

# ENVIRONMENTAL REVIEW FOR CATEGORICAL EXCLUSION DETERMINATION

## Rocky Mountain Region, Western Area Power Administration

### Substation Maintenance and Renovation Activities

#### Colorado, Wyoming, Nebraska, Montana, Utah, and New Mexico

- A. Brief Description of Proposal:** Western Area Power Administration (Western), Rocky Mountain Region (RMR), has identified certain substation projects which require little or no environmental review and resource agency coordination. Western RMR owns and operates approximately 112 substations and switchyards in 6 western states (Colorado Wyoming, Nebraska, Montana, Utah, and New Mexico). The facilities vary in size from approximately less than 1 acre up to 27 acres and were constructed between 1938 to the present. All facilities share the standard construction practices of having a chain link fence and locked gate surrounding the facility and the entire yard has had an electric grounding grid installed several feet below the ground surface which is covered with compacted fill and gravel. Due to the installation of the grounding grid, all the area within the substation perimeter is previously disturbed ground.

Western includes in this determination all routine maintenance, renovation, and installation of substation equipment and grounds within and including the fenced perimeter of existing substations that may include, but is not limited to:

- (1) Maintenance and replacement of transformers and breakers;
- (2) Servicing and testing of equipment at existing substations, including oil changeouts;
- (3) Installation or replacement of bushings;
- (4) Cleaning or replacement of capacitor banks;
- (5) Maintenance or installation of propane tanks within a substation yard;
- (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 arresters;
- (9) Installation of cut-out fuses;
- (10) Adjust and clean disconnect switches;
- (11) Placement of temporary transformer;
- (12) Clean up of oil and chemical spills that don't reach reportable quantities;
- (13) Construction of buildings and foundations above the grounding mat within existing substation yard;
- (14) Excavation for and installation of new footings;
- (15) Repair or replacement of grounding mats;
- (16) Replacement or repair of footings for electrical or communications equipment within an existing substation or communications facility;
- (17) Installation, relocation, or removal of new poles or structures within the fenced perimeter of the substation;
- (18) Installation of fiber optic cable on poles, cable trays, buildings, and appurtenances within the substation perimeter;
- (19) Installation or maintenance of Spill Containment, Control, and Countermeasures (SPCC) structures within the perimeter of the substation fenced yard;
- (20) Substation control building upgrades including, but not limited to, installation, operation, modification, and removal of devices for grid demand and response, fiber optic cable, communication systems, data processing equipment, and similar electronic equipment;
- (21) Building maintenance including interior and exterior painting, and roof, ceiling, floor, window, and door maintenance;

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- (22) Application of soil sterilants, herbicides, rodenticides, and other pesticides by State certified applicators on previously disturbed ground;
- (23) Clearing vegetation by hand;
- (24) Place fill or rocks around existing culverts;
- (25) Installation and repair of fences and gates;
- (26) Pull or replace existing fences;
- (27) Grounds maintenance for existing facilities, including the use of brush hogs, and
- (28) Erosion control projects within an existing facility.

**B. Number and Title of the Categorical Exclusion Being Applied:** (See text in 10 CFR Part 1021, Subpart D.)

#### **B1.3. Routine Maintenance**

Routine maintenance activities and custodial services for buildings, structures, rights-of-way, infrastructures (including, but not limited to, pathways, roads, and railroads), vehicles and equipment, and localized vegetation and pest control, during which operations may be suspended and resumed, provided that the activities would be conducted in a manner in accordance with applicable requirements. Custodial services are activities to preserve facility appearance, working conditions, and sanitation (such as cleaning, window washing, lawn mowing, trash collection, painting, and snow removal). Routine maintenance activities, corrective (that is, repair), preventive, and predictive, are required to maintain and preserve buildings, structures, infrastructures, and equipment in a condition suitable for a facility to be used for its designated purpose. Such maintenance may occur as a result of severe weather (such as hurricanes, floods, and tornados), wildfires, and other such events. Routine maintenance may result in replacement to the extent that replacement is in-kind and is not a substantial upgrade or improvement. In-kind replacement includes installation of new components to replace outmoded components, provided that the replacement does not result in a significant change in the expected useful life, design capacity, or function of the facility. Routine maintenance does not include replacement of a major component that significantly extends the originally intended useful life of a facility (for example, it does not include the replacement of a reactor vessel near the end of its useful life). Routine maintenance activities include, but are not limited to:

