



Department of Energy

Argonne Site Office
9800 South Cass Avenue
Argonne, Illinois 60439

MAY 07 2014

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) has approved 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 3.12, "Siting/construction/operation/decommissioning of microbiological and biomedical facilities" applicable to:

- Microbial Laboratory Analysis (ASO-CX-303)

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.
D. Rodi, ANL, w/encl.
S. Owens, ANL, w/encl.
K. Joshi, ASO, w/encl.
M. McKown, SC-CH, w/encl.
P. Siebach, SC-CH, 201, w/encl.

Environmental Review Form for Argonne National Laboratory

Project/Activity Title: Microbial Laboratory Analysis

ASO NEPA Tracking No. ASO-CX-303 Type of Funding: WFO

B&R Code _____


Identifying number: P-14035 WFO proposal # P-14035 CRADA proposal # _____

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

Other (explain) _____

Project Manager: Jack Gilbert/Sarah Owens Signature:  Date: 1/30/2014

NEPA Owner: Diane J. Rodi Signature:  Date: 1/30/2014

ANL NEPA Reviewer: Joel Stauber Signature:  Date: 1/31/14

- I. **Description of Proposed Action:** The Institute of Genomics and Systems Biology has obtained funding through a Work for Others Agreement with the National Ecological Observatory Network (NEON; Principal Investigators Drs. Jacob Parnell, Stephanie Parker and Michael Denslow). The scope of work will involve the shipment of small quantity soil samples from remote NEON sites within the U.S. and Puerto Rico to the Argonne site. IGSB staff will extract sequence-quality nucleic acids (DNA/RNA) from the soil samples using MoBio PowerSoil DNA/RNA Kits. IGSB staff will then carry out PCR reactions on the nucleic acid samples followed by sequencing on an Illumina platform, basic bioinformatic analysis reports sent to NEON staff, and sample archiving at -80 C in IGSB space within Bldg. 202. The Lab Manager, Sarah Owens, has a USDA account online and is initiating processing of a new USDA soil permit using the attached draft Compliance Agreement which will be sent to all soil shippers in advance of shipment, as well as a copy of the new USDA permit. All solid waste from the project will be processed prior to disposal according to USDA requirements for soil samples and IL EPA requirements for biological waste in such a manner to ensure that no live organisms survive the treatment.

- II. **Description of Affected Environment:** Soil can contain numerous animal and plant pests, and/or noxious weed seeds, or other propagules. These pests include bacteria, plant viruses, fungi, nematodes, and life stages of destructive mollusks, acari, and insects. In addition, screening soil for the spectrum of organisms which might be harmful is expensive. Due to the geographic source of a subset of the soil samples there exists the potential for a transfer of pests, noxious weeds or parasitic plants into the local environment, both within and surrounding the Argonne site. Proper waste processing and disposal will be carried out to ensure that no living organisms remain in any waste generated by the project.

III. **Potential Environmental Effects:** (See attached 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 <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| 2. Air Pollutant Emissions | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| 3. Noise | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| 4. Chemical/Oil Storage/Use | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| 5. Pesticide Use | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| 6. Polychlorinated Biphenyls (PCBs) | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| 7. Biohazards | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| 8. Effluent/Wastewater (If yes, see question #12 and contact Gregg Kulma (FMS-SEP) at 2-9147 or gkulma@anl.gov | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| 9. Waste Management | | |
| a) Construction or Demolition Waste | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| b) Hazardous Waste | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| c) Radioactive Mixed Waste | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| d) Radioactive Waste | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| e) PCB or Asbestos Waste | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| f) Biological Waste | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| g) No Path to Disposal Waste | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| h) Nano-material Waste | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| 10. Radiation | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| 11. Threatened Violation of ES&H Regulations or Permit Requirements | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| 12. New or Modified Federal or State Permits | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |

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
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.

