



Department of Energy
National Nuclear Security Administration
Categorical Exclusion Determination Form



Categorical Exclusion ID#: NV-2019-017.01

Proposed Action Title: U1a Modernization Surface- Seismic Monitoring of U1a drilling activities

Program or Field Office: NNSA Nevada Field Office

Location(s) (City/County/State): Nevada National Security Site, Area 1; Nye County, NV

Proposed Action Description

Seismic monitoring of existing sensors would be conducted to support U1a activities in and around the vicinity of the U1a complex. Extra geophone sensors and recorders would be used to monitor borehole drilling at U1a. Sensors may be used and monitored during mining and drilling activities. Monitoring would also be conducted during any aftershock period following a Magnitude 3.0 or larger earthquake where the epicenter is determined to be within the NNS boundaries.

It is required that the sensors have recorders, and the proposed type would be Inova Hawk 3-channel recorders powered by 12VDC battery packs. The Inova Hawk units broadcast a standard WiFi signal that would be used for Quality Control purposes. However, other types/brands of sensors may be used. A handheld computer would be used to gather Quality Control data on a weekly basis.

There would be approximately 37 sensors installed along all boundaries of the U1a complex over the next 12 months or until drilling is complete. Sensor stations would be sited within 100 ft of an existing passable road. Sensors are monitored by workers walking off-road. There would be no off-road driving and no surface disturbances as a result of monitoring activities. The geophone proposed would be a 5Hz unit that is buried just below ground level. A 3-inch hand auger would be used to make a hole for the geophone. Batteries will be changed out every 3 to 4 weeks and would be accessed by foot or using existing roads. Batteries are recharged at BEEF location. Recorders will be changed out when memory is almost full. A map has been provided of the proposed sensor locations.

Categorical Exclusion(s) Applied

10 CFR 1021 B3.1 Site characterization and environmental monitoring

Regulatory Requirements in 10 CFR 1021

For the complete DOE National Environmental Policy Act regulations regarding categorical exclusions, including the full text of each categorical exclusion, see Subpart D of 10 CFR 1021.



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To find that a proposal is categorically excluded, DOE shall determine the following:

- (1) The proposal fits within a class of actions listed in Appendix A or B to 10 CFR Part 1021, Subpart D;
- (2) There are no extraordinary circumstances related to the proposal that may affect the significance of the environmental effects of the proposal; and
- (3) The proposal has not been segmented to meet the definition of a categorical exclusion. The proposal is not connected to other actions with potentially significant impacts (40 CFR 1508.25(a)(1)), is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1508.27(b)(7)), and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211 concerning limitations on actions during preparation of an environmental impact statement.

The classes of actions listed in 10 CFR Part 1021, Subpart D, Appendix B, include the following conditions as integral elements of the classes of actions. To fit within the classes of actions in Appendix B, a proposal must be one that would not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions or facilities; (3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources, including, but not limited to, those listed in paragraph B(4) of 10 CFR Part 1021, Subpart D, Appendix B; (5) involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those of the Department of Agriculture, the Environmental Protection Agency, and the National Institutes of Health.

NEPA Compliance Officer Determination

Based on my review of information conveyed to me and in my possession concerning the proposed action, as NEPA Compliance Officer (as authorized under NNSA NAP 451.1 and DOE P 451.1), I have determined that the proposed action fits within the specified class(es) of action and I have reviewed the proposal for integral elements. I have determined that there are no extraordinary circumstances present and that the proposal has not been segmented to meet the definition of a categorical exclusion. Therefore, the application of a categorical exclusion is appropriate.

NEPA Compliance Officer: Carrie Stewart

Date Determined: 12/09/2019