



Small Buildings & Minor Renovations Including Single Family Dwellings (detached, semi-detached, 3 plexs)

Division B, Section 5.6. of the Alberta Fire Code (AFC) applies to fire safety for buildings, parts of buildings, facilities, adjacent buildings or facilities, and associated areas undergoing construction, alteration or demolition operations.

Prior to the commencement of construction, alteration or demolition operations, a fire safety plan, accepted in writing by Planning and Development Services, shall be prepared for the site. It is the owner, developer or contractors responsibility to develop the fire safety plan. It is unlawful to start construction or demolition without a fire safety plan. If you begin without a plan in place, you may be ordered to stop work, ordered to remove work already done, or prosecuted as per the Safety Codes Act.

The AFC sets out specific items for inclusion in a mandatory Fire Safety Plan to provide a safe environment for workers and outline emergency procedures at sites where construction, alteration and demolition are occurring. These provisions also ensure that hazard control measures are in place and maintenance of firefighting measures and systems are addressed.

Fire Safety Plans for construction or demolition sites will apply to all inspectors, workers, suppliers and contractors on site. There can only be one Fire Safety Plan for each site. Should circumstances change on site then the plan must be modified appropriately and resubmitted to Planning and Development Services.

A Fire Prevention Officer may review projects during key stages of construction to ensure the work site is safe and complies with the Fire Code.

Please review the construction site fire safety plan template attached. The safety plan has been designed to meet the intent of the AFC for small buildings and minor renovations. Please make changes if required so as to meet the intent of your construction processes. If applicable a hot works safety plan must be included (see appendix C).

Larger projects (usually classified as Part 3 under the Alberta Building Code) including multi-residential sites require an individualized construction fire safety plan for each permit (see construction safety plans for Part 3 buildings).

Once the construction fire safety plan has been finalized please submit to Planning and Development Services along with your permit application.

Once approved, the safety plan will be acceptable for all similar size projects (usually Part 9 Alberta Building Code) until otherwise stated by the Authority Having Jurisdiction.

Fire Safety Plan CONSTRUCTION and DEMOLITION Sites

**THIS PLAN MUST BE POSTED AT EACH JOB SITE AND EMPLOYEES ARE EXPECTED TO BE TRAINED IN
AND HOW TO FOLLOW ITS PROVISIONS**

Permit # _____

Address: _____

Building Name/Site Name: _____

Description of Project: _____

Emergency Contact Person / 24 hr.# _____

Emergency Contact Person / 24 hr.# _____

Muster Point: _____

This plan is designed in conformance with Division B Section 5.6. of the Alberta Fire Code, and on signature, becomes an agreement between the building owner/contractor and Planning and Development Services.

Building Owner/Contractor

Print Name: _____ Contact # _____

Signature: _____

Date: _____

Building Safety Codes Officer

Print Name: _____ Contact: 403-529-8374

Signature: _____

Date: _____

The Owner and/or Representative of the Owner, is responsible for the Fire Safety Plan until occupancy

CONSTRUCTION FIRE SAFETY PLAN

Small Buildings & Renovations Including Single Family Dwellings (detached, semi-detached, 3 plexs)

A designate must be appointed and account for all people expected to be on site

A warning system must be in place at all sites

A method of notifying the fire department shall be available at all times

Upon Discovery of Fire or Other Emergency

- Leave fire area immediately
- Close doors behind you where practical
- Turn off equipment if safe to do so
- Notify occupants verbally or sound horn or activate fire alarm system
- Call the Fire Department **9-1-1** (from a safe location)
- Use nearest exit, do not use man lifts or elevators
- Go to mustering point, stay there until instructed to do otherwise
- A supervisor must await the arrival of the Fire Department at the main access point

Fighting a Fire

Attempting to extinguish a fire is a voluntary act.

