

PMC-EF2a

(2.04.02)

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



RECIPIENT: 3M Company

STATE: MN

**PROJECT TITLE :** Next Generation Solar Collectors for CSP

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
DE-SOL-0000595	DE-EE0005795	GFO-0005795-001	

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. |
| <b>B5.17 Solar thermal systems</b>  | The installation, modification, operation, and removal of commercially available smallscale solar thermal systems (including, but not limited to, solar hot water systems) located on or contiguous to a building, and if located on land, generally comprising less than 10 acres within a previously disturbed or developed area. Covered actions would be in accordance with applicable requirements (such as local land use and zoning requirements) in the proposed project area and would incorporate appropriate control technologies and best management practices.  |

Rational for determination:

DOE is proposing to provide federal funding to 3M to conduct research and development activities that advance optical technologies for next generation solar collector designs. DOE funding would be used to design, build, install and test the heliostat prototype.

Laboratory work would be conducted at 3M's campus in buildings 235 and 236 (2501 Hudson Road, Saint Paul, Minnesota 55144). 3M has completed an R&D questionnaire addressing the protocols for laboratory safety, risk management, chemical handling and waste disposal. All 3M facilities comply with standard safety procedures and all processes and procedures are monitored by 3M safety officers. No hazardous materials, toxic waste or liquid effluent would be generated during the course of the proposed project. 3M has all applicable permits in place to conduct research.

Prototype installation and testing would be conducted at the Sandia National Solar Thermal Test Facility. For all work conducted at Sandia, project activities may be subject to additional NEPA review by the cognizant NEPA Compliance Officer at the lab.

Based on this information, DOE has determined the work outlined is consistent with activities identified in categorical exclusion B3.6 (indoor bench-scale research and conventional laboratory operation) and B5.17 (solar thermal systems).

**NEPA PROVISION**

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Note to Specialist :

Cristina Tyler 8.13.2012

DOE Funding: \$4,900,000  
Cost Share: \$4,900,000  
Total Project Cost: \$9,800,000

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

NEPA Compliance Officer Signature: \_\_\_\_\_  
NEPA Compliance Officer

Date: 8/14/2012

**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: \_\_\_\_\_