



U.S. Department of Energy Categorical Exclusion Determination Form

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Proposed Action Title: Substation Maintenance and Renovation Activities for 2016-2017

Program or Field Office: Western Area Power Administration/ Desert Southwest Region

Location(s) (City/County/State): Arizona, southeastern California, southern Nevada

Proposed Action Description:

Western Area Power Administration (Western), Desert Southwest Region (DSW), plans to conduct routine and repetitive maintenance actions as well as occasional minor equipment, structure or building additions or modifications at existing substations. Western DSW owns, operates, or maintains equipment at approximately 32 substations or switchyards located in three western states (AZ, CA & NV). The facilities vary in size from less than one acre to up to 170 acres and were constructed between 1938 and the present. These substations are part of the following power system projects: Boulder Canyon, Central Arizona, Colorado River Front & Levee, Colorado River Salinity Control, Colorado River Storage, and Pacific Northwest/Southwest Intertie. Maintenance actions at the 53 Parker-Davis substations were analyzed in an environmental assessment (DOE/EA-1982) and not repeated here.

All facilities share standard construction practices and are surrounded by either a chain-link or block wall fence with locked gates. The entire yard has an underground electric grounding grid (also called a ground mat) buried several feet below the modern ground surface and extending three feet beyond the fence or wall. The grid is covered with compacted fill and gravel. Due to the installation of the grid, the area within the perimeter fence and extending five to 15 feet beyond was previously disturbed. Staffed substations, such as Mead, contain either multiple separate switchyards or a switchyard with an adjoining office building and work area. The work area was bladed, leveled, and compacted during their initial construction, and may not contain a grounding grid. These facilities typically have an outer perimeter fence that is grounded.

SEE CONTINUATION SHEET

Categorical Exclusion(s) Applied:

B1.3 - Routine maintenance

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 Part 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.

To fit within the classes of actions listed in 10 CFR Part 1021, Subpart D, 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 listed in paragraph B(5) of 10 CFR Part 1021, Subpart D, Appendix B.

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. This 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.

Based on my review of 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:

3.25.16

Categorical Exclusion Determination Form – Continuation Sheet

Substation Maintenance and Renovation Activities for 2016-2017

Project Description (continued):

Western includes in this determination all routine maintenance, renovation, and installation of substation equipment and as well as grounds maintenance situated within and including the perimeter fence at existing substations or switchyards. Such actions may include the following actions or similar types of actions.

- 1) Maintenance and replacement of electrical equipment, such as transformers, instrument transformers, and breakers situated within the perimeter fence;
- 2) Servicing and testing of electrical equipment at existing substations and switchyards including oil change outs;
- 3) Installation or replacement of bushings;
- 4) Cleaning or replacement of capacitor banks;
- 5) Maintenance or installation of propane tanks within a substation or switchyard perimeter fence;
- 6) Maintenance of switches, voltage regulators, reactors, tap changes, reclosers and valves;
- 7) Replacement of wiring in substations and switchyards;
- 8) Replacement of existing substation equipment including regulators, capacitors, switches, wave traps, radiators, and lightning arrestors;
- 9) Installation of cut-out fuses;
- 10) Adjustment and cleaning of disconnect switches;
- 11) Placement of a temporary transformer;
- 12) Clean up of oil or chemical spills that don't reach reportable quantities;
- 13) Excavation for and installation of new footings;
- 14) Repair or replacement of grounding grids (also known as ground mats);
- 15) Replacement or repair of footings for electrical or communication equipment within an existing substation;
- 16) Installation of fiber optic cable on poles, cable trays, buildings, and appurtenances within the substation or switchyard perimeter fence;
- 17) Substation control building upgrades including but not limited to, installation, operation, modification, and removal of devices for grid demand response, fiber optic cable, communications systems, data processing equipment, and similar electronic equipment;
- 18) Building maintenance including housekeeping, interior and exterior painting as well as roof, ceiling, floor, window and door maintenance so long as all exterior work is done in kind;
- 19) Placement of fill or rocks around existing culverts;
- 20) Repair of existing fences and gates;
- 21) Erosion control action located within an existing facility;
- 22) Inspections;
- 23) Abandoning or capping monitoring wells.

