

ENVIRONMENTAL EVALUATION NOTIFICATION FORM

Grantee/Contractor Laboratory: Princeton University/Princeton Plasma Physics Laboratory (PPPL)
Project/Activity Title: Science Laboratory Infrastructure (SLI) #1: Renovation of the C-Site MG Building, LSB Annex, Engineering Wing, and RESA, and the Demolition of MOD VI

NEPA Tracking No.: _____ Type of Funding SC

B&R Code: _____ Total Estimated Cost: \$25M

Contractor Project Manager: _____ Signature: _____

Date: _____

Contractor NEPA Reviewer: Jerry D. Levine

Signature: Jerry D. Levine
Date: _____

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I. Description of Proposed Action: The proposed action would renovate the following buildings: the C-Site Motor Generator (MG) building (two floors), the Research Equipment Storage and Assembly (RESA) Building, the Lyman Spitzer Building (LSB) Annex (three floors), and the Engineering Wing (two floors), as well as the demolition of a temporary office structure known as Mod VI. All machine shop and related equipment in the RESA Building would be relocated to the C-Site MG Building, and the RESA Building would be converted to a storage facility. This action would provide new modern office space for PPPL engineers, scientists and other staffs, and provide a newly renovated machine shop area and storage warehouse.

C-Site MG building renovations would include: demolition of all concrete foundations and installation of a new basement floor; installation of structural steel and concrete floor deck with floor capacity serving a loaded semi trailer down the middle from east to west, and filling the holes previously occupied by the aforementioned concrete foundations with a deck suitable for supporting the machine shop equipment; installation of a new HVAC system serving the machine shop; consideration (preservation, relocation, or replacement as needed) for existing services that currently run through the building (e.g., power, compressed air, water, deionized water, lighting, etc.); upgrade of crane controls and equipment as necessary; redesign and installation of life safety systems including fire protection; installation of new exterior wall panels that cover over the transite exterior or other alternative designs that achieve the DOE high performance sustainable building goals; and installation of a new roof (consideration would be given to changing existing roof vents to low maintenance skylights).

RESA Building renovations would include: installing a new high efficient rack system capable of 5000 lbs per shelf that maximizes storage capacity up to 40,000 square feet worth of skidded storage; and possible replacement of existing lighting with improved efficiency lighting.

LSB Annex renovations would include: removal of an antiquated heat pump HVAC system and its replacement with a new state-of-the-art efficient HVAC system; installation of new carpet and LED lighting on all three floors; and installation of new modern state-of-the-art workstation type seating in the core areas of each floor.

Engineering Wing renovations would include: replacement of all interior carpeting on the first and second floors; replacement of existing fluorescent lighting with new LED lighting; possible addition of vertical roof windows along an east-west line to provide natural light to the core of the engineering wing; and renovation of the core of the first and second floors to new modern state-of-the-art workstation type seating.

Mod VI renovations would include: disconnecting services to Mod VI and capping appropriately; demolishing and hauling away Mod VI; and removing foundation concrete piers to 6 inches below grade, and placing topsoil and grass seed to return area to green space. Current occupants of Mod VI would be relocated to the renovated LSB Annex and/or Engineering Wing.

II. Description of Affected Environment: Work would take place at several locations at PPPL C-Site (see above and map). No environmentally sensitive resources would be affected.

PPPL is located on Princeton University's James Forrestal Campus in Plainsboro Township, Middlesex County (central New Jersey), adjacent to the municipalities of Princeton, Kingston, East and West Windsor, and Cranbury, NJ. It occupies approximately 88.5 acres in the areas known as "C- and D-sites." PPPL has operated on the current site since 1959. The closest urban centers are New Brunswick, 14 miles (22.5 km) to the northeast, and Trenton, 12 miles (19 km) to the southwest. Within a 50-mile (80 km) radius are the major

urban centers of New York City, Philadelphia, and Newark. Princeton University's main campus is approximately three miles west of the site, primarily located within the borough of Princeton.

The estimated resident population within 10 miles (16 kilometers) of PPPL is about 500,000. The total estimated population within a 50-mile (80 kilometer) radius of PPPL is approximately 16.4 million.

Surrounding the site are lands of preserved and undisturbed areas including upland forest, wetlands, open grassy areas, and a minor stream, Bee Brook, which flows along PPPL's eastern boundary. These areas are designated as open space in the James Forrestal Campus (JFC) site development plan.

The climate of central New Jersey is classified as mid-latitude, rainy climate with mild winters, hot summers, and no dry season. Temperatures may range from below zero to above 100 degrees Fahrenheit (°F) (-17.8° Celsius (C) to 37.8° C); extreme temperatures typically occur once every five years. Approximately half the year, from late April until mid-October, the days are freeze-free. Normally, the climate is moderately humid with a total average precipitation about 46 inches (116 cm) evenly distributed throughout the year.

