

Subject: National Environmental Policy Act (NEPA) Review System	Effective Date: Jan. 4, 2002	Initiated by: Head, ES&H and Infrastructure Support
	Supersedes: ESH-014, Rev. 3 Dated 4/22/98	Approved: Director

Applicability

This procedure applies to all activities conducted at PPPL's C and D sites; including those by subcontractors, visitors and other personnel performing work activities.

Introduction

This procedure is intended to assure compliance with the National Environmental Policy Act of 1969 (NEPA) through independent NEPA review of activities by technically competent ES&H personnel in order to satisfy the requirements in DOE Order 451.1B, and to satisfy the Safety Analysis and Review System (SARS) requirements of DOE Order 5481.1B.

Some activities are inherently low hazard and are routinely encountered and/or accepted by the general public. They do not require NEPA review or classification. See Attachment 3 to determine if the activity in question falls into the low hazard activity categorization. Other generic and unique activities are also defined in Attachment 3.

Reference Documents

- A. National Environmental Policy Act (NEPA) of 1969 (PL91-190) and Amendments.
- B. DOE Order 451.1A, National Environmental Policy Act Compliance Program.
- C. DOE NEPA Guidelines, 10 CFR 1021.
- D. PPPL Policy P-002, Environmental Policy.
- E. DOE Order 5481.1B, Safety Analysis and Review System.

Procedure**A. GENERIC ACTIVITIES****Responsibility****Action**

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| Cognizant Person/ATI | 1. Completes NEPA Planning Form (Attachment 1) for generic activities. Typical generic activities are shown in Attachment 3. Forwards Form to Division Head/RLM for review and concurrence. |
| Division Head/RLM | 2. Reviews the NEPA Planning Form and approves.

3. Forwards the Form to ES&H for review. |
| ES&H | 4. Reviews Form in accordance with part C of this procedure.

5. Returns certified NEPA Form to Cognizant Person/ATI authorizing commencement or continuation of generic activities (subject to satisfying other non-NEPA requirements), with copy to Division Head/RLM. |

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| Cognizant Person/ATI | <ol style="list-style-type: none"> 6. Receives approved NEPA Planning Form from ES&H. 7. Commences/continues activity. 8. Retains NEPA Planning Form for life of the activity. 9. Reviews, modifies as appropriate, and resubmits the NEPA Planning Form any time changes or potential changes to the environmental considerations noted on the certified NEPA Planning Form are identified (return to step 2). |
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B. UNIQUE ACTIVITIES

<u>Responsibility</u>	<u>Action</u>
Cognizant Person/ATI	<ol style="list-style-type: none"> 1. Reviews generic activity list at start of activity planning to determine if activity is NEPA approved and then obtains Division Head/RLM concurrence and commences activity. If not covered as a generic activity, completes the NEPA Planning Form (Attachment 1) for unique activities. Examples of unique activities are shown in Attachment 3. 2. Forwards Form to Division Head/RLM for review and concurrence.
Division Head/RLM	<ol style="list-style-type: none"> 3. Reviews the NEPA Planning Form and approves. 4. Forwards the Form to ES&H for review.
ES&H	<ol style="list-style-type: none"> 5. Reviews Form in accordance with part C of this procedure. 6. Returns certified Form to Cognizant Person/ATI authorizing start of activity (subject to satisfying other non-NEPA requirements) with copy to Division Head/RLM. (Note: For some activities, additional ES&H review and documentation may be necessary to satisfy SARS requirements.)
Cognizant Person/ATI	<ol style="list-style-type: none"> 7. Receives certified NEPA Planning Form from ES&H. 8. Commences activity (subject to completion of any required additional ES&H review and documentation to satisfy SARS requirements). 9. Retains NEPA Planning Form for life of the activity. 10. Reviews, modifies as appropriate, and resubmits the NEPA Planning Form any time changes or potential changes to the environmental considerations noted on the certified NEPA Planning Form are identified (return to step #B.2).

C. ES&H REVIEW OF NEPA PLANNING FORM**Responsibility****Action**

NEPA Compliance
Manager

1. Assigns NEPA Planning Form Number and logs in the NEPA Planning Form upon receipt.
2. Performs a NEPA evaluation of the package.
3. Submits request for categorical exclusion or other determination from DOE if required.
4. Forwards the NEPA Planning Form to appropriate ES&H personnel for recommendation of extent and complexity of SARS ES&H review and documentation, if necessary, based on responses to the NEPA form questions.
5. Completes ES&H portion of NEPA Planning Form.
6. Receives DOE determination, if required.
7. Certifies NEPA Planning Form by signing and dating. Indicates recommendations regarding any additional ES&H review and documentation requirements consistent with SARS requirements (to be followed up by appropriate ES&H personnel).
8. Sends copy of certified NEPA Planning Form for PPPL activities to Cognizant person/ATI and Division Head/RLM.
9. Files package

ATTACHMENTS

1. NEPA Planning Form
2. Directions for completing NEPA Planning Form
3. NEPA Classifications
4. Map (Floodplains and Wetlands)

pg 1 of 2 **NEPA PLANNING FORM # _____** (by ES&H)

Applicability: this form shall be prepared as early as possible for each new or continuing activity at PPPL.
Physical implementation of PPPL activities shall not proceed prior to NEPA certification of this form.