- (a) Repair or replacement of facility equipment, such as lathes, mills, pumps, and presses;
- (b) Door and window repair or replacement;
- (c) Wall, ceiling, or floor repair or replacement;
- (d) Reroofing;
- (e) Plumbing, electrical utility, lighting, and telephone service repair or replacement;
- (f) Routine replacement of high-efficiency particulate air filters;
- (g) Inspection and/or treatment of currently installed utility poles;
- (h) Repair of road embankments;
- (i) Repair or replacement of fire protection sprinkler systems;
- (j) Road and parking area resurfacing, including construction of temporary access to facilitate resurfacing, and scraping and grading of unpaved surfaces;
- (k) Erosion control and soil stabilization measures (such as reseeded, gabions, grading, and revegetation);

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- (l) Surveillance and maintenance of surplus facilities in accordance with DOE Order 435.1, "Radioactive Waste Management," or its successor;
- (m) Repair and maintenance of transmission facilities, such as replacement of conductors of the same nominal voltage, poles, circuit breakers, transformers, capacitors, crossarms, insulators, and downed powerlines, in accordance, where appropriate, with 40 CFR part 761 ("Polychlorinated Biphenyls Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions") or its successor;
- (n) Routine testing and calibration of facility components, subsystems, or portable equipment (such as control valves, in-core monitoring devices, transformers, capacitors, monitoring wells, lysimeters, weather stations, and flumes);
- (o) Routine decontamination of the surfaces of equipment, rooms, hot cells, or other interior surfaces of buildings (by such activities as wiping with rags, using strippable latex, and minor vacuuming), and removal of contaminated intact equipment and other material (not including spent nuclear fuel or special nuclear material in nuclear reactors); and
- (p) Removal of debris.

**B1.7. Electronic Equipment**

Acquisition, installation, operation, modification, and removal of electricity transmission control and monitoring devices for grid demand and response, communication systems, data processing equipment, and similar electronic equipment.

**B1.11. Fencing**

Installation of fencing, including, but not limited to, border marking, that would not have the potential to significantly impede wildlife population movement (including migration) or surface water flow.

**B1.27. Disconnection Of Utilities**

Activities that are required for the disconnection of utility services (including, but not limited to, water, steam, telecommunications, and electrical power) after it has been determined that the continued operation of these systems is not needed for safety.

**B1.31. Installation Or Relocation Of Machinery And Equipment**

Installation or relocation and operation of machinery and equipment (including, but not limited to, laboratory equipment, electronic hardware, manufacturing machinery, maintenance equipment, and health and safety equipment), provided that uses of the installed or relocated items are consistent with the general missions of the receiving structure. Covered actions include modifications to an existing building, within or contiguous to a previously disturbed or developed area, that are necessary for equipment installation and relocation. Such modifications would not appreciably increase the footprint or height of the existing building or have the potential to cause significant changes to the type and magnitude of environmental impacts.

**B1.33. Stormwater Runoff Control**

Design, construction, and operation of control practices to reduce stormwater runoff and maintain natural hydrology. Activities include, but are not limited to, those that reduce impervious surfaces (such as vegetative practices and use of porous pavements), best management practices (such as silt

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fences, straw wattles, and fiber rolls), and use of green infrastructure or other low impact development practices (such as cisterns and green roofs).

**B2.2. Building And Equipment Instrumentation**

Installation of, or improvements to, building and equipment instrumentation (including, but not limited to, remote control panels, remote monitoring capability, alarm and surveillance systems, control systems to provide automatic shutdown, fire detection and protection systems, water consumption monitors and flow control systems, announcement and emergency warning systems, criticality and radiation monitors and alarms, and safeguards and security equipment).

**B2.3. Personnel Safety And Health Equipment**

Installation of, or improvements to, equipment for personnel safety and health (including, but not limited to, eye washes, safety showers, radiation monitoring devices, fumehoods and associated collection and exhaust systems), provided that the covered actions would not have the potential to cause a significant increase in emissions.

