PMC-ND
(1.08.09.13)

U.S. DEPARTMENT OF ENERGY
OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY
NEPA DETERMINATION

RECIPIENT: University of Rhode Island **STATE:** RI

PROJECT TITLE : Research and Technology Development for Genetic Improvement of Switchgrass

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
CDP	DE-FG36-08GO88070	GFO-88070-005	GO88070

Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Order 451.1A), I have made the following determination:

CX, EA, EIS APPENDIX AND NUMBER:
Description:

B3.6 Small-scale research and development, laboratory operations, and pilot projects	Siting, construction, modification, operation, and decommissioning of facilities for smallscale research and development projects; conventional laboratory operations (such as preparation of chemical standards and sample analysis); and small-scale pilot projects (generally less than 2 years) frequently conducted to verify a concept before demonstration actions, provided that construction or modification would be within or contiguous to a previously disturbed or developed area (where active utilities and currently used roads are readily accessible). Not included in this category are demonstration actions, meaning actions that are undertaken at a scale to show whether a technology would be viable on a larger scale and suitable for commercial deployment.

Rationale for determination:

The Department of Energy, (DOE) is proposing to provide funding to the University of Rhode Island (URI) to continue research associated with award DE-FG-36-08GO88070. These efforts are aimed at advancing the understanding and utilization of switchgrass as a biofuel source and would concentrate on the development of hybrid plants and gene confinement strategies to ensure a safe environmental release. In addition, new work would extend this approach to include the generation, quantification, and trait mapping of additional new varieties.

URI is proposing to develop transgenic switchgrass plants, test the generation of triploids for total gene confinement platform; introduce new molecular test constructs into switchgrass and related species; create required transgenic lines, evaluate phenotypes, and screen for stable transgene events. Additionally, an evaluation of the production and efficiency of making transgenic hybrids and totally vegetative offspring would occur at the Biotechnology Laboratory at URI. URI is properly equipped to perform this work and is in compliance with regulations for hazardous waste disposal and management, and is overseen internally by the URI Institutional Biosafety Committee (IBC). URI is also in compliance with OSHA standards. The safety procedures in place for their handling and use over the course of the project would be subject to USDA APHIS and University IBC guidelines. URI is in compliance with all USDA APHIS regulations for the generation and growth of transgenic plants and has an appropriate greenhouse facility for the indoor growth of transgenic plants. Transgenic plants would be transported, stored, handled, and disposed of according to APHIS guidelines. Additionally, the transgenic plants would be disposed of at the project's conclusion by the methods according to USDA APHIS guidelines, including autoclaving and or appropriate storage.

Yale University would utilize genomic assisted breeding of switchgrass, develop new varieties through the creation of required breeding and transgenic lines, genome assembly, and generate and publish a genomics database of newly generated switchgrass varieties.

Ernst Conservation Seed, Inc. located at 9006 Mercer Pike, Meadville, PA would provide field space for the screening of germoplasm and newly developed varieties.

The locations at the University of Rhode Island, Yale University, and Ernst Conservation Seed Inc., are the same as previously evaluated for this project.

Based on a review of the project information and the above analysis, DOE has determined the genetic improvement of switchgrass for bioenergy would not have a significant individual or cumulated impact to human health and/or environment. DOE has determined the proposed project is consistent with actions contained in DOE categorical exclusion B3.6, "Small-scale research and development, laboratory operations, and pilot projects."

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

If you intend to make changes to the scope or objective of your project you are required to contact the Project Officer identified in Block 11 of the Notice of Financial Assistance Award before proceeding. You must receive notification of approval from the DOE Contracting Officer prior to commencing with work beyond that currently approved.

Note to Specialist :

Diana Heyder 12/16/2013
This determination does not require a tailored NEPA Provision.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: Electronically Signed By: Kristin Kerwin Date: 12/19/2013

NEPA Compliance Officer

FIELD OFFICE MANAGER DETERMINATION

☐ Field Office Manager review required

NCO REQUESTS THE FIELD OFFICE MANAGER REVIEW FOR THE FOLLOWING REASON:

☐ Proposed action fits within a categorical exclusion but involves a high profile or controversial issue that warrants Field Office Manager's attention.
☐ Proposed action falls within an EA or EIS category and therefore requires Field Office Manager's review and determination.

BASED ON MY REVIEW I CONCUR WITH THE DETERMINATION OF THE NCO :

Field Office Manager's Signature: _____ Date: _____

Field Office Manager