

Appendix B8
Fire Protection Plan

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Acronyms and Abbreviations

BLM	Bureau of Land Management
CIC	Compliance Inspection Contractor
FMO	Fire Management Officer
IPC	Idaho Power Company
ODF	Oregon Department of Forestry
ORS	Oregon Revised Statutes
Plan	Fire Protection Plan
POD	Plan of Development
Project	Boardman to Hemingway Transmission Line Project
ROW	right-of-way
U.S.	United States
USFS	United States Forest Service

APPENDIX B8 – FIRE PROTECTION PLAN

B8.1 Introduction

This Fire Protection Plan (Plan) details measures that will be implemented to (1) reduce the risk of starting a fire and (2) suppress a fire in the event one does occur in the construction area during construction of the Boardman to Hemingway Transmission Line Project (Project). This Plan describes the measures to be taken by Idaho Power Company (IPC) and its Contractor(s) to ensure fire prevention and suppression measures are carried out in accordance with federal, state, and local regulations. Measures identified in this Plan apply to work within the Project area defined as the right-of-way (ROW); access roads; all work and storage areas, whether temporary or permanent; and other areas used during construction and operation of the Project.

B8.1.1 Plan Updates

This Plan will support the National Environmental Policy Act Plan of Development (POD) sufficiently to complete and execute the Bureau of Land Management (BLM) and U.S. Forest Service (USFS) Records of Decision for the Project. This Plan will be updated and refined through the development of the POD to meet any stipulations of the Records of Decision, BLM and USFS biological resource management policies, BLM right-of-way grant and USFS special-use authorization before issuance of the Notice(s) to Proceed and commencement of construction. IPC will be responsible for updating the Fire Protection Plan for the construction POD and the Construction Contractor(s) will be responsible for implementing the Fire Protection Plan and construction POD.

B8.1.2 Purpose

The risk of fire danger during transmission line construction is related to smoking, refueling activities, operating vehicles and other equipment off roadways, welding activities, and the use of explosive materials and flammable liquids. During operation, the risk of fire is primarily from vehicles and maintenance activities that require welding. Additionally, weather events that affect the transmission line could result in the transmission line igniting a fire.

This Plan establishes standards and practices to minimize risk of fire ignition and, in case of fire, provide for immediate suppression. Other plans containing information related to fire protection include: Appendix C4 – Hazardous Materials Management Plan Framework, Appendix C5 – Emergency Preparedness and Response Plan Framework, and Appendix C6 – Blasting Plan Framework.

B8.1.3 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, USFS, and local fire protection agencies in Idaho and Oregon.

B8.2 Responsibilities

B8.2.1 Federal Land-management Agencies

The federal land-management agencies' Fire Management Officers (FMOs) will oversee all fire control activities in their respective administrative units. The FMOs will discuss fire protection stipulations at the notice-to-proceed meeting, which will be attended by the respective federal land-management agencies' Authorized Officers or their designated representatives, the Compliance Inspection Contractor (CIC), the Construction Contractor(s), and the Company and their Environmental Inspectors.

B8.2.2 Construction Contractor(s)

It will be the responsibility of the Construction Contractor(s) to notify the federal land-management agencies when a Project-related fire occurs in or adjacent to the construction area. The Construction Contractor(s) will be responsible for any fire started, in or out of the Project area, by its employees or operations during construction. The Construction Contractor(s) will be responsible for fire suppression and rehabilitation. The Construction Contractor(s) will take safe and immediate action to prevent and suppress fires on and adjacent to the Project area that are a result of contractor activities. The Construction Contractor(s) will use workers and equipment on the Project for preventing the spread of fires started by contractor activities unless the fire exceeds immediate control, at which time all Construction Contractor employees will exit the area to predetermined locations safe from wildfire.

