

HIGH-PILED STORAGE APPLICATION

Section I. General Information

Project Name/Tenant: _____

Phone Number: _____

Site Address: _____

Building/Unit/Suite: _____

Applicant: _____

Phone Number: _____

High Piled Combustible Storage Permit is required for a building or space for storage of commodities if >500 square feet [footprint including aisles] in the following configurations:

1. Combustible materials on pallets, on floor, in racks, or on shelves where the top of the storage is greater than 12 feet in height.
2. 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 six feet.

If High Piled Combustible Storage Permit is not required, fill out only Sections I, II, IV, and V.

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Section II. Commodities

Materials (Be specific), Include Description of Product, Packaging, and Type of Pallet (Plastic or Wood)	Aisle Width	Max Storage Ht. Floor To top of product	Cartoned Or Open Top Containers Or Bin box?	Encapsulated (Y/N)	Palletized Floor or Solid Piled Storage?	Single Row, Double Row or Multiple Row Racks, Shelf, Automated or Carousel?	Solid Shelving (Y/N)

Total Sq. Ft. Storage Area: _____

1-Hour Fire Barrier Wall Between Adjacent Tenant Spaces? Yes _____ No _____ NA _____

Ceiling/Roof Height [Measured From Floor to Bottom of Roof Deck or Insulation at the Peak]: _____

For Fire Dept; (Please circle one) FACILITY COMMODITY CLASSIFICATION I II III IV

High Hazard/Expanded Group A

High Hazard/Unexpanded Group A

Section III. High Piled Storage

- Smoke Detection System Provided? Yes _____ No _____
- Exit Passageway required? Yes* _____ No _____ If yes, Fire Hose Connections provided? Yes* _____ No _____
- Draft curtains provided? Yes ___ No__ Curtain depth* _____ over _____ sq. ft. area
 - Auto. Smoke/Heat Vents provided? Yes* _____ No _____ If yes, Smoke/Heat Vent Ratio* _____/_____
 - Mechanical Smoke Removal provided in lieu of smoke/heat vents? Yes* _____ No _____ If Yes, _____ cfm
- Floor plan of proposed storage arrangements attached? Yes _____ No _____
 - Fire Department Access: Roads provided? Yes* _____ No _____ Doors provided? Yes* _____ No _____
- Rack Storage? Yes* _____ No _____ If yes, Transverse Flue _____ in. Longitudinal Flue _____ in.
- Floor/Palletized Storage? Yes* _____ No _____ If yes, Maximum Pile Dimension _____
- Automatic Sprinkler System: Fill Out section a, b, c, or d as applicable

Section a. Control Mode Density Sprinkler System

Sprinkler System Design Density: NFPA 13 Table & Curve Fig. No. & Curve: Hose Demand:	Sprinkler In-Racks? Yes _____ No _____ Levels: Number & Pressure Calculated:
Sprinkler K-Factor:	Apply Fig. 12.3.2.1.5.1? Yes _____ No _____
Clearance:	Sprinkler Link Temperature: _____ °F

Section b. ESFR Sprinkler System

NFPA 13 Table: 12 sprinkler heads calculated @ _____ psi Hose Demand:	Sprinkler In-Racks? Yes _____ No _____ Levels: Number & Pressure Calculated:
Sprinkler K-Factor:	Clearance:

Section c. Control Mode Specific Application

NFPA 13 Table: _____ sprinkler heads calculated @ _____ psi Hose Demand:	Sprinkler In-Racks? Yes _____ No _____ Levels: Number & Pressure Calculated:
Sprinkler K-Factor:	Clearance:

Section d. Other: Specify NFPA 13 Referenced Sections _____

- Protection extended 15' or to a permanent partition? Yes _____ No _____

Section IV. Miscellaneous Plastics Storage & Storage of Class I-IV to 12' in height & Group A Plastics to 6' in height

Automatic Sprinkler System Provided? Yes ___ No ___ If yes, Design Density _____ Hose Demand _____

Section V. Reviews & Signatures

I hereby certify all the storage of high pile stock will be limited as indicated above.

Signature Owner or Occupant: _____ Date: _____

City Staff Review: _____ Date: _____

***Note: Provide Reference Plan. Please Indicate all Fire Exits on storage arrangement floor plan.**

Section VI. Explanatory Material

High Piled Storage - 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 (3658 mm) in height. When required by the *fire code official*, *high-piled combustible storage* also includes certain high-hazard commodities, such as rubber tires, Group A plastics, flammable liquids, idle pallets and similar commodities, where the top of storage is greater than 6 feet (1829 mm) in height.

