

ATTACHMENT 1

**Appendix B12 – Fire Protection Plan**

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# **B12.0 – FIRE PROTECTION PLAN**

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## **B12.1 Introduction**

This plan details measures that should be implemented to: (1) reduce the risk of starting a fire, and (2) to suppress a fire in the event one does occur within the construction area during project construction, operation, and maintenance.

### **B12.1.1 Purpose**

The risk of fire danger during construction of a transmission line is related largely to the use of vehicles and other motorized equipment operating off roadways, the handling and use of explosive materials and flammable liquids, and welding.

The purpose of this plan is to outline responsibilities, notification procedures, fire prevention measures and precautions, fire suppression equipment, initial response procedures, and post-fire rehabilitation strategies related to the Mona to Oquirrh Transmission Corridor Project (Project). The goal is to minimize risk of project-related fires and, in case of fire, provide for immediate suppression within the construction area. Other plans containing information related to fire protection include: Appendix B6 – Blasting Plan Methodology, Appendix B9 – Hazardous Materials Management Plan, and Appendix B10 – Emergency Preparedness and Response Plan.

### **B12.1.2 Regulatory Compliance**

The Project will be subject to state, county, and federally enforced laws, ordinances, rules, and regulations that pertain to fire prevention and suppression activities. Key regulatory agencies include the BLM and local fire protection agencies in Utah.

## **B12.2 Responsibilities**

### **B12.2.1 Bureau of Land Management**

The BLM Fire Management Officer (FMO) will oversee all fire control activities in his/her administrative unit. The FMO will discuss fire protection stipulations at the notice to proceed meeting, which will be attended by the BLM Project Manager, the CIC and the Construction Contractor, and their environmental monitors.

When fire suppression is the responsibility of the BLM, current BLM standard fire fighting rates for labor will be used. Equipment will be paid for at negotiated rates established in the BLM general accident trends (GAT) rental agreement contracts for the particular working season. The BLM may call on the Contractor's workers and equipment in emergencies for fires outside the project area. Payment will be made in a similar manner to that above.

### **B12.2.2 Construction Contractor**

It will be the responsibility of the Construction Contractor to notify the BLM when a project-related fire occurs within or adjacent to the construction area. The contractor will be responsible for any fire started, in or out of the project area, by its employees or operations during construction. The contractor will be responsible for fire suppression and rehabilitation. The contractor will take aggressive action to prevent and suppress fires on and adjacent to the project area, and will utilize its workers and equipment on the project for fighting fires within the project area.

All federal, state, and county laws, ordinances, rules, and regulations, which pertain to prevention, pre-suppression, and suppression of fires, will be strictly adhered to by the Construction Contractor. All personnel will be advised of their responsibilities under the applicable fire laws and regulations.

Costs involved with contractor-caused fires will be charged to the Contractor. There will be no extension of time for construction based on delays caused by Contractor-related fires. Specific construction-related activities and safety measures will be implemented during construction of the transmission line in order to prevent fires and to ensure quick response and suppression in the event a fire occurs as specified in this Fire Protection Plan.

#### **B12.2.2.1 Construction Crew**

- If a fire starts in the Project area, the construction crew will initiate fire suppression activities on the Project until relieved by appropriate fire authorities and notify the Construction Contractor's Fire Marshall (see below) when a construction fire occurs in the area.
- Available project crews will be immediately alerted when a contractor caused fire occurs in the project area. Project tools, equipment, and trained workers will be sent immediately to control the fire.

#### **B12.2.2.2 Construction Contractor(s), Designated Fire Marshall**

The Construction Contractor will designate a Fire Marshall that will be responsible for the following:

- Conducting regular inspections of tools, equipment, and first aid kits for completeness.
- Conducting regular inspections of storage areas and practices for handling flammable fuels to confirm compliance with applicable laws and regulations.
- Posting smoking and fire rules at centrally visible locations.
- Coordinating initial response to contractor-caused fires within the project areas.
- Accompanying the CIC on fire inspections of the project areas.
- Ensuring that all construction workers and subcontractors are aware of the contents of this Fire Prevention Plan.
- Remaining on duty when construction activity is in progress and any additional periods where fire safety is an issue.
- Reporting all wildfires in accordance with the notification procedures described in the notification section below.
- If a fire starts in the project area, initiating and implementing fire suppression activities until relieved by the appropriate fire agencies. Fire suppression personnel and equipment, including water trucks, will be dispatched within 15 minutes from the time a fire is reported.

- Issuing current fire potential and fire safety warnings.

