



Plasma Physics Laboratory
James Forrestal Campus
P.O. Box 451
Princeton, New Jersey 08543

June 26, 2019

Mr. Peter Johnson, Manager
Princeton Site Office
U. S. Department of Energy
P.O. Box 102
Princeton, New Jersey 08542-0102

Dear Mr. Johnson:

SUBJECT: Re-transmittal of Proposed NEPA Determination –Decommissioning and Repair of Groundwater Monitoring Wells

I am resubmitting to you a proposed NEPA determination for a proposed action for the Decommissioning and Repair of Groundwater Monitoring Wells. The initial submittal included six wells. Six additional wells have since been added to the proposed action for a total of twelve. I am recommending that this proposed action be classified as a Categorical Exclusion (CX) under Subpart D, Appendix B, Section B3.1 of 10 CFR 1021. Information on this proposed action, including an Environmental Evaluation Notification Form (EENF), is attached.

Sincerely,

A handwritten signature in blue ink, appearing to read "J. Levine".

Jerry D. Levine
Head, Environment, Safety & Health
NEPA Compliance Manager

JDL
Attachments

cc: S. Cowley
C. Ferguson
T. Estes
M. Hughes
V. Riccardo
S. Rogan
R. Sheneman
D. Strauss

ENVIRONMENTAL EVALUATION NOTIFICATION FORM

Grantee/Contractor Laboratory: Princeton University/Princeton Plasma Physics Laboratory (PPPL)

Project/Activity Title: Decommissioning & Repair of Groundwater Monitoring Wells

CH NEPA Tracking No.: _____ Type of Funding SC

B&R Code: _____ Total Estimated Cost: ~\$40K

DOE Cognizant Secretarial Officer (CSO): J. Steve Binkley

Contractor Project Manager: _____

Signature: _____

Date: _____

Contractor NEPA Reviewer: Jerry D. Levine

Signature: _____

Date: 6/26/19

I. **Description of Proposed Action:** A New Jersey licensed well drilling subcontractor would properly seal and decommission eleven (11) ground water monitoring wells. These wells were installed some years ago for various environmental investigations and are no longer required. Repairs would also be made to one (1) existing monitoring well that is still in use. Six (6) of these wells are located on D-Site adjacent to the Liquid Effluent Collection (LEC) tanks, two (2) are located near the D-Site detention basin, three (3) are located in uplands in the southwest corner of the campus (south of the C-Site warehouse), and one (1) well is located in the wetlands adjacent to the D-Site access road. The New Jersey Department of Environmental Protection (NJDEP) Bureau of Land Use Regulation has verified PPPL does not require a NJDEP wetlands permit for the well located in the wetlands, as existing vegetation in the wetlands or the wetlands transition zone would not be removed or disturbed. Details on each well are available in attachment 1 (attached). Also, it has been determined that a wetlands assessment is not required for this proposed action as Subpart B of 10CFR1022 is not applicable. A PPPL digging permit would be obtained from the Facilities Division for well repair. PPPL flame permits would be obtained from the Emergency Services Unit, part of the Site Protection Division, for removing metal well casings for well closure.

II. **Description of Affected Environment:** Work would take place on the C-Site and D-Site grounds (see attached map, attachment 2). 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 km) of PPPL is approximately 500,000. The total estimated population within a 50-mile radius (80km) of PPPL is

approximately 17,735,164.

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 of 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. Yes
<i>New Jersey Department of Environmental Protection (NJDEP) Bureau of Land Use Regulation has verified PPPL does not require a NJDEP Wetlands Permit as existing vegetation in the wetlands or wetlands transition zone would not be removed or disturbed. It has been determined that a wetlands assessment is not required for this proposed action as Subpart B of 10CFR1022 is not applicable.</i>	
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; if more than 5,000 sq. ft., a Soil Erosion / Sediment Control Permit may be required from Freehold Soil Conservation District.)	13. Yes

*Note: Soil disturbance includes clearing, grading, excavation, storage, and filling. Soil erosion and sediment control permits required if $\geq 5,000$ sq. ft.
 Note: Excavations expected to encounter ground water may require a permit.*

A maximum area of approximately 2 ft. x 2 ft. (total of <50 square ft.) would be disturbed per well as minor digging would be required to extract the metal casings.

- | | | |
|-----|---|---------|
| 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 | 16. No |
| 17. | PCBs | 17. No |
| 18. | Import, Manufacture or Processing of Toxic Substances | 18. No |
| 19. | Chemical Storage/Use | 19. Yes |
- The eleven decommissioned wells would be sealed with grout. The one well being repaired may require a new cement casing.*
- | | | |
|-----|---|--------|
| 20. | Pesticide Use | 20. No |
| 21. | Hazardous, Toxic, or Criteria Pollutant Air Emissions | 21. No |
| 22. | Liquid Effluent | 22. No |
| 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 | 29. No |
| <i>One or more job hazard analyses (JHAs) would be required for these activities. 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> | |
| 30. Siting/Construction/Major Modification of Waste Recovery, or TSD Facilities | 30. No |
| 31. Disturbance of Pre-existing Contamination | 31. No |
| <i>Note: Excavations that encounter contaminated ground water require a permit.</i> | |
| 32. New or Modified Federal/State Permits | 32. No |
| <i>New Jersey Department of Environmental Protection (NJDEP) Bureau of Land Use Regulation has verified PPPL does not require a NJDEP Wetlands Permit as existing vegetation in the wetlands or wetlands transition zone would not be removed or disturbed.</i> | |
| 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?

