for determining the restoration needs that address the publics' loss and use of these resources. The program assesses the damages and injuries to natural resources and negotiates legal settlements or takes other legal actions against the responsible parties for the spill or release. See Executive Order 12580; the Department of Interior Regulations, 43 CFR 11; and National Oceanographic and Atmospheric Administration Regulations, 15 CFR 990, for more details. Indicate if a Natural Resources Damage Assessment has been conducted or is planned in relationship to the proposed project/action.

2. EXOTIC ORGANISMS. Exotic Organisms, Executive Order (EO) 11987, prohibits the introduction of non-native species into a natural ecosystem. Identify any exotic organisms that would be used in the Project.

3. NOXIOUS WEEDS. Federal Noxious Weed Act, 7 CFR 360 prohibits the movement of listed plants. Indicate "Yes" if the proposed project/action would move any noxious weeds. If so, identify it/them.

4. CLEARING OR EXCAVATION. Indicate "Yes" if the proposed project/action would include the uncovering of greater than one acre of soil, sediments, or land subsurface, by digging, grading, or blasting (see related items 4 and 32). If so, estimate the area to be affected and soils volume, and describe planned disposition of soils. Describe the potential for runoff/erosion, any control techniques to be employed, and the distance to nearby surface water bodies, including wetlands.

5. DREDGE OR FILL. Dredging is the excavation of material from waters of the United States. Filling is the discharge of material into waters of the United States to change the bottom elevation. Waters of the United States are all interstate waters, and intrastate lakes, rivers, streams, mud flats, adjacent wetlands, sloughs, or natural ponds. Indicate "Yes" if the proposed project/action would include these activities. If so, provide characterization and estimate of quantities of dredged or fill material; description of construction method and mitigation. The 40 CFR 230 provides guidelines for disposal sites of dredge or fill material. The Regulatory Program for dredge and fill is administered by the U.S. Department of the Army Corps of Engineers (COE) which implements the regulation found at 33 CFR 320, 323, and 325. Include documentation of appropriate consultation(s), e.g., with the COE under Section 404 of the Clean Water Act or Sections 9 and 10 of the Rivers and Harbors Act; with EPA (40

CFR 220-233); or with FWS under the Fish and Wildlife Coordination Act (for watercourse modification, control, or for impoundment of 10 acres or more).

6. NOISE. Indicate "Yes" if the proposed project/action would:

   - Cause an increase in noise over ambient levels,
   - Generate noise in excess of the applicable State noise limitations, if any, or
   - Expose humans to existing noise over applicable State noise limitations.

   If so, estimate noise levels for construction and/or operation (in decibels) and background levels in relationship to standards (e.g., 29 CFR 1910.95).

7. ASBESTOS REMOVAL. The EPA, in accordance with the Toxic Substances Control Act (TSCA), regulates asbestos abatement projects. It also regulates asbestos emissions as a hazardous air pollutant under the Clean Air Act. If the proposed project/action includes demolition or renovation of an existing building, verify whether asbestos is present. If present, indicate how the project will comply with asbestos removal certification and other requirements in 40 CFR 763 (Subpart G) and 40 CFR 61 (Subpart M).

8. POLYCHLORINATED BIPHENYLS (PCBs). Manufacture, processing, transport, use, marking, storage, and disposal of PCBs is regulated by the EPA (40 CFR Part 761) in accordance with the TSCA. Some States also regulate PCBs as hazardous waste. If the proposed project/action would involve replacement or removal of capacitors, transformers, voltage regulators, circuit breakers, switches, cables, electromagnets, or other electrical equipment, the presence or absence of PCBs should be ascertained and indicated on the EENF. If present, estimate concentration and quantity of PCB oil involved, and describe the intended method/location of disposal.

9. IMPORT, MANUFACTURE, OR PROCESSING OF TOXIC SUBSTANCES. Indicate "Yes" if the proposed project/action would involve the business of importation, manufacture, or processing of toxic substances listed at 40 CFR Parts 700-799 (Subparts B and D of Part 704). The use of such chemicals is addressed by item 22.

10. CHEMICAL STORAGE/USE. Indicate "Yes" if the proposed project/action would involve either Laboratory or other storage/use of chemicals in the workplace (see lists at 39 CFR 1910.1000 and 40 CFR 69 and 355). If so, describe the storage/use detailing type, volume, purpose, and key hazards/risks.