### **B12.2.3 Compliance Inspection Contractor**

The CIC and the Fire Marshall will accompany the BLM FMO on fire inspections and take corrective action when notified that fire protection requirements are not in compliance. The CIC will notify the contractor to stop or reduce construction activities that pose a significant fire hazard until appropriate safeguards are taken.

### **B12.2.4 Notification**

The Construction Contractor’s Fire Marshall will notify the CIC, who will immediately notify the BLM Project Manager and the BLM’s Salt Lake City FMO of a fire started in the project area during construction. During operation and maintenance activities, the Proponent’s maintenance crews, or contract crews will be responsible for the immediate notification of a fire started in the project area. The Construction Contractor and the Proponent will have notification numbers readily available for all employees in case of fire, and will update the following emergency contact numbers (Table B12-1) for any changes prior to construction or maintenance within the Project area.

<b>TABLE B12-1 FIRE NOTIFICATION NUMBERS</b>	
<b>Contact Person</b>	<b>Phone Number</b>
Bureau of Land Management	To be determined
Fire Dispatch – Tooele and Utah Counties	(801) 908-1900
Fire Dispatch – Juab County	(435) 896-8404
BLM Authorized Officer or Representative	To be determined
Rocky Mountain Power Construction Manager	To be determined
Northern Utah Interagency Fire Center – for fires in Utah, Tooele, and Salt Lake County	(801) 908-1901 (or 911)
Central Utah Interagency Fire Center – for fires in Juab County	(435) 896-8404 (or 911)
911 – Emergency	911



## **B12.3 Fire Prevention Mitigation and Protection Measures**

The standard mitigation measure below will be adhered to during construction on a project area-wide basis.

### **B12.3.1 Standard Mitigation**

- FP-1            The Proponent or its contractors would notify the BLM of any fires and comply with all rules and regulations administered by the BLM concerning the use, prevention, and suppression of fires on federal lands, including any fire prevention orders that may be in effect at the time of the permitted activity. The Proponent or its contractors may be held liable for the cost of fire suppression, stabilization, and rehabilitation. In the event of a fire, personal safety would be the first priority of the Proponent or its contractors. The Proponent or its contractors would:
- Operate all other internal and external combustion engines (including off-highway vehicles, chainsaws, generators, heavy equipment, etc.) with a qualified spark arrester. Qualified spark arresters will be in a maintained and non-modified condition and meet USDA Forest Service Standard 5100-1a, or the Society of Automotive Engineers (SAE) Recommended Practices J335 or J350. Refer to CFR 8343.1.
  - Carry shovels, water, and fire extinguishers on all equipment and vehicles. Equipment will carry extinguishers rated ABC-10 pound minimum and vehicles will carry ABC-2.5 pound minimum. If a fire spreads beyond the suppression capability of workers with these tools, all will cease fire suppression action and leave the area immediately via pre-identified escape routes.
  - Initiate fire suppression actions in the work area to prevent fire spread to or on federally administered lands. If fire ignitions cannot be prevented or contained immediately, or it may be foreseeable to exceed the immediate capability of workers, the operation must be modified or discontinued. No risk of ignition or re-ignition will exist upon leaving the operation area.

- Notify the Northern Utah Interagency Fire Center (801) 908-1901 (or 911) immediately of the location and status of any escaped fire. Immediately notify the Northern Utah Interagency Fire Center (801) 908-1901 (or 911) for fires in Utah, Tooele, and Salt Lake County and the Central Utah Interagency Fire Center (435)896-8404 (or 911) for fires in Juab County to advise them of the location and status of any escaped fire.
- Prior to any operation involving potential sources of fire ignition from vehicles, equipment, or other means, weather forecasts and potential fire danger will be reviewed. Prevention measures to be taken each workday will be included in the specific job briefing. Consideration for additional mitigation or discontinuing the operation must be given in periods of extreme wind and dryness. The National Interagency Fire Center provides current and forecasted Fire Danger Class maps daily at <http://www.wfas.net/content/view/17/32/>. Weather forecasts are available at [www.weather.gov](http://www.weather.gov) from the National Weather Service, including Red Flag Warnings related to high fire danger.
- Operate all vehicles on designated roads or park in areas free of vegetation. Vehicles, including the undercarriages, will be thoroughly washed prior to entering the site.
- Operate welding, grinding, or cutting activities in areas cleared of vegetation within range of the sparks for that particular action. A spark shield adequate for the sparks may be used to prevent sparks from carrying. A spotter equipped with a round-nose shovel and an ABC-rated 20 pound fire extinguisher is required to watch for ignitions during and one hour after the activity. Water may be used to wet down surrounding vegetation but does not take the place of an adequate cleared area and spark shield.
- Contractor will have notification numbers (Table B12-1) readily available for all employees in case of fire.

