

PMC-EF2a

(20102)

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



RECIPIENT: University of Texas at Austin

STATE: TX

PROJECT TITLE : Analysis & Tools to Spur Increased Deployment of

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000116	DE-EE0002803	GFO-10-188	GO2803

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:

A9 Information gathering (including, but not limited to, literature surveys, inventories, audits), data analysis (including computer modeling), document preparation (such as conceptual design or feasibility studies, analytical energy supply and demand studies), and dissemination (including, but not limited to, document mailings, publication, and distribution; and classroom training and informational programs), but not including site characterization or environmental monitoring.

Rational for determination:

The University of Texas at Austin is proposing a project that will create "waste heat" rejection/recycling strategies for GHP systems that are technically and economically viable for various building applications and ground resource designs in heavily cooling-dominated climates like those found in the southwestern and western United States. At least three SHR system alternatives will be examined: (1) evaporative fluid/air coolers or pre-conditioners, which liberates thermal energy from the working fluid before it enters the ground loop/resource; (2) desuperheaters, which recycle some of the waste heat to preheat hot water; and (3) two-phase thermosyphons, which are passive refrigeration devices that transfer heat against gravity.

Project tasks include the following:

- * "Waste Heat" Rejection/Recycling Estimation
- * Technical Performance Analysis & Modeling
- * Life-Cycle Cost Analysis & Modeling
- * Web-Based Decision-Support Tools Development

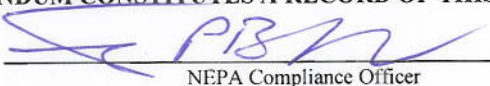
This project involves information gathering only; therefore a CX A9 will apply.

NEPA PROVISION

Note to Specialist :

None Given.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: 
NEPA Compliance Officer

Date: 3/9/10**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

Planning Opportunity & Management Number: DE-FOA-00018
Treatment Management Number: DE-EM-00008
NEPA Central Number: GFO-10-118
CIB Number: 003802

Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (as defined under DOE Order 413.1A), I have made the following determination:

CA, EA, OR AFFIDAVIT AND NUMBER: _____
Justification: _____

All information gathered (including, but not limited to, literature surveys, interviews, walks, data analysis (including computer modeling), document review) shall be provided to design or feasibility studies, analysis, energy supply and demand studies, and assessment (including, but not limited to, document review, publication, and distribution and document review and environmental programs), but not including the identification of environmental monitoring.

The University of Texas at Austin is proposing a project that will create "waste heat" recuperation strategies for 24th, 25th and 26th floors that are technically and economically viable for various building applications and ground resources design in heavily cooling-dominated climate like those found in the southeastern and western United States. At least three (3) system alternatives will be examined: (1) evaporative fluidized bed heat exchangers, which recycles thermal energy from the cooling fluid before it enters the ground loop/exchanger; (2) desiccant-based cyclic heat exchangers that recycle heat to pre-heat hot water, and (3) two-phase thermocycle, which re-circulates refrigeration device that transfer heat against gravity.

- * Waste Heat Recuperation/Extraction
- * Technical Performance Analysis & Modeling
- * Life-Cycle Cost Analysis & Modeling
- * Web-Based Decision-Support Tools Development

This project involves information gathering only; therefore a CX AS WB-APP.

NEPA PROVISION: _____
None Given

NEPA Compliance Officer Signature: _____
Date: 3/10/10

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