



LAS VEGAS FIRE & RESCUE

Fire Prevention Division

Information Sheet



The items listed are basic information only. Please refer to adopted codes for specific details. Codes are subject to change. Additional requirements may apply.

Effective Date: January 5, 2026

Ordinance # 6918

High Piled Combustible Storage

High-Piled Combustible Storage is storage of combustible materials in closely packed piles or combustible materials on pallets, in racks or on shelves where the top of storage is greater than 12 feet in height. Where required by the fire code official, high piled combustible storage also includes high-hazard commodities, such as rubber tires, Group A plastics, flammable liquids, idle pallets and similar commodities, where the top of the storage is greater than 6 feet in height. IFC Chapter 2

An operational permit is required to use a building or portion thereof as a high-piled storage area exceeding 500 ft². IFC 105.5.24

At the time of building permit application for new structures designed to accommodate high-piled storage or for requesting a change of occupancy/use, and at the time of application for a storage permit, plans and specifications shall be submitted for review and approval. In addition to the information required by the International Building Code, the storage permit submittal shall include the information specified in this section. The construction documents shall include all of the following:

1. Floor plan of the building showing locations and dimensions of high-piled storage areas.
2. Usable storage height for each storage area.
3. Number of tiers within each rack, if applicable.
4. Commodity clearance between top of storage and the sprinkler deflector for each storage arrangement.
5. Aisle dimensions between each storage array.
6. Maximum pile volume for each storage array.
7. Location and classification of commodities in accordance with Section 3203 .
8. Location of commodities that are banded or encapsulated.
9. Location of required fire department access doors.
10. Type of fire protection systems.
 - a. For density/area fire sprinklers protecting the high-piled storage area, indicate the sprinkler identification number (SIN), the sprinkler k factor, square footage of the remote area, and the system design density. If the SIN is not available, a copy of the manufacturer specification sheet for the sprinkler head is required.
 - b. For specific application sprinklers, such as large-drop and ESFR sprinklers, protecting the high-piled storage area, indicate the sprinkler identification number (SIN), the sprinkler k factor, the number of sprinkler heads in the remote area, and the minimum residual pressure provided at the most hydraulically demanding sprinkler head. If the SIN is not available, a copy of the manufacturer specification sheet for the sprinkler head is required.
11. Location of valves controlling the water supply of ceiling and in-rack sprinklers.
12. Type, location and specifications of smoke removal and curtain board systems.
13. Dimension and location of transverse and longitudinal flue spaces.
14. Additional information regarding required design features, commodities, storage arrangement and fire protection features within the high-piled storage area shall be provided at the time of permit, where required by the fire code official. SNFC 3201.3

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A floor plan, of legible size, shall be provided, mounted on a wall and protected from damage. The floor plan shall be mounted in an approved location and show the following:

1. Locations, dimensions and rack layout of high-piled storage areas.
2. Design storage height for each storage area.
3. Types of commodities.
4. Commodity clearance between top of storage and the sprinkler deflector for each storage arrangement.
5. Aisle dimensions between each storage array.
6. For palletized and solid-piled storage, the maximum pile volume for each storage array.
7. Location and classification of commodities in accordance with Section 3203.
8. Location of required fire department access doors.
9. Location of valves controlling the water supply of ceiling and in-rack sprinklers. IFC 3201.3.2

Where required by Section 403, a fire safety and evacuation plan shall be submitted at the time of permit application for review and approval. A copy of the approved fire safety and evacuation plan shall be maintained on the premises in an approved location. IFC 3201.4

Commodities shall be classified as Class I, II, III, IV or high hazard in accordance with Sections 3203.2 through 3203.10.3. Materials listed within each commodity classification are assumed to be unmodified for improved combustibility characteristics. Use of flame-retarding modifiers or the physical form of the material could change the classification. IFC 3203.1

High-piled storage areas, and portions of high-piled storage areas intended for storage of a different commodity class than adjacent areas, shall be designed and specifically designated to contain Class I, Class II, Class III, Class IV or high-hazard commodities. The designation of a high-piled storage area, or portion thereof intended for storage of a different commodity class, shall be based on the highest hazard commodity class stored except as provided in Section 3204.2. IFC 3204.1

The approved storage layout shall be verified and evaluated annually in accordance with Section 3201.3.2. Modifications or changes to the provisions of the approved storage layout shall not be made without the prior approval of the fire code official. IFC 3205.1

The structural integrity of racks shall be maintained. IFC 3205.2

Smoking shall be prohibited and approved "No Smoking" signs shall be conspicuously posted in accordance with the International Fire Code section 310. IFC 3205.4

When restocking is not being conducted, aisles shall be kept clear of storage, waste material and debris. Fire department access doors, aisles and exit doors shall not be obstructed. During restocking operations using manual stocking methods, a minimum unobstructed aisle width of 24 inches (610 mm) shall be maintained in 48-inch (1219 mm) or smaller aisles, and a minimum unobstructed aisle width of one-half of the required aisle width shall be maintained in aisles greater than 48 inches (1219 mm). During mechanical stocking operations, a minimum unobstructed aisle width of 44 inches (1118 mm) shall be maintained in accordance with Section 3206.10.

Exception: In high-piled single- and double-row rack storage of combustible materials protected by automatic sprinkler systems designed and installed in accordance with the requirements of NFPA 13 governing the use of K-25.2 (360) sprinklers, displays and wing stacks not exceeding 48 inches (1219 mm) in height provided that they do not obstruct or reduce the clear width of the aisle to less than 48 inches (1219 mm). IFC 3205.5

Where required by the fire code official, a visual method of indicating the maximum allowable storage height shall be provided. IFC 3205.7

Where required by Table 3206.2, fire detection systems, smoke and heat removal and automatic sprinkler design densities shall be provided to protect the high-piled storage area. IFC 3206.2

Where fire department access doors are required by Table 3206.2, fire department access doors shall be provided in accordance Sections 3206.7.1 through 3206.7.8. IFC 3206.7

Portable fire extinguishers shall be provided in accordance with Section 906. IFC 3206.11

Where smoke and heat removal is required by Table 3206.2 it shall be provided in accordance with Section 910. IFC 3206.8

Where exit passageways are required by the International Building Code for egress, a Class I standpipe system shall be provided in accordance with Section 905. IFC 3206.9