



National Nuclear Security Administration Categorical Exclusion Determination Form



NEPA ID#: HEDLP 15-001-001

Proposed Action Title: Nevada Desert Research Center: (Nevada Desert FACE Facility and Mojave Global Change Facility (NV-2011-004)

Program or Field Office: Nevada Field Office

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

Proposed Action Description:

The University of Nevada, Las Vegas, Desert Research Institute and University of Nevada, Reno (UNR) are jointly conducting ecological and climate change research at the NNSS. There are two projects within Area 5 of the Nevada National Security Site and a third project involving some small field plots located within Areas 5, 25 and 26. The two area 5 projects are the Nevada Desert FACE Facility (NDFF) and the Mojave Global Change Facility (MGCF). These projects utilize a trailer on location and have several soil/vegetation study plots. The NDFF explored the impact of elevated atmospheric CO₂ on the Mojave Desert, with fumigation of 550 ppm of CO₂ occurring April 1997 through June 2007. Current NDFF research is examining the retention of CO₂ over time. The MGCF is a complementary research facility that is examining the impact of other climate change factors, i.e., altered precipitation, nitrogen deposition and increased soil crust disturbance. The small field plots (25 m diameter for NDFF and 14 m by 14 m for MGCF) are used to examine current plant/soil/root interactions. The third project conducted by UNR consists of plots in Areas 5, 25 & 26. Researchers from within Nevada as well as research institutions across the US are using these facilities to examine a large number of responses including above- and below-ground plant responses, soil nutrient cycles, insect herbivory, soil moisture, etc.

To perform these experiments a number of different methodologies and equipment are employed. Some of the methodologies may only require a meter stick while others require the use of sophisticated sensors or heavy equipment to complete. In general all research activities adhere to a minimal disturbance rule and therefore have minimal to no environmental impact. During Spring of 2007, approximately 2/3 of each NDFF research plot was harvested. The harvest was completed during Winter 2008 and the plots were re-seeded with native plant species seed collected at NDFF and MGCF during the previous year. More information about the research at these facilities may be found at: http://www.unlv.edu/Climate_Change_Research/

Categorical Exclusion(s) Applied:

B-3.8 - Outdoor ecological research project

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. Regulatory Requirements in 10 CFR 1021.410(b): (See full text in regulation)

The proposal fits within a class of actions that is listed in Appendix A or B to 10 CFR Part 1021, Subpart D.

There are no extraordinary circumstances related to the proposal that may affect the significance of the environmental effects of the proposal.

The proposal has not been segmented to meet the definition of a categorical exclusion.

Based on my review of information conveyed to me and in my possession 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 and that other-regulatory requirements set forth above are met. Therefore, the application of a categorical exclusion is appropriate.

NEPA Compliance Officer: Linda Cohn

Date Determined: 10/19/2010