

# Racking Permit Requirements



## What am I required to submit to initiate the permitting process?

- (CMI) [Permit application](#)
- Combustible Stock Storage Questionnaire** (Page 2 of handout)
- Email to [eplans@cityofvancouver.us](mailto:eplans@cityofvancouver.us)**

## Before uploading anything be aware that:

**Washington licensed engineer** required for racks **8' or greater in height.** (Stamp dated & signed)

**Existing storage racks in new location** required to comply with current IBC loading. Posted load equal or less than original. (IEBC 1302.)

## DRAWINGS

- ◇ **Site Plan** Applicable: Exterior Racking, max storage height of 20'
- Building Floor Plan**
  - Racking outlines with dimensioned aisles
  - Life Safety: Required Exits & egress path identified, Rated Walls
  - Portable Fire Extinguisher locations (IFC Section 906)
  - Indicate plaque requirement (ANSI MH16.1-2011 Section 1.4.2)
- Elevation(s) or Section(s) from Floor to Roof.**
  - Overall Height of racking & Maximum height of commodities stored on the top shelf.
  - Top shelf to roof deck, structural members(s), Sprinkler heads
- Details**
  - Anchorage & Connections

## DOCUMENTS

- Manufacturer's specifications & installation instructions.**
- ◇ **Structural calculations** for racking itself & racking anchorage. (IBC 2209 & RMI ANSI/MH 16.1-12)
- ◇ **Detailed evaluation of the existing sprinkler design including density, head types & temperatures, NFPA 13 design curve used, etc. Also show the zones of the sprinkler system.**

## SEPARATE (FRI) PERMITS REQUIRED FOR FIRE PROTECTION

- ◇ **After completion of work, [Fire code operational permit](#) is required for High Piled Storage** (IFC 105.6.23)

• [eplans@cityofvancouver.us](mailto:eplans@cityofvancouver.us) • 360-487-7800 • [Design Loads & Adopted Codes](#) •  
• [Vanfmo@cityofvancouver.us](mailto:Vanfmo@cityofvancouver.us) • 360-487-7260 • [planreview@cityofvancouver.us](mailto:planreview@cityofvancouver.us) • 360-487-7828 •

## Building Code Information

A building permit is required for racking **exceeding 5' 9" in height** (VMC 17.08.010 and 17.08.090.)

Due to Vancouver being within seismic design category D, **Special Inspections** are required for storage racks **8' or greater in height** (IBC 1705.12.7 and IBC 2209)

**Combustible commodities stored 12' or higher** require sprinklers, regardless of the room or building. Buildings built prior to 1995 typically do not have Early Suppression Fast Response (ESFR) Sprinkler heads.

Storage **greater than 12'** high qualifies as **High-Piled Storage**. For **High Hazard commodities** the top of storage is **greater than 6'** in height qualifies as **High-Piled Storage** (IFC 202.)

**Fire department access doors** may be required depending on **area** of high piled storage and **commodity class** (3203) per Table 3206.2. If required, section 3206.6.1.1 specifies access doors with markings complying with 3206.7.4 provided every 125 linear feet on exterior walls that face required fire apparatus access roads. Exception: existing buildings with no occupancy change, 200' allowed.

## LEGEND

- REQUIRED ITEM
- ◇ REQUIRED DEPENDING ON SCOPE
- DESCRIPTION OF REQUIREMENTS



# Combustible Stock Storage Questionnaire



Business Name: \_\_\_\_\_

Business Address: \_\_\_\_\_

The purpose of this questionnaire is to assist in determining the Fire Code requirements for the storage of \*High Piled Combustible Stock\* at your facility. These requirements will be based on the 2018 IBC, 2018 IFC Chapter 23 and NFPA 13-16. This form should be completed by a qualified person having the necessary code knowledge required for Combustible Stock Storage, e.g. architect or engineer of record, code consultant, insurance underwriter or fire protection engineer.

1. Commodity Class: \_\_\_\_\_ Source: IFC \_\_\_\_\_ NFPA \_\_\_\_\_  
Aerosol Level III:  Yes  No Class I, II, III, IV, High Hazard (V) (lowest to highest): \_\_\_\_\_

2. Description of storage (if additional space is needed, attach additional page): \_\_\_\_\_

Public/Private areas: \_\_\_\_\_

3. Maximum height of storage: \_\_\_\_\_ feet (distance from floor to top of commodity)

4. Method of storage (check all that apply)
- |   |   |
|---|---|
| <input type="checkbox"/> Encapsulated in plastic  | <input type="checkbox"/> Non-encapsulated                         |
| <input type="checkbox"/> Wooden pallets   | <input type="checkbox"/> Plastic pallets (type)                   |
| <input type="checkbox"/> On racks with solid shelves  | <input type="checkbox"/> On racks without solid shelves           |
| <input type="checkbox"/> Bin box made of: (check one)   | <input type="checkbox"/> Solid pile that is: (check one)          |
| <input type="checkbox"/> metal <input type="checkbox"/> wood <input type="checkbox"/> plastic | <input type="checkbox"/> stable <input type="checkbox"/> unstable |

5. Types of racks: (check all that apply)  
 single row  double row  multiple row

6. Area of storage:
- |   |  |  |
|---|--|--|
| <input type="checkbox"/> 0 - 500 sq ft        | <input type="checkbox"/> 12,000 - 20,000 sq ft   | <input type="checkbox"/> 300,001 - 500,000 sq ft |
| <input type="checkbox"/> 501 - 2,500 sq ft    | <input type="checkbox"/> 20,001 - 100,000 sq ft  | <input type="checkbox"/> 500,001 sq ft and over  |
| <input type="checkbox"/> 2,501 - 12,000 sq ft | <input type="checkbox"/> 100,001 - 300,000 sq ft | <input type="checkbox"/> 2 hour separation       |

7. Sprinkler information:
- a. Sprinkler density: \_\_\_\_\_ b. Rack sprinklers?  Yes  No
- c. Temperature rating of sprinkle head in:  Ceiling  Racks
- d. Fire hose stations and hose connections?  Yes  No Number required: \_\_\_\_\_ Size: \_\_\_\_\_
- e. Fire flow worksheet completed:  Yes  No Design cross-checked:  Yes  No
- f. Class 1 standpipes required:  Yes  No

8. Building height: \_\_\_\_\_ feet 9. Distance from top of storage to fire sprinkler deflector: \_\_\_\_\_ feet

10. Smoke/heat vents:  Yes  No Ratio: \_\_\_\_\_ square feet

11. Draft curtains:  Yes  No \_\_\_\_\_ sq ft sections Depth:  4 feet  6 feet  8 feet

12. Column/wall fire protection required:  Yes  No Additional fire sprinkler heads:  Yes  No  
Protected by listed/tested assembly :  Yes  No Description: \_\_\_\_\_

13. Aisle width between racks and storage: \_\_\_\_\_ feet

14. Smoke detection system:  Yes  No

15. Maximum cubic feet per pile: (choose one)  
 0 - 50,000 cu ft  50,001 - 100,000 cu ft  100,001 - 200,000 cu ft  200,001 - 400,000 cu ft

16. Access roadways within 150 feet of all portions of exterior walls:  Yes  No

17. Access doors provided every 125 lineal feet on exterior walls which face access roadways:  Yes  No

18. Alternate materials/methods requested:  Yes  No