

Bureau of Land Management

Montana State Office

Billings Field Office

Fire Prevention Plan

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Bureau of Land Management
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Montana State Office/Billings Field Office
Billings, Montana

Fire Prevention Plan

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TABLE OF CONTENTS

Electric Cords.....	1
Explosives	1
Torches.....	1
Welding or Cutting	1
Bottled Gas Cylinders.....	2
Gasoline.....	2
Flammable Cabinets.....	3
Signing.....	3
Housekeeping.....	3
Fire Protection & Suppression.....	4
Fire Extinguishers.....	4
Smoke Detectors.....	4
Fire Alarms.....	4
Sprinkler System.....	4
Fire Doors and Walls.....	5
Heating System.....	5
Maintenance.....	5
Training.....	5

MSO/BiFO FIRE PREVENTION PLAN

The Montana State Office (MSO) and Billings Field Office (BiFO) fire prevention plan provides guidelines for employees to follow when using products or machines that could be a fire hazard in the workplace if improperly used or stored.

Electric Cords - Electric cords should be inspected periodically and kept in good condition. Employees will not jerk cords out of the electrical outlets. Tools and equipment that require grounding will be of the three-wire grounded connection type.

Extension cords may be used only for temporary wiring; i.e., holiday use. They may never be used to replace permanent wiring. If an extension cord is used for temporary wiring, it must be listed by Underwriters Laboratories or another recognized testing laboratory. Measures should be taken to avoid kinking or excessive bending of the cord. Broken strands may pierce the insulated covering and become a shock or short-circuit hazard.

Power taps with built-in circuit breakers are acceptable for long-term use as long as they are plugged directly into an outlet.

Portable and stationary equipment that requires grounding shall be equipped with a grounded, polarized plug and shall be plugged into a polarized receptacle.

Heat Producing Appliances – Use of heat producing appliances is permissible providing specific safety measures are followed:

1. All portable heaters **MUST** have an automatic shut off switch which is designed to turn the unit off should it accidentally tip over. The unit **MUST** not be left on and unattended for long periods of time, i.e., lunch breaks. The storage of combustible items, i.e., paper, boxes, etc., underneath the desk and/or near the unit is prohibited.
2. All portable heaters and any other heat producing appliances, i.e., coffeemakers, etc., will be turned off every night.

Explosives - The MSO and BiFO currently do not have a need for blasting/explosives activities. If blasting skills are required, these services will be contracted out.

Torches - The MSO electronics technicians use hand torches for fieldwork. When working on electrical equipment in the radio shop, they regularly use electric soldering irons which produce no open flame.

The BiFO engineering equipment operator no longer uses torches but occasionally uses a plasma cutter. The plasma cutter uses only electricity and compressed air, producing no more hazard than a welding unit.

Welding or Cutting –

1. Equipment repair and maintenance occasionally require welding by the BiFO engineering

equipment operators, rangeland management specialist, wildlife biologist, and engine foreman. Welding activities are permitted indoors, as the vehicle bay is equipped with exhaust fans which remove explosion hazards from dust, fumes, gases, and vapors. The ventilation system in this area is separate from the main building. The bay doors will be opened when weather permits.

2. Cutting or welding will be permitted only in areas that are fire safe. This assigned area shall be free of combustible and flammable contents, including the space below the floor grates. While indoors, screen guards must be used around all welding operations. If the object to be welded or cut cannot be readily moved, all movable fire hazards in the vicinity shall be taken to a safe place. If this is not possible, then guards shall be used to confine the heat, sparks, and slag, and to protect the immovable fire hazards. If none of these can be done, then welding and cutting shall not be performed.
3. Flashback arrestors have been placed on the welding connectors. The gas welding equipment is kept free from grease and oil.
4. Welders shall wear the appropriate personal protective equipment (PPE) for welding activities. Clothing should be free of oil, solvents, or frayed edges, to minimize the fire hazard from sparks.

Bottled Gas Cylinders – Cylinders shall be properly labeled with either the chemical or the trade name of the gas. Cylinders shall be kept away from radiators and other sources of heat. Cylinders shall be handled carefully. Cylinders shall be visually inspected to ensure safe condition. Compressed gas cylinders are serviced by the vendor, Valley Welding, and conform to industry standards.

