



# U.S. Department of Energy

## Categorical Exclusion Determination Form

Program or Field Office: Advanced Research Projects Agency - Energy

Project Title: (0289-1643) Material Methods - Phononic Heat Pump

Location: California

Proposed Action or Project Description:

American Recovery and Reinvestment Act:

Funding will support laboratory-scale research and development for a refrigerator that pumps heat using sound waves. The proposed work is consistent with the goal of BEETIT: the development of energy efficient cooling technologies and air conditioners for buildings, to save energy and reduce GHG emissions.

Proposed work consists entirely of RD&D work to be completed in Material Methods' laboratories and facility in Irvine, CA. The work performed will be limited to in-lab activities including design, development, fabrication, testing, and analysis.

Categorical Exclusion(s) Applied:

X - B3.6 Siting/construction/operation/decommissioning of facilities for bench-scale research, conventional laboratory operations, small-scale research and development and pilot projects

\*-For the complete DOE National Environmental Policy Act regulations regarding categorical exclusions, see Subpart D of 10 CFR10 21 [Click Here](#)

This action would not: threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, including DOE and or Executive Orders; require siting, construction, or major expansion of waste storage, disposal, recovery, or treatment facilities, but may include such categorically excluded facilities; disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that pre-exist in the environment such that there would be uncontrolled or unpermitted releases; or adversely affect environmentally sensitive resources (including but not limited to those listed in paragraph B.(4)) of Appendix B to Subpart D of 10 CFR 1021). Furthermore, there are no extraordinary circumstances related to this action that may affect the significance of the environmental effects of the action; this action is not "connected" to other actions with potentially significant impacts, is not related to other proposed actions with cumulatively significant impacts, and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211.

Based on my review of information conveyed to me and in my possession (or attached) concerning the proposed action, as NEPA Compliance Officer (as authorized under DOE Order 451.1B), I have determined that the proposed action fits within the specified class(es) of action, the other regulatory requirements set forth above are met, and the proposed action is hereby categorically excluded from further NEPA review.

NEPA Compliance Officer:

Date Determined: Aug 13, 2010

Comments:

Webmaster: