



City of Costa Mesa
Fire Prevention
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INDOOR STORAGE OF COMBUSTIBLE MATERIAL

References: California Fire Code, 2010 Edition and California Building Code, 2010 Edition

The standard applies to all occupancies storing combustible commodities indoors. Unless previously approved for High Piled Storage, occupancies with storage that exceeds maximum height requirement shall reduce their stock within acceptable limits, or comply with current Building and Fire Code requirements for high piled storage.

HEIGHT LIMITATIONS FOR STORAGE AREAS GREATER THAN 500 SQ. FT

- ◇ Commodity stored in piles or racks - 12 FT maximum
- ◇ High hazard - 6 FT maximum (examples: mattresses, pillows, rubber tires, lacquers)

*** Fire Permit required for high piled storage exceeding 500 SQ. FT.**

CEILING CLEARANCE

- ◇ 2 FT below ceiling (without sprinklers).
- ◇ 18" (inches) below sprinkler head deflectors.
- ◇ 1 FT around non-rated roof trusses where storage extends beyond the lowest chord.
- ◇ 3 FT from lights, light fixtures, unit heaters, radiant space heaters, duct furnaces, and flues.

COMMODITY CLEARANCE

- ◇ Commodities that may be hazardous in combination with each other shall be stored so they cannot come into contact with each other.
- ◇ Sufficient clearance shall be maintained around the path of the fire door travel to assure proper operation and inspection.
- ◇ Exits shall remain free of any material or matter where its presence would obstruct or render the exit hazardous.

AISLES

- ◇ Aisles leading to required exits shall be provided from all portions of buildings. The minimum width of aisles shall be as follows:
 - 1) in areas serving employees only, the minimum aisle width shall not be less than 2 feet.
 - 2) in public areas of group B and M occupancies, the minimum clear aisle width shall be not less than 3 feet with obstructions/merchandise on one side – 44 inches, if on both sides.

AISLES (continued)

- ◇ Aisles shall terminate at a cross aisle or doorway. Aisles shall not have a dead end greater than 20 feet in length.
- ◇ Wall aisles (along exterior walls) shall be at least 224 inches wide in warehouses used for the storage of commodities that expand with the absorption of water.
- ◇ In storage areas greater than 500 SQ. FT, aisles shall be maintained to retard transfer of fire from one pile to another and to permit convenient access for fire fighting, salvage, and removal of storage.
 - 1) Storage shall be separated by aisle so that piles are not more than 50 FT wide or 25 FT if they abut a wall.
 - 2) Main and cross aisles should be located opposite window or door openings in exterior walls (especially important where exterior openings are few).
 - 3) The minimum width of aisles shall not be less than 8 FT.

STORAGE IS STRICTLY PROHIBITED IN THE FOLLOWING AREAS

- ◇ Exits and exit enclosures.
- ◇ Equipment rooms; including boiler rooms, mechanical rooms, and electrical equipment rooms with peripheral equipment including electrical panels, fire alarm equipment, sprinkler risers, etc. (must remain accessible with a minimum 3 FT clearance).
- ◇ Attics, under floor (including stairs) and concealed spaces unless the space is protected by an approved automatic sprinkler system or it is protected on the storage side as required for one hour fire resistive construction. Openings shall be protected by assemblies that are self-closing and are of non-combustible construction or solid wood core not less than 1 ¾ inch thickness. Storage shall not be placed on exposed joists.
- ◇ Where it would obstruct from view or render unusable required fire and life safety equipment, including fire extinguishers, fire alarm initiating devices, standpipes and other similar equipment.