Cylinders shall be stored in a well-protected, well-ventilated, dry location at least 20 feet from highly combustible materials such as oil or wood shavings, or other similar materials. Flammable substances, such as oil and volatile liquids, should not be stored in the same area. Cylinders shall not be kept in unventilated enclosures such as lockers and cupboards. Empty cylinders shall have their valves closed.

If the set of oxygen and acetylene cylinders in the BiFO shop will be used regularly, they must be stored on the cart with the welding leads attached and ready for use. The cylinders must not be permanently stored together on the cart. When cylinders are stored, they must be separated by a distance of at least 20 feet and chained below the shoulder to a wall with the valve caps on.

If cylinders are found to have leaky valves, or fittings which cannot be stopped by closing the valve, the cylinders shall be taken outdoors away from sources of ignition and slowly emptied.

Gasoline - Gasoline shall be stored in OSHA approved safety cans of not more than five gallon capacity, having a spring-closed lid and spout cover, and so designed as to safely relieve internal pressures under fire exposure. The storage building shall be signed on the outside, "Flammable -- Keep Fire Away." This building must be 50 feet from another building and have a fire resistance rating of at least 2 hours.

When handling gasoline, observe the following rules:

- Never use gasoline for cleaning floors, tools, clothes, or hands.
- Always store gasoline in an approved closed container.
- Pouring gasoline from one container to another may generate a charge of static electricity. A

- metal-to-metal contact must be maintained, or use of rubber mat, for grounding purposes.
- Gasoline spills will be cleaned up immediately to prevent accumulation of vapors. Do not allow electrical switches to be turned on until the gasoline vapors have dispersed.
- If gasoline is spilled on a person, remove the saturated clothing immediately and keep the person and clothing away from sources of ignition. Wash the affected area of the skin with soap and water to avoid a skin irritation. If the eyes are involved, flush with water and get employee to medical attention.
- Precautionary measures shall be taken to prevent ignition by eliminating or controlling all sources of ignition. Never smoke in fueling areas. Other sources of ignition may include open flames, lightning, cutting and welding, hot surfaces, frictional heat, sparks (static, electrical, and mechanical), spontaneous ignition, chemical and physical-chemical reactions, and radiant heat.
- Never dispense gasoline into the fuel tank while the engine is running or motor is hot. Any gasoline spilled should be carefully wiped off before starting the engine.
- Never store equipment with fuel in the tank inside a building where vapors could reach an open flame or spark. Allow the engine to cool down before storing in any enclosure.
- Never run an engine indoors without adequate ventilation.

Flammable Cabinets - Products that are labeled flammable will be stored in flammable cabinets. No flammable products will be stored in office occupancy. All flammable liquids/products, used by MSO/BiFO employees, shall be stored in the warehouse flammables cabinet. Any employee needing to store flammable materials in the warehouse flammables cabinet shall notify Jack Conner, Supervisory Property Management Specialist.

No more than 60 gallons of Class I or Class II liquids, and no more than 120 gallons of Class III liquids, may be stored in a flammable storage cabinet at one time.

For storage areas of Class I or II liquids, a fire extinguisher shall be located no less than 10 feet, or more than 25 feet, from the door opening.

A spill response kit is located in the vehicle bay section of the warehouse, by the flammables cabinet, for use in the event of a small spill or leak.

Signing – Smoking is prohibited in the interior space of all facilities occupied by the BLM.

“No Smoking” signs will be posted conspicuously in buildings and areas where smoking is prohibited. The only designated smoking areas are located outside, on the north side of the building and west side of the warehouse. No smoking is permitted near the propane generator which is located outside the north door connecting the office building to the wareyard.

Housekeeping - Good housekeeping is expected of all employees. Accumulations of flammable and combustible waste materials and residues shall be controlled so they do not contribute to a fire emergency. The State Office Hazardous Materials Coordinator will be contacted for advice and coordination on the disposal of hazardous materials and waste.

To prevent spontaneous combustion fires, all solvent soaked or oily rags shall be stored in a covered metal safety container and properly disposed of daily.

Fire Protection and Suppression –

1. Fire Extinguishers. Type ABC fire extinguishers, which are designed for use on ordinary combustibles such as wood, cloth and paper; flammable liquids such as gasoline and oil, and electrical equipment, are located throughout the building and warehouse and identified in the fire evacuation plan. The fire extinguishers are visually checked monthly by the State Office Safety Specialists to ensure they are fully charged and in designated location, and serviced annually by Gases Plus.