Originator: _____ **WP/Project #:** _____

Project/Organization: _____ **Total Estimated Cost:** _____

Title of Activity/Change: _____

Description of Activity: [include physical description of activity, purpose, location, changes to any operating parameters or approved environmentally related limits, potential or actual ES&H impacts, as applicable. Attach additional sheets if needed] Circle one of these choices:

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ES&H Considerations: Will the change/activity, either individually or cumulatively with other known activities, result in changes and/or disturbances to the following entities (see Attachment 2 for directions on answering) *

	YES	NO		YES	NO
1: Air Emissions	_____	_____	13: Sewage System	_____	_____
2: Liquid Effluent	_____	_____	14: Water Use	_____	_____
3: Domestic Waste	_____	_____	15: Pesticide Use	_____	_____
4: Radioactive Waste	_____	_____	16: Chemical Use/Storage	_____	_____
5: Hazardous Waste	_____	_____	17: Petroleum Use/Storage	_____	_____
6: Mixed Waste	_____	_____	18: Radiation Exposure	_____	_____
7: Asbestos Waste	_____	_____	19: Impacts to Workers	_____	_____
8: Wetlands	_____	_____	20: Noise Levels	_____	_____
9: Floodplains	_____	_____	21: Pollution Prevention Applies	_____	_____
10: Indoor/Outdoor Clearing or Excavation	_____	_____	22: Stored Energy	_____	_____
11: Soil Movement	_____	_____	23: Fire Safety Issues	_____	_____
12: PPPL Water Systems	_____	_____	24: Electrical/RF/Lasers	_____	_____

* Provide any necessary explanations on a separate sheet attached to this form

The undersigned have reviewed the description and assessment of ES&H considerations and state that they are accurate and complete.

Work will not proceed until NEPA certified form (page 2) is received by cognizant person.

COG PERSON/ATI: _____ **DATE:** _____

DIV HEAD/RLM: _____ **DATE:** _____

pg 2 of 2 **NEPA PLANNING FORM #** _____

NEPA Evaluation: (attach "Environmental Evaluation for PPPL Change Proposal" and "Environmental Evaluation Notification Form")

Covered by an existing DOE approved categorical exclusion? YES NO
_____ _____

If yes, specify _____

Approval for categorical exclusion required from DOE ? _____ _____

DOE approval: _____ Date: _____

Other NEPA documentation required ? _____ _____

If yes, specify _____

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NEPA Review for this Activity has been Completed :

NEPA Compliance Manager (or designee)

Date:

Directions for Completing Checklist

page 1 of 2

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| 1. Air Emissions | Check yes if the activity would increase or decrease exhaust emissions from a building or other source. Define characteristics & quantities to the extent possible. |
| 2. Liquid Effluent | Check yes if the activity would cause a liquid waste to be released to the onsite or offsite environment. Define characteristics & quantities to the extent possible. |
| 3. Domestic Waste | Check yes if there would be any waste put in a waste dumpster or if the activity would generate bulk amounts of debris and wastes. |
| 4. Radioactive Waste | Check yes if the activity would generate low level radioactive waste (LLW). Define characteristics & quantities to the extent possible. |
| 5. Hazardous Waste | Check yes if the activity would generate a hazardous waste as defined in procedure EWM-001 (Hazardous Waste Management). Define characteristics & quantities to the extent possible. |
| 6. Mixed Waste | Check yes if the activity would generate a hazardous waste that is also LLW. Define characteristics & quantities to the extent possible. |
| 7. Asbestos Waste | Check yes if the activity would involve working with asbestos. |
| 8. Wetlands | Check yes if the activity would take place in or would impact identified wetlands areas within PPPL property or offsite (see attached PPPL map). |
| 9. Floodplains | Check yes if the activity would take place in or would impact identified areas within the 100-year or 500-year floodplains (see attached PPPL map). |
| 10. Indoor/outdoor
Clearing or Excavation | Check yes if the activity would require the use of mechanical equipment to move soil, structures, or vegetation, or if the activity would involve indoor digging, demolition or penetration of walls, floors or ceilings. |
| 11. Soil Movement | Check yes if the activity would require digging with hand tools. |
| 12. PPPL Water Systems | Check yes if the activity would involve disturbing any part of the potable or canal water systems. |
| 13. Sewage System | Check yes if the activity would involve working on the PPPL sanitary sewage system, or would change current quantities or characteristics of waste sent to the offsite sanitary sewage treatment facility. |
| 14. Water Use | Check yes if the activity would use a large amount of water to facilitate the work. |
| 15. Pesticide Use | Check yes if the activity would involve the use of pesticides. |
| 16. Chemical Use/Storage | Check yes if the activity would involve use or storage of chemicals, including hazardous or carcinogenic chemicals. See ES&HD-5008, Section 8, Chapters 1, 2 & 12, and/or consult with Industrial Hygiene. |
| 17. Petroleum Use/Storage | Check yes if the activity would involve the use of petroleum products. |

