

**DRAFT EXPRESS TERMS**  
**WITH PURPOSE & RATIONALE**

**Initial Date: 02/01/06**

**Revised as of:**  
**02/07/06**

The purpose of this Draft Express Terms with purpose and rationale is to place the 14 WorkGroup recommendations in numerical order and to show what has been submitted as suggested code amendments to the Office of the State Fire Marshal. It should be clearly noted that none of the changes have been accepted and/or rejected by the OSFM, but must be recognized as professional opinions of the various WorkGroups.

It should also be noted that this draft is a “living document”, and will therefore be updated with regard to recommendations from the WorkGroups on a weekly basis (date of revisions will be noted above) until the Final Date scheduled for the Core Group to review any and all such recommended changes at it’s meeting on March 17, 2006.

**PROPOSED BUILDING STANDARDS**  
**OF THE OFFICE OF THE STATE FIRE MARSHAL**

**REGARDING PROPOSED CHANGES TO THE**  
**CALIFORNIA BUILDING CODE**

**Chapter 1 – Administration**

**SECTION 102**

102.6 Existing structures. The legal occupancy of any structure existing on the date of adoption of this code shall be permitted to continue without change, except as is specifically covered in this code, the International Property Maintenance Code or the International Fire Code, or as is deemed necessary by the building official for the general safety and welfare of the occupants and the public.

[For SFM] Existing Residential Facilities and Residential Care Facilities for the Elderly which were originally classified as Group I Occupancies under pre-1991 codes and for Group R-2 occupancies in existence prior to the adoption of the International Building Code and International Fire Code may be reinspected under the appropriate previous code provided there is no change in the use which would place the facility in a different occupancy group.

**Purpose and Rationale Statement (Workgroup):**

Carry over of CBC 310.1.5 regarding existing RCFE’s classified as I occupancies in pre-1991 codes and updated to also include R-2.

**Action Taken (Core Group):**

**Approved**

**Returned for further Study/Clarification/Justification**

- Recommended for Next Code Adoption Cycle
- Disapproved
- Core Group Did Not Review (as of 01/09-11/06)

**Chapter 2 – Definitions**

**SECTION 202  
DEFINITIONS**

- AGED HOME OR INSTITUTION. [For SFM] See Section 310
- BEDRIDDEN PERSON. [For SFM] See Section 310
- CARE AND SUPERVISION. [For SFM] See Section 310
- CATASTROPHICALLY INJURED. [For SFM] See Section 310
- CHILD-CARE CENTER. [For SFM] See Section 310
- CHILD OR CHILDREN. [For SFM] See Section 310
- CHRONICALLY ILL. [For SFM] See “Terminally ill.” Section 310
- CONGREGATE LIVING HEALTH FACILITY (CLHF). [For SFM] See Section 310
- CONGREGATE RESIDENCE. [For SFM] See Section 310
- DAY CARE. [For SFM] See Section 419
- DAY-CARE HOME, LARGE FAMILY. [For SFM] See Section 419
- DAY-CARE HOME, SMALL FAMILY. [For SFM] See Section 419
- FULL-TIME CARE. [For SFM] See Section 310
- INFANT. [For SFM] See Section 310
- MENTALLY RETARDED PERSONS, PROFOUNDLY OR SEVERELY. [For SFM] See Section 310
- NONAMBULATORY PERSONS. [For SFM] See Section 310
- RESIDENTIAL CARE FACILITY FOR THE ELDERLY (RCFE). [For SFM] See Section 310
- RESIDENTIAL FACILITY (RF). [For SFM] See Section 310
- RESTRAINT. [For SFM] See Section 310
- TERMINALLY ILL. [For SFM] See Section 310

**Purpose and Rationale Statement (Workgroup):**

The above noted terms have been identified for carry over from the CBC to the IBC as they are necessary for various code applications.

