

SECTION 5.0 - MAINTENANCE AND OPERATION OF PROJECT

Section 5 provides information describing ongoing and long-term activities that will occur along the right-of-way. This information includes a discussion on permitted uses, right-of-way safety requirements, inspection and maintenance, long-term access, signage, and contingency planning.

5.1 COMPATIBLE USES

After construction, compatible uses in the right-of-way on public land will be considered and approved by the Project Proponent and the BLM. Examples of compatible uses within the right-of-way include grazing, vehicle and pedestrian access, recreational use, and pre-existing compatible uses. Examples of prohibited uses include buildings or closed structures frequented by humans such as residences, and any use that requires changes in surface elevation that affect electrical clearances of existing or planned facilities. Compatible uses within easements on private land crossed by the transmission line will be similar to those on the public land and subject to the discretion of the Project Proponent.

5.2 RIGHT-OF-WAY SAFETY REQUIREMENTS

The design, operation, and maintenance of the projects will meet or exceed applicable criteria and requirements outlined by the Federal Energy Regulatory Commission (FERC), Western Electric Coordinating Council, NESC, and U.S. Department of Labor Occupational Safety and Health Standards for the safety and protection of landowners, their property, and the general public. The transmission line will be protected with power circuit breakers and line relay protection equipment. If a conductor failure occurs, power will be automatically removed from the line. Lightning protection will be provided by overhead ground wires on the top of the line. Where vegetation presents a potential hazard, trees will be trimmed or cut to prevent accidental grounding contact with conductors.

5.2.1 Building and Fence Grounding

In order to mitigate possible electric shock caused by electrostatic and electromagnetic induction, all buildings, fences, and other structures with metal surfaces located within 200 feet of the centerline of the right-of-way will be grounded to the mutual satisfaction of the parties involved. Typically, residential buildings located 200 feet from the centerline will not require grounding. Other buildings or structures beyond 200 feet from the centerline will be reviewed in accordance with NESC to determine grounding requirements. All metal irrigation systems and fences that parallel the transmission line for distances of 1,000 feet or more, within 100 feet of the centerline will be grounded (none identified at this time). All fences that cross under the transmission line also will need to be grounded. This procedure will be included in the construction specifications and if grounding is required outside the right-of-way, temporary use permits or landowner consent will be obtained, as necessary.

5.3 INSPECTIONS AND MAINTENANCE

The transmission line will be inspected annually or as required, by using fixed-wing aircraft, helicopters, ground vehicles, all terrain vehicles, or on foot. Maintenance will be performed as needed, and the comfort and safety of land users and local residents will be provided for by limiting noise, dust, and the danger caused by maintenance vehicle traffic. Where access is required for non-emergency maintenance and repairs, the same precautions against ground disturbance that were taken during the original construction will be followed and restrictions and mitigation measures applicable during initial construction will be followed, in areas of critical biological concern (see Appendix B2 – Biological Protection Plan). Any berms or boulders that were in place will be restored after completion of the maintenance work.

In the event of an emergency, crews will be dispatched quickly to repair or replace any damaged equipment. Every attempt will be made to contact the agency or landowners along the right-of-way. In the event notification cannot be made, repair operations will proceed only in the case of an emergency situation. Repair of the line will have priority under emergency conditions, and reasonable efforts will be made to protect plants, wildlife, and other resources. Restoration and reclamation procedures, following completion of repair work, will be similar to those prescribed during construction. Refer to Appendix F – Right-of-Way Preparation, Rehabilitation, and Restoration for a more detailed description of the guidelines and regulations that must be followed.

Damage repair may require the same types of equipment used during construction, including power augers for hole boring, backhoes for excavation, and/or concrete trucks and cranes for structure erection. Other required equipment may include power tensioners, pullers, wire trailers, crawler tractors, and trucks and pickups for hauling materials, tools, and men. Under certain conditions, a helicopter could be used to haul in material and erect towers or string conductor in those areas where access and/or terrain conditions preclude the use of conventional methods. Site and access road disturbances, such as ruts created during damage operations, will be restored to satisfactory condition using rehabilitation procedures.

