

U. S. DEPARTMENT OF ENERGY, OFFICE OF SCIENCE
INTEGRATED SUPPORT CENTER—CHICAGO OFFICE

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)
ENVIRONMENTAL EVALUATION NOTIFICATION FORM

To be completed by "Applicant," i.e., organization with responsibilities for a "Federal action" involving application to DOE for a permit, license, exemption or allocation, or other similar actions. For assistance with this Form, refer to "Instructions for Preparing ISC-CH F-560, Environmental Evaluation Notification Form."

Solicitation/Award No. (if applicable): NA

Organization Name: Ames Laboratory

Proposed Action Title: Site-Wide Categorical Exclusion: Bench Scale Research Projects & Conventional Operations

Total DOE Funding/Total Funding: NA

I. Project Description: (Use explanation pages if additional space is required)

A. Proposed Project/Action (if applicable, delineate Federally funded/Non-Federally funded portions)

See attached.

B. Would the project proceed without Federal funding?

Yes No

If "yes," use explanation page.

II. Description of Affected Environment: (Use explanation pages if additional space is required)

See attached.

III. Preliminary Questions:

- | | Yes | No |
|---|--------------------------|-------------------------------------|
| A. <u>Is the DOE-funded work routinely administrative or <i>entirely</i> advisory or a “paper study?”</u> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

If “Yes”, ensure that the description in Section I reflects this and go directly to Section V.

- | | Yes | No |
|--|--------------------------|-------------------------------------|
| B. <u>Is there any potential whatsoever for: (Provide an explanation for each “Yes” response)</u> | | |
| 1. Work to be performed outdoors? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2. Major modification of a building interior? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3. Threat of violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 4. Siting, construction or major expansion of waste treatment, storage, or disposal facilities? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Disturbance to hazardous substances, pollutants, or contaminants preexisting in the environment? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 6. The presence of any environmentally-sensitive resources? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 7. Any potential whatsoever for high consequence impacts to human health or the environment? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 8. The work being connected to another existing/proposed activity that could potentially create a significant impact? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 9. Nearby past, present, and/or reasonably foreseeable future actions such that collectively significant impacts could result? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 10. Scientific or public controversy, uncertainty over potential impacts, or conflicts regarding resource usage? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

If “No” to ALL Section III.B. questions, go directly to Section V.

IV. Potential Environmental Effects: (Provide an explanation for each “Yes” response)

- | | Yes | No |
|---|--------------------------|-------------------------------------|
| A. <u>Environmentally Sensitive Resources: Could the proposed action potentially result in changes and/or disturbances to any of the following resources?</u> | | |
| 1. Threatened/Endangered Species and/or Critical Habitats | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2. Other Protected Species (e.g., Burros, Migratory Birds, Pollinators) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3. Sensitive Environments (e.g., Tundra/Coral Reefs/Rain Forests) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 4. Cultural or Historic Resources | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Important Farmland | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 6. Non-Attainment Areas for Ambient Air Quality Standards | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 7. Class I Air Quality Control Region | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 8. Special Sources of Groundwater (e.g. Sole Source Aquifer) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 9. Navigable Air Space | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 10. Coastal Zones | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 11. Areas with Special National Designation (e.g. National Forests, Parks, Trails) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 12. Floodplains and/or Wetlands | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| B. <u>Regulated Substances/Activities: Would the proposed action involve any of the following regulated items or activities?</u> | | |
| 13. Natural Resource Damage Assessments | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 14. Invasive Species or Exotic Organisms | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 15. Noxious Weeds | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 16. Clearing or Excavation greater than one acre or Removal of Trees Governed by Local Requirement | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 17. Dredge or Fill (under Clean Water Act, Section 404, greater than one acre) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

B. Regulated Substances/Activities: Would the proposed action involve any of the following regulated Items or activities? (continued)

| | Yes | No |
|---|-------------------------------------|-------------------------------------|
| 18. Noise (in excess of regulations) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 19. Asbestos Removal | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 20. Polychlorinated biphenyls (PCBs) | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 21. Import, Manufacture, or Processing of Toxic Substances | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 22. Chemical Storage/Use | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 23. Pesticide Use | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 24. Hazardous, Toxic, or Criteria Pollutant Air Emissions | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 25. Liquid Effluents | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 26. Spill Prevention/Surface Water Protection | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 27. Underground Injection | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 28. Hazardous Waste | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 29. Underground Storage Tanks | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 30. Radioactive or Radioactive Mixed Waste | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 31. Radiation Exposure | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 32. Nanoscale Materials | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 33. Genetically Engineered Microorganisms/Plants or Synthetic Biology | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 34. Ozone Depleting Substances | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 35. Greenhouse Gas Generation/Sustainability | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 36. Off-Road Vehicles | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 37. Biosafety Level 3-4 Laboratory | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 38. Research on Human Subjects or other Vertebrate Animals | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 39. Facility footprint exceeds 5,000 Square Feet | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

