

PMC-ND  
(1.08.09.13)

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



RECIPIENT: Delaware State University

STATE: DE

PROJECT TITLE : High Efficiency Thin Film Fe<sub>2</sub>SiS<sub>4</sub> and Fe<sub>2</sub>GeS<sub>4</sub>-based Cells Prepared from Low-Cost Solution Precursors

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000857	DE-EE0006322	GFO-0006322-001	GO6322

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:

<b>B3.6 Small-scale research and development, laboratory operations, and pilot projects</b>	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 is proposing to provide funding to Delaware State University (DSU) for a project, titled "High-efficiency Thin-film Fe<sub>2</sub>SiS<sub>4</sub> and Fe<sub>2</sub>GeS<sub>4</sub>-based Solar Cells Prepared from Low-Cost Solution Precursors". DSU would conduct laboratory scale research and development in existing facilities.

This research project would use hazardous materials and nanoscale materials and would generate hazardous waste. All handling of hazardous materials would occur in-lab, and DSU has dedicated hazardous material handling and disposal practices. The DSU Safety Office uses proper chemical and waste handling and disposal procedures to protect the health and safety of the University community and to comply with federal and state regulations governing hazardous and solid waste management. All experiments involving generation and handling of nanoparticles would be performed in a chemical fume hood or glove box to limit the inhalation exposure potential. All nanoparticle waste (solid material and liquids) will be managed as hazardous waste.

Based on review of the project information, DOE has determined the research and development activities would not have a significant individual or cumulative 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" and is categorically excluded from further NEPA review.

**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 :

None Given.

**SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.**

NEPA Compliance Officer Signature:  **Electronically Signed By: Kristin Kerwin**  
NEPA Compliance Officer \_\_\_\_\_ Date: 8/12/2013

**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