



U.S. Department of Energy

Categorical Exclusion Determination Form

Program or Field Office: Advanced Research Projects Agency- Energy

Project Title: (0288-1587) GeneSiC: Monolithic Silicon Carbide Anode Switched Thyristor for Medium Voltage Power Conversion

Location: *- Multiple States - Michigan; Virginia

Proposed Action or Project Description:

American Recovery and Reinvestment Act:

Funding will support pilot scale, proof of concept activities related to the development of novel semiconductor technology that will allow efficient processing of Megawatts of electrical power with digital precision. Specifically, high-voltage switches in silicon carbide will be developed and will enable precise control of the electricity infrastructure. The proposed work is consistent with the goal of ADEPT: fundamental advances in soft magnetics, high voltage switches, and reliable, high-density charge storage.

Proposed work consists entirely of RD&D work to be completed in clean rooms and laboratories housed at GeneSiC Semiconductor Inc., Dow Corning, and their vendors' facilities. The work performed will be limited to in-lab design, fabrication, testing, analysis, and demonstration.

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 5, 2010

Comments:

Webmaster: