



DEKALB COUNTY FIRE RESCUE DEPARTMENT

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HIGH-PILED COMBUSTIBLE STORAGE CHECKLIST

The following information is required upon submission for building plan review for any storage areas in buildings that involve “**High-Piled Combustible Storage**” (High Piled Combustible Storage is defined as “any combustible materials in closely packed piles or combustible materials on pallets, in racks or on shelves, where the top of the storage is greater than 12 feet in height”).

CONSTRUCTION DOCUMENTS: At time of permit application for new structures...or for requesting a change of occupancy/use...the plans shall include the following: (REF: 2012 I.F.C. 3201.3) **NOTE:** This information can be secured by consulting with you design professional

1. Floor plan of the building showing locations and dimensions of high-piled storage areas.
2. Usable storage height for each storage area.
3. Number of tiers within each rack, if applicable.
4. Commodity clearance between top of storage and sprinkler deflector for each storage arrangement.
5. Aisle dimensions between each storage array.
6. Maximum pile volume for each storage array.
7. Location and classification of commodities in accordance with 2012 IFC, Section 3203.
8. Location of commodities which are banded or encapsulated.
9. Location of required fire department access doors.
10. Type of fire detection and fire suppression systems
11. Location of valves controlling the water supply of ceiling and in-rack sprinklers.
12. Type, location and specifications of smoke removal and curtain board systems.
13. Dimensions of transverse and longitudinal flue spaces.
14. Additional information regarding required design features, commodities, storage arrangement and fire protection features within the high-piled storage area shall be proved at time of permit, when require by fire code official.

EVACUATION PLAN: An evacuation plan for public accessible areas, and a separate set of plans indicating location and widths of aisles, location of exits, exit access doors, exit signs, height of storage, and location of hazardous materials shall be submitted at the time of permit application (Ref. 2012 I.F.C. 3201.4)

TABLE 3206.2
GENERAL FIRE PROTECTION and LIFE SAFETY REQUIREMENTS

(The table below is extracted from 2012 IFC, Chapter 23 – See IFC Chapter 23 for complete information)

Commodity Class	Size of High-Piled Storage Area (Square Feet) (See IFC sections 2306.2 and 2306.4)	ALL STORAGE AREAS					SOLID-PILED STORAGE, SHELF STORAGE & PALLETIZED STORAGE (See IFC Section 2307.3)		
		Automatic Fire-Extinguishing system (See IFC Section 2306.4)	Fire Detection System (See IFC Section 2306.5)	Building Access (See IFC Section 2306.6)	Smoke and Heat Removal (See IFC Section 2306.7)	Draft Curtains (See IFC Section 2306.7)	Maximum Pile Dimension (Feet)	Maximum Permissible Storage Height (Feet)	Maximum Pile Volume (Cubic Feet)
I - IV	0-500	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required
	501-2,500	Not Required	Yes	Not Required	Not Required	Not Required	100	40	100,00
	2,501-12,000 Public Accessible	Yes	Not Required	Not Required	Not Required	Not Required	100	40	400,00
	2,501-12,000 Non-Public Accessible (Option 1)	Yes	Not Required	Not Required	Not Required	Not Required	100	40	400,00
	2,501-12,000 Non-Public Accessible (Option 2)	Not Required	Yes	Yes	Yes*	Yes	100	30	200,00
	12,001-25,000	Yes	Not Required	Yes	Yes*	Not Required	100	40	400,00
	20,001-500,000	Yes	Not Required	Yes	Yes*	Not Required	100	40	400,00
	Greater Than 500,000	Yes	Not Required	Yes	Yes*	Not Required	100	40	400,00
High Hazard	0-500	Not Required	Not Required	Not Required	Not Required	Not Required	50	Not Required	Not Required
	501-2,500 Public Accessible	Yes	Not Required	Not Required	Not Required	Not Required	50	30	75,000
	501-2,500 Non-Public Accessible (Option 1)	Yes	Not Required	Not Required	Not Required	Not Required	50	30	75,000
	501-2,500 Non-Public Accessible (Option 2)	Not Required	Yes	Yes	Yes*	Yes	50	20	50,000
	2,501-300,000	Yes	Not Required	Yes	Yes*	Not Required	50	20	75,000
	300,001-500,000	Yes	Not Required	Yes	Yes*	Not Required	50	30	75,000

SMOKE and HEAT VENTS: When required by the code (2006 IFC, Chapter 23), or otherwise installed, smoke and heat vents, or mechanical smoke exhaust systems shall conform to the requirements of Section 910, 2006 IFC.

TABLE 910.3
REQUIREMENTS for DRAFT CURTAINS and SMOKE and HEAT CURTAINS
 (The table below is extracted from 2012 IFC, Chapter 9 – See IFC Chapter 9, Section 910 for complete information)

OCCUPANCY GROUP and COMMODITY CLASSIFICATION	DESIGNATED STORAGE HEIGHT (Feet)	MINIMUM DRAFT CURTAIN DEPTH (Feet)	MAXIMUM AREA FORMED BY DRAFT CURTAINS (Square Feet)	VENT AREA to FLOOR AREA RATIO	MAXIMUM SPACING of VENTS CENTERS (Feet)	MAXIMUM DISTANCE to VENTS FROM WALL or DRAFT CURTAIN (Feet)
Group F-1	n/a	0.2 x H but ≥ 4	50,000	1:100	120	60
High Piled Storage (see Sec. 910.2.3) I-IV (Option 1)	≤ 20	6	10,000	1:100	100	60
	$\geq 20 \leq 40$	6	8,000	1:75	100	55
High Piled Storage (see Sec. 910.2.3) I-IV (Option 2)	≤ 20	4	3,000	1:75	100	55
	$\geq 20 \leq 40$	4	3,000	1:50	100	50
High Piled Storage (see Sec. 910.2.3) High Hazard (Option 1)	≤ 20	6	6,000	1:50	100	50
	$\geq 20 \leq 30$	6	6,000	1:40	90	45
High Piled Storage (see Sec. 910.2.3) High Hazard (Option 2)	≤ 20	4	4,000	1:50	100	50
	$\geq 20 \leq 30$	4	2,000	1:30	75	40

NOTE: These are the minimum requirements as identified by IFC Chapter 32. Occupancies may have special hazards/issues that will require additional code compliance (Ex: Hazardous Materials storage, Tire storage, etc.). Building occupants should contact the DeKalb County Fire Marshals Office at (404) 371-9256 with any questions, or for consultation on plans.

* Heat & Smoke Vents are not required in buildings equipped with ESFR Sprinkler Systems installed IAW NFPA 13. (2012 IFC)