

Fire Safety Plan Demolition

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.

Please review completed demolition fire safety plan attached. This safety plan has been designed to meet the intent of the AFC for demolitions. If applicable a hot works safety plan must be included (see appendix C).

If you are in agreement with the fire safety plan as laid out, nothing further is required. It is acceptable for your use. If you make changes to the safety plan please forward to prevention@reddeer.ca for review and approval.

Prior to the commencement of demolition operations, the AFC requires the demolition fire safety plan to be on-site. It is the owner, developer or contractor's responsibility to ensure everyone involved with the demolition is familiar with the safety plan. It is unlawful to start demolition without a fire safety plan.

Fire Safety Plans will apply to all inspectors, workers, suppliers and contractors on site so as to provide a safe environment for workers and outline emergency procedures at sites where demolitions are occurring.

A Fire Prevention Officer may review demolitions to ensure the work site is safe and complies with the Alberta Fire Code.

FIRE SAFETY PLAN DEMOLITION

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

An on-site warning system must be in place

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 (City of RD ELP)	403-348-5700
WATER (City of RD Environmental Dept.)	403-342-8750
GAS (Atco Gas – 24 Hr)	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 combustibile 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 demotion 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 demolition. Blocking or obstruction of access roads or hydrants with construction materials, equipment or excavation materials is not permitted.

Security

If demolition is longer than one day the area must be secured by a fence or a watchman service.

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 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.

Fire Separations in Partly Occupied Buildings

Where part of a building continues to be occupied, the occupied part shall be separated from the part being demolished by a fire separation having a fire-resistance rating of not less than 1 h.

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.

As a minimum two portable extinguishers shall be on-site that has a minimum rating of

- a) 2A-10BC on moveable equipment, and
- b) 4A-40BC 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 combustibles 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 fibers 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 4A-40BC portable fire extinguisher shall be provided in the hot work area.