

U. S. DEPARTMENT OF ENERGY
OFFICE OF SCIENCE

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)
ENVIRONMENTAL EVALUATION NOTIFICATION FORM

To be completed by "financial assistance award" organization receiving Federal funding. For assistance (including a point of contact), see "Instructions for Preparing SC F-560, Environmental Evaluation Notification Form".

Solicitation/Award No. (if applicable): _____

Organization Name: Lawrence Berkeley National Laboratory

Title of Proposed Project/Research: Joint BioEnergy Institute (JBEI) Lease and Operation of Greenhouses at UC Davis (ARRA Project Code 2005095)

Total DOE Funding/Total Project Funding: \$ 600,000 construction and \$15,400 operating

I. Project Description (use additional pages as necessary):

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

The proposed action would construct two 400 ft² greenhouses, provide utilities to the greenhouses, grow plants in the greenhouses and maintain the greenhouses for three years. The greenhouses would provide space and controlled growth conditions for rice, Arabidopsis, switchgrass, and tobacco.

The lease with UC Davis would permit JBEI to have two 400 ft² greenhouses installed on University land as depicted in Attachment A (Greenhouse Location), together with ingress and egress, so that JBEI can conduct scientific research at the Greenhouse Location. Provided that the installation costs would stay within the amount appropriated, U. C Davis would be responsible for the entire installation of the greenhouses, including, but not limited to, a feasibility study, site preparation, design, and purchase and installation of greenhouses.

The goal of this project is to aid in the advancement of research on the cell wall structure of biomass model crops.

This project would directly support DOE's mission theme of Scientific Discovery and Innovation, and it would enable transformational science by providing infrastructure that would accelerate progress in the development and evaluation of plant feedstocks for sustainable bioenergy production.

B. Would the project proceed without Federal funding?

Yes No

If "yes", describe the impact to the scope:

II. Description of Affected Environment:

The construction site is located on the University of California Davis campus in an already developed area adjacent to other greenhouses as shown on attachment A.

III. Preliminary Questions:

A. Is the DOE-funded work entirely a "paper study"?

Yes No

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

B. Will the work to be performed take place *entirely* in existing buildings?

And:

- 1. Threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health?
- 2. Require the siting, construction or major expansion of waste treatment, storage, or disposal facilities?
- 3. Disturb hazardous substances, pollutants, or contaminants preexisting in the environment?
- 4. Adversely affect environmentally-sensitive resources identified in Section IV.A.?
- 5. Be connected to another existing/proposed activity that could potentially create a cumulatively significant impact?
- 6. Have an inherent *possibility* for high consequence impacts to human health or the environment (e.g., Biosafety Level 3-4 laboratories, activities involving high levels of radiation)?

If "No" to Question III.B. and ALL six subsequent questions, ensure the descriptions in Sections I and II reflect this and go directly to Section V.

IV. Potential Environmental Effects:

Attach/insert an explanation for each "Yes" response.

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

- | | Yes | No |
|--|--------------------------|-------------------------------------|
| 1. Threatened/Endangered Species and/or Critical Habitats | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2. Other Protected Species (e.g., Burros, Migratory Birds) | <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. Archaeological/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 Wetlands | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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

- | | Yes | No |
|---|--------------------------|-------------------------------------|
| 13. Natural Resource Damage Assessments | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 14. Exotic Organisms | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 15. Noxious Weeds | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 16. Clearing or Excavation (indicate if greater than one acre) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 17. Dredge or Fill (under Clean Water Act, Section 404, indicate if greater than ten acres) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

B. Regulated Substances/Activities: Will 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. PCB's | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 21. Import, Manufacture, or Processing of Toxic Substances | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 22. Chemical Storage/Use | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 23. Pesticide Use | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

- 24. Hazardous, Toxic, or Criteria Pollutant Air Emissions
- 25. Liquid Effluents Irrigation water from watering the plants
- 26. Underground Injection
- 27. Hazardous Waste
- 28. Underground Storage Tanks
- 29. Radioactive Mixed Waste
- 30. Radioactive Waste
- 31. Radiation Exposure
- 32. Surface Water Protection
- 33. Pollution Prevention Act
- 34. Ozone Depleting Substances Cooling will be done using evaporative coolers
- 35. Off-Road Vehicles
- 36. Biosafety Level 3-4 Laboratory

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

- | | Yes | No |
|---|-------------------------------------|-------------------------------------|
| 37. Potential Violation of Environment, Safety, or Health Regulations/Permits | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 38. Siting/Construction/Major Modification of Waste Recovery, or Waste Treatment, Storage, or Disposal Facilities | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 39. Disturbance of Pre-existing Contamination | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 40. New or Modified Federal/State Permits | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 41. Public Controversy No GMO crops will be grown | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 42. Environmental Justice | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 43. Action/Involvement of Another Federal Agency (e.g. license, funding, approval) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 44. Action of a State Agency in a State with NEPA-type law. (Does the State Environmental Quality Review Act apply?) UC Davis and LBNL will do CEQA reviews | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 45. Public Utilities/Services minor amounts of power will be needed for cooling, lighting, and heating | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 46. Depletion of a Non-Renewable Resource | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 47. Extraordinary Circumstances | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 48. Connected Actions | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 49. Exclusively Bench-top Research | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 50. Only a Campus Setting | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

V. Financial Assistance Award Organization Concurrence:

A. Organization Official (Name and Title): Jeff Philliber, LBNL Environmental Planner

Signature: _____ /s/ _____ Date: 12-22-09

e-mail: _____ Phone: _____

Remainder to be completed by SC

VI. SC Concurrence/Recommendation/Determination:

A. SC BSO:

Project Director or Contract Specialist (Name and Title): Rick Chapman General Engineer

Signature: _____ /s/ _____ Date: 01-04-10

B. SC NEPA Team Review:

Is the project/activity appropriate for a determination or a recommendation to the Head of the Field Organization by the NEPA Compliance Officer (NCO) under Subpart D of the DOE NEPA Regulations?

Yes No

Specific class(es) of action from Appendices A-D to Subpart D (10 CFR 1021):
A.7, B1.3, B1.15, B3.6

Name and Title: Kim Abbott NEPA Document Manager

Signature: _____ /s/ _____ Date: 12/22/09

C. SC ISC Counsel (if necessary):

Name and Title: _____

Signature: _____ Date: _____

D. SC ISC Field Office 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 necessary:

Print Name Gary Hartman

Signature: _____
_____ /s/ _____
ORO NEPA Compliance Officer

Date: 1/19/2010

Attachment A - Greenhouse Location

