

## LLNL CATEGORICAL EXCLUSION DETERMINATION FORM

<b>ESPM LOG NO:</b> 20-2008	<b>NNSA/LFO LOG NO:</b> 20-1
<b>1. PROJECT/ACTIVITY TITLE:</b> Diffraction experiments using insensitive high explosives (IHE) at the National Ignition Facility (NIF)	<b>DATE:</b> May 8, 2020
<b>2. PROJECT DESCRIPTION:</b> NIF would conduct High Energy Density Science (HEDS) program objectives by introducing a target with the high explosive triaminotrinitrobenzene (TATB). TATB is a non-primary initiating explosive that is extremely insensitive to shock, vibration, fire, or impact. The goal of the experiments is to shock TATB and measure the reaction products. No single target (or single experiment) will involve more than 10 mg of TATB. The TARget, Diffraction, In-Situ (TARDIS) platform would be used in conjunction with the TATB. TARDIS is commonly used at NIF to evaluate states of material at very high pressures.	
<b>3. Categorical Exclusion(s) Applied:</b> Appendix D of Subpart D of DOE's NEPA Implementing Procedures (Regulations) (10 CFR 1021), B3.6 – Small-scale research and development, laboratory operations, and pilot projects.	

\*-For the complete DOE National Environmental Policy Act regulations regarding categorical exclusions, see Subpart D of 10 CFR 1021

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:

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