10200.184
Chicago Office NEPA Tracking Number

U. S. DEPARTMENT OF ENERGY
OFFICE OF SCIENCE -- CHICAGO OFFICE

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)
ENVIRONMENTAL EVALUATION NOTIFICATION FORM

To be completed by "Applicant," i.e., organization receiving funds and/or implementing Federal Actions as defined by 40 CFR § 1508.18. For assistance, refer to "Instructions for Preparing SC-CH F-560, Environmental Evaluation Notification Form."

Solicitation/Award No. (if applicable): NA

Organization Name: Ames Laboratory

Title of Proposed Project/Research: Site-Wide Categorical Exclusion:Bench Scale Research Projects & Conventional Operations

Total DOE Funding/Total Project Funding: NA

I. Project Description ***(use explanation page if additional space is required)***:

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

	Yes	No
B. Would the project proceed without Federal funding?	☐	☒

If "yes," use explanation page.

II. Description of Affected Environment:
see attachment

III. Preliminary Questions:

		Yes	No
A.	Is the DOE-funded work routinely administrative or *entirely* advisory or a "paper study?"	☐	☒

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

B. Is there any potential whatsoever for:

Provide an explanation for each "Yes" response.

		Yes	No
1.	Work to be performed outdoors?	☐	☒
2.	Major modification of a building interior?	☐	☒
3.	Threat of violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health?	☐	☒
4.	Siting, construction or major expansion of waste treatment, storage, or disposal facilities?	☐	☒
5.	Disturbance to hazardous substances, pollutants, or contaminants preexisting in the environment?	☐	☒
6.	The presence of any environmentally-sensitive resources?	☐	☒
7.	Potential for high consequence impacts to human health or the environment?	☐	☒
8.	The work being connected to another existing/proposed activity that could potentially create a significant impact?	☐	☒
9.	Nearby past, present, and/or reasonably foreseeable future actions such that collectively significant impacts could result?	☐	☒
10.	Scientific or public controversy over whether impacts could be significant?	☐	☒

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

IV. Potential Environmental Effects:

Provide an explanation for each "Yes" response.

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

		Yes	No
1.	Threatened/Endangered Species and/or Critical Habitats	☐	☒
2.	Other Protected Species (e.g., Burros, Migratory Birds)	☐	☒
3.	Sensitive Environments (e.g., Tundra/Coral Reefs/Rain Forests)	☐	☒
4.	Cultural or Historic Resources	☐	☒
5.	Important Farmland	☐	☒
6.	Non-Attainment Areas for Ambient Air Quality Standards	☐	☒
7.	Class I Air Quality Control Region	☐	☒
8.	Special Sources of Groundwater (e.g. Sole Source Aquifer)	☐	☒
9.	Navigable Air Space	☐	☒
10.	Coastal Zones	☐	☒
11.	Areas with Special National Designation (e.g. National Forests, Parks, Trails)	☐	☒
12.	Floodplains and/or Wetlands	☐	☒

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

		Yes	No
13.	Natural Resource Damage Assessments	☐	☒
14.	Invasive Species or Exotic Organisms	☐	☒
15.	Noxious Weeds	☐	☒
16.	Clearing or Excavation (indicate if greater than one acre)	☐	☒
17.	Dredge or Fill (under Clean Water Act, Section 404, greater than one acre)	☐	☒
18.	Noise (in excess of regulations)	☐	☒
19.	Asbestos Removal	☐	☒
20.	Polychlorinated biphenyls (PCBs)	☐	☒
21.	Import, Manufacture, or Processing of Toxic Substances	☐	☒
22.	Chemical Storage/Use	☒	☐
23.	Pesticide Use	☐	☒
24.	Hazardous, Toxic, or Criteria Pollutant Air Emissions	☐	☒
25.	Liquid Effluents	☒	☐
26.	Spill Prevention/Surface Water Protection	☐	☒
27.	Underground Injection	☐	☒
28.	Hazardous Waste	☒	☐
29.	Underground Storage Tanks	☐	☒
30.	Radioactive or Radioactive Mixed Waste	☒	☐
31.	Radiation Exposure	☒	☐
32.	Nanoscale Materials	☒	☐
33.	Genetically Engineered Microorganisms/Plants or Synthetic Biology?	☐	☒
34.	Ozone Depleting Substances	☒	☐
35.	Greenhouse Gas Generation/Sustainability	☐	☒
36.	Off-Road Vehicles	☐	☒
37	Biosafety Level 3-4 Laboratory	☐	☒