**Action Taken (Core Group):**

- Approved
- Returned for further Study/Clarification/Justification
- Recommended for Next Code Adoption Cycle
- Disapproved
- Core Group Did Not Review (as of 01/09-11/06)

**SECTION 202**

PHOTOLUMINESCENT see section 1002.

**Purpose and Rationale Statement (Workgroup):**

**Action Taken (Core Group):**

- Approved
- Returned for further Study/Clarification/Justification
- Recommended for Next Code Adoption Cycle
- Disapproved
- Core Group Did Not Review (as of 01/09-11/06)

**Chapter 3 – Use and Occupancy Classifications**

**Table 302.1.1**

**Table 302.1.1  
Incidental use areas**

ROOM OR AREA	SEPARATION
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Laboratories and vocational shops not classified as Group H, located in Group E or I-2 occupancies	1 hour or automatic fire-extinguishing system
Laboratories, and vocational shops, And similar areas containing hazardous materials not classified as Group H, located in Group E <sup>b</sup> occupancies	1 hour or automatic fire-extinguishing system

- a. Where an automatic fire-extinguishing system is provided, it need only be provided in the incidental use room or area.
- b. Laboratories, vocational shops and similar areas containing hazardous materials not classified as Group H, located in Group E Occupancies shall be separated from each other and from other portions of the building.

**Purpose and Rationale Statement (Workgroup):**

The purpose of this proposed amendment is to sustain a comparable level of fire/life safety protection currently afforded in the CBC between laboratories, vocational shops, and similar areas containing hazardous materials not classified as Group H Occupancies, located in Group E or I-2 occupancies [CBC 305.2.4] by modifying Table 302.1.1— Incidental Use Areas as noted above.

The current CBC code requires a minimum one-hour fire-resistive separation between laboratories, vocational shops and similar areas containing hazardous materials not classified as Group H, located in Group E occupancies from each other and from other portions of the building. In emergency situations it is felt that an automatic fire-

extinguishing is not as reliable as a one-hour fire-resistive separation and therefore does not provide a comparable level of protection. The added footnote clarifies that the require separations must be provided between the individual laboratories as well as from the other portions of the E occupancy.

**Action Taken (Core Group):**

Format for the 2006 code. The purpose and rationale statement shouldn't rely on the CBC as justification. The needs to be a clearer explanation of the risk hazards associated specific with Group E Occupancies to justify the change.

- Approved
- Returned for further Study/Clarification/Justification
- Recommended for Next Code Adoption Cycle
- Disapproved
- Core Group Did Not Review (as of 01/09-11/06)

**305.1 Educational Group E.**

Educational Group E occupancy includes, among others, the use of a building or structure, or a portion thereof, by six or more persons at any one time for educational purposes through the 12th grade. Religious educational rooms and religious auditoriums, which are accessory to churches in accordance with Section 302.2 and have occupant loads of less than 100, shall be classified as A-3 occupancies.

**305.2 Day care.**

The use of a building or structure, or portion thereof, for educational, supervision or personal care services for more than five children older than 2½ years of age, shall be classified as a Group E occupancy.

*Exception: A Daycare facility not otherwise classified as an R-3 Occupancy, where occupants are not capable of responding to an emergency situation without physical assistance from the staff shall be classified as Group I-4.*

**Purpose and Rationale Statement (Workgroup):**

This amendment clarifies that an E Occupancy classification is meant to be used for children physically or cognitively capable of responding to an emergency situation. The IBC Commentary, Volume 1 indicates that children less than 2 ½ years of age are generally incapable of responding to emergencies and therefore need to be placed in an occupancy with a higher level of protection (Group I-4).

**Action Taken (Core Group):**

305.2 will need modification to align with DSS requirements and state law.

- Approved
- Returned for further Study/Clarification/Justification
- Recommended for Next Code Adoption Cycle
- Disapproved
- Core Group Did Not Review (as of 01/09-11/06)

**SECTION 308  
INSTITUTIONAL GROUP I**

**308.1 Institutional Group I.** Institutional Group I occupancy includes, among others, the use of a building or structure, or a portion thereof, in which people are cared for or live in a supervised environment, having physical limitations because of health or age are harbored for medical treatment or other care or treatment, or in which people are detained for penal or correctional purposes or in which the liberty of the occupants is restricted. Institutional occupancies shall be classified as Group I-1, I-2, I-3 or I-4.

