



U.S. Department of Energy Categorical Exclusion Determination Form

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Proposed Action Title: University of Illinois at Urbana-Champaign - Engineering Hydrocarbon Biosynthesis and Storage Together with Increased Photosynthetic Efficiency into Saccharinae

Program or Field Office: Advanced Research Projects Agency-Energy (ARPA-E)

Location(s) (City/County/State): Urbana, IL; Upton, NY; Gainesville, FL; Lincoln, NE; Citra, FL

Proposed Action Description:

Texas A&M Agrilife Research (Texas A&M) and its project team is developing genetically modified tobacco that produces and stores high-value biofuel products (terpenoids). In December 2011, ARPA-E reviewed the Project Team's proposed laboratory and greenhouse-based project tasks and determined that they were categorically excluded from further NEPA review under Categorical Exclusion B3.6. Outdoor field trials for transgenic tobacco plants were excluded from the prior determination. To date, all project tasks, including genetic modifications and testing have been conducted within indoor laboratory and greenhouse facilities. This determination covers outdoor field trials of transgenic tobacco plants that were previously excluded from NEPA review.

In March 2015, APHIS issued a standard letter of acknowledgement in response to Texas A&M's notification of environmental release (APHIS Acknowledgement No. 15-069-102n), authorizing the release of transgenic tobacco into the environment, effective April 1, 2015 through April 1, 2016. Transgenic tobacco plants will be transported securely from laboratory facilities at the Texas A&M's campus in College Station, TX to dedicated agricultural field research sites operated by Texas A&M in College Station, TX and Dallas, TX. Transgenic tobacco will be planted in a test plots no larger than 0.25 acres and will be surrounded by wild type tobacco borders for environmental control. Planting, harvesting equipment, and other field equipment will be cleaned on site. All persons handling regulated materials will adhere to management practices defined in the APHIS-BRS notification guidelines for release of transgenic materials. The objective of the field trial is to assess the performance of squalene accumulation in transgenic tobacco plants.

Categorical Exclusion(s) Applied:

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

B3.8 - Outdoor terrestrial ecological and environmental research

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: 07/20/2015



U.S. Department of Energy

Categorical Exclusion Determination Form

Submit by E-mail

Proposed Action Title: Texas A&M AgriLife Research--Synthetic Crop for Drop-In Biofuel Production through Re-routing the Photorespiration Intermediates and Engineering Terpenoid Pathways

Program or Field Office: Advanced Research Projects Agency-Energy

Location(s) (City/County/State): College Station, TX; Lexington, KY; Philadelphia, PA; Urbana-Champaign, IL; Blacksburg, VA

Proposed Action Description:

Texas A&M AgriLife Research, in conjunction with the University of Kentucky, the University of Pennsylvania, the University of Illinois, Virginia Tech, and the University of Washington, will conduct indoor laboratory based testing and genetic modifications aimed at increasing terpene production and storage in plants, and Arundo donax biofuel feedstock development.

Project activities will take place in existing laboratory facilities. No outdoor field trials are included in this determination.

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.

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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: 08/15/2013