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

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

B8.2.2.1 Construction Crew

The construction crew will be responsible for the following:

- 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 or when the fire exceeds immediate control. Refer to B8.6 – In Case of Fire – Initial Response and Emergency Contacts for further information regarding initial response to fire.
- The construction crew will immediately notify the Construction Contractor's Fire Marshall (see below) when a construction fire occurs in the area. The Construction Contractor's Fire Marshall will notify the appropriate agency personnel.
- Available Project crews will be alerted immediately when a Construction Contractor-caused fire occurs in the Project area. Project tools, equipment, and trained workers will be sent immediately to control the fire.

B8.2.2.2 Construction Contractor(s) Designated Fire Marshal

The Construction Contractor(s) will designate a Fire Marshall responsible for the following:

- Conduct regular inspections of tools, equipment, and first aid kits for completeness.
- Conduct regular inspections of storage areas and practices for handling flammable fuels to confirm compliance with applicable laws and regulations.
- Post smoking and fire rules at centrally visible locations.
- Coordinate initial response to Construction Contractor-caused fires in the Project areas.
- Accompany the CIC on fire inspections of the Project areas.
- Ensure all construction workers and subcontractors are aware of the contents of this Fire Prevention Plan.
- Remain on duty when construction activity is in progress and any additional periods where fire safety is an issue.

- Report all wildfires immediately to the CIC and the Company in accordance with the notification procedures described in the notification section below.
- If a fire starts in the Project area, initiate and implement fire suppression until relieved by the appropriate fire agencies or when the fire exceeds immediate control. The Construction Contractor’s personnel and equipment, including water trucks, will be dispatched within 15 minutes from the time a fire is reported to initially suppress the fire.
- Monitor current fire potential and issue fire safety warnings to construction personnel.
- Advise all construction personnel about activities that must be limited or restricted during periods of elevated fire danger.

B8.2.3 Compliance Inspection Contractor

The CIC and the Fire Marshall will accompany the federal land-management agencies’ FMOs on fire inspections and take corrective action when notified that fire protection requirements are not in compliance. The fire inspection schedule will be determined by the availability of federal land management agencies’ FMOs. The CIC will notify the Construction Contractor(s) to stop or reduce construction activities that pose a significant fire hazard until appropriate safeguards are taken.

B8.2.4 Notification

The Construction Contractor’s Fire Marshall will notify the CIC and the Company, who will immediately notify the respective federal land-management agencies’ Authorized Officers or their designated representatives and the federal land-management agencies’ FMOs, of any fire started in the Project area during construction. During operation and maintenance activities, the Company’s maintenance or contract crews will be responsible for the immediate notification of any fire started in the Project area. The Construction Contractor(s) and the Company will have notification numbers readily available for all employees in case of fire and will update the following emergency contact numbers (Table B8-1 – Fire Notification Numbers) for any changes prior to construction or maintenance in the Project area.

Table B8-1 Fire Notification Numbers (In case of fire – call 911 first)	
Contact Name	Contact Number
Bureau of Land Management Authorized Officer or designated representative	541-473-6295
U.S. Forest Service Authorized Officer or designated representative	To be determined
U.S. Department of the Navy	To be determined
Company Construction Manager	To be determined
National Interagency Fire Center – for fires in Idaho	1-801-531-5320
Northwest Interagency Coordination Center – for fires in Oregon	1-503-808-2720

B8.3 Mitigation Measures

The following fire protection mitigation measures include design features of the Project for environmental protection derived from the Final EIS and other specific stipulations and methods.

B8.4 Design Features of the Project for Environmental Protection

Applied Project-wide, Project design features for environmental protection have been developed in accordance with federal land-management agencies’ standards and will address many of the concerns

associated with fire protection. The following descriptions of design features address construction and operation of Project facilities that may affect fire protection.

