CHAPTER 4 SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY

SECTION 414.2.2 IFC Interpretation No. 52-07 2006 Edition Issued: 04/29/2008 BU_06_57_07

[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.

[E] TABLE /1/ 2 2

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 ⁵
Above grade plane	Higher than 9 7-9	5 5	1 2	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.

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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 exceeds the maximum allowable quantity permitted for a single control area in accordance with [F] Table 307.1(1) and [F] Table 307.1(2) of the International Building Code. An interior fire barrier is constructed that spans from the foundation to the roof for the entire height of the building. There are no fire-resistance-rated horizontal assemblies provided between floors. Therefore, the entire building is defined as having two independent multi-story control areas.

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

A: Yes. When the quantity of hazardous material being stored in each control area is equal to or less than the maximum allowable guantity per control area in [F] Table 307.1(1) and [F] Table 307.1(2), the maximum allowable quantity of material per control area may be located anywhere within a multi-story control area, subject to the per-floor limitations of [F] Table 414.2.2.