NOT APPLICABLE

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 3.12 "Siting/construction/operation/decommissioning of microbiological and biomedical facilities"
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: Kaushik Joshi Date: 4-25-2014

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 R. Siebach Date: 5/6/2014

Peter R. Siebach
Acting Argonne Site Office NCO

~~ASO NCO EA or EIS Recommendation:~~

NOT APPLICABLE

Class of Action: _____

Signature: _____

Date: _____

Peter R. Siebach
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

Explanations for “Yes” Responses:

1. The project has been evaluated for PPWM with the details provided below in the appropriate sections.
4. Small quantities of chemicals will be used during the nucleic acid extraction process. This component of the project is covered by ASO-CX-265.
7. A major rationale behind the USDA requirement for the procurement of a permit to move soil within and around the U.S. originating from certain states/counties is the possibility of live plant pests/parasitic plants/noxious weeds inadvertently being moved within the sample into a new environment where it has not previously been introduced. Areas of regulated soil are agent-specific and are delineated within 7 C.F.R. 301 et seq. (USDA APHIS Domestic Quarantine Notices). All soil samples will be kept locked up on site with access limited to authorized employees. All soil-derived waste and soil samples not intended to be archived will be treated by steam sterilization in an autoclave unit maintained under IL EPA regulation requirements and according to the USDA requirements laid out in the Compliance agreement.
- 9f. All soil samples will be pre-treated and inactivated as described in the attached draft Compliance Agreement and disposed of via the regular solid waste stream.
12. A subset of the soil samples to be shipped to Argonne are coming out of regulated sites, primarily though not exclusively, in the southeastern area of the U.S. and Puerto Rico. The Lab Manager is in the process of applying for a new USDA soil permit.

**United States Department of Agriculture
Animal and Plant Health Inspection Service
Plant Protection and Quarantine
COMPLIANCE AGREEMENT**

This Compliance Agreement supplements the Soil Permit and you must meet all the terms and conditions as stated on both documents. Although you are signing the Compliance Agreement today, you are unable to receive regulated domestic and foreign soil until you have received your official Soil Permit from the USDA, APHIS, PPQ, Permit Services Staff (PSS), Riverdale, Maryland.

Compliance Agreements and Soil Permits are non-transferable. If you hold a Soil Permit and you leave your present employer or company, you must notify your local USDA office promptly.

If permit material is to be used by other persons within the same company, those persons must be under the permittee(s) supervision or they must apply for their own permit. Notification to this office may help facilitate such circumstances.

1. Maps showing areas of regulated domestic soil are on the web and will be periodically updated on the web or in the Code of Federal Regulations (CFR). It shall be the responsibility of Sarah Owens to periodically check the USDA web site and/or consult with the local USDA office to obtain current data on regulated domestic soil areas.

2. Prior to preparing soil for shipment, Argonne National Laboratory must inform shippers to address the soil shipment exactly as it is written on the Soil Permit and Compliance Agreement and supply a copy of their Soil Permit to be included with the shipment.

We have supplied you with shipping labels (PPQ Form 550) to enable foreign shipments to enter the U.S. under this permit. A label and copy of your permit must be affixed to the exterior of each package being imported under this permit. To receive additional labels you should contact USDA, PPQ, PSS, Riverdale, Maryland; Telephone number (301) 734-8716 or Facsimile number (301) 734-5786.

3. All shipments of foreign or regulated domestic soil must be shipped by bonded carrier from port of arrival to Argonne National Laboratory, 9700 S. Cass Ave., Building 202, Argonne, IL 60439.

4. All shipments of soil must be in sturdy, leak-proof containers which will preclude spillage or pest escape in transit and while samples are awaiting processing. Packages should be labeled "Contents Soil Samples", accompanied by a copy of the Soil Permit and have a PPQ Form 550 (issued from the PSS) clearly displayed on each sample.

5. Used shipping containers must be decontaminated by one of the treatments approved for soil or destroyed by incineration.

6. Soil samples will not be received from or re-shipped to other laboratories or individual(s) unless such Company/laboratory/individual(s) has a valid Soil Permit and Compliance Agreement for the import of foreign soil, or a valid Compliance Agreement for domestic soil. Upon request, records of all soil shipments (soil received, soil disposed, and soil transferred) and/or including the Chain of Custody records are to be made available to USDA, APHIS, PPQ and/or the Illinois Department of Agriculture (I.D.A.).

7. Upon arrival at Argonne National Laboratory, all foreign soil and regulated domestic soil will be stored in at all times in a locked storage cabinet in the lab until steam sterilized according to the instructions in this Compliance Agreement. Each sample must be labeled as regulated soil under USDA Permit. The locked storage cabinet will be used to store only foreign soil and regulated domestic soil. A sign must be placed on the outside of the storage cabinet: *Contents: Foreign soil and/or regulated domestic soil to be used in accordance with USDA, APHIS, PPQ Soil Permit and Compliance Agreement.* The storage cabinet must be restricted to access of authorized employees only.