III. **Potential Environmental Effects:** (Attach explanation for each "yes" response, and "no" responses if additional information is available and could be significant in the decision making process.)

A. Sensitive Resources: Will the proposed action result in changes and/or disturbances to any of the following resources?

	<u>Yes/No</u>
1. Threatened/Endangered Species and/or Critical Habitats	1. No
2. Other Protected Species (e.g. Burros, Migratory Birds)	2. No
3. Wetlands	3. No
4. Archaeological/Historic Resources	4. No
5. Prime, Unique or Important Farmland	5. No
6. Non-Attainment Areas	6. No
7. Class I Air Quality Control Region	7. No
8. Special Sources of Groundwater (e.g. Sole Source Aquifer)	8. No
9. Navigable Air Space	9. No
10. Coastal Zones	10. No
11. Areas w/Special National Designation (e.g. National Forests, Parks, Trails)	11. No
12. Floodplain	12. No

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

	<u>Yes/No</u>
13. Clearing or Excavation (indicate if greater than 1 acre) <i>Demolition of Mod VI would involve excavation/disturbance of about 10,000 ft² of area (0.23 acres).</i>	13. Yes
14. Dredge or Fill (under Clean Water Act section 404; indicate if greater than 1 acre)	14. No
15. Noise (in excess of regulations)	15. No
16. Asbestos Removal <i>Renovation of the C-Site MG Bldg may generate some asbestos waste, which would be handled by an asbestos certified contractor.</i>	16. Yes
17. PCBs	17. No
18. Import, Manufacture or Processing of Toxic Substances	18. No
19. Chemical Storage/Use <i>Chemical use/storage should not change significantly from current activities.</i>	19. Yes
20. Pesticide Use	20. No
21. Hazardous, Toxic, or Criteria Pollutant Air Emissions	21. No
22. Liquid Effluent <i>Liquid effluents to sanitary sewer and detention basin should not change significantly from current activities.</i>	22. Yes
23. Underground Injection	23. No
24. Hazardous Waste	24. No
25. Underground Storage Tanks	25. No
26. Radioactive (AEA) Mixed Waste	26. No
27. Radioactive Waste	27. No
28. Radiation Exposures	28. No

C. Other Relevant Disclosures. Will the proposed action involve the following?

- | | <u>Yes/No</u> |
|---|---------------|
| 29. A threatened violation of ES&H regulations/permit requirements
<i>The requirements of 10CFR851 (as implemented under the DOE approved PPPL Worker Safety and Health Program) would be applied to work at PPPL under this proposed action.</i> | 29. No |
| 30. Siting/Construction/Major Modification of Waste Recovery, or TSD Facilities | 30. No |
| 31. Disturbance of Pre-existing Contamination | 31. No |
| 32. New or Modified Federal/State Permits
<i>Environmental controls to remove welding fumes and other contaminants from machine shop operations would be assessed and any required permits obtained. Excavation/disturbance of >5,000 ft² of area for Mod VI demolition would require obtaining a Soil Erosion and Sediment Control Permit from the Freehold Soil Conservation District.</i> | 32. Yes |
| 33. Public controversy | 33. No |
| 34. Action/involvement of Another Federal Agency
(e.g. license, funding, approval) | 34. No |
| 35. Action of a State Agency in a State with NEPA-type law.
(Does the State Environmental Quality Review Act Apply?) | 35. No |
| 36. Public Utilities/Services | 36. No |
| 37. Depletion of a Non-Renewable Resource | 37. No |

IV. **Section D Determination:** Is the project/activity appropriate for a determination under Subpart D of the DOE NEPA Regulations for compliance with NEPA?

Yes

DOE-PSO NEPA Compliance Officer Review:

Concurrence with Proposed Class of Action Recommended

CX EA EIS

Category: B1.15 Support buildings; B1.16 Asbestos removal; B1.23 Demolition and disposal of buildings; B1.31 Installation or relocation of machinery and equipment; B2.1 Workplace enhancements.

For Categorical Exclusions (CXs):

A. The proposed action fits within a class of actions that is listed in Appendix A or B to Subpart D.

For classes of actions listed in Appendix B, the following conditions are integral elements; i.e., to fit within a class, the proposal 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, is not related to other proposed actions with cumulatively significant impacts, and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211.

V. DOE Recommendation Approval:

TRACY ESTES

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ou=Department of Energy, cn=TRACY ESTES,
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Date: 2014.08.28 13:08:58 -04'00'

PSO Staff: Tracy Estes

Signature: _____

Date: _____

SC GLD: Michael M. McCann
Attorney-Advisor

Signature: _____

Michael M. McCann

Date: 7 August 2014

VI. NEPA Compliance Officer Subpart D CX Determination and Approval:

Based on my review of information conveyed to me and in my possession (or attached) concerning the proposed action, as NEPA Compliance Officer, 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.

PSO NCO: Peter Siebach

Signature: _____

Peter Siebach

Date: 28 August 2014