- **Design Feature 5.** The spatial limits of construction activities, including vehicle movement, would be predetermined with activity restricted to and confined within those limits. No paint or permanent discoloring agents indicating survey or construction limits would be applied to rocks, vegetation, structures, fences, etc.
- **Design Feature 6.** In construction areas (e.g., staging areas, material laydown yards, fly yards, and wire pulling/splicing sites) where there is ground disturbance and where recontouring is required, surface reclamation would occur as required by the Reclamation, Revegetation, and Monitoring Plan or the landowner. The method of reclamation may consist of, but not be limited to, returning disturbed areas to their natural contour, replacement of displaced rocks and boulders in a manner that does not create strong edge conditions, reseeding, installing cross drains for erosion control, placing water bars in permanent roads, use of vertical pitting and mulching used for clearings in sage areas, and filling ditches where they were installed for temporary roads.

All areas disturbed as a part of the construction and/or maintenance of the proposed transmission line would be seeded with a seed mixture appropriate for those areas as identified in the Reclamation, Revegetation, and Monitoring Plan. The federal land-management agency or landowner(s) would approve a seed mixture that is compatible with the affected Ecological Site Description. Seeding methods typically would include drill seeding, where practicable; however, the federal land-management agency or landowner(s) may recommend broadcast seeding as an alternative method in some cases.

In construction areas where disturbing the existing contours is not required, vegetation would be left in place wherever possible, and original contours would be maintained to avoid excessive root damage and allow for resprouting in accordance with the Reclamation, Revegetation, and Monitoring Plan or landowner approval.

- **Design Feature 9.** All vehicle movement outside the right-of-way would be restricted to predesignated access, contractor-acquired access, public roads, overland travel routes, or crossings of streams approved in advance by the applicable land-management agency or landowner.
- **Design Feature 24.** All internal- and external-combustion engines would be operated per 36 Code of Federal Regulations 261.52, which requires all such engines to be equipped with a qualified spark arrester that is maintained and not modified.

The handling and use of explosives shall be conducted in strict conformance with all local, state, and federal regulations as detailed in IPC's Construction Specification on Blasting.

- **Design Feature 26.** Corona is the localized electric field near a conductor that can be sufficiently concentrated to ionize air close to the conductors, and can result in a partial discharge of electrical energy (corona discharge or corona). Corona from conductors and hardware may cause audible noise and radio noise (which may interfere with communications). Transmission line materials that have been designed and tested to minimize corona would be used. A bundle configuration and larger conductors would be used to limit audible noise, radio interference, and television interference due to corona. Tension would be maintained on all insulator assemblies to ensure positive contact between insulators, thereby avoiding sparking. Caution would be exercised during construction to avoid scratching or nicking the conductor surface, which may provide points for corona to occur.
- **Design Feature 37.** The transmission line and rights-of-way would be patrolled regularly and properly maintained in compliance with applicable safety codes.

B8.5 Activity-Related Precautions

B8.5.1 Fire Danger Ratings

Fire Danger Ratings will be used to direct the daily activities and in-field crew safety briefings. Fire Danger Ratings take into account current and antecedent weather, fuel types, and both live and dead fuel moisture and will be used by the land-management agency in determining mitigation or curtailment of operations. Fire Danger Ratings and their descriptions are available on the Wildland Fire Assessment website at: <http://www.wfas.net/index.php/fire-danger-rating-fire-potential--danger-32>.

B8.5.2 Red Flag Warnings

In addition, when the National Weather Service has issued a Red Flag Warning for low humidity and high winds, the fire precaution levels in Table B8-2 will be adhered to. The Red Flag Warnings are posted on <http://www.wrh.noaa.gov/firewx/main.php>.

