PMC-EF2a
(2/04/02)

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

RECIPIENT: New River Valley Regional Jail Authority **STATE:** VA

PROJECT TITLE : New River Jail Solar Thermal - Dec. 2011 Review

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000013	DE-EE0000864	GFO-0000864-008Rev	0

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:

B5.17 Solar thermal systems
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:

The U.S. Department of Energy (DOE) provided funding to the Virginia Department of Mines, Minerals and Energy (DMME) under the DOE's American Recovery and Reinvestment Act of 2009 Energy Efficiency and Conservation Block Grant Program (EECBG). DMME proposes to provide ~ $411,000.00 of EECBG funding (total project cost ~$856,000.00) to the New River Jail Authority (Jail) for the installation of a solar thermal system which would provide hot water for the facility, located at the Jail's complex, 108 Baker Rd., Dublin, VA 24084 (proposed project).

This NEPA determination (GFO-0000864-008Rev) replaces an earlier NEPA determination signed in December 2010 (GFO-0000864-008). That NEPA determination categorically excluded a roof-mounted solar thermal system; however, the proposed project is for a ground-mounted system to be installed on the Jail's property.

The Jail was constructed in 1997 and underwent a major expansion in 2010-2011; with a current capacity of 859 to 1183 inmates. The proposed project would provide hot water for both the original structure as well as the expansion.

The collector portion of the system would be closed-loop and use a non-toxic 33% solution of inhibited glycol and de-ionized water. The intermediate thermal storage system would be closed-loop, non-pressurized plain water and would heat the domestic water via a brazed plate heat exchanger. The proposed project would heat ~3.07 million gallons (~33% of the jail's annual hot water usage) and would save ~ 40,200 therms and $91,000/year.

The proposed project and associated actions have the potential to impact the following resource areas:

Land Use: The total ground disturbance for the proposed project is ~.3 acre and the solar arrays would be on an aggregate stone bed (utilizing ~.2 acre of the project area). Site preparation consists of sod removal and installing the aggregate stone bed. DOE has determined the proposed project would have a minimal impact on land use.

Visual Impacts: The Jail is located in an industrial park and surrounding land use consists of a textile mill, machine shop, and a warehouse. DOE has determined the installation of the solar array would have negligible visual impacts.

Historic and Cultural: Due to the age of the Jail, the surrounding land use, and prior ground disturbance, DOE has determined the proposed project would not adversely impact historic or cultural resources. Should unanticipated discoveries be made during construction, the Jail would immediately cease construction and contact the Virginia State Historic Preservation Officer for guidance.

Biological: Based on a review of the existing conditions at the proposed project location and the lack of potential for threatened and endangered species to be impacted by the proposed project, DOE has determined the proposed

project would not impact listed or eligible species in the area.

Based on review of project information and the above analysis, DOE has determined that the proposed project does not have a significant individual or cumulative impact to the human environment. The proposed project is a small-scale solar thermal system located on previously disturbed land -- DOE has determined the proposed project is consistent with the actions contained in DOE categorical exclusion B5.17 "solar thermal systems" and is categorically excluded from further NEPA review under CX B5.17.

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 :

DOE Funding - ~ $411,000.00
EF2a Prepared by Melissa Rossiter

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 2/13/2012
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