- Exceptions:** 1. Group I Occupancies shall not include buildings used only for private residential purposes for a family group.  
2. Where occupancies house both ambulatory and non-ambulatory persons, the more restrictive requirements shall apply.  
3. Buildings housing protective social-care homes or in occupancies housing inmates who are not restrained need not be of one-hour fire- resistive construction when not more than two stories in height. In no case shall individual floor areas exceed 3,000 square feet (279m<sup>2</sup>). The fire-resistive protection of the exterior walls shall not be less than one hour where such walls are located within 3 feet (914m) of the property line. Openings within such walls are not permitted. Openings in exterior non-rated walls need not be protected.

**Purpose and Rationale Statement (Workgroup):**

The above exception **1.** is brought over from the CBC to clearly indicate where the "I" Occupancy class cannot be applied. The model code does not specify any more restrictive condition between areas housing ambulatory and non-ambulatory. This is clarified in exception **2.**

**Action Taken (Core Group):**

- Approved**
- Returned for further Study/Clarification/Justification**
- Recommended for Next Code Adoption Cycle**
- Disapproved**
- Core Group Did Not Review (as of 01/09-11/06)**

**308.2 Group I-1.** This occupancy shall include buildings, structures or parts thereof housing more than 16 persons, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment that provides personal care services. The occupants are capable of responding to an emergency situation without physical assistance from staff.

*[For SFM] This occupancy may contain more than six non-ambulatory and/or bedridden clients.* This group shall include, but not be limited to, the following:

Assisted living facilities such as: Residential ~~board and~~ Care Facilities, Residential Care Facilities for the Elderly (RCFE's), Adult Residential Facilities, Congregate ~~care~~ Living

Health facilities, Group homes, Residential Care Facilities for the Chronically Ill, and Congregate Living Health Facilities for the Terminally Ill).

Social rehabilitation facilities such as: Halfway houses, Community Correctional Centers, Community Correction Reentry Centers, Community Treatment Programs, Work Furlough Programs, and Alcoholism and or drug abuse recovery or treatment facilities centers).

Convalescent facilities-Verify I-2 group included these in I-2.

A facility such as the above with five six or fewer persons ~~shall~~ may be classified as a Group R-3 ~~or shall comply with the International Residential Code in accordance with Section 101.2.~~ A facility such as above, housing at least more than six and not more than 16 persons, ~~shall~~ may be classified as Group R-4.

**Purpose and Rationale Statement (Workgroup):**

This occupancy group is where the Task Group determined CBC R-2.1, 2.3 and 6.1 occupancies are best addressed by the majority of IBC model code language. This is to remain consistent with State Licensed Facilities. This is a threshold number utilized by Medicare vs. Medicaid which is not used in California where we use Medical. These represent present licensing categories in the CBC Group R- 2.1 and 2.3 occupancies. These represent present licensing categories in the CBC Group R- 6.1 occupancies. These clients are typically voluntary admission as opposed to court ordered in an Group I-2 Occupancy. This is in recognition of how these six or less facilities are classified presently. This is a new grouping recognizing the IBC Group R-4 occupancy. “May” was inserted in lieu of “shall” because of the variables in numbers of occupants with differing levels of ambulatory status and that “shall” could be viewed as an absolute.