Fire Danger Rating	No Red Flag	Red Flag
Low	Normal fire precautions.	Consider additional measures and resources.
Moderate	Normal fire precautions.	Consider additional measures and resources.
High	One engine ¹ is required for blasting.	One engine ¹ is required for blasting, welding, cutting, and grinding AND operations will shut down from noon until 8 p.m.
Very High	One engine ¹ is required for blasting, welding, cutting, and grinding.	Two engines ¹ are required for blasting, welding, cutting, and grinding AND operations will shut down from 10 a.m. until 8 p.m. Power saws will be shut down from 10 a.m. until 8 p.m.
Extreme	Two engines ¹ are required for blasting, welding, cutting, and grinding AND operations will shut down from 10 a.m. until 8 p.m. Power saws will be shut down from 10 a.m. until 8 p.m.	Unless authorized by the land jurisdictional agency, ALL OPERATIONS SHUT DOWN EXCEPT on mineral soil involving watering or equipment maintenance.
NOTE: ¹ Refer to FP-28 in Section B8.5 – Minimum Fire Prevention and Suppression Equipment Required.		

B8.5.3 Fire Precaution Levels

The Fire Marshal shall check the forecasted and current weather, Fire Danger Ratings, and any Red Flag Warnings each day of operation. If there are questions as to the level of fire danger and operations, the Fire Marshal or CIC shall contact the federal land-management agencies' Authorized Official prior to conducting work. Regardless of the fire danger or warnings, the Fire Marshal and CIC must determine when additional measures should be taken or operations should be shut down due to periods of extreme dryness and wind.

B8.5.4 Burning

Contractor and IPC personnel are prohibited from burning slash, brush, stumps, trash, explosives storage boxes, or other Project debris unless specifically contracted to do so. No cooking or warming fires or

barbecue grills will be allowed. Burn permits are required for all burning except camp fires during closed fire season on lands protected by Oregon Department of Forestry (ODF) (Oregon Revised Statute [ORS] 447.515) and, once Regulated Use Closure has been executed, burning of any type is banned with no exceptions (ORS 447.535) (ODF 2015).

B8.5.5 Welding, Cutting, Grinding, or Drilling

One 5-gallon back-up pump will be required with each welding unit in addition to the standard fire equipment required in all vehicles. All equipment will be kept in a serviceable condition and readily available. Individuals using power saws and grinders will have a shovel as described above, and an 8-pound capacity fire extinguisher immediately available. During fire season, a spotter equipped with a shovel and a fire extinguisher will be required to be present if wildland fuels are present where work is being performed.

B8.5.6 Spark Arresters

During construction, operation, maintenance, and decommissioning of the ROW, all equipment operating with an internal combustion engine will be equipped with federally-approved spark arresters. Spark arresters are not required on trucks, buses, and passenger vehicles (excluding motorcycles) equipped with an unaltered muffler or on diesel engines equipped with a turbocharger. Agency fire-inspection officers will have full authority to inspect spark arresters on Project equipment prior to its use on the Project on federal lands and periodically during construction.

B8.5.7 Smoking

Smoking is prohibited except in areas a minimum of 10 feet in diameter that have been cleared and graded to bare soil. All burning tobacco and matches will be extinguished before discarding. Smoking is also prohibited while operating equipment or vehicles, except in enclosed cabs or vehicles.

Smoking is never permitted in any area designated by DANGER or NO SMOKING signs. Smoking is not permitted in these areas regardless of any other factor. Smoking is not permitted on the transmission line ROW. Smoking is only permitted on access roads, within vehicles, and in approved smoking areas as described previously.

B8.5.8 Warning Devices

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

B8.5.9 Parking, Vehicle Operation, and Storage Areas

In no case will motorized equipment, including worker transportation vehicles, be driven or parked outside the designated and approved work limits. Equipment parking areas, the ROW, staging areas, designated vehicle-parking areas, and small stationary engine sites—where permitted—will be cleared of all flammable material. Clearing will extend a minimum of 2 feet beyond the edge of the area to be occupied but not beyond the boundaries of the approved ROW, extra workspace, or ancillary site. Glass containers will not be used to store gasoline or other flammables.

