

## CHAPTER 3 USE AND OCCUPANCY CLASSIFICATIONS

SECTION [F] 307.1  
2006 Edition  
IFC Interpretation 59-08  
Issued 04-21-09  
BU\_06\_59\_08

**[F] 307.1 High-hazard Group H.** High-hazard Group H occupancy includes, among others, the use of a building or structure, or a portion thereof, that involves the manufacturing, processing, generation or storage of materials that constitute a physical or health hazard in quantities in excess of those allowed in control areas constructed and located as required in Section 414. Hazardous uses are classified in Groups H-1, H-2, H-3, H-4 and H-5 and shall be in accordance with this section, the requirements of Section 415 and the *International Fire Code*.

**Exceptions:** The following shall not be classified in Group H, but shall be classified in the occupancy that they most nearly resemble:

1. Buildings and structures that contain not more than the maximum allowable quantities per control area of hazardous materials as shown in Tables 307.1(1) and 307.1(2), provided that such buildings are maintained in accordance with the *International Fire Code*.
2. Buildings utilizing control areas in accordance with Section 414.2 that contain not more than the maximum allowable quantities per control area of hazardous materials as shown in Tables 307.1(1) and 307.1(2).
3. Buildings and structures occupied for the application of flammable finishes, provided that such buildings or areas conform to the requirements of Section 416 and the *International Fire Code*.
4. Wholesale and retail sales and storage of flammable and combustible liquids in mercantile occupancies conforming to the *International Fire Code*.
5. Closed piping system containing flammable or combustible liquids or gases utilized for the operation of machinery or equipment.
6. Cleaning establishments that utilize combustible liquid solvents having a flash point of 140°F (60°C) or higher in closed systems employing equipment listed by an approved testing agency, provided that this occupancy is separated from all other areas of the building by 1-hour fire barriers or 1-hour horizontal assemblies or both.
7. Cleaning establishments that utilize a liquid solvent having a flash point at or above 200°F (93°C).
8. Liquor stores and distributors without bulk storage.
9. Refrigeration systems.
10. The storage or utilization of materials for agricultural purposes on the premises.
11. Stationary batteries utilized for facility emergency power, uninterrupted power supply or telecommunication facilities, provided that the batteries are provided with safety venting caps and ventilation is provided in accordance with the *International Mechanical Code*.
12. Corrosives shall not include personal or household products in their original packaging used in retail display or commonly used building materials.
13. Buildings and structures occupied for aerosol storage shall be classified as Group S-1, provided that such buildings conform to the requirements of the *International Fire Code*.
14. Display and storage of nonflammable solid and nonflammable or noncombustible liquid hazardous materials in quantities not exceeding the maximum allowable quantity per control area in Group M or S occupancies complying with Section 414.2.5.
15. The storage of black powder, smokeless propellant and small arms primers in Groups M and R-3 and special industrial explosive devices in Groups B, F, M and S, provided such storage conforms to the quantity limits and requirements prescribed in the *International Fire Code*.

## REFERENCED SECTIONS:

**[F] TABLE 307.1.1(1)**  
**MAXIMUM ALLOWABLE QUANTITY PER CONTROL**  
**AREA OF HAZARDOUS MATERIAL POSING A PHYSICAL HAZARD** <sup>a, j, m, n, p</sup>  
 (Remainder of Table and Footnotes not shown for clarity)

MATERIAL	CLASS	GROUP WHEN THE MAXIMUM ALLOWABLE QUANTITY IS EXCEEDED	STORAGE <sup>b</sup>			USE-CLOSED SYSTEMS <sup>b</sup>			USE-OPEN SYSTEMS <sup>b</sup>	
			Solid pounds (cubic feet)	Liquid gallons (pounds)	Gas (cubic feet at NTP)	Solid pounds (cubic feet)	Liquid gallons (pounds)	Gas (cubic feet at NTP)	Solid pounds (cubic feet)	Liquid gallons (pounds)
Combustible liquid <sup>c, i</sup>	II	H-2 or H-3		120 <sup>d, e</sup>			120 <sup>d</sup>			30 <sup>d</sup>
	IIIA	H-2 or H-3	N/A	330 <sup>d, e</sup>	N/A	N/A	330 <sup>d</sup>	N/A	N/A	80 <sup>d</sup>
	IIIB	Not Applicable		13,200 <sup>e, f</sup>			13,200 <sup>f</sup>			3,300 <sup>f</sup>

i. Inside a building, the maximum capacity of a combustible liquid storage system that is connected to a fuel-oil piping system shall be 660 gallons provided such system complies with this code.

**INTERNATIONAL FIRE CODE**  
**CHAPTER 6**  
**BUILDING SERVICE AND SYSTEMS**

**603.3 Fuel oil storage systems.** Fuel oil storage systems shall be installed in accordance with this code. Fuel oil piping systems shall be installed in accordance with the *International Mechanical Code*.

**603.3.1 Maximum outside fuel oil storage above ground.**

Where connected to a fuel-oil piping system, the maximum amount of fuel oil storage allowed outside above ground without additional protection shall be 660 gallons (2498 L). The storage of fuel oil above ground in quantities exceeding 660 gallons (2498 L) shall comply with NFPA 31.

**603.3.2 Maximum inside fuel oil storage.** Where connected to a fuel-oil piping system, the maximum amount of fuel oil storage allowed inside any building shall be 660 gallons (2498 L). Where the amount of fuel oil stored inside a building exceeds 660 gallons (2498 L), the storage area shall be in compliance with the *International Building Code*.

**603.3.3 Underground storage of fuel oil.** The storage of fuel oil in underground storage tanks shall comply with NFPA 31.

**INTERNATIONAL FIRE CODE**  
**CHAPTER 34**  
**FLAMMABLE AND COMBUSTIBLE LIQUIDS**

**3401.2 Nonapplicability.** This chapter shall not apply to liquids as otherwise provided in other laws or regulations or chapters of this code, including:

Items 1 & 2 not shown.

3. Storage and use of fuel oil in tanks and containers connected to oil-burning equipment. Such storage and use shall be in accordance with Section 603. For abandonment of fuel oil tanks, this chapter applies.

Items 4 thru 9 not shown.



**Q:** Where multiple buildings are located on a single lot, one of the detached buildings is dedicated to and contains a diesel powered fire sprinkler pump provided to service the multiple associated buildings on the lot. The detached building containing the diesel powered fire sprinkler pump is designed as a single fire area. The diesel powered fire sprinkler pump is connected by a piping system to the diesel fuel stored within the building containing the fire sprinkler pump. The quantity of diesel fuel stored in the dedicated fire sprinkler pump building does not exceed the quantity of hazardous material allowed in Table 307.1(1) for a fire area. Is the building required to be classified High-Hazard Group H occupancy, and therefore subject to the provisions of the *International Building Code* and the *International Fire Code* for the storage of hazardous materials?

**A:** No. A detached building dedicated to and housing a diesel engine powered fire sprinkler pump, and the amount of diesel fuel stored within the building does not exceed the quantity allowed in Table 307.1(1) for a single fire area, would not be classified as a Group H occupancy. Footnote "i" with Table 307.1(1) of the *International Building Code* and Table 2703.1.1(1) of the *International Fire Code* applies to the storage of fuel connected to a piping system for fuel oil fired equipment within the building, which includes diesel engines. The provisions of the footnote are further confirmed in Section 3401.2 Item 3, and Section 603.3 of the *International Fire Code*.

---