

Section 3.3. Outdoor Storage

3.3.1. Scope

3.3.1.1. Application

- 1) Except as permitted in Sentence (2), this Section shall apply to the outdoor storage of the following products:
 - a) Class III and IV commodities, and Group A, B and C plastics, as described in Section 3.2.,
 - b) rubber tires,
 - c) forest products, including lumber, timber and wood pallets,
 - d) forest by-products, including wood chips and hogged material (see Note A-3.3.1.1.(1)(d)),
 - e) manufactured *buildings* (see Note A-3.3.1.1.(1)(e)),
 - f) wrecked vehicles in salvage yards, and
 - g) *dangerous goods* in packages or containers, as covered in Subsection 3.3.4.
- 2) This Section shall not apply to
 - a) a site where the total storage area is not more than 100 m², except
 - i) for distance requirements between stored products and a *building*, and
 - ii) requirements for *dangerous goods* classified as compressed gases in Subsection 3.3.5.,
 - b) Class I and II commodities, as classified in Section 3.2.,
 - c) intermodal shipping containers, except when containing *dangerous goods* (see Note A-3.3.1.1.(2)(c)),
 - d) buried products and landfill operations,
 - e) products stored on the roof of a *building*,
 - f) vehicles in parking areas or parking lots,
 - g) logs and similar untreated forest products in ranked piles (see Note A-3.3.1.1.(2)(g)), or
 - h) bulk products, except as described in Clause (1)(d).

3.3.2. General

3.3.2.1. Application

1) Unless otherwise specified, this Subsection shall apply to the outdoor storage of any product covered in this Section.

3.3.2.2. Height

- 1) The maximum permitted height of any *individual storage area* shall
 - a) be determined to ensure the physical stability of the stored products under normal circumstances as well as under fire conditions,
 - b) be determined according to its base area and shape, and the type of packaging, combustibility and chemical reactivity of the stored products, and
 - c) not exceed the limits specified in Subsections 3.3.3. and 3.3.4.

3.3.2.3. Individual Storage Areas and Clearances

- 1) Except as provided in Sentence (2), the size limits and clearances for *individual storage areas* shall conform to Subsections 3.3.3. and 3.3.4.
- 2) An outdoor storage area shall be arranged such that there is a clear space of not less than
 - a) 30 m between stored products and brush or forested areas, and
 - b) 6 m between stored products and uncontrolled grass or weeds.

3.3.2.4. Storage beneath Power Lines

- 1) Products covered in this Section shall not be stored beneath electrical power lines.

3.3.2.5. Fire Department Access

1) Except as provided in Sentence (2), an access route constructed in conformance with Subsection 3.2.5. of Division B of the British Columbia Building Code shall be provided to permit the approach of fire department vehicles to within 60 m travelling distance of any part of an *individual storage area*.

2) Where the total storage area exceeds 6 000 m², the access route required in Sentence (1) shall be connected with a public thoroughfare in at least 2 locations.

3.3.2.6. Fencing

- 1) An outdoor storage area shall be surrounded by a firmly anchored fence that is
 - a) substantially constructed to discourage climbing and unauthorized entry,
 - b) not less than 1.8 m high, and
 - c) provided with gates that shall be locked when the storage area is not staffed.

2) When in a fire department access route, the gates required in Clause (1)(c) shall be of adequate width and design, and in a location that readily permits the entry of fire department vehicles, in conformance with Article 3.3.2.5. (See Note A-3.3.2.6.(2).)

3.3.2.7. Maintenance

- 1) Any access route, gateway or clear space required in this Section shall be
 - a) maintained in conformance with Section 2.5., and
 - b) kept free of obstructions and piles of snow.

2) Private hydrants, fire department connections and private valves controlling water supplies to fire protection systems shall be

- a) maintained in conformance with Part 6, and
- b) kept accessible to firefighters and their equipment at all times.

3.3.2.8. Ignition Sources

1) Unless controlled in a manner that will not create a fire hazard, a device, operation or activity that produces open flames, sparks or heat shall not be permitted in an outdoor storage area. (See Note A-4.1.5.2.(1).)

2) Except as provided in Subsection 2.4.2., smoking shall not be permitted in an outdoor storage area.

