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(1.08.09.13)

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

RECIPIENT: University of Texas at Austin **STATE:** TX

PROJECT TITLE : Industrial Scale Demonstration of Smart Manufacturing Achieving Transformational Energy Productivity Gains

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
	DE-EE0005763	GFO-0005763-001	GO5763

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.)
B2.2 Building and equipment instrumentation	Installation of, or improvements to, building and equipment instrumentation (including, but not limited to, remote control panels, remote monitoring capability, alarm and surveillance systems, control systems to provide automatic shutdown, fire detection and protection systems, water consumption monitors and flow control systems, announcement and emergency warning systems, criticality and radiation monitors and alarms, and safeguards and security equipment).
B2.5 Facility safety and environmental improvements	Safety and environmental improvements of a facility (including, but not limited to, replacement and upgrade of facility components) that do not result in a significant change in the expected useful life, design capacity, or function of the facility and during which operations may be suspended and then resumed. Improvements include, but are not limited to, replacement/upgrade of control valves, in-core monitoring devices, facility air filtration systems, or substation transformers or capacitors; addition of structural bracing to meet earthquake standards and/or sustain high wind loading; and replacement of aboveground or belowground tanks and related piping, provided that there is no evidence of leakage, based on testing in accordance with applicable requirements (such as 40 CFR part 265, "Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities" and 40 CFR part 280, "Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks"). These actions do not include rebuilding or modifying substantial portions of a facility (such as replacing a reactor vessel).

Rationale for determination:

The University of Texas at Austin would use DOE and cost share funding to design and demonstrate a common platform that enables data, modeling, and simulation technologies for active, real-time decisions to manage energy use in conjunction with production performance metrics, and to use the platform to establish how optimization of energy productivity as a key driver in business decisions can be applied across many U.S. manufacturing companies. A Smart Manufacturing (SM) Platform would be developed to allow manufacturing organizations to assemble new management systems at lower cost and extract new levels of data from their operation to optimize energy productivity. Results from the project would be disseminated to other large energy consumers with similar processes and also to small and medium manufacturers.

Initial work would consist of developing a design prototype that could demonstrate the overall SM Platform's proof of concept, scalability, and infrastructure sophistication that would allow operational implementation. The project would install instrumentation and control valves in existing commercial operations for steam methane reforming and metal heating treatment and forging to model, test, and develop the SM Platform throughout the entire project period at the Praxair plant in Port Author, Texas and at the General Dynamics plant in Scranton, Pennsylvania. There would be no change in the mission of either facility. Existing corporate health and safety policies and procedures would be followed including employee training, proper protective equipment, engineering controls, monitoring, and internal assessments. Additional policies and procedures would be implemented as necessary if new health and safety risks were identified. The General Dynamics plant is located within a national historic district that encompasses the Steamtown National Historic Site and Scranton Army Ammunition Plant. Project activities consist of the installation of sensors and control valves and real-time monitoring of data for existing process within the plant, so there would be no potential impacts to the national historic district as a result of project activities. The installed sensors and valves would be left in place after the project is completed.

Based on review of the project information, DOE has determined that project activities would not have a significant individual or cumulative impact to human health and/or environment. DOE has determined that these activities are consistent with actions contained in DOE categorical exclusions A9 "Information gathering, analysis, and dissemination," B2.2 "Building and equipment instrumentation," and B2.5 "Facility safety and environmental improvements," 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 :

This NEPA Determination does not require a tailored NEPA provision.

Casey Strickland 08/14/2013

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: Electronically Signed By: Kristin Kerwin Date: 8/15/2013

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