**Action Taken (Core Group):**

- Approved**
- Returned for further Study/Clarification/Justification**
- Recommended for Next Code Adoption Cycle**
- Disapproved**
- Core Group Did Not Review (as of 01/09-11/06)**

**308.2 Group I-1.** This occupancy shall include buildings, structures or parts thereof housing more than 16 persons, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment that provides personal care services. The occupants are capable of responding to an emergency situation without physical assistance from staff. This group shall include, but not be limited to, the following:

- Residential board and care facilities
- Assisted living facilities
- Halfway houses
- Group homes
- Congregate care facilities
- Social rehabilitation facilities

Alcohol and drug centers  
Convalescent facilities

~~A facility such as the above with five or fewer persons shall be classified as a Group R-3 or shall comply with the *International Residential Code* in accordance with Section 101.2. A facility such as above, housing at least six and not more than 16 persons, shall be classified as Group R-4.~~

**Purpose and Rationale Statement (Workgroup):**

The Clarification of R Occupancies in the last paragraph is not needed as these occupancies are clearly defined in the Section 310 of the IBC and the Residential Building Code.

**Action Taken (Core Group):**

- Approved
- Returned for further Study/Clarification/Justification
- Recommended for Next Code Adoption Cycle
- Disapproved
- Core Group Did Not Review (as of 01/09-11/06)

**308.3 Group I-2.** This occupancy shall include buildings and structures used for medical, surgical, psychiatric, nursing or custodial care on a 24-hour basis for more than five persons who are ~~not capable of self-preservation~~ classified as non-ambulatory or bedridden. This group shall include, but not be limited to, the following:

- Hospitals
- Nursing homes (both intermediate care facilities and skilled nursing facilities)
- Mental hospitals
- Detoxification facilities
- Child care facility - care to children 6 years of age or less

~~A facility such as the above with five or fewer persons shall be classified as Group R-3 or shall comply with the *International Residential Code* in accordance with Section 101.2.-~~

**Purpose and Rationale Statement (Workgroup):**

Under the IBC there is no distinction as to ambulatory patients that are not capable of unassisted self preservation as defined previously in the CBC Code under the I1.2 occupancy class. "Non-ambulatory or bedridden" is more specific than model code in describing this occupancy class.

Child care facility for children 6 years in age or less coincides with the existing CBC as amended by SFM. This was relocated for better clarification and to release the 308.3.1 numbering to add the Group I-2.1 occupancy class.

The last sentence was stricken as it is not needed. The R-3 occupancy is adequately defined in the "R" section of the IBC and the Residential Building Code.

~~308.3.1 Child care facility. A child care facility that provides care on a 24-hour basis to more than five children 2<sup>+</sup>/<sub>2</sub> years of age or less shall be classified as Group I-2.~~

**Purpose and Rationale Statement (Workgroup):**

This section was amended per existing CBC SFM regulations and inserted into the occupancy list under the Detoxification facilities. The age of children was changed to 6 years with the number of children changed to 6 to align with current CBC definition to maintain consistency.

**308.3.1 Group I-2.1 Ambulatory Care Facility.** Health-care centers for ambulatory patients receiving outpatient medical care that may render the patient incapable of unassisted self-preservation (each tenant space accommodating more than five such patients).

**308.4 Group I-3.** This occupancy shall include buildings and structures that are inhabited by more than five persons who are under restraint or security. An I-3 facility is occupied by persons who are generally incapable of self-preservation due to security measures not under the occupants' control. This group shall include, but not be limited to, the following:

- Prisons
- Jails
- Reformatories
- Detention centers
- Correctional centers
- Prerelease centers

Buildings of Group I-3 shall be classified as one of the occupancy conditions indicated in Sections 308.4.1 through 308.4.5 (see Section 408.1). Juvenile halls, camps and jails or lockups used for the detention of minors.

**Purpose and Rationale Statement (Workgroup):**

The IBC does not have this occupancy class per the CBC model code. This occupancy is needed to stay consistent with current occupancy classes for California. It addresses ambulatory patients where the I-2 category specifically address on-ambulatory and bedridden. Juvenile halls, camps, and jails for minors as well as local detention facilities in CBC I-3 occupancies need to be addressed.