B8.5.10 Signage

“NO SMOKING” signs and fire rules regarding the Project will be posted on the Project bulletin board at the Construction Contractor’s field office(s), at all show-up locations, and on all portable toilet facilities during the fire season (to be determined by the respective federal land-management agencies’ Authorized Officers or their designated representatives).

B8.5.11 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 and exhaust system will retain at least 90% of carbon particles as required by spark arrester guidance.
- 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 20 feet from the place of refueling before starting. All gas will be carried in approved metal safety containers only.

B8.5.12 Equipment Refueling

Fuel trucks will have a large fire extinguisher charged with the appropriate chemical to control electrical and gas fires. The extinguisher will be a minimum size 35-pound capacity with a minimum 30 BC rating. Power-saw refueling will be done in an area that has first been cleared of material that could catch fire.

B8.5.13 Access

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

B8.6 Minimum Fire Prevention and Suppression Equipment Required

All motor vehicles and equipment will carry at least 1 long-handled (48-inch minimum), round-point shovel with a blade no less than 8 inches wide; a double-bit ax or Pulaski (3.5 pounds or larger) with a handle of not less than 26 inches long; one 16–20 pound dry chemical fire extinguisher (with an Underwriters Laboratories rating of at least 5B or C); and 20–50 gallons of water with a mechanism to effectively spray the water. Individuals using power saws and grinders will have a shovel as described above, and an 8-pound capacity fire extinguisher immediately available. All equipment will be kept in a serviceable condition, stored in a clearly identified tool box, and readily available. Larger water supplies of 300 gallons or larger (self-propelled) or 500 gallons (not self-propelled) with a pump capable of providing 20 gallons or more discharge when pumping through 50 feet of hose and a ¼-inch-diameter nozzle will be made available as conditions warrant, as required by ODF. In some situations, ODF district may allow alternate methods which may provide equal or better suppression of fire.

A watchman, with adequate facilities for transportation and communications to summon needed assistance, will conduct a continual observation of the area where power-driven machinery has been operated for up to 3 hours after power-driven machinery has been shut down for the day. If any fire is detected, the watchman must safely try to control and extinguish the fire and summon assistance as necessary. All power-driven machinery will be kept free of excess flammable material that could create a fire risk.

The Contractor and IPC shall maintain a list, to be provided to local fire-protection agencies, of all equipment that is either specifically designed for, or capable of, being adapted to fighting fires. The Contractor and IPC shall provide basic fire-fighting equipment on-site during construction, including fire

extinguishers, shovels, axes, and other tools in sufficient numbers so each employee on-site can assist in the event of a fire-fighting operation.

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

- One fire suppression vehicle equipped with a water tank with a minimum 500-gallon capacity, 250 feet of 0.75-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 one tool cache for fire use only, containing at a minimum two long-handled round point, size 0 shovels, two axes or Pulaski fire tools, and one chainsaw of 3.5 or more horsepower with a cutting bar of at least 20 inches in length.

B8.7 In Case of Fire – Initial Response and Emergency Contacts

If a fire does start in the Project area and if the fire is manageable, then construction personnel shall safely attempt to control it with a fire extinguisher or other available equipment. As part of the environmental compliance training program, the Construction Contractor(s) will receive training addressing initial fire suppression techniques, reporting requirements, how to determine if a fire is manageable, what control measures should be implemented by on-site field crews, and fire evacuation procedures. 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 followed by the district dispatch for the area. All fires must be reported to the jurisdictional fire agency regardless of size and actions taken.

B8.8 Post-Fire Rehabilitation Strategies

If the cause of a fire is determined to be the result of the Project, the Construction Contractor(s) will implement rehabilitation measures as required by the federal land-management agencies, as well as the following post-fire rehabilitation measures. A site specific fire rehabilitation plan would be prepared and submitted to the appropriate agency for review.

B8.9 Literature Cited

BLM (Bureau of Land Management). 2011 Boise District Fire Management Plan.

_____. 2016. Vale District Fire Management Plan. Vale District – BLM.

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