



U.S. Department of Energy Categorical Exclusion Determination Form

Submit by E-mail

Proposed Action Title: Pacific Northwest National Laboratory - Consortium for Advanced Sorghum Phenomics (CASP)

Program or Field Office: Advanced Research Projects Agency - Energy

Location(s) (City/County/State): Richland, WA; Walnut Creek, CA; Berkeley, CA; Kearney & Westside, CA; Sunnyvale, CA; Lubbock, TX

Proposed Action Description:

Funding will support small-scale, research and development activities to conduct sorghum field trials with public and proprietary lines by establishing fully automated drought and saline nurseries. In particular, the project team will 1) design, integrate, and test unmanned aerial vehicles (UAVs) capable of collecting, storing, and transmitting field phenotypic data measurements; 2) operate the UAVs in sorghum test fields; 3) develop and validate algorithms for data registration of field images; 4) develop algorithms for estimates of select phenotypes; and 5) conduct genotyping, association mapping, and trait-prediction modeling. The proposed activities will be designed to accelerate breeding of energy sorghum to maximize biomass yield under drought and saline field conditions.

The proposed action consists of the use by the Project Team (Blue River Technology, Inc. (BRT), in particular) of small unmanned aerial vehicles (UAVs), which are regulated by the Federal Aviation Administration (FAA). BRT has submitted a petition to the FAA for a Section 333 exemption, requesting permission for BRT to commercially operate a UAV in rural area for precision agricultural surveys and will begin use of the UAVs only after the exemption is issued. BRT will maintain compliance with all applicable FAA regulations governing the operation of UAVs and adapt operations to conform to any changes in the applicable regulatory requirements.

Project tasks will be conducted in accordance with applicable Federal, State, and local safety and environmental requirements.

Categorical Exclusion(s) Applied:

B3.6 - Small-scale research and development, laboratory operations, and pilot projects

For the complete DOE National Environmental Policy Act regulations regarding categorical exclusions, including the full text of each categorical exclusion, see Subpart D of 10 CFR Part 1021.

Regulatory Requirements in 10 CFR 1021.410(b): (See full text in regulation)

The proposal fits within a class of actions that is listed in Appendix A or B to 10 CFR Part 1021, Subpart D.

To fit within the classes of actions listed in 10 CFR Part 1021, Subpart D, Appendix B, a proposal must be one that would not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions or facilities; (3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources, including, but not limited to, those listed in paragraph B(4) of 10 CFR Part 1021, Subpart D, Appendix B; (5) involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those listed in paragraph B(5) of 10 CFR Part 1021, Subpart D, Appendix B.

There are no extraordinary circumstances related to the proposal that may affect the significance of the environmental effects of the proposal.

The proposal has not been segmented to meet the definition of a categorical exclusion. This proposal is not connected to other actions with potentially significant impacts (40 CFR 1508.25(a)(1)), is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1508.27(b)(7)), and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211 concerning limitations on actions during preparation of an environmental impact statement.

Based on my review of the proposed action, as NEPA Compliance Officer (as authorized under DOE Order 451.1B), I have determined that the proposed action fits within the specified class(es) of action, the other regulatory requirements set forth above are met, and the proposed action is hereby categorically excluded from further NEPA review.

NEPA Compliance Officer: 

Date Determined: 07/29/2015