Additionally, the following fire prevention measures will be implemented at all times by the Construction Contractor during construction, operation, and maintenance of the project:

### **B12.3.2 Additional Protection Measures**

- No smoking will be allowed while operating equipment or while walking or working in areas with vegetation.
- Smoke only in cleared areas.
- In areas where smoking is allowed, completely extinguish all burning tobacco and matches and discard them in ash trays, not on the ground.

- Do not allow any fires or barbecues on the transmission line right-of-way, at material yards, substations, access roads, or other construction areas.
- Instruct all field personnel about emergency response for fire events.
- Clear away all flammable material for a minimum of 10 feet, including snags (fallen or standing dead trees) from areas of operation where a spark, fire, or flame could be generated.
- If a fire does start by accident, immediate steps will be taken to extinguish it (if it is safe to do so) using available fire suppression equipment and techniques taught at field crew emergency response training that will be provided by the Construction Contractor or the Project Proponent.

## **B12.4 Activity-Related Precautions**

### **B12.4.1 Burning (Not Allowed)**

No burning activities, campfires, or barbecues will be allowed on the transmission line right-of-way, at material yards, substations, on access roads, or in any other project construction areas.

### **B12.4.2 Blasting**

No blasting will be performed without the notification of the CIC and the Fire Marshal. Blasting operations will follow the guidelines described in the Blasting Plan Methodology (refer to Appendix B6 – Blasting Plan Methodology). The Blasting Contractor's vehicle will be equipped with adequate fire suppression equipment (see Section 5.0).

### **B12.4.3 Welding**

The Construction Contractor's Construction Manager must approve any welding or cutting of power line structures or their component parts. Approved welding or cutting activities will only be performed in areas cleared of vegetation a minimum of 10 feet around the area. Welding or cutting activities will stop 1 hour before all fire response personnel leave a construction area to reduce the possibility of welding

activities smoldering and starting a fire. Welder vehicles will be equipped with fire suppression equipment (see Section 5.0).

#### **B12.4.4 Spark Arrestors**

All equipment assigned to the project will be inspected and approved. Internal combustion engines (stationary or mobile) will be equipped with spark arrestors that meet agency standards, and for which the following guidelines will apply:

- light trucks and cars with factory installed (type) mufflers (in good condition) may be used on roads where the roadway is cleared of all vegetation
- on roads where vegetation exists, spark arrestors will be used
- spark arrestors will be in good working order
- vehicles equipped with catalytic converters may represent potential fire hazards and will be parked on areas cleared of vegetation
- if required, flues used in extra work areas will be equipped with spark arrestors in good working order and meeting agency standards

### **B12.4.5 Smoking**

Smoking signs and fire rules regarding the Project will be posted on the Project bulletin board at the Contractor's field office, at all show-up locations, and on all portable toilet doors during the fire season (to be determined by the BLM Authorized Officer). The Contractor is responsible for and will require supervisory personnel to enforce all posted rules, will prohibit smoking except in designated areas approved by the BLM, and will prohibit smoking during any season while operating equipment, walking, or working in areas of vegetation.

### **B12.4.6 Warning Devices**

The use of torches, fuses, highway flares, or other warning devices with open flames will be prohibited. The Construction Contractor will use only electric or battery-operated warning devices within the project area.

### **B12.4.7 Parking and Vehicle Storage Areas**

Equipment parking areas and small stationary engine sites will be cleared of all flammable materials as determined necessary by the BLM Authorized Officer. Gas and oil storage areas will be cleared of all flammable material for a distance of 100 feet with "NO SMOKING" signs posted throughout the area. All used and discarded oil filters and oily rags or other waste will be disposed of in an approved landfill. Glass jugs or bottles will not be used as containers for gasoline or other flammable materials.

### **B12.4.8 Signage**

"NO SMOKING" signs and fire rules will be posted at material yards and key construction sites during the fire season, as determined by the BLM.