- 18. Radiation Exposure** Check yes if the activity would involve radiation exposure to personnel (consult with ES&H Health Physics, as necessary).
- 19. Impacts to Workers** Check yes if the activity may affect the health and safety of personnel (e.g., work involves confined space entry, lockout/tagout, respiratory protection, removal of safety guards from operating equipment, bypassed interlocks, etc.).
- 20. Noise Levels** Check yes if the activity may expose personnel or the public to high levels of noise that can't be minimized through noise suppression (consult with Industrial Hygiene).
- 21. Pollution Prevention Applies** Check yes if one or more of the following have been considered to reduce or prevent pollution: design changes; substitution or reduction of types and/or quantities of chemicals, solvents, or materials used; recycling of materials; reduction in toxicity and/or generation of waste products (consult with ER/WM pollution prevention rep.).
- 22. Stored Energy** Check yes if the activity would or may involve significant stored energy, such as capacitor banks, pressurized gases or liquids, steam, cryogenics, high explosives, or other sources having explosive or unique high pressure rupture potential.
- 23. Fire Safety Issues** Check yes if the activity would or may involve changes to fire detection or suppression capabilities, fire barriers, life safety code concerns (e.g., emergency egress), emergency notification of personnel, or maximum credible fire loss (consult with Fire Protection Engineer).
- 24. Electrical/RF/Lasers** Check yes if the activity would involve working with energized circuits, radiofrequency (RF) devices, or lasers.

Generic Activities

A generic, ongoing activity must be reviewed for NEPA compliance by ES&H and certified. Once reviewed and certified, the generic activities may be carried out provided no changes are made which would significantly change the environmental impact.

Generic activities include, but are not limited to the following:

- Machine Shop
- Weld shop
- Electronics shop with soldering
- Janitorial services
- Warehouse
- Stockroom
- HazMat Facility
- CASL
- PEARL
- Cooling Towers
- NSTX Operations
- Small Projects Operations (e.g., those on the second floor of the Lab Wing)
- Carpenter Shop

Unique Activities

Unique, one of a kind activities, such as the construction of an RF heating system, or excavation of an underground storage tank must be reviewed and certified for the specific environmental considerations presented by the work. Once reviewed and certified, the unique activities may be carried out provided no changes are made which would significantly change the environmental impact.