11. PESTICIDE USE. A pesticide is a substance intended for preventing, destroying, repelling, or mitigating any pest (e.g., insect, rodent, nematode, fungus, or weed, including any substance intended for use as a plant regulator, defoliant, or desiccant). While the Federal Insecticide, Fungicide, and Rodenticide Act imposes no requirements on private applicators, commercial pesticide applicators must be certified by the State or the U.S. EPA and meet the requirements of 40 CFR 171. The selection of pesticide and use must not affect any threatened/endangered species and critical habitats (50 CFR 402) or threaten human health. Indicate "Yes" if the services of a commercial pesticide applicator would be an element of the proposed project/action. If so, document extent of use and measures to be undertaken to assure safe storage, use, and disposal.

12. HAZARDOUS, TOXIC, OR CRITERIA POLLUTANT AIR EMISSIONS. Indicate "Yes" if the proposed project/action would result in the emission of a criteria pollutant per the Clean Air Act; sulfur dioxide, PM10, carbon monoxide, ozone, nitrogen dioxide, or lead (see 40 CFR 70 or 71, Title V, Operating Program). If so, detail the character and quantities of air pollutant emissions, applicable emission standards, and describe any abatement measures to be employed. Indicate if the proposed project/action would include prevention of significant deterioration program, 40 CFR 51.166.

13. LIQUID EFFLUENTS. Indicate "Yes" if proposed project/action would involve a discharge to publicly-owned treatment works, sewage treatment plant, soils, retention ponds, or surface waters. If so, detail the character and quantity of pollutants including toxic pollutants (40 CFR 129.4), thermal discharges, and National Pollution Discharge Elimination System permitting requirements (40 CFR 122). Also indicate "Yes" if the proposed project/action would qualify as a storm water "discharge associated with industrial activity." These non-point source discharges include construction activities exceeding five acres in area, and runoff from coal piles and other raw materials (salt, sand).

14. UNDERGROUND INJECTION. Well injection is the subsurface emplacement of fluids through a bored, drilled, or driven well, or through a dug well where the depth of the dug well is greater than the largest surface dimension. See 40 CFR 146. Indicate "Yes" if the proposed project/action would involve construction or use an injection well and if so, indicate the type and amounts of injected fluids.

15. HAZARDOUS WASTE. Indicate "Yes" if the proposed project/action would involve generation and/or management (see 40 CFR 261, determination; 40 CFR 262, generation; 40 CFR 263, transportation; and 40 CFR 264, treatment storage, and disposal) of hazardous wastes. If so, provide a cursory characterization of hazardous waste generation and management activities. If waste transport is anticipated, indicate whether a permitted transporter will be used, number of loads, and approximate distance to be traveled.

16. UNDERGROUND STORAGE TANKS (USTs). "UST" refers to any one or combination of tanks (including underground pipes connected thereto) that is used to contain an accumulation of regulated substances, and the volume of which (including the volume of underground pipes connected thereto) is 10 percent or more beneath the surface of the ground. This term does not include any:

    - Farm or residential tank of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes,
    - Heating oil for consumptive use on the premises where stored,
    - Septic tank, or
    - Pipeline facility.

    Indicate "Yes" if tanks are involved in the project/action AND 10 percent or more of tank volume (including the volume of underground pipes) is or would be beneath the surface of the ground. If "yes", describe tanks' use, contents, size, leak detection/monitoring methods, and whether leaks or contamination exist because if it. Applicable requirements for USTs can be found in 40 CFR 280.

17. RADIOACTIVE MIXED WASTE. Per DOE Order 435.1, "Radioactive Mixed Waste is waste that contains both source, special nuclear, or by-product material subject to the Atomic Energy Act (AEA) of 1954, as amended, and a hazardous component subject to the Resource Conservation and Recovery Act (RCRA), as amended." A mixture with a radioactive material that is not source, special nuclear, or byproduct material per the AEA does not meet this definition and is just hazardous waste regulated by EPA and the States. (Radioactive material licensed by the Nuclear Regulatory Commission would qualify as AEA-regulated.) Indicate "Yes" if such a waste will be generated or managed. If so, document the character, volume, and management plans.

