

NEPA Categorical Exclusion Determination for
National Laser Users Facility (NLUF) Program
Funding Opportunity DE-FOA-0000681

The U.S Department of Energy (DOE) National Nuclear Security Administration's (NNSA) Office of Inertial Confinement Fusion (NA-112) manages the Inertial Confinement Fusion and High Yield (ICF) Campaign. The Campaign provides the experimental capabilities in and scientific understanding of high energy density (HED) physics to maintain a safe, secure, and reliable nuclear weapons stockpile without underground testing and also to maintain the U.S. preeminence in HED science and support broader national science goals. The ICF Campaign provides this capability through the development and use of advanced experimental tools and techniques, including state-of-the-art laser and pulsed power facilities.

NA-112 and the Office of Fusion Energy, Office of Science, manage the Joint Program in High Energy Density Laboratory Plasmas (JPHEDL) which supports user facility programs at ICF facilities and university research in HED science and Inertial Fusion Energy, and attracts and trains the next generation of scientists and engineers in HED science. This program provides research experience necessary to maintain a cadre of trained scientists to meet the Nation's future needs in these areas of science and technology.

The National Laser Users' Facility (NLUF) program is part of the Joint Program in High Energy Density Laboratory Plasmas. The research tools and resources of the NLUF are available to scientists for state-of-the-art basic research in laser-matter interactions, ICF, HED physics, and diagnostic and experimental platform development. This includes, but is not limited to, laser plasma instabilities, hydrodynamics, properties of materials under extreme conditions, laboratory astrophysics, high intensity laser-matter interactions, advanced ignition concepts, fundamental HED physics, biology, and chemistry.

The application packages submitted in response to funding opportunity DE-FOA-0000681 and the technical reviews for the research proposals performed for the funding opportunity did not reveal any extraordinary related circumstances that might affect the significance of the environmental effects of these proposals. The proposals are not "connected" to other actions with potentially significant impacts, or to other proposed actions with cumulatively significant impacts, and are not precluded by 40 CFR 1506.1 or 10 CFR 1021.211. The proposals do not result in adverse effects to historic properties included in or eligible for inclusion in the National Register of Historic Places (National Register) and would not impact sensitive resources (e.g., threatened and endangered (T/E) species, wetlands and floodplains). Nor do these proposals threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, including requirements of DOE and/or Executive Orders; require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators and facilities for treating wastewater, surface water, and groundwater); or disturb hazardous substances, pollutants, contaminants, or petroleum and natural gas products excluded from the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) that pre-exist in the environment such that there would be uncontrolled or unpermitted releases.

Accordingly, and pursuant to the DOE National Environmental Policy Act (NEPA) Implementing Procedures at 10 CFR 1021, Subpart D, Appendix A and Appendix B, the categorical exclusion (CX) determination applies to the proposals submitted by the following principal investigators in response to the solicitation for applications issued by the National Nuclear Security Administration.

Principal Investigator	Institution
Farhat Beg	University of California-San Diego
R. Paul Drake	University of Michigan
Thomas S. Duffy	Princeton University
William Fox	University of New Hampshire
Patrick Hartigan	Rice University
Raymond Jeanloz	University of California-Berkeley
Hantao Ji	Princeton University
Roberto C. Mancini	University of Nevada-Reno
Richard Petrasso	Massachusetts Institute of Technology
Bin Qiao	University of California-San Diego
Anatoly Spitkovsky	Princeton University
Richard Stephens	General Atomics
Louise Willingale	University of Michigan

Based on my review, I have determined that the proposed actions are categorically excluded from further NEPA review and documentation.

A 1, A 9, A 11 and B3.6 are the applicable CXs that cover the proposed actions in the DOE NEPA Implementing Procedures, 10 CFR 1021, Subpart D, Appendix A and Appendix B.

M E Martin

Feb 8, 2013

Mary E. Martin, NNSA HQ NEPA Compliance Officer

Date