**B2.5. Facility Safety And Environmental Improvements**

Safety and environmental improvements of a facility (including, but not limited to, replacement and upgrade of facility components) that do not result in a significant change in the expected useful life, design capacity, or function of the facility and during which operations may be suspended and then resumed. Improvements include, but are not limited to, replacement/upgrade of control valves, in-core monitoring devices, facility air filtration systems, or substation transformers or capacitors; addition of structural bracing to meet earthquake standards and/or sustain high wind loading; and replacement of aboveground or belowground tanks and related piping, provided that there is no evidence of leakage, based on testing in accordance with applicable requirements (such as 40 CFR part 265, "Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities" and 40 CFR part 280, "Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks"). These actions do not include rebuilding or modifying substantial portions of a facility (such as replacing a reactor vessel).

**B4.6. Additions And Modifications To Transmission Facilities**

Additions or modifications to electric power transmission facilities within a previously disturbed or developed facility area. Covered activities include, but are not limited to, switchyard rock grounding upgrades, secondary containment projects, paving projects, seismic upgrading, tower modifications, load-shaping projects (such as the installation and use of flywheels and battery arrays), changing insulators, and replacement of poles, circuit breakers, conductors, transformers, and crossarms.

**C. Regulatory Requirements in 10 CFR 1021.410 (b): (See full text in regulation and attached checklist.)**

- 1) The proposed action fits within a class of actions listed in Appendix A or B to Subpart D.

For classes of actions listed in Appendix B, the following conditions are integral elements. To fit within a class, the proposal must not:

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- Threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders;
  - 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;
  - 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;
  - 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, those listed in paragraph B. (4) (see Attachment A).
- 2) There are no extraordinary circumstances related to the proposal that may affect the significance of the environmental effects of the proposal.
- 3) The proposal 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.

**D. Special Stipulations Pertaining to the Proposal:**

Project Managers implementing projects under this Categorical Exclusion (CX) shall contact Western’s RMR Environmental Division to ensure the action is covered by this CX. If the scope of work for a project is not as described in Section A, Western’s RMR Environmental Division must be contacted for additional environmental review.

This CX is valid for 1 year after the signature date or until an updated version is executed by Western’s RMR Environmental Division, whichever comes first.

**Work outside the perimeter of the substation/switchyard is not covered by this CX and Western’s RMR Environmental Division must be contacted to review the proposed work prior to construction.**

Storm Water Pollution Prevention Plans are prepared and related NPDES permits are obtained for work involving more than 1 acre of ground disturbance.

If any oil containing equipment is installed, replaced, or retrofitted within a substation/switchyard perimeter, Western’s RMR Environmental Division shall be contacted in order to evaluate the SPCC status for that site.

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If the substation is within a 100- or 500-year floodplain as described by the Federal Emergency Management Agency's Flood Insurance Rate Maps, Western's RMR Environmental Division must be notified if any new equipment or fill is to be placed at that substation. If the operator is unsure if the substation is within a floodplain, contact Western's RMR Environmental Division prior to construction to obtain a determination prior to any work being done.

Lead-based paint, asbestos, PCB, and other environmentally regulated materials requirements shall be met.

If any cultural materials are discovered during construction, work in the area shall halt immediately, Western's RMR 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).

Western would design and construct the transmission line and substation 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.

- E. Determination:** Based on my review of information provided to me and in my possession concerning the proposed action, I determined that the proposed action fits within the specified class of actions, the other regulatory requirements set forth above are met, and the proposed action is categorically excluded from requirements for an EA or an EIS.

  
Signature

Date: 8/7/17

Gene Iley, Jr.  
NEPA Compliance Officer  
Rocky Mountain Customer Service Region  
Western Area Power Administration

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**ATTACHMENT A**

**Conditions That Are Integral Elements of the Classes  
of Actions in Appendix B That Apply to This Proposal**

Checklist for Categorical Exclusion Determination, revised Nov. 2011

<b>Application of Categorical Exclusions (1021.410)</b>	<b>Disagree</b>	<b>Agree</b>	<b>Unknown</b>
(b)(1) The proposal fits within a class of actions that is listed in appendix 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>B. Conditions that are Integral Elements of the Classes of Actions in Appendix B.</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,	X		

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statue, 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:			
(i) Property (such as sites, buildings, structures, and objects) of historic, archaeological, or architectural significance designated by a Federal, state, or local government, or property determined to be eligible for listing on the National Register of Historic Places;	X		
(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		

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(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		
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