LLNL CATEGORICAL EXCLUSION DETERMINATION FORM

| ESPM Log No: 15-13327 | NNSA/LSO Log No: | NA-15-06 |
|---|------------------|---------------|
| 1. PROJECT/ACTIVITY TITLE: | | DATE: |
| LLNL unmanned aircraft systems (UAS) testing and operations | | November 2015 |
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2. PROJECT DESCRIPTION:

DOE/NNSA has a need to operate and test unmanned aircraft systems (UAS) for security, environmental monitoring, surveys, and testing and verifying concepts in support of various LLNL programs. LLNL would operate unmanned aircraft systems (UAS) Site-wide at Livermore Site and Site 300 (avoiding areas occupied by equipment owned by others unless prior approval has been received). The UAS would be commercially available, battery powered remote control autonomous aircraft. The size and configuration of each aircraft may vary with mission needs, but they would generally be typical of those used in business and hobbyist fields. The UASs would be easily identifiable as government property. The aircraft may be equipped with commercially available or LLNL designed equipment including sensors, wireless equipment, and still or motion photography that is commonly used at LLNL UAS use may include surveying and monitoring LLNL wireless networks, performing other security monitoring activities, characterizing and monitoring environmental conditions, testing UAS and associated equipment to verify concepts as part of small-scale pilot projects (generally less than 2 years) or for similar purposes at LLNL provided that in all cases LLNL procedures and Federal Aviation Administration (FAA) requirements are met.

Administrative and physical controls would be developed and implemented as determined by FAA Certificates of Authorization (COA) requirements and the LLNL work control process, and as needed on a case by case basis. Commercially available UAS have been designed with protections to reduce the risk of catastrophic failure resulting from abuse, short-circuits, overheating, or overcharging and to provide early warning to operators of failure states. Physical controls may include blade guards to mitigate damage that could be caused to the device, environment, or people when the propellers are in motion. Administrative controls would include training, and limiting operators to individuals who meet all LLNL and FAA requirements.

3. Categorical Exclusion(s) Applied:

- **B3.2** Aviation Activities
- B3.6 Small-scale research and development, laboratory operations, and pilot projects
- B3.1 Site characterization and environmental monitoring

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:

^{*-}For the complete DOE National Environmental Policy Act regulations regarding categorical exclusions, see Subpart D of 10 CFR10 21