



# Sioux Falls Fire Rescue



Fire Prevention Division  
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## Fire and Life-Safety Checklist: High-Piled Storage Occupancies

The following Fire Code requirements are *specific* for ***High-Piled*** occupancies and should be used as a *supplement* to the "**Commercial Business Fire and Life-Safety Checklist**".

***DEFINITION: HIGH-PILED COMBUSTIBLE STORAGE [HPS]*** - 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. 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 in height.

### **FIRE DEPARTMENT ACCESS**

- Approved key boxes shall be installed on all buildings utilized for high-pile combustible storage. A key box shall be installed on each side of the structure requiring fire department building access in accordance with IFC 2306.6. [See *Key Box* section in "Commercial Business Fire and Life-Safety Checklist"]
- 3ft clear unobstructed access to fire hydrants and fire protection equipment shall be maintained at all times
- Where the fire department connection (FDC) is not visible to approaching fire apparatus, the FDC shall be indicated by an approved sign mounted on the street front or on the side of the building. Such sign shall have the letters "FDC" at least 6 inches high and words in letters at least 2 inches high or an arrow to indicate the location. All such signs shall be subject to the approval of the fire code official.
  - Does the FDC have the required caps in place?

### **EXITS - Doors, Signs & Aisles** [See also... "Commercial Business Fire and Life-Safety Checklist"]

- Fire doors cannot be propped open.
- Aisles in sprinklered buildings shall be a minimum of 44 inches wide.
- Aisles shall be a minimum of 96 inches wide in the following areas:
  - Sprinklered buildings with *High-piled storage areas* exceeding 2,500 square feet in area, that are accessible to the public and designated to contain high-hazard commodities, unless protected by a sprinkler system designed for multiple-row racks of high-hazard commodities.
  - Sprinklered buildings in areas accessible to the public where mechanical stocking methods are used.
  - Unsprinklered buildings

## **POWERED INDUSTRIAL TRUCKS AND EQUIPMENT (BATTERY CHARGING)**

- Battery chargers shall be of an *approved* type.
- Combustible storage shall be kept a minimum of 3 feet from battery chargers.
- Battery charging shall not be conducted in areas accessible to the public.
- Ventilation shall be provided in an *approved* manner in battery-charging areas to prevent a dangerous accumulation of flammable gases.
- Battery-charging areas shall be provided with a fire extinguisher having a minimum 4-A:20-B:C rating within 20 feet of the battery charger.

## **FIRE PROTECTION**

[See also... "Commercial Business Fire and Life-Safety Checklist"]

- Where required, fire detection systems, smoke and heat removal, draft curtains and automatic sprinkler design densities shall extend the lesser of 15 feet beyond the *high-piled storage area* or to a permanent partition. Where portions of *high-piled storage areas* have different fire protection requirements because of commodity, method of storage or storage height, the fire protection features within this area shall be based on the most restrictive design requirements

## **HOUSEKEEPING**

[See also... "Commercial Business Fire and Life-Safety Checklist"]

- Where required by the *fire code official*, a visual method of indicating the maximum allowable storage height shall be provided.
- 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.
- The structural integrity of racks shall be maintained.
- Clearance from ignition sources shall be provided.
- Smoking shall be prohibited.

See "**Commercial Business Fire and Life-Safety Checklist**" for additional information on the following:

- |   |   |
|---|---|
| <input type="checkbox"/> Fire Extinguishers                 | <input type="checkbox"/> Electrical Safety                                      |
| <input type="checkbox"/> Commercial Kitchen Hood Systems    | <input type="checkbox"/> Housekeeping   |
| <input type="checkbox"/> Fire Sprinklers                    | <input type="checkbox"/> Fire Lanes/Fire Hydrants/Fire Department Connections   |
| <input type="checkbox"/> Fire Alarms                        | <input type="checkbox"/> Key Boxes (Emergency Fire Department Access Key Boxes) |
| <input type="checkbox"/> Exiting – Doors, Signs and Aisles  |   |
| <input type="checkbox"/> Exit Signs                         |   |
| <input type="checkbox"/> Emergency Lighting/Egress Lighting |   |

If you have additional questions concerning fire inspections, please contact us at 367-8093.