

**CHAPTER 4
SPECIAL DETAILED REQUIREMENTS BASED
ON USE AND OCCUPANCY**

**SECTION 414.2.2
IFC Interpretation No. 51-07
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[F] 414.2.2 Percentage of maximum allowable quantities. The percentage of maximum allowable quantities of hazardous materials per control area allowed at each floor level within a building shall be in accordance with Table 2703.8.3.2.

**[F] TABLE 414.2.2
DESIGN AND NUMBER OF CONTROL AREAS**

FLOOR LEVEL		PERCENTAGE OF THE MAXIMUM ALLOWABLE QUANTITY PER CONTROL AREA ^a	NUMBER OF CONTROL AREAS PER FLOOR	FIRE-RESISTANCE RATING FOR FIRE BARRIERS IN HOURS ^b
Above grade plane	Higher than 9	5	1	2
	7-9	5	2	2
	6	12.5	2	2
	5	12.5	2	2
	4	12.5	2	2
	3	50	2	1
	2	75	3	1
	1	100	4	1
Below grade plane	1	75	3	1
	2	50	2	1
	Lower than 2	Not Allowed	Not Allowed	Not Allowed

- a. Percentages shall be of the maximum allowable quantity per control area shown in [F] Tables 307.1(1) and [F] 307.1(2), with all increases allowed in the footnotes to those tables.
- b. Fire barriers shall include walls and floors as necessary to provide separation from other portions of the building.



Q: Given a non-sprinklered, multi-story building of Type IIB construction. The building is used for the storage of hazardous materials that do not exceed the maximum allowable quantity per control area in accordance with [F] Table 307.1(1) and [F] Table 307.1(2) of the *International Building Code*. The building contains no fire walls, interior fire barriers, or fire-resistance-rated horizontal assemblies. The entire building is defined as a single control area.

Are the provisions of Section [F] 414.2.2 of the *International Building Code*, which limits the percentage of the maximum allowable quantity of hazardous materials for any floor, applicable to a multi-story building consisting of a single control area?

A: Yes. When the quantity of hazardous material stored in the building is equal to or less than the maximum allowable quantity per control area in [F] Table 307.1(1) and [F] Table 307.1(2), the entire building would be considered the control area. When the entire building is the control area, the maximum allowable quantity of material may be located anywhere in the building subject to the per-floor limitations of [F] Table 414.2.2.