Fire extinguisher training is made available to all employees. State Office and Billings Field Office employees are not required to extinguish fires, but are to evacuate the building immediately. When fire is discovered, an employee should do the following: 1) pull alarm no matter how small the fire is and alert fellow co-workers, and 2) if trained, use a fire extinguisher but only if employee always has a safe path of escape while fighting fire.

2. Smoke Detectors. Smoke detectors are installed in several places throughout the building. The detectors are both smoke- and heat-activated and will initiate the alarm system in the event of fire. The evacuation of building facilities is outlined in the Evacuation and Emergency Procedures Plan. The plan is posted on the Official Bulletin Board and distributed to all employees. Copies of the plan are available from the State Safety Specialists.

3. Fire Alarms. Fire alarms are located at all major exits in the building and are to be pulled to activate emergency evacuation procedures if necessary. Whenever the fire alarm sounds, the entire building will be evacuated. A fire alarm annunciator is located in the lobby which displays information to the fire department as to which smoke alarm detected the fire and the location of the fire alarm that was activated.

4. Sprinkler System. The warehouse and vehicle bay are equipped with a sprinkler system since flammable and combustible items are stored in these areas. This is a dry system pressurized with air; water is not held in the pipes. If a sprinkler head is destroyed, or a smoke/heat sensor is set off, the system will engage allowing water into the pipes. The system is equipped with a tamper-resistant valve to prevent unauthorized shutoff/engagement. A fire gong/bell is located on the outside southwest wall of the warehouse to notify responding fire department of the main pipe hookup.

An annual inspection of the sprinkler system is completed by Big Sky Fire Protection, Inc. and coordinated by Sam Baril, Building Maintenance Manager. Copies of the inspection results are provided to the Property Management Specialist and the State Safety Specialists.

5. Fire Doors and Walls - The primary halls have been protected with fire rated doors, 1.5 hour or 20 minute rating. Fire code requires that fire doors be kept closed and latched or arranged for automatic closing. Several of the doors leading to the main hallways, to the supply room, and warehouse have the option to be secured open. They have magnetic devices at the top that hold the doors open. The mechanism is wired into the building alarm system and automatically releases when the fire alarm sounds and the doors automatically close. Similarly, the glass doors leading to the State Director's suite have a rolling, horizontal shutter that closes automatically on alarm. Fire doors with closing mechanisms are visually inspected annually, during fire drills, and by the building maintenance manager to check for proper operation and full closure.

A 2-hour rated firewall separates the warehouse from the main building.

Heating System - The building is equipped with two main boiler furnaces which are fueled by natural gas. Three air handlers are located on the roof. Safety features on the boiler furnaces include an overheat, overpressure, and flow valve shutoff; and all operate on a grounded system. The boiler room has a manual emergency shutoff switch located on the wall in the northeast hallway. Flashback arrester devices are installed on the inlet side of each gas line to both boilers and handlers. Montana-Dakota Utilities has one arrester device installed on the entrance service line.

There are two locations in the building that receive natural gas, the boiler room and the roof. Natural gas is not distributed throughout the building for heating purposes, but is used to heat water in a radiator unit which is then distributed throughout the building. There are four overhead heating units installed in the warehouse.

The gas meter on the outside of the building has an automatic shutoff valve that will prevent leakage into the building if a gas line is broken or ruptured. The boiler room is equipped with two, 3'x3' fresh air vents which allow adequate airflow throughout the room. These vents automatically open when the boiler is in operation.

The State of Montana annually inspects the main boiler furnaces. Documentation of these inspections and a copy of the State boiler certificate are on file with Sam Baril, Building Maintenance Manager.

Maintenance – Sam Baril, Building Maintenance Manager, is responsible for regularly and properly maintaining, according to established procedures, equipment and systems installed on heat-producing equipment to prevent accidental ignition of combustible materials.

During maintenance, a machine must be turned off and guarded to avoid possibility of unexpected restart. The BLM policy on Lockout-Tagout (Control of Hazardous Energy) will be followed.

Training - The supervisor shall inform employees of the fire hazards of the materials and processes to which they are exposed. The supervisor shall review with each employee, upon initial assignment, those parts of the fire prevention plan and evacuation and emergency procedures plan which they must know to protect themselves in the event of an emergency. A Risk Assessment (RA) will be developed for any task involving heat-producing equipment or flammable liquids. The RA will be readily available for employees to review.

This plan shall be made available for employee review.