

## PORTABLE FIRE EXTINGUISHERS

### PURPOSE

This bulletin is to clarify the intent of the Alberta Fire Code 2014 (AFC 2014) and NFPA 10, “Standard for Portable Fire Extinguishers,” regarding the inspection, maintenance, recharging, placement, refurbishing of portable fire extinguishers and the applicable listing and labelling for use in Alberta.

### DISCUSSION

All portable fire extinguishers must be subjected to:

#### 1. Inspection

The inspection includes a “quick check” that a fire extinguisher is available for use and is in operating condition. It is intended to give reasonable assurance that the fire extinguisher is fully charged and the seal is intact. This is done by verifying that it is in its designated place, that it has not been actuated or tampered with, and that there is no obvious physical damage or condition to prevent its operation.

Fire extinguishers shall be **inspected monthly**, or more frequent inspections when it is obvious that the extinguisher may be subjected to corrosive or damaging environments.

Inspections may be carried out by the owner, by an employee designated by the owner, or by a designated representative (i.e. commercial company). If the owner is in any doubt about the condition of a fire extinguisher following inspection they should contact a certified fire extinguisher servicing company to evaluate the operational integrity of the fire extinguisher.

#### 2. Maintenance

Routine maintenance includes a thorough examination of the fire extinguisher. This examination is intended to give assurance that a fire extinguisher will operate effectively and safely. It includes a thorough examination for physical damage or conditions which might prevent the operation of the extinguisher and any necessary repair or replacement. An examination will usually reveal if hydrostatic testing or internal maintenance is required.

All fire extinguishers shall be subjected to maintenance not more than one year apart or when an inspection indicates a fire extinguisher is in need of maintenance.

Only companies that have had their facilities certified by an approved fire testing agency and only a qualified person working for the certified fire extinguisher servicing agency shall carry out the maintenance and recharging of fire extinguishers (see below for more information on certification).

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Unless stated otherwise, all Code references in this STANDATA are to Division B of the Alberta Fire Code 2014.

Issue of this STANDATA is authorized by  
the Provincial Fire Administrator

*[Original Signed]*  
Tina Parker



### 3. Recharging

Every 6 years, stored pressure fire extinguishers that require a 12-year hydrostatic test shall be emptied and subjected to the applicable internal examination procedures as detailed in the manufacturer's service manual and as per NFPA 10 standard.

It is important to note that the practice of "topping up" is not permitted.

### 4. Hydrostatic Testing

Extinguishers that show any evidence of corrosion or mechanical injury shall be hydrostatically tested. Non-refillable disposable containers and pump tanks do not require hydrostatic tests.

NFPA 10, Chapter 8, Table 8.3.1. identifies the extinguisher type and the testing intervals required. Access to NFPA 10 may be found at [www.nfpa.org](http://www.nfpa.org).

Only servicing companies certified by Transport Canada or its appointee shall carry out hydrostatic testing of high-pressure portable extinguishers.

### 5. Refurbishing

The only companies that are allowed to refurbish portable fire extinguishers are those who have specific permission to do so from Underwriters Laboratories of Canada (ULC) and the Original Equipment Manufacturer (OEM). ULC and OEM will then investigate the service company and monitor the quality control in the same manner as provided to manufacturers. To obtain more information regarding the extinguisher rebuild program, contact ULC at 1-866-937-3852.

### 6. Placement of fire extinguishers

The AFC 2014 (see Appendix "A") and NFPA 10 advise as to the placement and size of fire extinguishers required in commercial buildings. Access to the AFC 2014 may be found at your public library or a copy may be purchased through the National Research Council: [http://www.nrc-cnrc.gc.ca/eng/publications/codes\\_centre/codes\\_guides.html](http://www.nrc-cnrc.gc.ca/eng/publications/codes_centre/codes_guides.html)

You may also contact your local Fire Department/Prevention Branch for further information regarding the application of the AFC 2014 and NFPA 10.

The AFC 2014 does not regulate the installation of portable fire extinguishers on vehicles unless these vehicles are tank vehicles, or a motor vehicle operating in an outdoor storage area, as defined by the AFC 2014, or a vehicle utilized for the compliance with a VARIANCE for remote/unmanned facilities (to determine if your company falls within this category, please visit municipal affairs at: [http://www.municipalaffairs.alberta.ca/2006\\_fire\\_code\\_variance](http://www.municipalaffairs.alberta.ca/2006_fire_code_variance))

There are, however, organizations that may require you to have portable fire extinguishers on your vehicle in order to gain access to their operating/commercial sites. These requirements are part of their Standard Operating Procedures and may be site specific.