8. All soil samples, prior to being transferred to a Laboratory Approved to Receive Soil or heat treated according to the instructions listed below, must be stored/processed/tested in the laboratory at Argonne National Laboratory. The laboratory must be restricted to access of authorized employees only.

9. All soil residues shall be treated with steam heat temperature/pressure of minimum 21 psi pressure for 60 minutes. Individual packages of 5 pounds or less or, if in trays, the soil residues should not exceed 2 inches in depth. Sterilization of soil residues will be carried out in an autoclave unit which is maintained under IL EPA requirements and tested monthly with biological indicators. Water effluent is not released from the autoclave unit until after completion of the cycle.

10. Used shipping containers must be decontaminated by one of the treatments approved for soil or destroyed by incineration. The coolers used to ship soil samples must be generously sprayed with an approved disinfectant such as bleach, quaternary ammonia, or 70% alcohol solution, to the point of runoff, allowed to drain into a municipal water system and air dried. No stockpiling of used empty containers allowed.

11. Untreated soil samples may be retained as small quantity archives under the storage conditions described below as long as this Soil Permit is valid.

Untreated soil samples authorized to be retained 5 or more years from date of receipt at Argonne National Laboratory must ensure that the following conditions are met:

(a) Sarah Owens sends immediately upon receipt copies of shipping documents to the local USDA, APHIS, PPQ office. The shipping documents should show dates of delivery for each shipment of foreign soil or regulated domestic soil and weight of soil shipped.

(b) Exact records must be kept and made available upon each visit PPQ or I.D.A. makes to Argonne National Laboratory regarding:

- (1) Date of arrival of each shipment,
- (2) Origin of the soil,

- (3) Date and amount of soil used for testing purposes,
- (4) Date of destruction of any and/or the remainder of the soil.

(c) Sarah Owens must maintain a valid Soil Permit and/or Compliance Agreement during the storage of untreated foreign soil or effluent or untreated regulated domestic soil or effluent. You can renew a soil permit, provided the THE LISTED PERMITTEE nor THE ADDRESS HAVE NOT CHANGED, AND THE PERMIT HAS NOT BEEN EXPIRED FOR MORE THAN 6 MONTHS. SUBMIT A COPY OF THE CURRENT PERMIT ALONG WITH A WRITTEN RENEWAL STATEMENT (SIGNED BY THE LISTED PERMITTEE). You may mail or fax the documents to: USDA, APHIS, PPQ, Permit Services Staff, 4700 River Road, Unit 136, Riverdale, MD. Facsimile Number (301) 734-5786.

(d) In the event Sarah Owens leaves Argonne National Laboratory, the foreign soil or effluent and/or the regulated domestic soil or effluent must be heat treated according to this Compliance Agreement before leaving. Alternatively, Sarah Owens must designate another person to be the responsible signatory for the untreated soil or effluent. The new potential applicant must immediately apply for a Soil Permit and Compliance Agreement to be in effect so as to not have a lapse in responsible person for the untreated soil or effluent at this laboratory. Sarah Owens also has the option of cancelling the permit and/or compliance agreement upon complying with the above listed instructions (14d) of any maintained samples.

12. Sarah Owens must prepare a standard operating procedure (SOP) for the USDA, APHIS, PPQ regulations in terms of handling, storing, safeguarding, transporting, and disposing of foreign soil or effluent, regulated domestic soil or effluent, used shipping containers, equipment and other contact waste. The SOP must contain instructions regarding the cleanup of the spillage of regulated soil on the work space as well as on the floor and sterilization of glassware and equipment. The SOP must be posted in areas where soil is stored and where soil is processed. A copy of the SOP must be sent to the local PPQ office within three weeks of Sarah Owens signing the Compliance Agreement.