DOE-PSO NEPA Compliance Officer (NCO) Review:

Concurrence with Proposed Class of Action Recommended

CX EA EIS

Category: B3.1 – Site characterization and environmental monitoring

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:

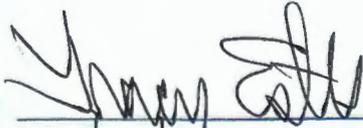
- 1) Threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, including DOE and/or Executive Orders;
- 2) Require siting, construction, or major expansion of waste storage, disposal, recovery, or treatment facilities, but may include such categorically 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:**

PSO Staff: Tracy Estes

Signature: 

Date: 7/2/19

SC GLD: Michael M. McCann

Signature: 

Date: 7/2/19

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: Teralyn Murray

Signature: _____

Date: _____

Teralyn Murray

7/01/2019

Attachment 1
List of well construction details for closure & repairs

Well Designation	Elevation of Inner Casing Summer 1996	NJDEP Well Permit #	Borehole Depth	Screen/Open Hole Depth	Well Construction	Area	Repairs
Wells to Close							
TW 2	100.41	28-16113-1	68	31 - 68	4 inch PVC	Inside D-Site Gate	NA
TW 3	98.60	28-16114-9	81	30 - 81	6 inch PVC	Inside D-Site Gate	NA
TW 4	98.20	28-16115-7	120	100 - 120	6 inch PVC	Inside D-Site Gate	NA
TW 7	93.40	28-16118-1	85	41 - 85	4 inch PVC	Wetlands	NA
TW 8	95.06	28-16119-0	75	30 - 75	4 inch PVC	Outside D-Site Gate	NA
TW 9	99.50	28-16120-3	110	90 - 110	4 inch PVC	Inside D-Site Gate	NA
MW-20S	102.46	28-38656	22.5	7.5 - 22.5	4 inch PVC	FABA	NA
MW-21S	103.14	28-40449	26	10 - 25	4 inch PVC	FABA	NA
MW-21I	102.59	28-40446	65	54 - 64	4 inch PVC	FABA	NA
D-11R	97.12	28-38657-0	36.9	16.9 - 36.9	4 inch PVC	Inside Basin Fence	NA
D12	94.73	28-23760-9	17	7 - 17	4 inch PVC	Inside Basin Fence	NA
Wells Needing Repair							
TW 5	100.61	28-16116-5	60	20 - 60	4 inch PVC	Inside D-Site Gate	Concrete pad, New Surface Casing

Attachment 2
PPPL Site Maps

**SITE PLAN SHOWING TW MONITORING
WELLS DECOMMISSIONING & REPAIR**
PLAINSBORO, NJ

Attachment 2

LEGEND

- ⊕ **Monitoring Well Removal**
- ⊕ **Monitoring Well Repair**
- ⊕ **Monitoring Well No Change**
- **Wetlands Survey Line**
- - - **Wetlands 50' Buffer Line**
- Wetlands 50' Buffer Area**
- **Tree Line**

Notes:

1. PRINCETON PLASMA PHYSICS LABORATORY, PRINCETON UNIVERSITY, GEOGRAPHIC INFORMATION SYSTEM, C & D SITES, CONTOURS, PROPERTY LINES, BUILDING, ROADWAYS AND PARKING LOTS' PREPARED BY PRINCETON PLASMA PHYSICS LABORATORY DATED NOVEMBER 3, 1993.
2. POINT LOCATIONS FOR OFF-SITE WETLANDS TAKEN FROM INFORMATION SUPPLIED BY VAN-NOTE HARVEY ASSOCIATES DATED 01/28/08.
3. THE WETLAND AND OPEN WATER LIMITS WERE DELINEATED IN THE FIELD BY HABITAT MANAGEMENT & DESIGN, INC. AND SURVEYED BY HOPEWELL VALLEY ENGINEERING, P.C. ON APRIL 9, 2007.
4. HORIZONTAL DATUM IS NAD 27 BASED ON GRS LOCATIONS AND VERTICAL DATUM IS NAVD 29 AS SHOWN ON THE SAME REFERENCED PLAN. 400 FOOT GRID BASED ON NEW JERSEY STATE PLANE COORDINATE SYSTEM.
5. THIS MAP WAS COMPILED USING DIGITAL PHOTOGRAMMETRIC METHODS.

**PRINCETON PLASMA
PHYSICS LABORATORY**
Wells Map



"Freshwater Wetlands/Waters Boundary Line as verified by NJDEP."

In addition, the Department has determined that the wetlands identified on site are of intermediate and ordinary resource value. Field points WET 114 to WET 121/WET 201 and then to WET 208 and field points WET 241 to WET 243/244 and then to WET 250 have been identified as ditches of ordinary resource value. There is no standard transition area or buffer required adjacent to ordinary resource value wetlands. The remainder of wetlands on site are of intermediate resource value. The standard transition area or buffer required adjacent to intermediate resource value wetlands is 50 feet. This classification may affect the requirements for an Individual Wetlands Permit (see N.J.A.C. 7:7A-7), the types of Statewide General Permits available for the wetlands portion of this property (see N.J.A.C. 7:7A-5) and the modification available through a transition area waiver (see N.J.A.C. 7:7A-6). Please refer to the Freshwater Wetlands Protection Act (N.J.S.A. 13:9B-1 et seq.) and implementing rules for additional information.