



**CONTRA COSTA COUNTY FIRE PROTECTION DISTRICT**

**Fire Prevention Bureau**

4005 Port Chicago Hwy. Ste. 250 Concord, CA 94520

(925)941-3300

**HIGH-PILED STORAGE QUESTIONNAIRE**

BUSINESS NAME: \_\_\_\_\_

BUSINESS ADDRESS: \_\_\_\_\_

BUSINESS PHONE NUMBER: (      ) \_\_\_\_\_

CCCFPD PROJECT NUMBER: \_\_\_\_\_

COMMODITY CLASS: \_\_\_\_\_ SOURCE: CFC  NFPA

WILL THE COMMODITY CLASS INCLUDE PLASTICS? YES  NO

DESCRIPTION OF STORAGE: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(IF MORE SPACE IS NEEDED, PLEASE ATTACH ADDITIONAL PAGES.)

**EXISTING BUILDING INFORMATION**

EXISTING BUILDING FIRE SPRINKLER DESIGN

DENSITY: \_\_\_\_\_

LAST DATE OF 5-YEAR SERVICE OF BUILDING FIRE SPRINKLER SYSTEM: \_\_\_\_\_

LAST KNOWN USE OF BUILDING: \_\_\_\_\_

SQUARE FOOTAGE: OF BUILDING: \_\_\_\_\_ OF HIGH PILE STORAGE AREA: \_\_\_\_\_

IS THE HIGH PILE STORAGE AREA PUBLICLY ACCESSIBLE? YES  NO  BOTH

DOES THE EXISTING STRUCTURE HAVE ANY OF THE FOLLOWING:

**SMOKE/HEAT VENTS**  **FIRE DETECTION SYSTEM**  **DRAFT CURTAINS**

**OCCUPANCY INFORMATION**

CURRENT OCCUPANCY CLASS \_\_\_\_\_ NEW OCCUPANCY CLASS \_\_\_\_\_

WILL THE HIGH PILE STORAGE AREA BE PUBLICLY ACCESSIBLE? YES  NO  BOTH

**NEW STORAGE OCCUPANCY INFORMATION**

WILL THIS FACILITY BE FIRE SPRINKLERED THROUGHOUT:    Yes     No

*IF NO, PROVIDE INFORMATION ON EXACTLY WHERE FIRE SPRINKLERS ARE GOING TO BE INSTALLED, AND PROVIDE APPLICABLE DOCUMENTATION  
DETAILING WHY A PARTIAL SYSTEM IS BEING PROPOSED.*

GROSS SQUARE FOOTAGE:

ENTIRE STRUCTURE: \_\_\_\_\_ HIGH-PILED STORAGE AREAS ONLY: \_\_\_\_\_

MAXIMUM STORAGE HEIGHT POSSIBLE BY BUILDING DESIGN: \_\_\_\_\_

**CLEAR CEILING HEIGHT:**

FLOOR TO BOTTOM OF ROOF DECK: \_\_\_\_\_ TO BOTTOM OF STRUCTURAL ROOF SUPPORTS : \_\_\_\_\_

METHOD OF STORAGE (CHECK ALL THAT APPLY):

- ENCAPSULATED IN PLASTIC                       NONENCAPSULATED
- WOODEN PALLETS                                       PLASTIC PALLETS
- ON RACKS W/ SOLID SHELVES                       ON RACKS W/O SOLID SHELVES
- BIN BOX     SOLID PILE
- OTHER \_\_\_\_\_

**COMPLETE FOR RACK STORAGE ONLY:**

TYPE OF RACKS:

- SINGLE ROW       DOUBLE ROW       MULTIPLE ROW

**RACK DIMENSIONS (FEET/INCHES)**

HEIGHT: \_\_\_\_\_ DEPTH: \_\_\_\_\_ WIDTH: \_\_\_\_\_ AISLE WIDTH: \_\_\_\_\_

**FLUE SPACE DIMENSION (IN INCHES):**

LONGITUDINAL: \_\_\_\_\_ TRANSVERSE: \_\_\_\_\_

IS A SMOKE REMOVAL SYSTEM REQUIRED:    Yes     No

ARE SMOKE VENTS REQUIRED:                      Yes     No

IF SO, PROVIDE THE VENT TO CEILING AREA RATIO: \_\_\_\_\_

WHAT IS THE TOTAL NUMBER OF VENTS REQUIRED? \_\_\_\_\_

ARE DRAFT CURTAINS REQUIRED:                      Yes     No

DESIGNATED STORAGE AREA:

- 0 – 500 SQUARE FEET                               12,001 – 20,000 SQUARE FEET
- 501 – 2,500 SQUARE FEET                       20,001 – 300,000 SQUARE FEET
- 2,501 – 12,000 SQUARE FEET                       MULTIPLE DESIGNATED STORAGE AREAS  
(IF SO—LIST SEPARATELY ON ANOTHER SHEET.)

