

PMC-EF2a

(20102)

**U.S. DEPARTMENT OF ENERGY
EERE PROJECT MANAGEMENT CENTER
NEPA DETERMINATION**

**RECIPIENT:**The Lutheran University Assoc. d/b/a Valparaiso University**STATE:** CO**PROJECT TITLE :** Solar Furnace Research Program

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
	DE-EE0003192	GFO-0003192-001	GO3192

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:

B5.1 Actions to conserve energy, demonstrate potential energy conservation, and promote energy-efficiency that do not increase the indoor concentrations of potentially harmful substances. These actions may involve financial and technical assistance to individuals (such as builders, owners, consultants, designers), organizations (such as utilities), and state and local governments. Covered actions include, but are not limited to: programmed lowering of thermostat settings, placement of timers on hot water heaters, installation of solar hot water systems, installation of efficient lighting, improvements in generator efficiency and appliance efficiency ratings, development of energy-efficient manufacturing or industrial practices, and small-scale conservation and renewable energy research and development and pilot projects. The actions could involve building renovations or new structures in commercial, residential, agricultural, or industrial sectors. These actions do not include rulemakings, standard-settings, or proposed DOE legislation.

Rational for determination:

DOE proposes to provide federal funding to the Lutheran University Association [Valparaiso University] to construct and operate a heliostat solar furnace. This facility would be located adjacent to the Gellersen Engineering-Mathematics Center on the east side of the Valparaiso University campus in Valparaiso, Indiana. The solar furnace would be sited on university property. This solar furnace would be new construction and consist of a 1,600 square foot single-story building to house the concentrator, reactor, and data analysis equipment. The planar-mirrored heliostat would be located outside of, and directly adjacent to, the solar furnace building. The entire facility will occupy approximately 1/2 acre located on previously disturbed ground. Due to the pre-disturbed nature of the site impacts to natural or cultural resources are not expected.

The solar furnace would be used to conduct applied thermal science research including high-temperature thermal-chemical processes such as using solar energy to produce chemical fuel, production of hydrogen, and production of synthetic gas fuels. Facility usage would emphasize teaching and research. Waste products from experimental treatment may have unique chemical properties and would be analyzed and disposed of properly. Electricity would be provided to the reactor building to drive analytical and mechanical equipment.

The Department of Energy has determined that construction and operation of the solar furnace facility would provide renewable energy research opportunities consistent with B5.1 Categorical Exclusion as defined in 10CFR 1021.

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.

Insert the following language in the award:

You are required to:

Note to Specialist :

John DuWaldt 9.07.2011

DOE Budget: \$500,000
Recipient Budget: \$231,627
Total Budget: \$731,627

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____

Kristin Ker
NEPA Compliance Officer

Date: _____

9/9/2011

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: _____

Field Office Manager

Date: _____