Encapsulation - A method of packaging consisting of a plastic sheet completely enclosing the sides and top of a pallet load containing a combustible commodity or a combustible package or a group of combustible commodities or combustible packages. Combustible commodities individually wrapped in plastic sheeting and stored exposed in a pallet load also are to be considered encapsulated. Totally noncombustible commodities on wood pallets enclosed only by a plastic sheet as described are not covered under this definition. Banding (i.e., stretchwrapping around the sides only of a pallet load) is not considered to be encapsulation. Where there are holes or voids in the plastic or waterproof cover on the top of the carton that exceed more than half of the area of the cover, the term *encapsulated* does not apply. The term *encapsulated* does not apply to plastic-enclosed products or packages inside a large, nonplastic, enclosed container.

Commodity - A commodity is a combination of products, packaging materials, containers, and pallets. Commodity classification is required to be done in accordance with CFC Section 2303.

Clearance - The distance from the top of storage to the ceiling sprinkler deflectors.

Ceiling/Roof Height - The distance between the floor and the underside of the roof deck or insulation within the storage area. As a worst case sprinkler demand, this measurement should be provided for the peak.

Storage Height - Storage of commodities on rack, floor, shelf etc. measured from floor to top of highest storage.

Rack - Any combination of vertical, horizontal, and diagonal structural members that support stored materials or commodities.

Solid Shelf - Solid shelving is fixed in place, slatted, wire mesh, or other type of shelves located within racks. The area of a solid shelf is defined by perimeter aisle or flue space on all four sides. Solid shelves having an area equal to or less than 32 ft² (1.9m²) measured between approved flue spaces at all four edges of the shelf shall be defined as open racks. Racks with mesh, grated, slatted or similar shelves having uniform openings not more than 6 inches (152 mm) apart, comprised of at least 50 percent of the overall shelf area, and with *approved* flue spaces are allowed to be treated as racks without solid shelves. Racks used for the storage of combustible paper records, with solid shelving, protected in accordance with NFPA 13 need not be considered as racks with solid shelving.

Palletized/Floor - Storage of commodities on pallets or other storage aids that form horizontal spaces between tiers of storage. Palletized storage does not include pallet

Miscellaneous Storage - Storage that does not exceed 12 ft (3.66 m) in height and is incidental to another occupancy use group. Such storage shall not constitute more than 10 percent of the building area or 4000 ft² (372 m²) of the sprinklered area, whichever is greater. Such storage shall not exceed 1000 ft² (93m²) in one pile or area, and each such pile or area shall be separated from other storage areas by at least 25 ft (7.62 m).

Aisle Width - The horizontal dimension between the face of the loads in racks under consideration.

Open-Top Container - A container of any shape that is entirely or partially open on the top.

Single-Row Racks - Racks that have no longitudinal flue space and that have a depth up to 6 ft (1.8 m) with aisles having a width of at least 3.5 ft (1.1 m) between loads on racks.

Double-Row Racks - Racks less than or equal to 12 ft (3.7 m) in depth or single-row racks placed back to back having an aggregate depth up to 12 ft (3.7 m), with aisles having an aisle width of at least 3.5 ft (1.1 m) between loads on racks.

Multiple-Row Racks - Racks greater than 12 ft (3.7 m) in depth or single- or double-row racks separated by aisles less than 3.5 ft (1.1 m) wide having an overall width greater than 12 ft (3.7 m).

Automated Rack Storage - Automated rack storage is a stocking method whereby the movement of pallets, products, apparatus or systems are automatically controlled by mechanical or electronic devices.

Bin Box - A five-sided container with the open side facing an aisle. Bin boxes are self-supporting or supported by a structure designed so that little or no horizontal or vertical space exists around the boxes.

Longitudinal Flue Space - The flue space between rows of storage perpendicular to the direction of loading.

Transverse Flue Space - The space between rows of storage parallel to the direction of loading.

Cartoned - A method of storage consisting of corrugated cardboard or paperboard containers fully enclosing the commodity.

Shelf Storage - Storage on structures up to and including 30 in. (0.76 m) deep and separated by aisles at least 30 in. (0.76 m) wide.

Back-to-Back Shelf Storage - Two solid or perforated shelves up to 30 in. (0.76 m) in depth each, not exceeding a total depth of 60 in. (1.52 m), separated by a longitudinal vertical barrier such as plywood, particleboard, sheet metal, or equivalent, with a maximum 0.25 in. (6.4 mm) diameter penetrations and no longitudinal flue space and a maximum storage height of 15 ft (4.57 m).