## **B12.4.9 Power Saws**

All gasoline powered saws will be provided with approved spark arrestors/mufflers. Gasoline powered chain saws will be maintained in good condition throughout their assignment to the project. In addition, chain saws will comply with the following requirements:

- Arrestors/mufflers will contain a 0.23-inch mesh, stainless steel screen.
- During the period of use, the operator will have one long-handled, round point, size 0 shovel that will be maintained in good working order; the operator will also carry an approved belt carrying-type fire extinguisher.
- Refueling will be done in an area that has been cleared of flammable materials; power saws will be moved at least 10 feet from the place of refueling before starting (all gas will be carried in approved metal safety containers only).

## **B12.4.10 Equipment Refueling**

Fuel trucks will have at a minimum a 35-pound fire extinguisher charged with necessary chemicals to control electrical and gas fires. Helicopter fuel trucks will be grounded to the helicopter during refueling.

## **B12.4.11 Access**

The Construction Contractor will provide continuous access to roads for emergency vehicles during construction. The access roads could have the potential to be used as fire breaks to help in fire suppression.

## **B12.5 Minimum Fire Prevention And Suppression Equipment Required**

The following fire prevention and suppression equipment will be readily available and maintained in good working order at all times during project construction.

In all motorized vehicles and equipment in each active construction area (spread):

- one long handled round point shovel
- one ax or Pulaski fire tool
- one 5-pound ABC Dry Chemical Fire Extinguisher
- one 5-gallon water backpack (or other approved container) full of water or other extinguishing solution
- hardhat, work gloves, and eye protection.

In addition to the fire suppression equipment required in motorized vehicles, construction work sites shall comply with the following:

- Power saws, if required for construction, equipped with an approved spark arrestor and accompanied by one 5-pound ABC dry chemical fire extinguisher and a long handled, round point shovel when used away from a vehicle (see Section 4.9).
- Fuel service trucks shall contain one 35-pound capacity fire extinguisher charged with the necessary chemicals to control electrical and fuel fires.
- Wood cutting, welding, or other construction work sites that have a higher risk of starting fires shall have at least two long handled round point shovels and two 5-pound ABC dry chemical fire extinguishers available on-site.
- Every construction work site shall have at least one radio and/or cellular/satellite telephone to contact fire suppression agencies or the project management.

- Every at-risk work site shall include backpumps filled with water (2 at each wood cutting site, 1 at each welding site, and 2 at each tower installation or construction site, or any other at-risk activity site).

During periods of heightened fire danger, the following equipment shall be available in the construction area to aid in response to a fire situation, or stationed near high-risk construction work sites:

- One fire suppression vehicle equipped with a water tank, minimum 500 gallons capacity, 250 feet of ¾-inch heavy-duty rubber hose, and a pump with a discharge capacity of at least 20 gallons per minute. The pump shall have fuel capacity to operate for at least 2 hours.
- The fire suppression vehicle shall be outfitted with 1 tool cache for fire use only containing at a minimum: 2 long-handled round-point shovels, 2 axes or Pulaski fire tools, and 1 chainsaw of 3.5 or more horsepower with a cutting bar of at least 20 inches in length.

## **B12.6 In Case Of Fire – Initial Response and Emergency Contacts**

If a fire does start in the project area and if the fire is manageable, safely attempt to control it with a fire extinguisher or other available equipment (e.g., using shovel to throw dirt on the fire or remove small patches of vegetation). As part of the environmental compliance training program, the Construction Contractor will receive training on initial fire suppression techniques, reporting requirements, how to determine if a fire is manageable and what control measures should be implemented by on-site field crews, and at what point field crews should evacuate. The training also will address how to respond to wildfires in the area and maintain knowledge of and plans for evacuation routes.

If the fire is unmanageable, field crews will evacuate and first call 911, then the district dispatch for the area (see emergency contacts listed on Table B12-1). All fires must be reported to the jurisdictional fire agency regardless of size and actions taken.



## **B12.7 Post-Fire Rehabilitation Strategies**

If the cause of a fire is determined to be the result of the project, the Construction Contractor will implement rehabilitation measures as required by the BLM, and the following post-fire rehabilitation measures will be implemented by the Construction Contractor:

- After a fire has been extinguished, the burn areas will be reclaimed in accordance with BLM requirements. Small burn areas will be revegetated to the native vegetation using appropriate seed mixtures as identified in Appendix B2- Reclamation, Revegetation, and Weed Management Plan. Larger burn areas may require specific restoration plans. Coordination with the BLM is necessary to determine requirements for each particular area, depending upon the size and location of a fire, and the location of sensitive resources.
- To prevent the spread of noxious weeds and invasive species during post-fire rehabilitation, the measures as outlined in the Appendix B11 – Noxious Weed Management Plan, will be implemented by the Construction Contractor.

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