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

		Yes	No
38.	Existing, Modified, or New Federal/State Permits	☐	☒
39.	Disproportionate Nearby Presence of Minority and/or Low Income Populations	☐	☒
40.	Action/Involvement of Another Federal Agency (e.g. license/permit, funding, approval)	☐	☒
41.	Action of a State Agency in a State with NEPA-type law	☐	☒
42.	Public Utilities/Services	☐	☒
43.	Depletion of a Non-Renewable Resource	☐	☒
44.	Other Pertinent Information Which Could Impact Human Health or the Environment	☐	☒

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

	Yes	No
Does this disclosure contain classified, confidential, or other exempt information that DOE would not be obligated to disclose pursuant to the Freedom of Information Act?	☐	☒

A. Organization Official (Name and Title): Dan Kayser, Environmental Specialist

Signature: Daniel A. Kayser Date: 5/30/2013

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

B. Optional Secondary Approval (Name and Title): Tom Wessels, Manager ESH&A

Signature: Tom E Wessels Date: 5-30-13

e-mail: wessels@ameslab.gov Phone: 515-294-4965

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Remainder to be completed by DOE

VI. DOE Concurrence/Recommendation/Determination:

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

	Yes	No
Has the Applicant completed the Form correctly?	☒	☐
Does an existing Generic Categorical Exclusion apply?	☒	☐

If yes, indicate: This is a new/updated Generic CX

Name and Title: _____

Signature: _____ Date: _____

B. DOE NEPA Team Review:

	Yes	No
Is the class of action identified in the DOE NEPA Regulations (Appendices A-D to Subpart D (10 CFR § 1021))?	☐	☐

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

Name and Title: _____

Signature: _____ Date: _____

C. DOE Counsel (if requested):

Name and Title: Michelle R. McKown

Signature: Michelle R. McKown Date: 6/3/13

D. DOE NEPA Compliance Officer:

The preceding pages are a record of documentation required under DOE Final NEPA Regulation, 10 CFR § 1021.400.

☒ 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:

NEPA Compliance Officer:

Name: Peter R. Siebach

Signature: Peter R Siebach Date: 6/3/13

Optional Additional Narrative: (add additional detail to description to Sections I and II or explanations to responses in Sections III and IV.

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 are not covered by this generic CX if an action would 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, as defined in the associated instructions for Preparing SC-CH Form 560.

II. Description of Affected Environment

The City of Ames, Iowa surrounds the ISU main campus (490 acres). The population of Ames is approximately 59,042, which includes the ISU student population of approximately 31,040. Ames is located in Story County, which has a population of approximately 89,663.

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 (18.5□F) 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).

All proposed activities will be conducted in an indoor/outdoor bench-scale laboratory setting. Indoor activities will take place in existing laboratory spaces. The Ames Laboratory has a procedure (Readiness Review) in place that addresses environment, safety and health implications for research activities at the Laboratory. All environmental concerns are addressed at a formal meeting by the environmental specialist and resolved prior to the start of a proposed activity.

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'.

June 2013

Ames Categorical Exclusion (CX)
Documentation for
Bench-Scale Research Projects and Conventional Laboratory Operations
Ames Form #10200.184

Continuation Sheet: Ames Laboratory Site-Wide Categorical Exclusion: Bench-scale research projects and conventional laboratory operations.

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.

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