

The information contained herein is intended to identify general requirements based on occupancy classification for a sprinklered building, as outlined in the 2010 California Building, Fire and Mechanical codes. However, it is not intended to be all-inclusive, or to represent code in all cases. It is the responsibility of the user to verify all code requirements for their specific application.						
Description	B (Business) & F1 (Fabrication)	H-2 OCCUPANCY (Explosion Hazards)	H-3 OCCUPANCY (Physical Hazards)	H-5 OCCUPANCY (Semiconductor Manufacturing)	H-4 OCCUPANCY (Health Hazards)	L OCCUPANCY (Laboratory R&D)
<b>SEPARATION OF OCCUPANCIES</b> (Fire barriers required to be labeled.)	Not required. Exception: control areas shall be separated by 1-hour fire barrier, or 2-hour fire barrier on the 5 <sup>th</sup> story and above.	2-hour fire barrier	1-hour fire barrier	1-hour fire barrier	1-hour fire barrier	1-hour fire barrier with 2-hour fire barrier on the 5 <sup>th</sup> story and above. L Labs are required to be separated from control areas on the 4 <sup>th</sup> story and above by 2-hour barrier.
<b>MAXIMUM ALLOWABLE QUANTITY (MAQ) OF HAZARDOUS MATERIALS</b> (MAQ for compressed liquefied gases based on pounds.)	Hazardous materials are limited to within 4 control areas on the 1 <sup>st</sup> story. Additional controls area may also be provided on other stories, however, the MAQ and number of control areas is prorated by floor.	Storage and use of hazardous materials posing a physical hazard are unlimited – except that requiring separate detached storage.	Storage of hazardous materials posing a physical hazard are unlimited – except that requiring separate detached storage.	Storage and use of hazardous materials physical hazards are limited based on density, e.g. Gal/Sq.Ft., per CFC Chapter 18.	Storage and use of hazardous materials posing a health hazard are unlimited.	Limits quantities of hazardous materials within lab suites. MAQ for 4 <sup>th</sup> floor and above are prorated, but not as restrictive as for control areas. Number of lab suites are limited above on the 4 <sup>th</sup> story and above.
<b>SEISMIC OCCUPANCY CATEGORY</b>	Class II (formerly I <sub>p</sub> = 1.0)	Class II, or Class III if explosive (formerly I <sub>p</sub> = 1.5)	Class II	Class III (formerly I <sub>p</sub> = 1.25), or Class IV if highly-toxic (formerly I <sub>p</sub> = 1.5)	Class III (formerly I <sub>p</sub> = 1.25), or Class IV if highly-toxic (formerly I <sub>p</sub> = 1.5)	Class II
<b>FIRE SEPARATION DISTANCE</b>	Exterior wall shall be 1-hour fire-rated if distance to lot-line is <30 ft., or <10 ft. for Type II-B and V-B const.	25% of perimeter shall be on exterior wall if >500 Sq.Ft. Exterior wall shall be >30 ft. from lot-line if >1,000 Sq.Ft. If <1,000 Sq.Ft., exterior wall shall be 1-hr fire-rated if distance to lot-line is <30 ft.; 2-hr if <10 ft.; and 3-hr if <5 ft.	25% of perimeter shall be on exterior wall if >1000 Sq.Ft. Exterior wall shall be 1-hour fire-rated if distance to lot-line is <30 ft.; 2-hr if <10 ft.; or 3-hr if <5 ft.	Exterior wall shall be 1-hour fire-rated if distance to lot-line is <30 ft.; 2-hr if <10 ft.; or 3-hr if <5 ft.	Exterior wall shall be 1-hour fire-rated if distance to lot-line is <30 ft.; 2-hr if <10 ft.; or 3-hr if <5 ft.	Exterior wall shall be 1-hour fire-rated if distance to lot-line is <30 ft., or <10 ft. for Type II-B and V-B const.
<b>SECONDARY CONTAINMENT</b> (Sized to contain the largest container plus 20 minutes of fire sprinkler flow.)	Spill control required to contain the largest container. However, containment of fire sprinkler flow is not required.	Required if largest container is > 55 gallons, if aggregate quantity stored is > 1000 gallons, or quantity dispensed is > 100 gallons	Required if largest container is > 55 gallons, or aggregate quantity is > 1000 gallons	Required if largest container is > 55 gallons, or aggregate quantity is > 1000 gallons	Required if largest container is > 55 gallons, or aggregate quantity is > 1000 gallons	Spill control required to contain the largest container, and requires liquid tight floors.
<b>NUMBER OF EXITS</b> (Note: when 2 exits are required they must be at least 1/3 the diagonal apart.)	2 exits required if occupant load > 49	2 exits required if occupant load > 3.	2 exits required if occupant load > 3.	2 exits required if occupant load > 10.	2 exits required if occupant load > 10.	2 exits required when lab containing hazardous materials is > 500 sq. ft.
<b>COMMON PATH OF EGRESS TRAVEL</b>	100 ft.	25 ft.	25 ft.	75 ft.	75 ft.	75ft
<b>EXIT ACCESS TRAVEL DISTANCE</b>	250 ft. F1-Occupancy 300 ft. B-Occupancy	100 ft.	150 ft.	200 ft.	175 ft.	200 ft.
<b>EXIT HARDWARE</b> (Note: exits must swing in direction of egress.)	Not required.	Panic hardware	Panic hardware	Panic hardware	Panic hardware	Panic hardware for areas containing hazardous materials