3) Except as provided in Subsection 2.6.2., the burning of materials in an outdoor storage area shall be performed only in a burner that is

- a) designed, constructed and maintained in conformance with good engineering practice, and
- b) located not less than 15 m from a *building* or stored products.

3.3.2.9. Fire Safety Plan

1) A fire safety plan conforming to Section 2.8. and Sentences (2) and (3) shall be prepared.

2) The fire safety plan required in Sentence (1) shall identify

- a) the location and classification of the products currently stored, as described in Sentence 3.3.1.1.(1),
- b) the method of storage, including the clear spaces required and the maximum permitted size of *individual storage areas*,
- c) the location of fire alarm systems and firefighting equipment, and
- d) the control of fire hazards in and around the outdoor storage area.

3) At least one copy of the fire emergency procedures shall be prominently posted at the outdoor storage site.

3.3.2.10. Portable Extinguishers

- 1) Any *building* located in an outdoor storage area shall be provided with portable extinguishers.
- 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.

3.3.2.11. Site Preparation

- 1) The storage site shall be
 - a) level, and
 - b) solid ground or paved with asphalt, concrete or other hard surface material.

3.3.2.12. Fuel Dispensing

- 1) Except as provided in Sentence (2), the dispensing of *flammable liquids* or *combustible liquids* into the fuel tank of a vehicle shall conform to Section 4.6.
- 2) A clear space of not less than 6 m shall be maintained between the stored products and fuel dispensers.

3.3.2.13. Spill Control

- 1) Provision shall be made for the safe drainage and containment of waste oils or *dangerous goods* emptied or escaping from stored products under normal storage conditions or in a fire situation, in conformance with Subsection 4.1.6.

3.3.2.14. Fire Separation

- 1) It is permitted to reduce the clear space between *individual storage areas* prescribed in this Section if a noncombustible *fire separation* or a dirt berm, not less than 1.5 times the height of the stored products, is provided.

3.3.2.15. Fire Protection

- 1) It is permitted to increase the height and size of *individual storage areas* prescribed in this Section if fire extinguishing measures conforming to good engineering practice are provided.

3.3.3. General Outdoor Storage**3.3.3.1. Application**

- 1) This Subsection applies to the outdoor storage of products other than *dangerous goods*.

3.3.3.2. Individual Storage Areas and Clearance

- 1) Except as provided in Sentences (2) to (4), the size and clearances for *individual storage areas* shall conform to Table 3.3.3.2. (See Note A-3.3.3.2.(1).)
- 2) Except as permitted in Sentences (3) and (4), a clear space of not less than 15 m shall be maintained between stored products and a *building* on the same property to reduce the risk of fire spreading from the outdoor storage area to the *building*.

Table 3.3.3.2.
Size and Clearances for Individual Storage Areas (ISA)
 Forming Part of Sentence 3.3.3.2.(1)

Product Classification ⁽¹⁾	Max. Base Area, m ²	Max. Height of Storage, m	Min. Clear Space Around Each ISA, m
Class III and IV commodities, Group A, B and C plastics, lumber, timber, manufactured buildings, wrecked vehicles	1 000	≤ 3	6
	1 000	> 3 but ≤ 6	twice the height of storage
Wood chips, hogged material	15 000	18	9
Rubber tires, combustible pallets	1 000	3	15

Notes to Table 3.3.3.2.:

(1) See Sentence 3.3.1.1.(1).

- 3)** It is permitted to waive the clearance required in Sentence (2) if
- the stored products do not consist of wood chips, hogged material, rubber tires or combustible pallets,
 - the exposed wall of the *building* has a *fire-resistance rating* of not less than 2 h, and
 - the stored products are separated from any unprotected wall opening by a horizontal distance of not less than
 - 3 m on either side of the opening, and
 - 6 m perpendicularly in front of the opening.

4) It is permitted to waive the clearance required in Sentence (2) if an *individual storage area* has a base area not greater than 5 m².

3.3.3.3. Rubber Tires

1) Any access route required in Article 3.3.2.5. shall be located so that a clear space of not less than 6 m is provided between stored rubber tires and the nearest side of the access route.

3.3.4. Outdoor Storage of Dangerous Goods

3.3.4.1. Application

1) Except as provided in Part 4 or otherwise specified in this Code, this Subsection applies to the outdoor storage of *dangerous goods* in packages or containers.