18. RADIOACTIVE WASTE. Any garbage, refuse, sludge, and other discarded material, including solid, liquid, semisolid, or contained gaseous material that must be managed for its radioactive content. See DOE Order 435.1 for details. Indicate "Yes" if such a waste will be generated or managed. If so, document the character, volume, and management plans.

19. RADIATION EXPOSURE. If the proposed project/action would involve use of radioactive substances, indicate "Yes" and identify type of substance(s) to be used and level of exposure estimated. DOE Order 5400.5 provides radiation exposure limitations to the environment and the public from all sources. 10 CFR 835 provides radiation exposure limitations for DOE workers.

20. SURFACE WATER PROTECTION. 40 CFR 112 provides that surface water be protected from release of oil and oil derived products by implementation of spill prevention countermeasure and control plan. Indicate "Yes" if project/action is a non-transportation-related onshore or offshore facility engaged in drilling, producing, gathering, storing, processing, refining, transferring, distributing, using, or consuming oil and oil products, which due to its location, could reasonably be expected to discharge oil in quantities that may be harmful into or upon the navigable waters of the United States or adjoining shorelines, or into or upon the waters of the contiguous zone.

21. POLLUTION PREVENTION ACT. The Pollution Prevention Act of 1990; EO 12856, Federal Compliance with Right-to-Know and Pollution Prevention; EO 12873, Affirmative Procurement; and EO 12902, Energy Efficiency and Water Conservation should be referenced for incorporation of pollution prevention principles to minimize environmental impacts, conserve resources, and promote the use of recycled products. Indicate "Yes" if there are **significant** opportunities to reduce or prevent pollution at the source through cost-effective changes in production, operation, and raw materials use. Such changes can offer substantial savings in reduced raw material, pollution control, and liability costs as well as help protect the environment and reduce risks to worker health and safety. If so, indicate where opportunities lie.

22. OZONE DEPLETING SUBSTANCES. EO 12843 and 40 CFR 82 prohibit and phase-out the use of ozone depleting substances. Indicate "Yes" if ozone depleting substances would be used in the project. If so, describe type and scope.

23. OFF-ROAD VEHICLES. Indicate "Yes" if the proposed project/action would involve the use of off-road vehicles. If so, explain. EO 11989 prohibits the use of off-road vehicles on public land without special use permits and in designated locations.

24. BIOSAFETY LEVEL 3-4 LABORATORY. Indicate "Yes" if the proposed project/action would involve Biosafety Laboratory (BSL) Level 3-4 laboratory construction and/or operation. See CFR 42 Parts 72 (transportation) and 493 (general laboratory) requirements.

C. OTHER RELEVANT INFORMATION: Will the proposed action involve the following? The following information also is necessary to enable DOE to determine the appropriate level of NEPA documentation or to otherwise satisfy NEPA procedural requirements.

1. POTENTIAL VIOLATION OF ENVIRONMENT, SAFETY, OR HEALTH REGULATIONS/PERMITS. Indicate "Yes" if project/action would threaten a violation of statutory, regulatory, or permit requirements (or where applicable, DOE Order requirements). "Yes" entries in Part B, above, should be evaluated for their potential for violations. Likewise, any other potential for violation should be considered

2. SITING/CONSTRUCTION/MAJOR MODIFICATION OF WASTE RECOVERY, OR WASTE TREATMENT, STORAGE AND DISPOSAL FACILITIES. Indicate "Yes" if the project/action would require siting and construction or major expansion of waste treatment, storage, disposal, or recovery facilities (including incinerators and facilities for treating surface water, groundwater, and wastewater). If so, describe operations including waste types and volumes.

3. DISTURBANCE OF PRE-EXISTING CONTAMINATION. Indicate "Yes" if the project/action would disturb hazardous substances, pollutants, contaminants, or Comprehensive Environmental Response, Compensation, and Liability Act-excluded petroleum and natural gas products that pre-exist in the environment. If so, describe type of pre-existing contamination and volume of soils which would require transport to a Resource Conservation and Recovery Act-permitted treatment, storage or disposal facility.

