



Redlands Fire Department Fire Protection Standard

Title: High piled Storage Standard

Number: FS-100

Revision: A

Date: 10-07-2015

Scope: To provide a standard for High Piled Storage plan review submittals.

Description: A standard for High Piled Storage that identifies commodity and storage arrangements within the building.

OWNER'S STATEMENT OF USE

BUSINESS NAME _____

BUILDING ADDRESS: _____ PHONE NUMBER: _____

- This building WILL NOT be used for high-piled combustible storage, as defined in the California Fire Code. Stockpile heights will not exceed 12 feet in solid stacks, on pallets, in racks or on shelves; or 6 feet when consisting of highly combustible or flammable material such as rubber, plastic, flammable liquid etc.

Note: If the building is not used for high piled combustible storage the following shall be met:

- All racks shall be marked with red or yellow tape across the face of the rack depicting the maximum storage height based on commodity. If solid piled storage is being used, a red or yellow line across the wall depicting the storage height shall be visible throughout the storage area. Maximum storage heights shall be based on commodity being stored.
- An approved sign with red letters 1 inch in height stating, "No storage above this point" shall be placed at every rack and or along the wall for solid pile storage every 50 feet.
- The Work Sheet shall be completed annually, or if any change in storage use, or commodity change, prior to the annual permit being issued.
- Failure to maintain the storage at the approved height will result in a citation.

- This building WILL be used for high-piled combustible storage, and will conform to the requirements of the California Fire Code. (Please see attached)

OWNER/ TENANT: _____ DATE: ____/____/____

NOTE: It is your responsibility to notify the Fire Department when any changes within the building effect the storage use.



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COMBUSTIBLE STORAGE WORKSHEET

PROJECT/BUSINESS NAME _____

PROJECT ADDRESS _____

MANGER/CONTACT _____ PHONE _____

COMMODITY INFORMATION

LIST ALL STOCK TO BE STORED. Height shall be measured to the top of the storage.

Materials <small>(attach commodity descriptions on separate sheet if necessary)</small>	MAX. HEIGHT Top of storage <small>(In Feet)</small>	% OF PLASTICS		CARTONS OR BAGS	ENCAPSULATED 5 SIDES Y/N	PALLETIZED OR SOILD PILE	RACKS OR SHELVES	% OF OVERALL STORAGE
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BUILDING INFORMATION

Indicate the building and fire protection features provided in the structure to have the commodity as indicated above.

1. Commodity clearance between top of storage and the sprinkler deflector for each storage arrangement: min. _____ in. max. _____ in.
2. Fire sprinkler density _____ / _____ GPM @ _____ Required PSI at B.O.R.
3. Sprinkler head temperature: _____ F. Size/K Factor _____.
4. Distance from floor to bottom cord of truss/beam _____ feet.
5. Distance from floor to fire sprinkler branch lines _____ feet.
6. Fire hose connections (show all locations on floor plans) Yes ___ No ___ N/A ___.
7. Smoke detection provided. Yes ___ No ___.
8. Mechanical smoke removal provided. Yes ___ No ___ N/A ___.
9. Draft curtain depth _____ ft., area _____ sq. ft. (show locations on floor plans) N/A _____.
10. Automatic smoke and heat vents provided (show location on floor plan). Indicate ratio 1: _____ Yes ___ No ___
11. Link temperature: _____ F.

I HEREBY CERTIFY THAT THE ABOVE INFORMATION IS TRUE AND THAT THE STORAGE OF HIGH-PILED STOCK WILL BE LIMITED AS INDICATED ABOVE.

Print Name: _____ Title: _____

Signature: _____ Date: _____



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At the time of permit application, plans and the completed worksheet, including but not limited to the information listed below and all information specified in the California Fire Code, shall be submitted for review and approval. A separate worksheet and plans shall be submitted for each separate building address with high piled storage.

Following approval of the plans, a copy of the approved plans shall be maintained on the premises in an approved location. Any deviations from the approved plans may require additional protection and an additional review of the high piled storage.