- Only use a fire extinguisher if safe to do so and you know how to use it
Prior to fighting a fire, notify persons in the immediate area
- Be calm and use good judgment at all times.
- Never attempt to fight a fire alone unless the fire is small and you feel confident that you can extinguish or isolate the fire by using a portable fire extinguisher
- When you have exhausted the extinguisher, back away if unable to totally extinguish the fire
- Ensure you have an exit at your back. Do not get trapped

Emergency Response Numbers:

FIRE/POLICE/AMBULANCE:	9-1-1
POWER	403-348-5700
WATER	403-342-8750
GAS	1-800-511-3447

Measures for controlling fire hazards in and around the building

Outdoor Refuse Containers shall be kept at least 3 meters from a combustible building and any building overhang or opening.

Combustible waste materials in and around buildings shall not be permitted to accumulate in quantities or locations that will constitute a fire hazard.

Burning of waste material at construction sites is **NOT PERMITTED.**

Combustible liquids and flammable liquids shall be stored and used in a safe manner.

Fire Department Access

Fire Department Access is to be maintained at ALL times from start to completion of construction.

Blocking or obstruction of access roads or hydrants with construction materials, equipment or excavation materials is not permitted.

Address

Street address of the site is to be posted and **clearly visible at all times** for all emergency response personnel including police, fire and ambulance. Address numbers should be affixed in a visible location at a level of about 2 m from the ground, or taped to the inside of a front facing window.

Hot Works

Hot works shall be performed in conformance with Section 5.2. of the AFC.

See Appendix C for more information.

Protection of Adjacent Buildings

Protection shall be provided for adjacent *buildings* and facilities that would be exposed to fire originating from *buildings*, parts of *buildings*, facilities and associated areas undergoing construction, alteration or demolition operations.

Methods and materials used to protect adjacent buildings and facilities can range from active to passive systems such as spatial separation, installing water curtains, using construction methods and materials that include gypsum sheathing, or erecting a temporary fire barrier such as a fire tarpaulin.

Portable Extinguishers

Portable extinguishers shall be provided in unobstructed and easily accessible locations in areas

- a) where *hot work* operations are carried out,
- b) where combustibles are stored,
- c) near or on any internal combustion engines,
- d) where *flammable liquids* and *combustible liquids* or gases are stored or handled, and
- e) where temporary fuel-fired equipment is used.

Portable extinguishers shall have a minimum rating of

- a) 2-A:10-B:C on moveable equipment, and
- b) 4-A:40-B:C in all other locations.

Ignition Sources

Construction Heaters shall be connected so as to minimize danger of mechanical damage and upset and be installed on a solid level base. Temporary heaters must be placed at least 5 m from combustible tarpaulins or similar coverings.

Piping, tubing, hose and fittings shall be supported, secured and protected from damage and strain. Propane regulators shall be properly fastened within the protective cover.

Temporary Enclosures

Fabrics and films used to temporarily enclose *buildings* shall be securely fastened to prevent them from being blown against heaters or other ignition sources.

Fuel Supply Installation

1) Fuel supplies for heating equipment and internal combustion engines shall conform to

- a) CSA B139, "Installation Code for Oil-Burning Equipment," or
- b) gas regulations made pursuant to the Safety Codes Act.

Smoking Restrictions

Smoking shall not be permitted in areas where conditions are such as to make smoking a fire or explosion hazard. Where smoking is permitted, an adequate number of ash trays shall be provided.

Provision for Egress

In areas of a *building* where construction, alteration or demolition operations are taking place, at least one *exit* shall be accessible and usable at all times.

Appendix C

Hot Works

AFC 5.2.1.1. Application

1) This Section shall apply to *hot works* involving open flames or producing heat or sparks, including, without being limited to, cutting, welding, soldering, brazing, grinding, adhesive bonding, thermal spraying and thawing pipes.

2) Except as provided in this Section, *hot works* described in Sentence (1) shall conform to CAN/CSA-W117.2, "Safety in Welding, Cutting and Allied Processes."