4. NEW OR MODIFIED FEDERAL/STATE PERMITS. Federal, State, and local, agencies may require new permits, or modification of existing permits for activities identified above (e.g., items 6, 14, 21, 22, 23, 24, 25, 26, 27, and 28). Indicate "Yes" if new or modified permits would be required.

5. PUBLIC CONTROVERSY. Controversy of a technical nature (e.g., professional disagreement over the type and magnitude of environmental impacts) is relevant to a determination of reasonable alternatives to the proposed project/action. Indicate "Yes" if there is a known potential for any public controversy. If so, describe what the issue is, the level of interest, and the outreach activities (e.g., public, meetings, literature) which are planned or may have occurred with Government officials, public interest groups, and other interested parties.

6. ENVIRONMENTAL JUSTICE. This item should be marked "Yes" if the proposed project/action would occur in a geographic area disproportionately inhabited by minority and/or low-income populations. If so, DOE will later determine whether the other EO 12898 criterion, i.e., "adverse human health or environmental effects", applies signifying the presence of an environmental justice concern.

7. ACTION/INVOLVEMENT OF ANOTHER FEDERAL AGENCY. NEPA regulations require cooperation among the lead agency and other Federal agencies with jurisdiction by law or special expertise. Coordinating the NEPA processes of involved Federal agencies can save time and eliminate redundant effort. Indicate "Yes" if multiple Federal agencies are involved in the project/action. If so, describe that involvement.

8. ACTION OF A STATE AGENCY IN A STATE WITH NEPA-TYPE LAW. The States (including some other Government types, e.g., territories) listed below have passed environmental policy legislation similar to NEPA, that requires State Government agencies to prepare analysis of environmental effects of their proposed project/actions (California, Connecticut, District of Columbia, Georgia, Guam, Hawaii, Indiana, Maryland, Massachusetts, Minnesota, Montana, Nevada/California - Tahoe, New Jersey, New York, North Carolina, Puerto Rico, South Carolina, Virginia, Washington, Wisconsin). For links to regulations, see: https://ceq.doe.gov/laws-regulations/states.html. The States of California, Hawaii, New York, and Washington also apply the impact statement requirements very broadly to private land development subject to regulation by local Governments through the land use control process. Indicate "Yes" if the State where the project/action is located has a NEPA-type law. If so, describe why/how State law applies.

9. PUBLIC UTILITIES/SERVICES. The availability of utility (water, sewer, electric, gas, communications) capacity and the potential environmental affect associated with making connections are NEPA concerns. If the project/action would adversely affect utility capacity or if connections would disturb the environment per the previous questions on this Form, indicate "Yes". If so, describe the impact.

10. DEPLETION OF A NON-RENEWABLE RESOURCE. Some naturally occurring substances (e.g., metals, minerals, and fossil fuels) are in limited supply and cannot be replaced or regenerated. The exhaustion or threatened exhaustion of that resource could, therefore, have significant ramifications. Moreover, NEPA Section 102(2) (E) requires consideration of alternatives in Environmental Assessments as well as Environmental Impact Statements when the proposed project/action involves "unresolved conflicts concerning alternative uses of available resources." Indicate "Yes" if the proposed project/action would accelerate exhaustion of a resource which is in limited supply. If so, describe how.

11. EXTRAORDINARY CIRCUMSTANCES. Indicate "Yes" if extraordinary circumstances related to the project/action could exacerbate impacts from the previous items described on this Form. Also indicate "Yes" if potential for human health or environmental impact exists from items not identified on this Form. If so, identify and describe.

12. CONNECTED ACTIONS. Connected Actions are those projects/actions that automatically trigger other actions, cannot proceed unless other actions are taken previously or simultaneously, or are interdependent parts of a larger action and depend on the larger action for justification. Indicate "Yes" if the project/action is "connected" to other such actions. If so, describe them.

13. EXCLUSIVELY BENCH-TOP RESEARCH. Indicate "Yes" if the project/action can be described as conventional laboratory operations or bench-scale research; small-scale research and development projects; and small-scale pilot projects (generally less than two years) conducted to verify a concept before demonstration actions.

14. ONLY A LABORATORY SETTING. Indicate "Yes" if the research will be conducted within an existing laboratory that has already obtained the required waste discharge, air quality, and other permits. This implies that the facility has on-going research, and the new work will be similar to work currently being done at the facility.