2) The storage of *dangerous goods* in quantities exceeding the maximum exempted amounts stated in Table 3.2.7.1., in a single *individual storage area*, shall conform to this Subsection.

3) Where a product has multiple classes, the applicable small quantity exemption referred to in Sentence (2) shall be determined using

- Column A of Table 3.2.7.1. based on the class having precedence, as established in Section 2.8 of TC SOR/2008-34, “Transportation of Dangerous Goods Regulations (TDGR),”
- Column B of Table 3.2.7.1. based on the class having precedence, as established in Table A-3.2.7.1.(3)(b), for controlled products under the “Workplace Hazardous Materials Information System (WHMIS)” as classified in Part 7 of HC SOR/2015-17, “Hazardous Products Regulations,” or
- when the class having precedence cannot be established, Column C of Table 3.2.7.1. based on the lesser of the two small quantity exemptions.

(See Note A-3.2.7.1.(3).)

3.3.4.2. Individual Storage Areas and Clearances

- 1) An *individual storage area* for *dangerous goods* shall not be greater than 1 000 m².
- 2) Except for the distance between a *building* and cylinders of *dangerous goods* classified as compressed gases, a clear space of not less than 6 m shall be provided around each *individual storage area* for *dangerous goods*.
(See Note A-3.3.3.2.(1).)
- 3) *Dangerous goods* shall not be stored to a height greater than 6 m.

3.3.4.3. Separation from Other Dangerous Goods

- 1) Except as provided in Sentences (2) and 3.3.4.8.(1), *dangerous goods* shall be separated from other *dangerous goods* in conformance with Article 3.2.7.6.
- 2) Incompatible *dangerous goods* that are not allowed in Table 3.2.7.6. to be stored in the same *fire compartment* are permitted to be separated by a minimum horizontal distance of 3 m in lieu of a *fire separation* when in an outdoor storage area.

3.3.4.4. Separation from Combustible Products

- 1) *Dangerous goods* and other products described in Sentence 3.3.1.1.(1) shall not be stored in the same *individual storage area*.

3.3.4.5. Identification

- 1) The outdoor storage of *dangerous goods* shall conform to Articles 3.2.7.13. and 3.2.7.14.

3.3.4.6. Training

- 1) The training of personnel involved in the outdoor storage of *dangerous goods* shall conform to Article 3.2.7.15.

3.3.4.7. Safety Precautions

- 1) When *dangerous goods* are stored outside of a *building*, safety precautions shall be taken to prevent undesirable reactions from the effects of atmospheric conditions.
- 2) Damaged or leaking packages or containers of *dangerous goods* shall be moved to a safe location and the product repackaged and labelled as soon as possible.

3.3.4.8. Intermodal Shipping Containers

- 1) Intermodal shipping containers used for the transportation of *dangerous goods*, as well as their contents, shall be stored in conformance with the segregation requirements stated in IMO 2012, “International Maritime Dangerous Goods Code.” (See Note A-3.3.1.1.(2)(c).)

3.3.5. Outdoor Storage of Compressed Gases

3.3.5.1. Application

- 1) Except as provided in Subsection 3.1.1., this Subsection applies to the outdoor storage of *dangerous goods* classified as compressed gases.

3.3.5.2. Location

- 1) Where cylinders of *dangerous goods* classified as compressed gases are stored outdoors, they shall be
 - a) supported on raised concrete or other noncombustible platforms, and
 - b) located in an enclosure fenced in conformance with Article 3.3.2.6.

3.3.5.3. Clearances

1) Except as provided in Sentence (2), cylinders of anhydrous ammonia or *dangerous goods* classified as flammable or toxic gases that are stored outdoors shall be not less than

- a) 1.5 m from any *building* opening, if the aggregate capacity of expanded gas is not more than 170 m³,
- b) 7.5 m from any *building* opening, if the aggregate capacity of expanded gas is more than 170 m³ but less than 500 m³, and
- c) 15 m from any *building* opening, if the aggregate capacity of expanded gas is 500 m³ or more.

(See Note A-3.2.8.2.(2).)

2) The distances required in Sentence (1) need not apply where the *building* opening leads into a room conforming to Subsection 3.2.8. that is used for storing *dangerous goods* classified as compressed gases.