



High-Piled Combustible Storage

This bulletin provides information on Tacoma Fire Department permits and plan submittals for buildings having high-piled combustible storage exceeding 500 square feet in area.

Definitions

High-piled combustible storage is combustible materials stored in closely packed piles or on pallets, shelves, or racks where the commodity exceeds 12 feet in height. It also includes tires, Group A plastics, flammable liquids, idle pallets or similar high hazard commodities stacked or stored more than six feet above the floor. For definitions of the terms *commodity*, *array*, *curtain board*, *rack storage*, or *encapsulated*, see the International Fire Code.

REQUIREMENTS

1. Building/Business owners are responsible for contacting the Fire Department prior to any building or portion of a building being converted to use for high-piled storage exceeding 500 square feet. Prior to allowing high pile storage, any necessary building improvements (to meet the current Building and fire codes) must be made. Permits are required from the Building and Land Use Services Division for any building or sprinkler system modifications and for the installation of storage racks. See items 3 and 4 of this bulletin.
2. Existing occupancies with high-piled combustible storage are not required to retroactively meet the requirements of the current fire code under the following conditions:
 - The occupancy remains in compliance with the fire and building codes under which the original permit was issued.
 - The type of commodity and the storage arrangement has not changed.

Note: Any change in practice, process, materials used or storage configuration may require compliance with the current fire code.



3. When automatic sprinklers are required, the sprinkler system must be capable of providing the minimum required water supply for the type of commodity and the storage arrangement based on the codes and standards in effect at the time of occupancy.
4. Architectural plans for high bay warehouse buildings submitted for review through the Building and Land Use Services Division must clearly specify the intended use of the building:
 - If the high bay warehouse is to be used for high-piled combustible storage, the requirements of International Fire Code Chapter 23 (including, but not limited to, automatic sprinkler protection, building access, smoke and heat removal, curtain boards, hose stations and storage arrangement) must be addressed on the architectural plan set.
 - If the high bay warehouse will not be used for high-piled combustible storage, a note must be added to the architectural plans stating that the building *will not* be used for high-piled combustible storage. The building/business owner is responsible for contacting the Fire Department prior to allowing use to change to high piled storage.

5. Automatic sprinkler system shop drawing submittals, must include a complete description of the storage, including:
 - type of commodity
 - storage arrangement (pile dimensions, use of pallets, configuration of shelves or racks, aisle widths, height of stock)
 - clearance to sprinklers
 - the type and temperature rating of the sprinklers.

The submittal must indicate the sprinkler system design approach, and identify the applicable NFPA standard and all tables,

figures, and curves used to determine and adjust the selected design area and density.

Note: Plans must include water supply information from a recent flow test in close proximity to the building site.

6. Central station monitoring of the automatic sprinkler system water flow and valve tamper indicators is required for systems having 20 or more sprinklers.
7. For further information regarding Fire Code requirements for high-piled storage, call the Fire Protection Engineer at 591-5739.