



Department of Energy

Argonne Site Office
9800 South Cass Avenue
Argonne, Illinois 60439

MAR 11 2015

Dr. Peter B. Littlewood
Director, Argonne National Laboratory
President, UChicago Argonne, LLC
9700 South Cass Avenue
Argonne, IL 60439

Dear Dr. Littlewood:

SUBJECT: NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) DETERMINATION FOR
ARGONNE NATIONAL LABORATORY (ARGONNE)

The Argonne Site Office (ASO) approves the following as a categorical exclusion (CX) under Appendix B (to 10 CFR Part 1021, Subpart D, Integrated DOE NEPA Implementing Procedures, December 1996), Category B 3.8 "Outdoor ecological/ environmental research in small area."

- Biomimetic Approaches for Water Smart Landscapes, ASO-CX-311

Therefore, no further NEPA review is required. However, if any modification or an expansion of the scope is made to the above project, additional NEPA review will be necessary.

Enclosed please find a copy of the approved Environmental Review Form (ERF) for the project. If you have any questions, please contact Kaushik Joshi of my staff at (630) 252-4226.

Sincerely,

A handwritten signature in cursive script that reads "Joanna M. Livengood".

Joanna M. Livengood
Manager

Enclosure:
As Stated

cc: J. Stauber, ANL, w/encl.
M. Negri, ANL, w/encl.
W. Brocker, ANL, w/encl.
K. Joshi, ASO, w/encl.
M. McKown, SC-CH, w/encl.
P. Siebach, SC-CH, w/encl.



Environmental Review Form for Argonne National Laboratory

Project/Activity Title: Biomimetic approaches for water smart landscapes

ASO NEPA Tracking No. ASO-CX-311 **Type of Funding:** LDRD

B&R Code _____

Identifying number: 015-170-NO WFO proposal # _____ CRADA proposal # _____

Work Project # _____ ANL accounting # (item 3a in Field Work Proposal) _____

Other (explain) _____

Project Manager: Maria C. Negri Signature: [Signature] Date: 2/17/15

NEPA Owner: William A. Brocker Signature: [Signature] Date: 2/17/2015

ANL NEPA Reviewer: Joel Stauber Signature: [Signature] Date: 2/17/15

I. **Description of Proposed Action:** This project will develop a computer model of root distribution patterns under drought conditions and use data from green roofs and other green infrastructure to establish a parallel between the natural, modeled case and the engineered one. As part of this project Argonne will collect samples from existing green roofs and green infrastructure to analyze root development and soil parameters.

II. **Description of Affected Environment:** Existing installations in the Chicagoland area including potentially those owned by other organizations such as City of Chicago, Botanic Garden or others who will allow us to collect samples from their structures.

III. **Potential Environmental Effects:** (Attach explanation for each "yes" response.)

A. Complete Section A for all projects.

1. Project evaluated for Pollution Prevention and Waste Minimization opportunities and details provided under items 2, 4, 6, 7, 8, 16, and 20 below, as applicable Yes X No _____

No opportunities for P3 were found.

2. Air Pollutant Emissions Yes _____ No X

3. Noise Yes _____ No X

4. Chemical/Oil Storage/Use Yes No
5. Pesticide Use Yes No
6. Polychlorinated Biphenyls (PCBs) Yes No
7. Biohazards Yes No
8. Effluent/Wastewater (If yes, see question #12 and contact Gregg Kulma (FMS-SEP) at 2-9147 or gkulma@anl.gov) Yes No
9. Waste Management
- a) Construction or Demolition Waste Yes No
- b) Hazardous Waste Yes No
- c) Radioactive Mixed Waste Yes No
- d) Radioactive Waste Yes No
- e) PCB or Asbestos Waste Yes No
- f) Biological Waste Yes No
- g) No Path to Disposal Waste Yes No
- h) Nano-material Waste Yes No
10. Radiation Yes No
11. Threatened Violation of ES&H Regulations or Permit Requirements Yes No
12. New or Modified Federal or State Permits Yes No
13. Siting, Construction, or Major Modification of Facility to Recover, Treat, Store, or Dispose of Waste Yes No
14. Public Controversy Yes No
15. Historic Structures and Objects Yes No
16. Disturbance of Pre-existing Contamination Yes No
17. Energy Efficiency, Resource Conserving, and Sustainable Design Features Yes No

B. For projects that will occur outdoors, complete Section B as well as Section A.

18. Threatened or Endangered Species, Critical Habitats, and/or other Protected Species Yes No
19. Wetlands Yes No
20. Floodplain Yes No
21. Landscaping Yes No
22. Navigable Air Space Yes No
23. Clearing or Excavation Yes No
- Soil samples will be hand-collected using a soil corer.
24. Archaeological Resources Yes No
25. Underground Injection Yes No
26. Underground Storage Tanks Yes No
27. Public Utilities or Services Yes No
28. Depletion of a Non-Renewable Resource Yes No

C. For projects occurring outside of ANL complete Section C as well as Sections A and B.

29. Prime, Unique, or Locally Important Farmland Yes No
30. Special Sources of Groundwater (such as sole source aquifer) Yes No
31. Coastal Zones Yes No
32. Areas with Special National Designations (such as National Forests, Parks, or Trails) Yes No
33. Action of a State Agency in a State with NEPA-type Law Yes No
34. Class I Air Quality Control Region Yes No

IV. Subpart D Determination: (to be completed by DOE/ASO)

Are there any extraordinary circumstances related to the proposal that may affect the significance of the environmental effects of the proposal? Yes ___ No X

Is the project connected to other actions with potentially significant impacts or related to other proposed action with cumulatively significant impacts? Yes ___ No X

If yes, is a categorical exclusion determination precluded by 40 CFR 1506.1 or 10 CFR 1021.211? Yes ___ No ___

Can the project or activity be categorically excluded from preparation of an Environment Assessment or Environmental Impact Statement under Subpart D of the DOE NEPA Regulations? Yes X No ___

If yes, indicate the class or classes of action from Appendix A or B of Subpart D under which the project may be excluded. APPENDIX B, B 3.8 "OUTDOOR ECOLOGICAL/ ENVIRONMENTAL RESEARCH IN SMALL AREA".

If no, indicate the NEPA recommendation and class(es) of action from Appendix C or D to Subpart D to Part 1021 of 10 CFR.

ASO NEPA Coordinator Review: Kaushik Joshi

Signature: K Joshi

Date: 3-9-2015

ASO NCO Approval of CX Determination:

The preceding pages are a record of documentation that an action may be categorically excluded from further NEPA review under DOE NEPA Regulation 10 CFR Part 1021.400. I have determined that the proposed action meets the requirements for the Categorical Exclusion identified above.

Signature: Peter Siebach

Date: 3/9/2015

Peter R. Siebach
Acting Argonne Site Office NCO

ASO NCO EA or EIS Recommendation: **NOT APPLICABLE**

Class of Action: _____

Signature: _____

Date: _____

Peter R. Siebach
Acting Argonne Site Office NCO

Concurrence with EA or EIS Recommendation: **NOT APPLICABLE**

CH GLD: _____

Signature: _____

Date: _____

ASO Manager Approval of EA or EIS Recommendation: **NOT APPLICABLE**

An EA EIS shall be prepared for the proposed _____ and
_____ shall serve as the document manager.

Signature: _____

Date: _____

Dr. Joanna M. Livengood
Manager