- Approved**
- Returned for further Study/Clarification/Justification**
- Recommended for Next Code Adoption Cycle**
- Disapproved**
- Core Group Did Not Review (as of 01/09-11/06)**

**308.5 Group I-4, day care facilities.**

This group shall include buildings and structures occupied by persons of any age who receive custodial care for less than 24 hours by individuals other than parents or guardians, relatives by blood, marriage or adoption, and in a place other than the home of the person cared for. A facility such as the above with five or fewer persons shall be classified as a Group R-3. ~~or shall comply with the International Residential Code in accordance with Section 101.2.~~ Places of worship during religious functions are not included.

**308.5.1 Adult care facility.**

A facility that provides accommodations for less than 24 hours for more than five unrelated adults and provides supervision and personal care services shall be classified as Group I-4.

~~**Exception:** A facility where occupants are capable of responding to an emergency situation without physical assistance from the staff shall be classified as Group A-3.~~

**Purpose and Rationale Statement (Workgroup):**

Under current California Building Standards Code, licensed adult daycare facilities are generally classified as a Group E, Division 3 Occupancy (E-3). The Group A-3 occupancy classification provides substantially less fire and life safety protection than the CBC E-3 occupancy classification. This includes the requirement for a fire alarm at 50 occupants versus 300 occupants.

**Action Taken (Core Group):**

- Approved
- Returned for further Study/Clarification/Justification
- Recommended for Next Code Adoption Cycle
- Disapproved
- Core Group Did Not Review (as of 01/09-11/06)

**308.5.2 Child care facility.**

A facility that provides supervision and personal care on less than a 24-hour basis for more than five children 2½ years of age or less shall be classified as Group I-4.

~~**Exception:** A child day care facility that provides care for more than five but no more than 100 children 2½ years or less of age, when the rooms where such children are cared for are located on the level of exit discharge and each of these child care rooms has an exit door directly to the exterior, shall be classified as Group E.~~

**Purpose and Rationale Statement (Workgroup):**

The IBC Commentary indicates that children less than 2 ½ years of age are generally incapable of responding to emergencies and therefore need to be placed in an occupancy with a higher level of protection (Group I-4). Current California Building Standards Code provides a higher level of protection including the requirement for two exits for 7 occupants versus two exits for 50 occupants.

**Action Taken (Core Group):**

Review for compliance with DSS regulations and State law.

**Approved**

**Returned for further Study/Clarification/Justification**

**Recommended for Next Code Adoption Cycle**

**Disapproved**

**Core Group Did Not Review (as of 01/09-11/06)**

**SECTION 310  
RESIDENTIAL GROUP R**

**310.1 Residential Group R.** Residential Group R includes, among others, the use of a building or structure, or a portion thereof, for sleeping purposes when not classified as an Institutional Group I ~~or when not regulated by the International Residential Code in accordance with Section 101.2.~~ Residential occupancies shall include the following:

**R-3** Residential occupancies where the occupants are primarily permanent in nature and not classified as Group R-1, R-2, R-4 or I, including:

Buildings that do not contain more than two dwelling units.

Adult facilities that provide accommodations for five or fewer persons of any age for less than 24 hours.

Child care facilities that provide accommodations for five or fewer persons of any age for less than 24 hours.

Congregate living facilities with 16 or fewer persons.

~~Adult and child care facilities that are within a single family home are permitted to comply with the *International Residential Code*.~~

**[For SFM]** This occupancy group may include facilities licensed by a governmental agency for a residentially based 24-hour care facility providing accommodations for six or fewer persons of any age. Occupants may be classified as ambulatory, nonambulatory or bedridden, (See Section 4XX Special Provisions For State Agency Licensed Facilities). This group may include:

Adult Day-care Facilities

Family Day-care Homes

Adult Day-support Center

Day-care Center for Mildly Ill Children

Infant Care Center and School Age Child Day-care Center

Adult Residential Facilities

Congregate Living Health Facilities

Foster Family Homes

Intermediate Care Facilities for the Developmentally Disabled Habilitative

Intermediate Care Facilities for the Developmentally Disabled Nursing

Nurseries for the full-time care of children under the age of six, but not including “infants” as defined in CFC Section 210

