

PMC-ND

(1.08.09.13)

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



RECIPIENT: Gas Technology Institute

STATE: IL

PROJECT TITLE: Energy Savings with Acceptable Indoor Air Quality Through Improved Air Flow Control

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0001117	DE-EE0007057	GFO-0007057-001	GO7057

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, analysis, and dissemination** Information gathering (including, but not limited to, literature surveys, inventories, site visits, and audits), data analysis (including, but not limited to, computer modeling), document preparation (including, but not limited to, conceptual design, feasibility studies, and analytical energy supply and demand studies), and information dissemination (including, but not limited to, document publication and distribution, and classroom training and informational programs), but not including site characterization or environmental monitoring. (See also B3.1 of appendix B to this subpart.)

**B3.1 Site characterization and environmental monitoring** Site characterization and environmental monitoring (including, but not limited to, siting, construction, modification, operation, and dismantlement and removal or otherwise proper closure (such as of a well) of characterization and monitoring devices, and siting, construction, and associated operation of a small-scale laboratory building or renovation of a room in an existing building for sample analysis). Such activities would be designed in conformance with applicable requirements and use best management practices to limit the potential effects of any resultant ground disturbance. Covered activities include, but are not limited to, site characterization and environmental monitoring under CERCLA and RCRA. (This class of actions excludes activities in aquatic environments. See B3.16 of this appendix for such activities.) Specific activities include, but are not limited to: (a) Geological, geophysical (such as gravity, magnetic, electrical, seismic, radar, and temperature gradient), geochemical, and engineering surveys and mapping, and the establishment of survey marks. Seismic techniques would not include large-scale reflection or refraction testing; (b) Installation and operation of field instruments (such as stream-gauging stations or flow-measuring devices, telemetry systems, geochemical monitoring tools, and geophysical exploration tools); (c) Drilling of wells for sampling or monitoring of groundwater or the vadose (unsaturated) zone, well logging, and installation of water-level recording devices in wells; (d) Aquifer and underground reservoir response testing; (e) Installation and operation of ambient air monitoring equipment; (f) Sampling and characterization of water, soil, rock, or contaminants (such as drilling using truck- or mobile-scale equipment, and modification, use, and plugging of boreholes); (g) Sampling and characterization of water effluents, air emissions, or solid waste streams; (h) Installation and operation of meteorological towers and associated activities (such as assessment of potential wind energy resources); (i) Sampling of flora or fauna; and (j) Archeological, historic, and cultural resource identification in compliance with 36 CFR part 800 and 43 CFR part 7.

## Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide federal funding to Gas Technology Institute (GTI) to reduce the ventilation energy used to maintain indoor air quality in existing residential homes by 30% using a systems approach to controlling the three contributing air streams in residential buildings: ventilation, infiltration, and duct system losses.

Proposed project activities would include measuring house and duct air leakage and fan flow rates; measuring temperature, relative humidity, radon, formaldehyde, and carbon monoxide; and installing measure package upgrades in the homes. Approximately forty homes would be used throughout the extent of the project divided into twenty treatment homes and twenty control homes. Treatment homes would have infiltration and ventilation upgrades installed such as air sealing of the thermal envelope, sealing leaks in ductwork, balancing the duct system and tuning the ventilation system. This work would be carried out on exposed surfaces only; therefore, no interior construction would occur. The proposed project would conduct pre-upgrade installation baseline data collection at both treatment and control homes including a one-time evaluation of air leakage using a blower door test and other tools. Post-upgrade measurements of indoor air



quality would last for 90 days at treatment and control homes. All activities would occur in Cook County, IL in existing homes that are undergoing or have undergone weatherization upgrades. Instruments would be placed in different rooms in the home depending on the type of measurement being taken. Most equipment would be located in the basement or in an out of the way location as the homes are expected to be occupied. No licenses, permits or special authorizations are expected to be required. At this time, the specific houses have not been identified; however, all proposed work would occur inside existing homes and would be temporary in nature. DOE has determined that no adverse effects to the environment would occur as a result of the proposed project.

Based on a review of the project information and the above analysis, DOE has determined that the proposed activities would not have a significant individual or cumulative impact to human health and/or environment. DOE has determined that this project is consistent with actions outlined in DOE categorical exclusion A9 "Information gathering", and B3.1 "Site Evaluation" 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 :

Building Technologies Office  
This NEPA determination does not require a tailored NEPA provision.  
Review completed by Logan Sholar on 6/23/2015

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

NEPA Compliance Officer Signature:

  
NEPA Compliance Officer

Date:

6/25/2015

**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:

\_\_\_\_\_