

December 1993

92 FCR 002  
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## ABOVEGROUND STORAGE TANKS AT SERVICE STATIONS.

### Issue:

Increasing concern over leaking underground storage tanks have resulted in more restrictive regulations for the installation of underground storage tanks. These restrictions are being reflected in a trend to replace underground tanks with aboveground tanks.

### Background:

A number of new products have been developed in response to an increased demand for aboveground storage tanks having in most cases a capacity not exceeding 50 000 L. Many service station sites have space constraints that make it difficult to comply with the minimum clearance requirements of the Alberta Fire Code (AFC) contained in Article 4.5.2.1.

Sentence 4.5.2.1.(4) requires service stations not to locate aboveground storage tanks within 15 m of buildings or areas to which public has access. This limitation is unique to service stations and has no equivalent in the AFC for any other occupancy types. It may have resulted due to a concern for vehicular traffic and associated collision hazard normally encountered at a service station. Aboveground storage tanks are not similarly restricted at many other occupancy types where buildings may represent a more severe life or fire safety challenge than service stations. For example, a 250 000 L aboveground storage tank is permitted under Article 4.3.2.1. to be located 3 m away from any type of building. This would allow a tank to be located in a high vehicular traffic parking lot, access roadway or loading/unloading area of a hospital, school, apartment tower or high hazard industrial plant.

With regard to the above information proposals have been received by the National Research Council of Canada to remove the 15 m limitations from the 1995 National Fire Code

### Code Requirements:

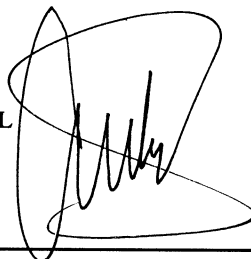
Sentence 4.5.2.1.(4) states:

(4) Except as permitted in Sentence 4.3.19.1.(3), the aboveground storage of *flammable liquids* and *combustible liquids* at a *service station* shall be limited to not more than 250 L of *flammable liquid* and 2 500 L of *combustible liquid* with a flash point below 60°C if the liquids are stored less than 15 m from

- (a) a *building*, or
- (b) an area of the property where the public has access.

ISSUE OF THIS RULING IS AUTHORIZED  
UNDER ARTICLE 1.1.4.4. OF THE ALBERTA  
FIRE CODE 1992 BY THE SENIOR TECHNICAL  
OFFICER, FIRE STANDARDS.

C.M.TYE



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**LABOUR**

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**RULING:**

- (1) Except as provided in Sentences (2) and (3), the installation of outside aboveground storage tanks at service stations must be in conformance with the requirements of Subsection 4.3.2.
- (2) Outside aboveground storage tanks at service stations must have an individual capacity of not more than 50 000 L, and their aggregate capacity must not exceed 150 000 L.
- (3) Outside aboveground storage tanks at service stations must be provided with
  - (a) physical protection against collision damage,
  - (b) measures to prevent unauthorized access to the storage tank and its ancillary equipment, and
  - (c) measures to contain accidental spillage.

Particular attention must be paid to self contained aboveground storage tank systems that incorporate dispensing devices to ensure the devices are located and installed in accordance with Article 4.5.3.2.

**NOTE:** The requirements of this Ruling also apply to the outside aboveground storage of used oil outlined in Sentences 4.3.19.1.(3) and (4).

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