IS A SMOKE DETECTION SYSTEM REQUIRED:    Yes \_\_\_\_\_    No \_\_\_\_\_

**COMPLETE FOR PILE STORAGE**

MAXIMUM CUBIC FEET PER PILE:

- 50,000 CUBIC FEET                       200,000 CUBIC FEET  
 100,000 CUBIC FEET                     400,000 CUBIC FEET

MAXIMUM PILE SIZES:

DIMENSION \_\_\_\_\_ FT.    HEIGHT \_\_\_\_\_ FT.    VOLUME \_\_\_\_\_ CU. FT.

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**BUILDING ACCESS**

ARE ACCESS ROADWAYS TO WITHIN 150 FEET OF ALL PORTIONS OF THE EXTERIOR WALLS:

YES       No

ARE ACCESS DOORS PROVIDED EVERY 100 LINEAL FEET ON ALL EXTERIOR WALLS FACING ACCESS ROADWAYS:

YES       No

ARE KEYED ACCESS LOCKS FOR FIRE DEPARTMENT EMERGENCY ENTRY PROVIDED ON ALL EXTERIOR DOORS:

YES       No

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**PLASTICS QUESTIONNAIRE**

PLASTICS GROUP TYPE:

A        B        C   

PERCENTAGE OF PLASTICS IN STORAGE: \_\_\_\_\_ PERCENT

IF GROUP TYPE IS "A" – CHECK ALL ITEMS WHICH APPLY TO COMMODITY:

A) IS THE PLASTIC:

EXPANDED        NONEXPANDED        FREE FLOWING   

B) HOW IS THE PLASTIC PACKAGED:

EXPOSED        CARTONED   

C) HOW IS THE PLASTIC PILED:

STABLE        UNSTABLE   

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**NAME(S) AND TITLE(S) OF PERSON(S) FILLING OUT THIS QUESTIONNAIRE:**

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\_\_\_\_\_  
(NAME)

\_\_\_\_\_  
(TITLE)

\_\_\_\_\_  
(COMPANY NAME [IF APPLICABLE])

\_\_\_\_\_  
(LICENSE NUMBER [IF APPLICABLE])

PHONE NUMBER(S): (\_\_\_\_)\_\_\_\_\_ (\_\_\_\_)\_\_\_\_\_ FAX: (\_\_\_\_)\_\_\_\_\_

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\_\_\_\_\_  
(NAME)

\_\_\_\_\_  
(TITLE)

\_\_\_\_\_  
(COMPANY NAME [IF APPLICABLE])

\_\_\_\_\_  
(LICENSE NUMBER [IF APPLICABLE])

PHONE NUMBER(S): (\_\_\_\_)\_\_\_\_\_ (\_\_\_\_)\_\_\_\_\_ FAX: (\_\_\_\_)\_\_\_\_\_

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\_\_\_\_\_  
(NAME)

\_\_\_\_\_  
(TITLE)

\_\_\_\_\_  
(COMPANY NAME [IF APPLICABLE])

\_\_\_\_\_  
(LICENSE NUMBER [IF APPLICABLE])

PHONE NUMBER(S): (\_\_\_\_)\_\_\_\_\_ (\_\_\_\_)\_\_\_\_\_ FAX: (\_\_\_\_)\_\_\_\_\_

## DRAWING AND SUBMITTING FLOOR PLANS OF HIGH-PILED COMBUSTIBLE STORAGE AREAS

High-piled combustible storage plans are required along with completing the High-Piled Storage Questionnaire. The plans serve as a visual record of the facility's current storage practices and layouts. The following information is required to be shown on the plans where applicable. For typical circumstances, notations on the plans describing the circumstances are fully acceptable. For example, if all of the racks have three (3) tiers each, a note on the plans may state such. If there is not enough room on the plans themselves for all notes, attach a separate sheet.

- \* All plans must be drawn to scale or have all applicable dimensions.
- \* Plans must be drawn on minimum 11" x 17" paper.