Maintenance crews will trim trees and vegetation, where necessary, to prevent accidental grounding contact with conductors. In most areas, accepted standard utility practices such as repeated tree trimming and brush removal will be followed to maintain the right-of-way. Generally, trees over 15 feet in height and within 55 feet of the transmission centerline may need to be selectively removed or trimmed to provide the required electrical line clearance. The Project Proponent will comply with agency requirements regarding management of noxious weeds within the right-of-way, along access roads, and at temporary use areas (e.g., cleaning equipment to prevent spread of noxious weeds). Chemical treatment within or adjacent to the right-of-way generally will be limited only to areas with noxious weeds, and only if absolutely necessary and in accordance with the Noxious Weed Management Plan (see Appendix B3). Should the use of herbicides or pesticides be necessary, only U.S. Department of Agriculture recommended and Environmental Protection Agency-approved products will be used, and only upon prior approval of the BLM Authorized Officer or owner.

If during transmission line maintenance and monitoring, it is determined that new or reconstruction activities should be implemented, the Project Proponent will notify the BLM, property owners, and/or other regulatory agencies, and obtain proper approvals, as necessary.

Dust control, during maintenance of the transmission line, will be managed the same as during construction. Refer to dust control measures located in Appendix A5 – Erosion, Dust Control, and Air Quality Plan.

The 500kV substation yards and all equipment will be patrolled and monitored by maintenance personnel on a routine basis. If a large volume of a contaminate were to leak from a piece of electrical equipment, an alarm or a failure will occur notifying the operations center of the problem, and a trained maintenance crew will be dispatched to the substation immediately to begin repairs and cleanup.

5.4 RADIO OR TELEVISION INTERFERENCE

The Project Proponent will respond to complaints of radio or television interference generated by the transmission line by investigating the complaints and implementing appropriate mitigation measures, if necessary. The transmission line will be patrolled on a regular basis so that damaged insulators or other components, which could cause interference, are repaired or replaced.

5.5 LONG-TERM ACCESS TO AND ALONG THE RIGHT-OF-WAY

Authorized access roads will only be used for maintenance purposes upon completion of construction. Where long-term access is required for maintenance of the line, the Project Proponent shall maintain the approved access roads in a safe, useable condition, as directed by a BLM Authorized Officer. A regular maintenance program may include, but is not limited to blading, ditching, culvert installation, and surfacing.

If snow removal is necessary, equipment used shall be equipped with shoes to keep the blade 2 inches off the road surface in order to avoid damage to it. Where the ground is uneven at drainage crossings, special precautions will be taken in order to ensure equipment blades do not destroy vegetation.

5.6 SIGNAGE AND MARKERS

At this time no specific locations have been identified for aerial line markers, however, bird flight diverters will be placed on the shield wire/fiber optic cable as specified in Appendix B2 – Biological Protection Plan. Warning signs will be placed on towers and at substations marking high-voltage danger areas, per industry standards.

5.7 ONGOING STUDIES

During the operation and maintenance phase of the projects, the Project Proponent will conduct ongoing studies to monitor selected environmental factors related to biological resources and public health and safety. Operation and maintenance phase mitigation requirements are presented in Section 6 - Mitigation of Environmental Concerns, and in Appendix B2 – Biological Protection Plan.

5.8 CONTINGENCY PLANNING

A representative will be selected by the Project Proponent to provide routine and emergency planning for situations such as power outages, equipment upgrades, and fire control. The designated representative will have the authority to receive and carry out instructions from the BLM.

5.9 EMERGENCY PROCEDURES

Emergency response procedures will be implemented for the following potential events, or similar events:

- Downed transmission lines, structures, or equipment failure
- Fires
- Sudden loss of power
- Natural disasters
- Serious personal injury

5.10 TERMINATION AND RESTORATION

Should the right-of-way and facilities no longer be needed, a termination and restoration plan will be developed by the right-of-way grant holder. One year prior to termination of the right-of-way, the holder shall contact the appointed BLM Authorized Officer to arrange a joint inspection of the right-of-way. This inspection will be held in order to agree to an acceptable termination and rehabilitation plan. The BLM Authorized Officer must approve the plan in writing prior to commencement of any termination activities.

Restoration and termination procedures will attempt to restore and reclaim the landscape as near to original conditions as possible. The termination and restoration plan will be reviewed and approved by the appointed Authorized Officer and will include the following information:

- What facilities and access routes are to be removed, restored, and/or rehabilitated
- How facilities and access routes will be removed, and the disturbed areas restored
- The time of year the facilities and access routes will be removed
- Stabilization and reclamation techniques to be used during restoration