5.2.1.2. Training

1) *Hot works* shall be performed only by personnel trained in the safe use of equipment in conformance with this Section.

5.2.2. Hot Work Equipment

5.2.2.1. Maintenance

1) *Hot work* equipment shall be maintained in good operating condition.

5.2.2.2. Inspection

1) *Hot work* equipment shall be examined for leakage or defects prior to each use.

2) Leaks or defects found in *hot work* equipment shall be repaired prior to use.

5.2.2.3. Equipment Not in Use

1) All valves shall be closed and gas lines bled when Class 2 gas *hot work* equipment is not in use.

2) Electric *hot work* equipment shall be de-energized when not in use.

5.2.2.4. Compressed Gas Equipment

1) The design and installation of oxygen-fuel gas equipment shall conform to NFPA 51, "Design and Installation of Oxygen-Fuel Gas Systems for Welding, Cutting, and Allied Processes."

2) Unalloyed copper piping shall not be used for acetylene gas.

3) Oil or grease shall not be used with equipment for oxygen.

4) Cylinders of Class 2 gases shall conform to Part 3.

5.2.3. Prevention of Fires

5.2.3.1. Location of Operations

1) Except as provided in Sentence (2), *hot work* shall be carried out in an area free of combustible and flammable contents, with walls, ceilings and floors of *non-combustible construction* or lined with noncombustible materials.

2) When it is not practicable to undertake *hot work* in an area described in Sentence (1),

a) combustible and flammable materials within a 15 m distance from the *hot work* shall be protected against ignition in conformance with Article 5.2.3.2.,

b) a fire watch shall be provided during the *hot work* and for a period of not less than 60 min after its completion in conformance with Article 5.2.3.3., and

c) a final inspection of the *hot work* area shall be conducted 4 h after completion of work.

3) When there is a possibility of sparks leaking onto combustible materials in areas adjacent to the area where *hot work* is carried out,

a) openings in walls, floors or ceilings shall be covered or closed to prevent the passage of sparks to such adjacent areas, or

b) Sentence (2) shall apply to such adjacent areas.

5.2.3.2. Protection of Combustible and Flammable Materials

1) Any combustible and flammable material, dust or residue shall be

a) removed from the area where *hot work* is carried out, or

b) protected against ignition by the use of noncombustible materials.

- 2) Combustible materials or *building* surfaces that cannot be removed or protected against ignition as required in Sentence (1) shall be thoroughly wetted where *hot work* is carried out.
- 3) Any process or activity that produces flammable gases or vapours, *combustible dusts* or *combustible fibres* in quantities sufficient to create a fire or explosion hazard shall be interrupted and the hazardous conditions shall be removed before any *hot work* is carried out.

5.2.3.3. Fire Watch

- 1) The exposed areas described in Sentences 5.2.3.1.(2) and (3) shall be examined for ignition of combustible materials by personnel equipped with and trained in the use of fire extinguishing equipment.

5.2.3.4. Work on Containers, Equipment or Piping

- 1) *Hot work* shall not be performed on containers, equipment, or piping containing *flammable liquids*, *combustible liquids* or Class 2.1 flammable gases unless
 - a) they have been cleaned and tested with a gas detector to ascertain that they are free of explosive vapours, or
 - b) safety measures are taken in conformance with good engineering practice (see Appendix A).
- 2) *Hot work* shall not be performed on a totally enclosed container.
- 3) *Hot work* shall not be performed on metal objects that are in contact with combustible materials unless safety precautions are taken to prevent their ignition by conduction.

5.2.3.5. Work Adjacent to Piping

- 1) When *hot work* is to be carried out near piping containing a Class 2.1 flammable gas, the piping shall
 - a) conform to Sentence 5.2.3.4.(1), or
 - b) be protected by a thermal barrier against the passage of heat.

5.2.3.6. Fire Extinguishing Equipment

- 1) At least one portable fire extinguisher shall be provided in the *hot work* area.