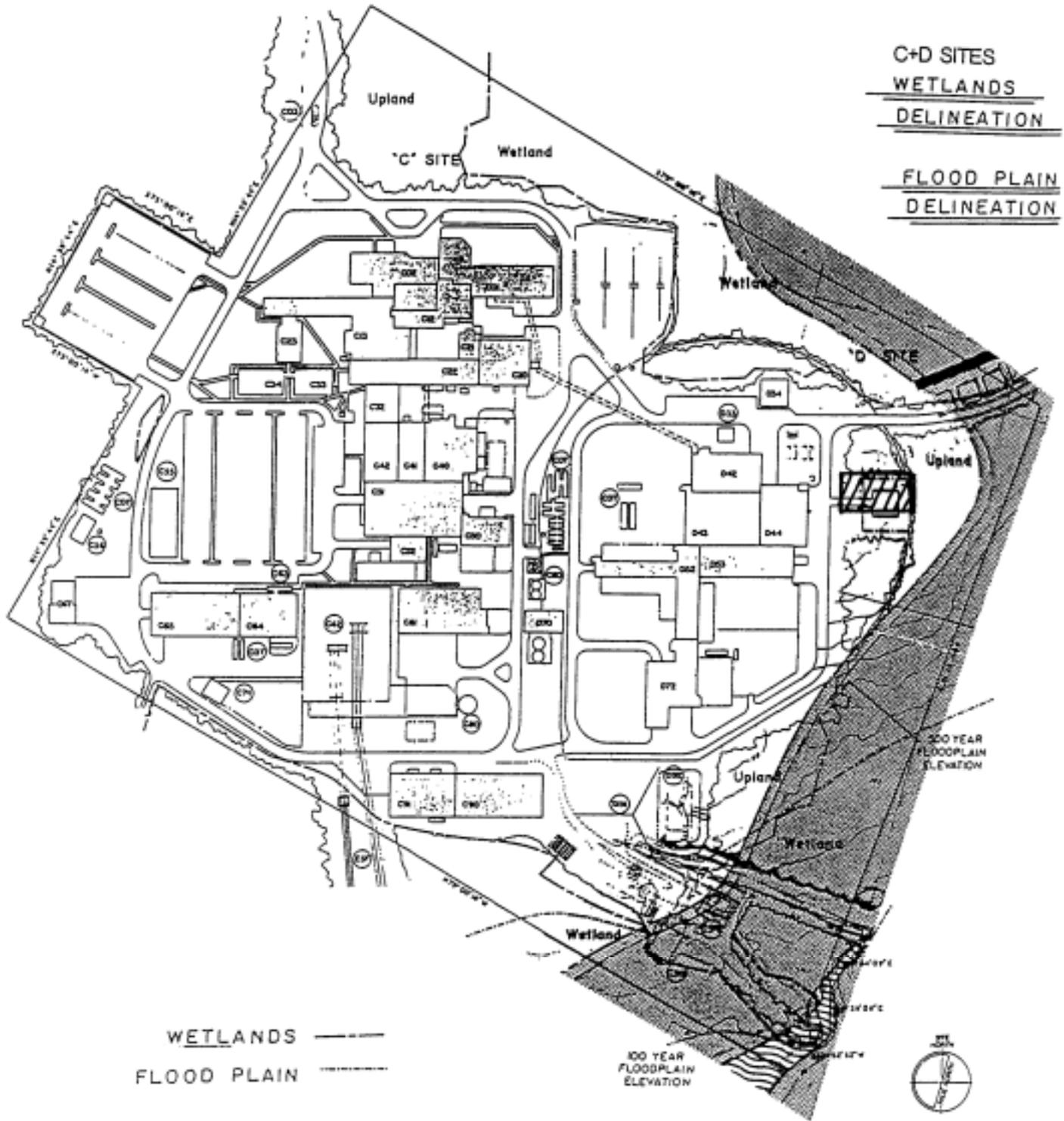
Other Activities

All other activities must be independently reviewed for NEPA compliance at the earliest possible time in the activity. It is the intent of NEPA to integrate environmental considerations into the planning process, hence eliminating false starts, delays, and added costs. Activities may fall into one of two categories: generic (ongoing activities) or unique (one of a kind) activities.

Low Hazard Activities

NOTE: The following activities are inherently low hazard, presenting hazards of a type and magnitude routinely encountered and/or accepted by the general public, or have been specifically excluded by DOE from NEPA review. They do not require independent NEPA review or classification. If the proposed activity is listed herein, and if there are no additional hazards, the activity need not be classified and independent ES&H NEPA review is not required.

1. Office work, including the use of common office machines, such as copiers, typewriters, personal computers, printers, etc. Also including reading, filing, typing.
2. Routine Control Room activities, including the use of consoles, terminals, printers, etc.
3. Routine technician hand work that is not part of a significant maintenance effort, including the use of hand tools, machine tools, etc. To qualify, this work must not involve any activity with potential environmental impacts.
4. Drafting activities, including the use of computer assisted design terminals and workstations, drafting tables, stick files, etc.
5. Meetings, classes, seminars, and colloquia, provided no hazards are introduced.
6. Administrative procurements, including but not limited to general administrative supplies and computer systems.
7. Personnel actions and contracts for personal services, including technical support contracts and contracts for management and operation.
8. Information gathering (including, but not limited to: literature surveys; inventories; audits), analysis (including computer modelling), and dissemination (including, but not limited to: document mailings; publication; and distribution).
9. Actions consisting solely of document preparation (including, but not limited to: conceptual design; feasibility, energy supply and demand, and other studies).
10. Materiel handling, storage, packaging, and transportation within the PPPL site in accordance with applicable regulations.
11. Routine offsite shipment and disposal of material and waste in accordance with applicable regulations.



SHADE INDICATES STREAM PROTECTION CORRIDOR PER PRINCETON FORRESTAL CENTER STORMWATER MANAGEMENT PLAN, 1980

0 100 300 600 FT.

SITE PLAN
PRINCETON UNIVERSITY
PLASMA PHYSICS LABORATORY