C. Other Relevant Information: Would the proposed action involve the following?

| | Yes | No |
|--|-------------------------------------|-------------------------------------|
| 40. Disproportionate Nearby Presence of Minority and/or Low Income Populations | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 41. Existing, Modified, or New Federal/State Permits | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 42. Involvement of Another Federal Agency (e.g. license/permit, funding, approval) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 43. Action in a State with NEPA-type law | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 44. Expansion of Public Utilities/Services | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 45. Depletion of a Non-Renewable Resources | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 46. Subject to an Existing Institutional Work Planning and Control Process | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 47. Other Pertinent Information Which Could Impact Human Health or the Environment | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

V. Applicant certification that to the best of their knowledge all information provided on this form is accurate:

Does this disclosure contain: classified, sensitive business, or other exempt information that DOE would not be obligated to disclose pursuant to the Freedom of Information Act. Yes No

A. Organization Official (Name and Title): Sarah Morris-Benavides, Environmental Specialist

Signature: Sarah Morris-Benavides Digitally signed by Sarah Morris-Benavides
Date: 2018.07.23 09:03:54 -05'00' Date: 7/23/18

e-mail: sarahmb@ameslab.gov Phone: 515-294-7923

B. Optional Secondary Approval (Name and Title): _____

Signature: _____ Date: _____

e-mail: _____ Phone: _____

Remainder to be completed by DOE

VI. DOE Concurrence/Recommendation/Determination:

A. DOE Project Director/Program Manager or Contract/Grant Management Specialist:

Has the Applicant completed this Form correctly?
Does an existing generic categorical exclusion apply?

Yes No

If yes, indicate: _____

Name and Title: Bruce Goplin, AMSO Site Representative

Signature: BRUCE GOPLIN
Digitally signed by BRUCE GOPLIN
DN: c=US, o=U.S. Government, ou=Department of Energy, cn=BRUCE
GOPLIN, 0.9.2342.19200300.100.1.1=89001003243712
Date: 2018.07.25 13:00:25 -0500

Date: 7/25/18

B. DOE NEPA Team Review (if requested):

Is the class of action identified in the DOE NEPA Regulations (Appendices A-D to Subpart D (10 CFR § 1021))?

Yes No

If yes, specify the class(es) of action: _____

Name and Title: _____

Signature: _____ Date: _____

C. DOE Counsel (if requested):

Name and Title: _____

Signature: _____ Date: _____

D. DOE NEPA Compliance Officer:

The preceding pages are a record of documentation required under DOE Final NEPA Regulation, 10 CFR § 1021.410.

- Action may be categorically excluded from further NEPA review. I have determined that the proposed action meets the requirements for Categorical Exclusion referenced above.
- Action requires approval by Head of the Field Organization. Recommend preparation of an Environmental Assessment.
- Action requires approval by Head of the Field Organization or a Secretarial Officer. Recommend preparation of an Environmental Impact Statement.

Comments/limitations if any:

B3.6 Siting, construction, modification, operation, and decommissioning of facilities for small-scale research and development projects; conventional laboratory operations (such as preparation of chemical standards and sample analysis); and small-scale pilot projects.

NEPA Compliance Officer:

Name: Teralyn Murray

Signature: *Teralyn Murray* Date: 7/25/18

Optional Additional Narrative:

I. Description of Proposed Action

All proposed actions will be bench-scale research projects and conventional laboratory operations conducted in established buildings at Ames Laboratory and Iowa State University as well as offsite collaborations with other State and Federal entities. Specifically, bench-scale chemical, biological, physical and theoretical studies, experiments, and related activities including the assembly/disassembly of experimental instrumentation and research equipment are within the scope of the proposed actions.

Restrictions:

Actions not covered by this generic CX are those that require a "yes" to be checked in Sections III.B. and IV. of the SC-CH Form 560 where none exists in the generic form.

II. Description of Affected Environment:

The City of Ames, Iowa surrounds the ISU main campus (490 acres). The population of Ames is approximately 66,498, which includes the ISU student population of approximately 36,300. Ames is located in Story County, which has a population of approximately 97,502.