SUBMITTAL REQUIREMENTS

- 1. A letter of intent containing a detailed description of the products to be stored and the description of all containers, pallets, and packing material. This letter shall also include a description of the storage methods for all racks, shelves, pallets, maximum storage heights and aisle widths.
- 2. A scaled site plan which shows the entire building, including all exits, fire access lanes, fire hydrants and fire sprinkler riser(s).
- 3. A scaled floor plan of the building showing locations and dimensions of the high piled storage area, location of the racks and access doors to the storage area.

INDICATE THE FOLLOWING ON THE FLOOR PLAN:

- 1. Maximum pile volume and pile sizes for each storage array.
- 2. Locations and classifications of all commodities in accordance with the California Fire Code and NFPA Standards.
- 3. Locations of risers and valves controlling the water supply of the ceiling and in-rack sprinklers.
- 4. Location and size of all required fire department access doors.
- 5. Aisle dimensions between each storage array and rack.
- 6. Number of tiers within each rack.
- 7. Dimensions and locations of all transverse and longitudinal flue spaces, in accordance with the CFC.
- 8. Location of automatic smoke and heat vents.
- 9. Means for manual release and link temperature on the smoke and heat vents.

INDICATE THE FOLLOWING ON THE WORK SHEET:

- 1. The total floor area for high-piled stock. (To include all intervening rooms)
- 2. Locations and classifications of all commodities in accordance with the California Fire Code and NFPA Standards.
- 3. Types of commodities, which are encapsulated on 5 sides.
- 4. Usable storage height for each storage area.
- 5. Commodity clearance between top of storage and the sprinkler deflector for each storage arrangement.
- 6. Types, locations, sizes, and design criteria of smoke and heat removal systems in accordance with CFC.
- 7. Type and design criteria of fire suppression and fire detection systems.



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Fire Protection Consultant List

(This listing is not an endorsement)

All consultant agencies listed are required by Redlands Fire Department to have a licensed Fire Protection Engineers wet stamp and signature on plans at the time of submittal.

Allan Automatic Sprinkler Corp.
3233 Enterprise Street
Brea, CA 92821-6239
Phone (714) 993-9500
Fax (714) 993-5708
Jack@AllanSoCal.com

Hughes Associates
6 Centerpointe Suite #760
La Palma, CA 90623-2542
Phone (714) 739-3870
www.haifire.com

Premier Fire Consulting, LLC
13337 South St., Suite 151
Cerritos, CA 90703
Phone (562) 865-5134
Fax (562) 865-2004
Email greg@premier-fire.net

Rolf Jensen & Assoc., Inc.
One Point Dr., Suite #210
Brea, CA 92821
Phone (714) 257-3555
Fax (714) 257-3556
www.rjagroup.com

Aon Fire Protection Engineering
707 Wilshire Blvd., Suite 2600
Los Angeles, CA 90017
Phone (213) 630-2020
Fax (213) 630-2098
www.aonfpe.com

Beard-Provencher & Assoc., Inc.
22931 Savi Ranch Parkway
Yorba Linda, CA 92887
Phone (714) 283-1100
Fax (714) 283-1400
www.bpaassoc.com

Klausbruckner & Associates
4105 Sorrento Valley Blvd
San Diego, CA 92121
Phone (858) 677-9878
Fax (858) 677-9894

Pacific Fire Engineering, Inc.
8301 Fox Hills Ave.
Buena Park, CA 90621
Phone (714) 984-4346
Fax (714) 535-0576
www.sbishop@pacificfireeng.com

M.B. Technical Services
P.O. Box 9130
Long Beach, CA 90810
Phone (562) 426-3453
Fax (562) 989-0338
Info@mbtechnicalservices.com

Western FLS Consulting, Inc.
2151 Michelson Dr., Suite #250
Irvine, CA 92612
Phone (949) 863-1558
Fax (949) 863-1380
www.westernfls.com



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Best Code Consultants
663 S. Rancho Santa Fe Rd #184
San Marcos, CA. 92078
Phone (760) 304-4586
karyn@bestcodeconsultants.com