

PMC-EF2a

(20402)

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


**RECIPIENT:** IBM Corporation, T.J. Watson Research Center

**STATE:** NY

**PROJECT TITLE :** Economizer Based Data Center Liquid Cooling with Advanced Metal Interfaces

**Funding Opportunity Announcement Number**  
DE-FOA-0000107

**Procurement Instrument Number**  
DE-E0002894

**NEPA Control Number**  
GFO-10-248

**CID Number**  
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:**

- 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.
- B3.6** Siting, construction (or modification), operation, and decommissioning of facilities for indoor bench-scale research projects and conventional laboratory operations (for example, preparation of chemical standards and sample analysis); small-scale research and development projects; and small-scale pilot projects (generally less than two years) conducted to verify a concept before demonstration actions. Construction (or modification) will be within or contiguous to an already developed area (where active utilities and currently used roads are readily accessible).

**Rational for determination:**

IBM Corporation (IBM) is proposing to use ARRA funding through DOE to conduct research and development activities of two novel cooling technologies that will reduce the energy demand by a typical data center for server cooling to 5% of the total energy consumed. In addition to R&D, a commercialization study for the system will be conducted.

Project research will be performed in laboratory environments in several IBM research facilities in New York. Once development is complete, the system will be assembled and installed into an existing IBM test data center where tests will be continued. The test data center is at IBM's Advanced Thermal Laboratory in Poughkeepsie, NY.

IBM has completed and submitted an R&D questionnaire discusses their Well-Being Management System (Health and Safety Management) which follows OSHA standards; emergency response protocols; hazardous chemical storage and handling procedures; waste disposal procedures; and their established permits for work being conducted as part of this project.

This project comprises information gathering and conventional laboratory research and development in facilities with well established safety and chemical handling procedures in place; therefore a CX A9 and B3.6 will apply.

**NEPA PROVISION**

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Note to Specialist :

None Given.

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

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


  
NEPA Compliance Officer

Date: \_\_\_\_\_

3/4/2010

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