There may also be organizations that require you to have fire extinguishers in or on the vehicles as part of their Occupational Health and Safety plan, and must adhere to the standards set out by the Alberta Commercial Vehicle Safety Regulation.

All portable fire extinguishers are to be listed and labelled in accordance with the AFC 2014 and they must all be inspected, maintained and tested in conformance with NFPA 10 (as per the previous pages of this document).

## 7. Listed and Labelled

Portable Fire Extinguishers, in conformance with the AFC 2014, and therefore acceptable for sale, use and servicing in Alberta will comply with a-d:

- a) Labels will have metric measures and may have imperial equivalents,
- b) Labels will be bi-lingual in English/French and may represent additional languages,
- c) Labels will indicate which CAN/ULC Standard the portable extinguisher is in conformance with (e.g. CAN/ULC S504),
- d) Extinguishers will exhibit the mark of a Certification Body as being in conformance with one of the referenced National Standards (CAN/ULC). This mark will most typically be that of ULC.

Portable fire extinguishers which exhibit only a UL (Underwriters Laboratories) label are not acceptable for sale, use or allowed to be serviced in Alberta. Special dispensation is allowed for Certified Fire Extinguisher shops to “refill only” vehicle fire extinguishers that have been discharged in an emergency situation from transportation drivers or other travellers from the United States.

All non-compliant (non-Canadian labelled) portable fire extinguishers in Alberta must be taken out of service and rendered inoperable by December 31, 2021 or at the next recharge date, whichever date occurs first.

### **Certification of portable fire extinguisher servicing companies to CAN/ULC S532 Regulation of the Servicing of Portable Fire Extinguishers**

Anyone wishing to obtain information on becoming a certified portable fire extinguisher servicing company can contact one of the following companies:

ULC	1-877-852-5227
Intertek	403-877-0586

Certification is offered in four categories:

*Category 1 - Full extinguisher service including shop servicing of all types of extinguishers, hydrostatic retesting to CTC requirements, reclaiming of Halon 1211, and annual maintenance field inspections.*

*Category 2 - Extinguisher service as in Category 1, but excluding hydrostatic retesting to Transport Canada (TC) requirements or Halon Extinguisher Service.*

*Category 3 - Recharging and annual maintenance field inspections of specific types of extinguishers only, excluding hydrostatic retesting.*

*Category 4 - Annual maintenance field inspections only of extinguishers owned or insured by the service agency.*

Categories 1, 2 and 3 are recognized certification in Alberta. Category 4 is not a recognized certification in Alberta.

Fire extinguisher recharge companies that do not have the equipment to undertake hydrostatic testing, or the recharge, of CO2 and Halon (clean agent) extinguishers may contract with another testing and recharge facility, providing the contracted testing facility is certified to a Category 1 or 2. The testing facility will attach their tag to the extinguisher. The tag shall not be tampered with or removed. There is no requirement for the original company to place their service tag on the extinguisher as the recharge tag from the testing facility indicates compliance.

## Extinguisher Technician

Alberta Municipal Affairs does not certify companies or technicians. Anyone wishing to become an extinguisher technician in Alberta may contact the following institutions to obtain approved training:

Lakeland College – 1-800-661-6490

SAIT Polytechnic – 1-877-284-7248

## APPENDIX “A” CODE REFERENCES

1. Article 2.1.3.7. of Division B states:

### 2.1.3.7. Inspection, Maintenance and Testing of Fire Safety Devices

(See Appendix A.)

- 1) The inspection, maintenance and testing of fire safety devices shall be conducted in accordance with this Code.
- 2) Where specific references to the inspection, maintenance and testing of fire safety devices are not made in this Code, such devices shall be maintained to ensure they operate as per their design requirements.

2. Article 2.1.5. of Division B states:

### 2.1.5. Portable Extinguishers

#### 2.1.5.1. Selection and Installation

- 1) Portable extinguishers shall be installed in all *buildings* except *dwelling units*. (See Appendix A.)
- 2) Except as otherwise required by this Code, portable extinguishers shall be selected and installed in accordance with NFPA 10, “Portable Fire Extinguishers.” (See Appendix A.)
- 3) Notwithstanding the requirements of Sentence (2), portable extinguishers used to comply with this Code shall conform to the following performance standards as applicable:
  - a) CAN/ULC-S503, “Carbon-Dioxide Fire Extinguishers,”
  - b) CAN/ULC-S504, “Dry Chemical Fire Extinguishers,”
  - c) CAN/ULC-S507, “Water Fire Extinguishers,”
  - d) CAN/ULC-S512-M, “Halogenated Agent Hand and Wheeled Fire Extinguishers,”
  - e) CAN/ULC-S554, “Water Based Agent Fire Extinguishers,” and
  - f) CAN/ULC-S566, “Halocarbon Clean Agent Fire Extinguishers.”
- 4) Notwithstanding the requirements of Sentence (2), portable extinguishers shall be rated and identified in conformance with CAN/ULC-S508, “Rating and Fire Testing of Fire Extinguishers.”
- 5) Portable extinguishers in proximity to a fire hazard shall be located so as to be accessible without exposing the operator to undue risk. (See Appendix A.)
- 6) Portable extinguishers that are subject to corrosion shall not be installed in a corrosive environment unless they are provided with appropriate corrosion protection.
- 7) Portable extinguishers shall not be distributed, sold, leased, offered for sale or lease or installed unless the portable extinguisher is *listed* and *labelled*.