<b>CORRIDORS</b>	Non-Rated	1-hour Fire Rated	1-hour Fire Rated	1-hour Fire Rated if Occupant Load > 30	1-hour Fire Rated if Occupant Load > 30	1-hour Fire Rated if Occupant Load > 30
<b>ALLOWABLE AREA</b> (Note: Areas are for 1-story sprinklered building. Areas listed may be increased up to 75% where 60' yards are provided on 3 sides.) Area increases also provided for partial frontages having a minimum width of 20 ft.	Unlimited where 60' yards are provided on all sides or Type I construction. Otherwise, for B Occupancy: Type IIA = 112,500 sf Type IIB = 69,000 sf Type IIIA = 85,500 sf Type IIIB = 57,000 sf Type VB = 36,000 sf	Type IA = 21,000 sf Type IIB = 7,000 sf Type IIIA = 9,500 sf Type IIIB = 7,000 sf Type VB = 3,000 sf Increase for sprinklers not permitted.	Type I-A = Unlimited Type IIB = 14,000 sf Type IIIA = 17,500 sf Type IIIB = 13,000 sf Type VB = 5,000 sf Increase for sprinklers not permitted.	Type I-A = Unlimited Type IIB = 69,000 sf Type IIIA = 85,500 sf Type IIIB = 57,000 sf Type VB = 36,000 sf	Type I-A = Unlimited Type IIB = 52,500 sf Type IIIA = 85,500 sf Type IIIB = 52,500 sf Type VB = 19,500 sf	Type I-A = Unlimited Type IIB = 17,500 sf Type IIIA = 28,500 sf Type IIIB = 17,500 sf Type VB = 6,500sf Increase for sprinklers not permitted.
<b>SMOKE / FIRE DAMPERS</b>	Generally not required. Corridors and non-hazardous occupancies not required to be separated.	Required at fire barriers. Product conveying ducts may not be dampered.	Required at fire barriers. Product conveying ducts may not be dampered.	Required at fire barriers. Product conveying ducts may not be dampered.	Required at fire barriers. Product conveying ducts may not be dampered.	Required at fire barriers. Product conveying ducts may not be dampered.
<b>VENTILATION</b>	0.15 cfm/sq.ft. for B-Office; or 0.075 cfm/sq.ft. for F1-Manufacturing.	1 cfm/sq.ft. Increased ventilation may be used as an alternate means to explosion venting.	1 cfm/sq.ft.	1 cfm/sq.ft.	1 cfm/sq.ft.	1 cfm/sq.ft. Exhaust for each lab suite shall be independently ducted outside the building or via sub-duct systems
<b>EXHAUST ABATEMENT</b>	Generally not required.	May be required for VOCs emissions >10 lbs/day or 150 lbs/year.	May be required for VOCs emissions >10 lbs/day or 150 lbs/year.	Required for toxic and highly-toxic gases, solids and liquids; VOC emissions >10 lbs/day or 150 lbs/year, and corrosives.	Required for toxic and highly-toxic gases, solids and liquids, and corrosives.	Generally not required.
<b>HAZARDOUS PROCESS PIPING ROUTING</b>	Not permitted in fire rated corridors, above or in concealed spaces.	Not permitted above in fire rated corridors.	Not permitted above in fire rated corridors.	Not permitted above in fire rated corridors.	Not permitted above in fire rated corridors.	Not permitted in fire rated corridors, above or in concealed spaces.
<b>RATED ELECTRICAL FOR HAZARDOUS LOCATIONS</b>	Required where flammable/combustible liquids are dispensed.	Class-I, Division-1 for flammable/combustible gas or vapors. Class-II for combustible dusts.	Class-I, Division-2 for flammable/combustible gas or vapors.	Not required in area when 4 cfm/sq.ft. ventilation is provided.	Required where flammable/combustible liquids are dispensed.	Required where flammable/combustible liquids are dispensed.
<b>EMERGENCY AND STANDBY POWER</b>	Not Required - except for emergency exiting.	Standby Power Required	Standby Power Required if used to store class 1 or 2 organic peroxides	Emergency Power Required	Emergency Power Required	Emergency Power Required
<b>BATTERY SYSTEMS</b> (Lead-acid battery systems having a liquid capacity > 50 Gal.)	Accessory uses not required to be separated.	Accessory uses not required to be separated.	Accessory uses not required to be separated.	Accessory uses not required to be separated.	Accessory uses not required to be separated.	Accessory uses not required to be separated.
<b>EMERGENCY ALARM SYSTEM</b> (Emergency Responder radio coverage required.)	Required only for special uses or conditions such as high-rise & amusement buildings.	Local alarm system required for H-Occupancy area only. Smoke detection also required where oxidizers or peroxides are stored.	Local alarm system required for H-Occupancy area only. Smoke detection also required where oxidizers or peroxides are stored.	Complete building fire alarm system required. Hazardous gas monitoring required at PEL, or IDLH for exhausted enclosures.	Local alarm system required for H-Occupancy area only. Smoke detection also required where highly toxic gases are stored.	Complete building fire alarm system required. Pull Station required to be located within each L-Occupancy.

BUILDING CODE REQUIREMENTS

FIRE AND MECHANICAL CODES