Ames Laboratory is located on the campus of Iowa State University (ISU) and occupies 12 buildings owned by the Department of Energy (DOE). See the Laboratory's Web page for location and Laboratory overview. The Laboratory also leases space in ISU owned buildings.

The climate is temperate continental, and is subject to wide temperature and precipitation ranges throughout the year. Mean monthly temperature varies from a low of minus 7.5 degrees Celsius (18.5F) in January to a high of 23.8 degrees Celsius (74.8 F) in July. Average rainfall equivalent precipitation varies from 1.8 centimeters (0.7 inches) in January to 13.7 centimeters (5.4 inches) in June.

The region's topography is gently rolling with a slight overall negative gradient to the southeast. Under the shallow topsoil, the soils are glacial till with a depth of approximately 19.8 meters (65 feet). This material is underlain by predominantly limestone bedrock. In the central campus area, the depth to first groundwater is approximately 3.0 meters (10 feet). Surface run-off flows into Squaw Creek, a tributary of the South Skunk River. The streams have a combined average daily flow of approximately 644 million liters (170 million gallons).

Activities are scoped to have minimal effect on the environment as the majority of work will be conducted inside buildings. Outside activities are minor and are adjacent to existing buildings in areas that have already been disturbed. Where practical, appropriate construction debris will be recycled. Hazardous and special waste, asbestos, radioactive waste will be disposed of per Federal/State regulations and Ames Laboratory procedures to ensure proper control.

IV. Potential Environmental Effects:

B20. PCBs

Any PCBs associated with the proposed activities will be limited to the use of analytical standards and work with laboratory scale quantities of PCB-contaminated materials. PCB materials will be collected and disposed of according to Federal/State regulations and Laboratory procedures.

B22. Chemical Storage/Use

Proposed research activities may involve the use and storage of chemicals. Chemicals are typically small quantities (< 4 liters). All chemicals are stored/handled according to the Ames Laboratory's Laboratory Safety Manual. Laboratory activities are undergo the Laboratory's readiness review process which covers the storage and use of chemicals.

B24. Hazardous, Toxic, or Criteria Pollutant Air Emissions

Some bench-scale research activities may emit low levels of hazardous air pollutants or criteria pollutants as defined by the Clean Air Act. Given the limited quantities of materials used in bench-scale activities, emissions will not have a significant impact on the environment. Research activities involving radionuclide air emissions must go through the Laboratory's readiness review process prior to the start of the activity.

B25. Liquid Effluent

The proposed research activities that generate liquid effluent are subject to the Laboratory's readiness review process prior to their start. Ames Laboratory ES&H policy and procedures prohibit the disposal of hazardous materials and chemicals in any drains.

B28. Hazardous Waste

The proposed activities may involve the generation of hazardous waste. All chemical users and hazardous waste generators are required to take the Laboratory's Waste Generator Training. Hazardous waste is collected and disposed of according to Federal/State regulations and Laboratory procedures.

B30. Radioactive Waste

The proposed activities may involve the generation of radioactive waste. All chemical/radioactive material users are required to take the Laboratory's Waste Generator Training. Radioactive waste will be accumulated, documented and managed according to DOE Order 435.1 and Laboratory procedures.

B31. Radiation Exposure

The proposed activities may involve the use of radioactive materials or Radiation-generating devices. Radiological protection will be provided by the Radiation Safety Officer according to the Laboratory's Radiation Protection Plan (10202.004), 10 CFR 835 and DOE O 458.1 (radiation protection of the public and environment). Planned radiation exposures will follow the principles of "As Low as Reasonably Achievable" and will not exceed the Laboratory's administrative limits. All radioactive materials users are required to take the Laboratory's General Employee Radiation Training.

B32. Nanoscale Materials

The proposed activities may involve nanoscale materials. Activities using nanoscale materials are assessed, through the readiness review process, for proper handling and waste disposal. Nanoscale users are required to take Nanotechnology Awareness training.

B34. Ozone Depleting Substances

Some bench-scale research activities may use and emit low levels of ozone depleting substances. The readiness review process would dictate any restrictions on the use, and disposal of ODS'.

C46. Subject to an Existing Work Planning and Control Process

Ames Laboratory has an internal procedure to ensure that activities are planned, the hazards associated are identified, categorized and controls are used to protect personnel and the environment. Activities are reviewed at the developmental stage, upon operation and periodically thereafter using a graded approach based on the hazard category.