Residential Care Facilities for the Elderly

Small Family Homes and Residential Care Facilities for the Chronically III

**Exception:** [For SFM] Pursuant to Health and Safety Code Section 13143, facilities licensed by the Department of Social Services which provide nonmedical board, room and care for six or fewer ambulatory children or children two years of age or younger, and which do not have any nonambulatory clients shall not be subject to regulations pertaining to Group R, Division 2 Occupancies. With respect to these exempted facilities, no city, county, or public district shall adopt or enforce any requirement for the prevention of fire or for the protection of life and property against fire and panic unless the requirement would be applicable to a structure regardless of the special occupancy. Nothing shall restrict the application of state or local housing standards to such facilities if the standards are applicable to residential occupancies and are not based on the use of the structure as a facility for ambulatory children. For the purpose of this exception, ambulatory children does not include relatives of the licensee or the licensee's spouse.

**Purpose and Rationale Statement (Workgroup):**

This occupancy group is where the Task Group determined CBC R2.2.1, R2.1.1, R2.3.1, R6.1.1, and R6.2.1 occupancies are best addressed by the majority of IBC model code language. Tentatively removed based on the potential conflict with Intermediate Care facilities which would allow more than one bedridden client. Carry over of CBC 310.1.3.

**Action Taken (Core Group):**

- Approved
- Returned for further Study/Clarification/Justification
- Recommended for Next Code Adoption Cycle
- Disapproved
- Core Group Did Not Review (as of 01/09-11/06)

**R-4** Residential occupancies shall include buildings arranged for occupancy as residential care/assisted living facilities including more than ~~five six but not more than 16~~ ambulatory occupants clients, excluding staff.

Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3, except as otherwise provided for in this code, ~~or shall comply with the International Residential Code.~~

[For SFM] This occupancy classification may include a maximum six nonambulatory or bedridden clients. Group R-4 occupancies shall include the following:

Assisted living facilities such as: Residential care facilities, Residential Care Facilities for the Elderly (RCFE's), Adult Residential Facilities, Congregate Living Health facilities, and Group homes.

Social rehabilitation facilities such as: Halfway houses (Community Correctional Centers, Community Correction Reentry Centers, Community Treatment Programs, Work Furlough Programs, and Alcoholism or drug abuse recovery or treatment facilities.

**Purpose and Rationale Statement (Workgroup):**

This occupancy group is where the Task Group determined CBC R2.2 and R6.2 occupancies are best addressed by the majority of IBC model code language. This provision covers CBC R-2.2 and R-6.2 occupancies that exceed 6 ambulatory clients.

**Action Taken (Core Group):**

**Approved**

**Returned for further Study/Clarification/Justification**

**Recommended for Next Code Adoption Cycle**

**Disapproved**

**Core Group Did Not Review (as of 01/09-11/06)**

**310.2 Definitions.** The following words and terms shall, for the purposes of this section and as used elsewhere in this code, have the meanings shown herein.

*[For SFM] AGED HOME OR INSTITUTION is a facility used for the housing of persons 65 years of age or older in need of care and supervision. (See definition of “care and supervision”)*

*[For SFM] BEDRIDDEN PERSON means a person, requiring assistance in turning and repositioning in bed, or being unable to independently transfer to and from bed, except in facilities with appropriate and sufficient care staff, mechanical devices if necessary, and safety precautions as determined in Title 22 regulations, by the Director of Social Services or his or her designated representative.*

*The Director of Social Services or his or her designated representative shall make the determination of the bedridden status of persons with developmental disabilities, in consultation with the Director of Developmental Services or his or her designated representative.*

*The Director of Social Services or his or her designated representative shall make the determination of the bedridden status of all other persons with disabilities who are not developmentally disabled.*

*[For SFM] CARE AND SUPERVISION means any one or more of the following activities provided by a person or facility to meet the needs of the clients:*

