

July 2012

FCI-12-02
Page 1 of 3

**Used Oil Indoor Storage Tank(s) Supplying
Used-Oil Fuel Burning Appliances**

ISSUE:

Heating appliances which burn used oil are utilised to provide primary or supplemental heating to industrial premises using heating appliances certified for this purpose. Typically these facilities are vehicle service garages and oil change shops which have a regular supply of used-oil which may be used for this purpose.

Concerns have been expressed in that, while these appliances and their ancillary equipment fall within the scope of CAN/CSA-B139 Installation Code for Oil-Burning Equipment, the Alberta Fire Code (AFC) also speaks to tanks for the storage of used oil and the size and location of flammable and combustible storage tanks within buildings.

Additional clarification has been requested as to whether the storing of used oil for the purpose of heating is “incidental” to the primary activity under the AFC.

BACKGROUND:

Service and repair garages are installing oil burning appliances that burn used oil (Class IIIA combustible liquid), typically to provide supplementary heating to the shop area. The shops collect the oil from the servicing of vehicles, and are required to properly dispose of the used oil. Instead of arranging the transportation and proper disposal/recycling of used oil in another location, owners are investing in certified heating appliances for burning used oil. In turn they are able to avoid some heating costs in the shop area where large overhead doors are frequently opened and closed and losing building heat. As well, the risk of spills and off site environmental damage is reduced by retaining and burning the used oil on site in the certified appliance(s).

Fire Safety Codes Officers and Owners have requested that the Chief Fire Administrator provide a written interpretation clarifying the scope and application

CODE REQUIREMENTS:¹**4.1.1.1. Application**

...

3) This Part shall not apply to

...

b) *appliances* and their ancillary equipment within the scope of CAN/CSA-B139, "Installation Code for Oil-Burning Equipment" (see Appendix A),

...

A-4.1.1.1.(3)(b) Storage tank systems installed in conformance with CAN/CSA-B139, "Installation Code for Oil-Burning Equipment," must comply with Part 4 for items that are outside of the scope of the CSA standard. This includes, but is not limited to, site sensitivity classification, registration, secondary containment, testing, maintenance, repair, leak detection, corrosion protection testing, and removal of storage tank systems.

4.2.8. Incidental Use**4.2.8.1. Application**

1) Except as otherwise noted in this Part, this Subsection applies to *industrial occupancies* where the use, storage and handling of *flammable liquids* or *combustible liquids* is secondary to the principal activity. (See Appendix A.)

A-4.2.8.1.(1) Subsection 4.2.8. applies to those portions of an industrial occupancy where the use, storage and handling of flammable and combustible liquids is only incidental, or secondary to the principal activity. The word "incidental" does not imply "small quantity" or "insignificant amount." Manufacturers of electronic equipment, furniture and reinforced plastic boats, and automobile assembly plants are typical examples of locations where the use of flammable and combustible liquids is secondary to the principal activity of manufacturing consumer products. In storage areas otherwise governed by Part 3 of this Code, Subsection 4.2.8. applies to the "incidental" storage of flammable and combustible liquids that is deemed to be secondary to the principal activity of storing commodities covered in Part 3. This includes the storage of used lubricating oil in the warehouse portion (industrial occupancy) of a retail outlet. Subsection 4.2.8. also applies to the storage of used lubricating oil at motor vehicle repair and service garages because such storage is secondary to the principal activity of repairing and servicing motor vehicles.

4.3.12.1. Occupancy

1) Except as provided in Article 4.3.12.2., *storage tanks* inside *buildings* shall

a) conform to Subsections 4.3.12. to 4.3.14., and

b) be permitted only in *industrial occupancies*.

2) Except as permitted by Sentence (3), rooms and *floor areas* used for the storage of *flammable liquids* in *storage tanks* inside *buildings* shall be classified as Group F, Division 1 *occupancies* in conformance with the Alberta Building Code 2006. (See Appendix A.)

3) Subject to Subsection 4.1.7. and Articles 4.3.5.2. and 4.3.6.4., *storage tank systems* used for the collection of used lubricating oil are permitted inside *buildings* classified as Group F, Division 2 and Division 3 *major occupancies*.

¹

All references are to the Alberta Fire Code, Division B, unless otherwise stated

4.3.12.7. Storage Tanks outside Storage Rooms

1) Where *storage tanks* for *flammable liquids* or *combustible liquids* are located outside of storage rooms conforming to Subsection 4.3.13.

a) provision shall be made to contain 100% of the volume of the largest *storage tank*, or to drain away spilled *flammable liquids* or *combustible liquids*, and

b) the area in which the *storage tanks* are located shall be ventilated (see Appendix A).

A-4.3.12.7.(1)(b) The area that should be considered for ventilation is the space occupied by the tanks and extending to a distance that is classified electrically as Class I, Zone 2, when no ventilation is provided.

INTENT:

For some time the above Appendix reference to Clause 4.1.1.1.(3)(b) has been interpreted to include any flammable or combustible liquid storage tank that is not an integral part of equipment or appliances within the scope of CAN/CSA-B139, "Installation Code for Oil-Burning Equipment." This interpretation remains valid and falls within the parameters of the note to 1.1 of CAN/CSA-B139 which states:

"...Tank installations may also be governed by the requirements of the authority having jurisdiction."

INTERPRETATION:

An aboveground storage tank containing up to 5000L of used oil connected to oil burning equipment is considered incidental use to the primary activity of the building as per Sub Section 4.2.8.

All tanks for the storage of used-oil, connected to an appliance or not, must meet the requirements of the AFC.

AFC requirements related to ventilation, site sensitivity classification, registration, secondary containment, testing, maintenance, repair, leak detection, corrosion protection testing, and removal of storage tank systems shall apply to indoor used oil storage tanks which are utilized to fuel used oil burning appliances that are certified, installed and maintained in accordance with CAN/CSA – B139, "Installation Code for Oil-Burning Equipment."

This Interpretation applies throughout the Province of Alberta.