



California State Fire Marshal **CODE INTERPRETATION**

Date Issued	01-25-01	Interpretation #	01-002
Topic	Hazardous Materials Use in Laboratories		
Code Section(s)	§304.2.2.1, California Building Code (1998 ed)		
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§101.7, California Building Code, may permit the nationally recognized standards when the code does not cover the subject matter addressed. In answering the following questions we note that §304.1.3, California Building Code, does not adopt NFPA #45 as a standard for building design and construction.

1. **Would designated laboratory areas used for facility research within a building housing academic teaching laboratories be exempt from the requirements of Section 304.2.2.1?**

No. Section 304.2.2.1 is intended to apply to laboratories used for educational purposes which, in our opinion, would be defined as academic teaching laboratories meeting all the provisions of the California Building Code as a Group B occupancy. Regarding laboratories used as research facilities, that same section addresses “and similar areas” and specifies that areas containing hazardous materials shall be separated from each other and other portions of the building by not less than one-hour fire resistive occupancy separation.

Laboratory research areas could possibly be required to meet all the provisions of §304.2.2.1. In order to make a conclusive decision, contract drawings and hazardous material inventory statement (HMIS) would need to be submitted for review. At that time, a final determination would be made.

2. **Does the use of the word “laboratories” in the first sentence imply that multiple laboratories and accessory work rooms of equal or lesser hazard than the primary occupancy (teaching laboratories) may occupy a collective area within a single occupancy separation?**

No. A single occupancy separation need not meet the intent of the code for a design of collective rooms within the confines of the laboratory itself. §304.2.2.1 states “similar areas containing hazardous materials, shall be separated from each other and other portions of the building by not less than one-hour fire resistive occupancy separation. This section includes appropriate opening protection as prescribed by Section 302.3.”

3. **Does the phrase “and similar areas containing hazardous materials” imply that non-hazardous use areas such as offices and equipment rooms need not be separated by one-hour fire resistive construction if the areas fall within the limits of 25% of the primary use area?**

No. “Similar areas containing hazardous materials” implies each and every room shall be separated from each other and other portions of the building (e.g., accessory rooms) by not less than one-hour fire resistive occupancy separation when hazardous materials are used, dispensed or stored. Realistically, most business offices contain small amounts of hazardous materials. It is not the intent of the text to apply occupancy separation requirements to areas where minor amounts of photocopier toner, white-out, etc. are used *in normal business quantities*. In these cases, using the provisions of §104.2.7, the authority having jurisdiction is empowered to find that the strictest literal interpretation of the code is impractical and unreasonable.

4. **Does the phrase “when quantities of hazardous materials in such uses do not exceed those listed in Table 3-D or 3-E the requirements of §307.5 and §307.8 shall apply” mean that Group B occupancies complying with exempt limits would not require occupancy separations?**

Sections 307.5 and 307.8 refer to specific requirements for Group H occupancies and appear to be irrelevant to occupancy separations for Group B occupancies. Further in the text you will note the sentence: “When the quantities of hazardous materials in such uses exceed those listed in Table 3-D or 3-E, the use shall be classified as the appropriate Group H occupancy.” Your confusion stems from the fact that both portions of the text direct you to Group H occupancy requirements

If the authority having jurisdiction determines that such hazardous materials pose a level of hazard which would warrant application of the provisions of §304.2.2.1, when the quantities of hazardous materials in such uses do not exceed those listed in Table 3-D of 3E, the requirements of §307.5 and §307.8 shall apply.
This section

is a specific provision for hazardous materials under the exempt amounts. §101.9.1 allows a general provision for Group B occupancies to be superceded with a specific requirement. In this case, §307.5 and §307.8 would apply for Group B occupancies under the exempt amounts for hazardous materials.

5. **Can groups of laboratories be bundled together with a single occupancy separation around the laboratory unit cluster or be as large as a single control zone within a Group B occupancy when working within the exempt limits for hazardous materials without adding additional separation walls between laboratories?**

There is not enough information provided so that we may provide a definitive answer. Items such as design, hazardous materials inventory, type of fire protection systems, etc. have major impact on where the occupancy separation walls must be located. However, one issue is conclusive: in Group B occupancies, laboratories in excess of 200 square feet of area must be provided with two exits and all portions of the room must be within 75 feet of an exit.