Special Conditions:

- 1) Managers implementing actions under this Categorical Exclusion (CX) will contact Western DSW's Environmental Section to ensure that the action is covered by this document. If an action's scope is not listed or dissimilar to ones listed above, or if conditions that are integral elements (see checklist below) are not met, then an action-specific NEPA document is needed.
- 2) This CX is valid for one year after the signature date or until an updated version is executed by the Western DSW Environmental Manager, whichever comes first.
- 3) Maintenance actions located outside a substation or switchyard perimeter fence are not covered by the CX, and Western DSW's Environmental Section must be contacted to review the proposed action prior to implementation.
- 4) If any oil-containing equipment with a capacity greater than 55 gallons is installed or replaced within a substation or switchyard perimeter fence, the Environmental Section will be contacted in order to evaluate the Spill Prevention Control and Countermeasures (SPCC) status for that facility.
- 5) If any new equipment or fill is to be added to a substation or switchyard located within a 100- or 500-year floodplain as defined by the Federal Emergency Management Agency's Flood Insurance Rate Maps, the Western DSW Environmental Section must be notified. DSW substations or switchyards located in floodplains are: Desalting Plant, Hassayampa Tap, Laguna Dredge, Liberty, Pinnacle Peak, Sonora, and Spook Hill.
- 6) Requirements for lead-based paint, asbestos, PolyChlorinated Biphenyls (PCBs), Sulfur hexaFluoride gas (SF-6), and other environmentally regulated materials will be met.
- 7) If any cultural materials are discovered during an action, work in the area shall halt immediately, Western DSW's Regional Preservation Officer shall be contacted, and the material be evaluated by an archaeologist or historian meeting the Secretary of the Interior's Professional Qualification Standards (48 FR 22716, Sept 1983).
- 8) Western will design and build substation and transmission line components in conformance with *Suggested Practices for Protection of Raptors on Powerlines: the State of the Art in 2006* (Avian Power line Interaction Committee 2006) to eliminate the potential for raptor electrocution.

Checklist for Categorical Exclusion Determination, revised Nov. 2011

Application of Categorical Exclusions (1021.410)	Disagree	Agree	Unknown
(b)(1) The proposal fits within a class of actions that is listed in appendix A or B to subpart D.		X	
(b)(2) There are no extraordinary circumstances related to the proposal that may affect the significance of the environmental effects of the proposal, including, but not limited to, scientific controversy about the environmental effects of the proposal; uncertain effects or effects involving unique or unknown risks; and unresolved conflicts concerning alternate uses of available resources		X	
(b)(3) The proposal has not been segmented to meet the definition of a categorical exclusion. Segmentation can occur when a proposal is broken down into small parts in order to avoid the appearance of significance of the total action. The scope of a proposal must include the consideration of connected and cumulative actions, that is, 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 § 1021.211 of this part concerning limitations on actions during EIS preparation.		X	
B. Conditions that are Integral Elements of the Classes of Actions in Appendix B. :	NO	YES	UNKNOWN
(1) Threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety and health, or similar requirements of DOE or Executive Orders.	X		
(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;	X		
(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;	X		
(4) Have the potential to cause significant impacts on environmentally sensitive resources. An environmentally sensitive resource is typically a resource that has been identified as needing protection through Executive Order, statute, or regulation by Federal, state, or local government, or a federally recognized Indian tribe. An action may be categorically excluded if, although sensitive resources are present, the action would not have the potential to cause significant impacts on those resources (such as construction of a building with its foundation well above a sole-source aquifer or upland surface soil removal on a site that has wetlands). Environmentally sensitive resources include, but are not limited to:	X		
(i) Property (such as sites, buildings, structures, and objects) of historic, archaeological, or architectural significance designated by a Federal, state, or local government, or	X		

	property determined to be eligible for listing on the National Register of Historic Places;			
(ii)	Federally-listed threatened or endangered species or their habitat (including critical habitat) or Federally- proposed or candidate species or their habitat (Endangered Species Act); state-listed or state-proposed endangered or threatened species or their habitat; Federally-protected marine mammals and Essential Fish Habitat (Marine Mammal Protection Act; Magnuson-Stevens Fishery Conservation and Management Act); and otherwise Federally-protected species (such as under the Bald and Golden Eagle Protection Act or the Migratory Bird Treaty Act);	X		
(iii)	Floodplains and wetlands (as defined in 10 CFR 1022.4, —Compliance with Floodplain and Wetland Environmental Review Requirements: “Definitions,” or its successor);	X		
(iv)	Areas having a special designation such as Federally- and state-designated wilderness areas, national parks, national monuments, national natural landmarks, wild and scenic rivers, state and Federal wildlife refuges, scenic areas (such as National Scenic and Historic Trails or National Scenic Areas), and marine sanctuaries;	X		
(v)	Prime or unique farmland, or other farmland of statewide or local importance, as defined at 7 CFR 658.2(a), —Farmland Protection Policy Act: Definitions, or its successor;	X		
(vi)	Special sources of water (such as sole-source aquifers, wellhead protection areas, and other water sources that are vital in a region); and	X		
(vii)	Tundra, coral reefs, or rain forests.; or	X		
(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.	X		