Shown			Description
Yes	No	N/A	
			Project address shown on plans.
			Aisle dimensions between each storage array
			Usable storage height for each storage area
			Location of fire department access doors
			Location and classification of commodities
			Number of tiers within each rack
			Type of fire suppression and fire detection systems
			Location of commodities which are banded or encapsulated
			Dimension and location of transverse and longitudinal flue spaces
			Floor plan of the building showing locations and dimensions of high-piled storage areas
			Location of valves controlling the water supply of ceiling and in-rack sprinklers (if applicable).
			Type/location/specifications of smoke removal (vents) and curtain board systems (if applicable).
			Clearance between top of storage and the sprinkler deflector for each storage arrangement (if applicable)
			Additional information regarding required design features, commodities, storage arrangement, and fire protection features within the high-piled storage area

**HIGH-PILED STORAGE CHECKLIST (For Applicant Use)**

Prior to the permit review process, an overview of the High-Piled Storage permit submittal package will be conducted. Any items found missing will be required to be submitted prior to the start of the review process. In order to ensure an efficient and effective review of your permit submittals, please ensure that all items below will be submitted at the time of application. Failure to do so may result in rejection of the application, and the assessment of additional fees. The Fire Sprinkler Permit must be submitted concurrently with the design drawings.

Included	Design drawings shall include the following items on the existing and proposed storage arrangements.	
	1	Site plan that identifies the project building, adjoining lots and buildings, building openings, etc.
	2	Scaled architectural floor plan of the building showing locations and dimensions of the High-Piled Storage areas.
	3	A letter of intent containing a detailed description of the products to be stored, all containers, etc.
	4	Analysis of how the commodity classification was determined.
	5	Evacuation Plan—a separate set of plans, which dictates an evacuation plan for the High-Piled Storage area and building.
	6	The maximum desired/proposed storage height for each designated storage area.
	7	A drawing detail showing the tiers and dimensions of all storage methods used.
	8	Clearance between top of storage and the roof/ceiling height for each storage method.
	9	On a scaled floor plan, show the aisle dimensions between each storage area.
	10	On a scaled floor plan, show the maximum pile volume for each storage area.
	11	On a scaled floor plan, show the location of commodities, which are banded or encapsulated.
	12	A drawing detail showing the dimensions and location of transverse and longitudinal flue spaces.
	13	Detail the type, location, and specifications of approved, listed smoke-removal vents.
	14	If required, the design (construction), location, and depth of the curtain board assembly.
	15	Denote whether or not the “Arrays” are closed or open for each storage arrangement.
	16	Identify all contiguous areas occupied by a limited higher-hazard commodity.
	17	Locations and classifications of the portable fire extinguishers.
	18	Identify the location of all steel columns in relationship to the racks, and detail how they are protected.
	19	If applicable, provide complete details on the location of all initiating and notification devices.
	20	Type of pallets, including materials of construction.
	21	Type of shelf that will be used for each shelf/rack system.
	22	Details on any specialty storage arrangement systems.
	23	Identify how High-Piled Storage area(s) terminate at fire barrier(s) with opening protection.
	<b>Fire Sprinkler Permit</b>	
	In an effort to ensure that both the High-Piled Storage and associated fire sprinkler permits are reviewed in an effective and efficient manner, the fire sprinkler permit should be submitted with the High-Piled Storage permit. The following information must be included with the submittal for the fire sprinkler permit:	
	1	Water flow test data in close proximity to the site (that was performed within the last 12 months.)
	2	Sprinkler system design approach based upon commodity type, rack type, aisle width, sprinkler temperature, etc., with determining code sections, tables, figures, and curves from NFPA 13.
	3	Hydraulic calculations for ceiling and storage rack sprinklers.
	4	Identify how the sprinkler design density extends 15 feet beyond the High-Piled Storage areas.
	5	Make, type, model, nominal K-factor, temperature rating, and specifications (cut sheet) for each sprinkler type.
	6	Scaled floor plan showing the location of control valves.
	7	Scaled floor plan showing the location(s) and details of any Class I standpipe system.
	8	Scaled floor plan showing the location of face sprinklers from the aisle face of storage.
	9	Scaled floor plan showing the location of all listed hangers and flex couplings, including a detail of each type of vertical drop.
	10	Scaled floor plan showing the locations of all sway bracing.
	11	Description of horizontal barriers used in conjunction with in-rack sprinklers.
	12	Elevation drawing showing vertical clear space between the top of storage and in-rack sprinkler deflectors.
	13	Elevation drawing showing the in-rack sprinkler locations in relationship to flues and storage.