3. Section 3.3. Outdoor Storage, Sentence 3.3.2.10. (2) of Division B states:

2) Each motorized vehicle operating in an outdoor storage area shall be equipped with at least one portable extinguisher having a minimum rating of 2-A:30-B:C.

4. Section 4.10 Distilleries, Sentence 4.10.8.1. (3) of Division B states:

3) At least one portable extinguisher having a rating of 30-B:C shall be located on each industrial lift truck.

5. Section 4.11. Tank Vehicles, Sentences 4.11.2.1. (1)(2) and 4.11.3.8. (2) of Division B state:

**4.11.2.1. Portable Extinguishers**

1) Except as required or permitted by Sentence 4.7.5.1. (1), a *tank vehicle* shall be provided with at least one portable extinguisher having a minimum rating of 80-B:C.

2) Portable extinguishers on a *tank vehicle* shall be readily accessible.

**4.11.3.8. Dispensing into Vehicles**

2) Dispensing Class II or IIIA liquids into the fuel tank of vehicles directly from a *tank vehicle* having a capacity greater than 3 000 L shall be permitted only if

b) at least 2 portable extinguishers having a minimum rating of 80-B:C are provided on the *tank vehicle*,

6. Section 6.2. Portable Extinguishers, Sentence 6.2.1.1. (1) of Division B states:

**6.2.1. General**

**6.2.1.1. Inspection, Testing and Maintenance**

1) Portable extinguishers shall be inspected, tested and maintained in conformance with NFPA 10, "Portable Fire Extinguishers."

7. Article 2.2.3.2. of Division C states:

**2.2.3.2. Fire Extinguishers**

1) All agencies servicing, recharging or carrying out the repair and overhaul of fire extinguishing equipment shall have their facilities and equipment certified

a) annually by an *approved* fire testing agency, and

b) by Transport Canada or its appointee for high-pressure hydrostatic testing equipment.

8. Article 2.2.4.2. of Division C states:

**2.2.4.2. Portable Fire Extinguishers**

1) Only qualified persons shall install, test or perform maintenance on portable extinguishers.

2) Persons are considered qualified in the installation and maintenance of portable fire extinguishers when they have acquired an *approved* certificate of training from a public post-secondary educational institution, and they own or are employed by an agency that is certified annually by a recognized certification body as being compliant with CAN/ULC-S532, "Regulation of the Servicing of Portable Fire Extinguishers."

9. Sentence 1.4.1.2. of Division A states:

**1.4.1.2. Defined Terms**

*Approved* means acceptable to the *Chief Fire Administrator*.

*Labelled* means equipment or materials to which has been attached a label, symbol or other identifying mark indicating that it has been manufactured under a certification programme administered by an accredited Certification Organization or Standards Writing Organization under the National Standards System of Canada.

*Listed* means equipment or materials included in a list published by an accredited Certification Organization or Standards Writing Organization under the National Standards System of Canada.

*Tank vehicle* means any vehicle, other than railroad tank cars and boats, with a cargo tank having a capacity of more than 450 L, mounted or built as an integral part of the vehicle and used for the transportation of *flammable liquids* or *combustible liquids* and including tank trucks, trailers and semi-trailers.

This bulletin replaces the following documents:

- FCI-08-08 Refurbished Portable Extinguishers
- FCB-09-04 Installation of Extinguishers on Vehicles
- FCB-11-01 Inspection, Maintenance & Recharging of Portable Fire Extinguishers
- 97-FCB-002 Inspection of Fire Extinguishers
- 97-FCB-005 Inspection, Maintenance & Recharging of Fire Extinguishers
- 97-FCB-014 Persons Qualified to Maintain Fire Extinguishers
- 97-FCB-028 Portable Fire Extinguishers
- 97-FCI-008 Refurbished Portable Extinguishers
- 92-FCI-004 Inspection, Maintenance and Recharging of Fire Extinguishers
- 92-FCI-005 Inspection of Fire Extinguishers
- Portable Fire Extinguisher Servicing Advisory