13. Sarah Owens at Argonne National Laboratory must present a training program to all employees involved in the process of handling, storing, safeguarding, transporting, or disposing of the regulated soil in accordance with PPQ regulations. Training must include policy/instructions detailed in the SOP; each employee must be shown where the SOP is posted. Training must be completed before employees are permitted access to the regulated soil in order to process, safeguard, treat, or dispose. Previously trained employees shall be provided review training annually. Records of all training administered to employees (name and dates) shall be made available to PPQ or I.D.A. personnel upon request.

14. With her signature, Sarah Owens undertakes the responsibility for compliance for all conditions on the Soil Permit and the Compliance Agreement for all personnel he/she directly supervises who may be involved with the regulated domestic and/or foreign soil. In the event Sarah Owens is no longer working in this capacity for Argonne National Laboratory, either Sarah Owens or Argonne National Laboratory must immediately notify USDA, APHIS, PPQ of this change.

15. Upon request, records of soil shipments (soil received, soil disposed, and soil transferred) and/or including the Chain of Custody records are to be made available to USDA, APHIS, PPQ and/or the I.D.A.

(NOTE: In the event that the above named applicant is unable to meet all stated conditions/requirements he/she may utilize the permit/facility/equipment of an applicant that is currently approved by USDA.)

NOTE: Any person who knowingly violates the Plant Protection Act (PPA) (7 U.S.C. 7701 et. seq.) and/or the Animal Health Protection Act (AHPA) (7 U.S.C. 8301 et. seq.) may be criminally prosecuted and found guilty of a misdemeanor which can result in penalties, and one year prison term, or both. Additionally, any person violating the PPA and/or the AHPA may be assessed civil penalties of up to \$250,000 per violation or twice the gross gain or gross loss for any violation that results in the person deriving pecuniary gain or causing pecuniary loss to another, whichever is greater.

This agreement may be immediately canceled or revoked for noncompliance. Violation of these Federal regulations can result in a criminal penalty of up to a \$5,000 fine, 1 year in jail, or both, or a civil penalty of up to \$ 1,000 per violation.

By signing this agreement the signer(s) certify that Argonne National Laboratory in Argonne, IL has met or will meet the requirements of all applicable environmental authorities prior to handling soil regulated by USDA, APHIS, PPQ.

WARNING: Any alteration, forgery, or unauthorized use of this Federal form is subject to civil penalties of up to \$250,000 (7 U.S.C. s 7734(b)) or punishable by a fine of not more than \$10,000, or imprisonment of not more than 5 years, or both (18 U.S.C. s 1001).

Name of Applicant

Date

USDA-APHIS-PPQ Official

Date

State Plant Regulatory Official

Date



Paul K. Kearns
Deputy Laboratory Director for Operations/
Chief Operations Officer
Argonne National Laboratory
9700 South Cass Avenue, Bldg. 201
Argonne, IL 60439-4836

1-630-252-3051 phone
1-630-252-7923
pkearns@anl.gov

April 7, 2014

Dr. Joanna M. Livengood, Manager
Argonne Site Office
U.S. Department of Energy
9800 South Cass Avenue
Argonne, Illinois 60439-4871

Subject: Environmental Review Form (ERF)
Microbial Laboratory Analysis

Dear Dr. Livengood:

Enclosed is the ERF entitled "Microbial Laboratory Analysis" for the Institute of Genomics and Systems Biology program located in Building 202. Argonne National Laboratory has compared this activity with the requirements in 10 CFR 1021, Subpart D, Integrated DOE NEPA Implementing Procedures, December 1996. Having followed the required NEPA process steps, and lacking significant environmental impacts, we submit this project for approval by DOE. This NEPA action is required because some of the soil samples being collected come from parts of the country that require permits not covered in ASO-CX-298 "Bio Safety Level-1 and Bio Safety Level-2 Research Argonne" under the generic categorical exclusion (CX) category of B3.12.

The proposed project cannot proceed until the Environmental Review Form is completed and approved by DOE. If you have any questions regarding this information, please contact Joel Stauber, Argonne NEPA Reviewer, at (630) 252-7112.

Sincerely,

A handwritten signature in cursive script that reads "Paul K. Kearns".

Paul K. Kearns
Deputy Laboratory Director for Operations/
Chief Operations Officer

Enclosures: Environmental Review Form
Draft Compliance Agreement for IGSB

cc: R. Aker, DOE-ASO
K. Joshi, DOE-ASO
P. Siebach, DOE-CH

JVS:jvs