



South Adams County Fire Department

6050 Syracuse Street, Commerce City, CO 80022

Phone: 303-288-0835 | www.sacfd.org

High-Pile Storage

Submittal Process: The following items are required for a High Piled Storage/Racking Plan Review submittal. Failure to provide the following may require a Review Denial or Resubmittal. All submittals shall have a South Adams County Fire Department Plan Review Application attached.

Drawings Requirements:

- **Electronic files in .pdf format. Submitted in an unlocked and unsecured state for plan review.**
- An analysis of the commodity classification FPE stamped.
- Name of owner and occupant
- Indicate the approximate scale, northern direction and date the drawing was completed.
- Location, including street address and suite number (if applicable).
- Location and construction of protected enclosure walls and partitions.
- Enclosure Cross-section including location and construction of building floor/ceiling assemblies above and below any raised access floors and/or suspended ceilings.
- Description of occupancies and hazards being protected, designating whether or not the enclosure is normally occupied.
- Floor plan of the building showing location and dimensions of high pile storage areas.
- Usable storage height for each storage area
- Number of tiers within each rack, if applicable.
- Commodity clearance between top of storage and sprinkler deflector for each storage arrangement.
- Aisle dimensions between each storage array.
- Maximum pile volume for each storage array.
- Location and classification of commodities in accordance with Section 3203 of IFC.
- Location of commodities which are banded or encapsulated.
- Type of fire suppression and fire detection systems, including fire sprinkler design density(s).
- Location of valves controlling the water supply of ceiling and in-rack sprinklers.
- Type, location and specifications of smoke removal and curtain board systems.
- Dimension and location of transverse and longitudinal flue spaces.

- Additional information regarding design features, commodities, storage arrangement and fire protection features within the high-piled storage area shall be provided at the time of submittal.
- Detailed plans for each style of rack.
- If using storage bins, provide data sheet submittal for each type of bin.
- Each rack assembly should have signage indicating corresponding storage group that matches submitted floor plan. This will be checked at the final inspection. Signage needs to be located at every end cap.(Reference 3201.3.2 of IFC)
- If automated storage is used, it needs to be clearly marked on the plan set and include in storage analysis. System Specification Sheets from manufacturers to be included with submittal.

For reference Chapter 32 of the International Fire Code can be found at :

- <https://codes.iccsafe.org/content/IFC2021P1/chapter-32-high-piled-combustible-storage>