*Assistance in dressing, grooming, bathing and other personal hygiene.*

*Assistance with taking medication.*

*Central storing and/or distribution of medications.*

*Arrangement of and assistance with medical and dental care.*

*Maintenance of house rules for the protection of clients.*

*Supervision of client schedules and activities.*

*Maintenance and/or supervision of client cash resources or property.*

*Monitoring food intake or special diets.*

*Providing basic services required by applicable law and regulation to be provided by the licensee in order to obtain and maintain a community-care facility license.*

**[For SFM] CATASTROPHICALLY INJURED**, as termed, means a person whose origin of disability was acquired through trauma or nondegenerative neurologic illness, for whom it has been determined by the Department of Health Services Certification and Licensing that active rehabilitation would be beneficial.

**[For SFM] CHILD-CARE CENTER** is any facility of any capacity other than a large or small family day-care home as defined in these regulations in which less than 24-hour-per-day nonmedical supervision is provided for children in a group setting.

**[For SFM] CHILD OR CHILDREN** is a person or persons under the age of 18 years.

**[For SFM] CHRONICALLY ILL.** See “Terminally ill.”

**[For SFM] CONGREGATE LIVING HEALTH FACILITY (CLHF)**, as termed, is a residential home with a capacity of no more than six beds, which provides inpatient care, including the following basic services: medical supervision, 24-hour skilled nursing and supportive care, pharmacy, dietary, social recreational, and at least provides services for persons who are diagnosed with a terminal illness or who are catastrophically and severely disabled.

**[For SFM] CONGREGATE RESIDENCE** is any building or portion thereof that contains facilities for living, sleeping and sanitation, as required by this code, and may include facilities for eating and cooking, for occupancy by other than a family. A congregate residence may be a shelter, convent, monastery, dormitory, fraternity or sorority house, but does not include jails, hospitals, nursing homes, hotels or lodging houses.

**[For SFM] FULL-TIME CARE** shall mean the establishment and routine care of persons on an hourly, daily, weekly, monthly, yearly or permanent basis, whether for 24 hours per day or less, and where sleeping accommodations are provided.

**[For SFM] INFANT**, for the purpose of these regulations, shall mean any child who because of age only, is unable to walk and requires the aid of another person to evacuate the building. In no case shall the term “infant” mean a child beyond two years of age.

**[For SFM] MENTALLY RETARDED PERSONS, PROFOUNDLY OR SEVERELY**, shall mean any retarded person who is unable to evacuate a building unassisted during emergency conditions.

**NOTE:** The determination as to such incapacity shall be made by the director of the State Department of Public Health or his designated representative pursuant to Health and Safety Code Section 13131.3.

**[For SFM] NONAMBULATORY PERSONS** are persons unable to leave a building unassisted under emergency conditions. It includes, but is not limited to, persons who depend on mechanical aids such as crutches, walkers and wheelchairs and any person who is unable to physically and mentally respond to a sensory signal approved by the state fire marshal or an oral instruction relating to fire danger.

The determination of ambulatory or nonambulatory status of persons with developmental disabilities shall be made by the director of Social Services or his or her designated representative, in consultation with the director of Developmental Services or his or her designated representative. The determination of ambulatory or nonambulatory status of

all other disabled persons placed after January 1, 1984, who are not developmentally disabled shall be made by the director of Social Services or his or her designated representative.

~~**PERSONAL CARE SERVICE.** The care of residents who do not require chronic or convalescent medical or nursing care. Personal care involves responsibility for the safety of the resident while inside the building.~~

~~**RESIDENTIAL CARE/ASSISTED LIVING FACILITIES.** A building or part thereof housing persons, on a 24 hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment which provides personal care services. The occupants are capable of responding to an emergency situation without physical assistance from staff. This classification shall include, but not be limited to, the following: residential board and care facilities, assisted living facilities, halfway houses, group homes, congregate care facilities, social rehabilitation facilities, alcohol and drug abuse centers and convalescent facilities.~~

**[For SFM] RESIDENTIAL CARE FACILITY FOR THE CHRONICALLY ILL (RCF/CI), as termed, means a housing arrangement with a maximum capacity of 25 residents that provides a range of services to residents who have chronic, life-threatening illnesses.**

**[For SFM] RESIDENTIAL CARE FACILITY FOR THE ELDERLY (RCFE), as defined in Health and Safety Code Section 1569.2, shall mean a facility with a housing arrangement chosen voluntarily by persons 60 years of age or over, or their authorized representative, where varying levels and intensities of care and supervision, protective supervision or personal care are provided, based on their varying needs, as determined in order to be admitted and to remain in the facility. Persons under 60 years of age with compatible needs, as determined by the Department of Social Services in regulations, may be allowed to be admitted or retained in a residential-care facility for the elderly.**

**[For SFM] Pursuant to Health and Safety Code Section 13133, regulations of the state fire marshal pertaining to Group R, Division 2 Occupancies classified as Residential Facilities (RF) and Residential-care Facilities for the Elderly (RCFE) shall apply uniformly throughout the state and no city, county, city and county, including a charter city or charter county, or fire protection district shall adopt or enforce any ordinance or local rule or regulation relating to fire and panic safety which is in consistent with these regulations. A city, county, city and county, including a charter city or charter county may pursuant to Health and Safety Code Section 13143.5, or a fire protection district may pursuant to Health and Safety Code Section 13869.7, adopt standards more stringent than those adopted by the state fire marshal that are reasonably necessary to accommodate local climate, geological, or topographical conditions relating to roof coverings for Residential-care Facilities for the Elderly.**

**[For SFM] RESIDENTIAL FACILITY (RF), as defined in Section 1502 of the Health and Safety Code, shall mean any family home, group care facility, or similar facility determined by the director of Social Services, for 24-hour nonmedical care of persons in need of personal services, supervision, or assistance essential for sustaining the activities**

of daily living or for the protection of the individual. Such facilities include small family homes and social rehabilitation facilities.

[For SFM] Pursuant to Health and Safety Code Section 13133, regulations of the state fire marshal pertaining to Group R, Division 2 Occupancies classified as Residential Facilities (RF) and Residential-care Facilities for the Elderly (RCFE) shall apply uniformly throughout the state and no city, county, city and county, including a charter city or charter county, or fire protection district shall adopt or enforce any ordinance or local rule or regulation relating to fire and panic safety which is inconsistent with these regulations. A city, county, city and county, including a charter city or charter county may pursuant to Health and Safety Code Section 13143.5, or a fire protection district may pursuant to Health and Safety Code Section 13869.7, adopt standards more stringent than those adopted by the state fire marshal that are reasonably necessary to accommodate local climate, geological, or topographical conditions relating to roof coverings for Residential-care Facilities for the Elderly.

[For SFM] RESTRAINT shall mean the physical retention of a person within a room, cell or cell block by any means, or within the exterior walls of a building by means of locked doors inoperable by the person restrained. Restraint shall also mean the physical binding, strapping or similar restriction of any person in a chair, walker, bed or other contrivance for the purpose of deliberately restricting the free movement of ambulatory persons.

Restraint shall not be construed to include nonambulatory persons nor shall it include the use of bandage material, strip sheeting or other fabrics or materials (soft ties) used to restrain persons in hospital-type beds or wheelchairs to prevent injury, provided an approved method of quick release is maintained. Facilities employing the use of soft ties, however, shall be classified as a building used to house nonambulatory persons.

Restraint shall not be practiced in licensed facilities classified as Group I-1, R-3 and R-4 occupancies unless constructed as a Group I-3 occupancy.

[For SFM] TERMINALLY ILL, as termed for an individual, means the individual has a life expectancy of six months or less as stated in writing by his or her attending physician and surgeon.

**Purpose and Rationale Statement (Workgroup):**

Proposed inclusion of definitions some of which may need to be located to other sections of this code. Recommend omitting struck out definitions in lieu use of current CBC definition and use of nonambulatory designation. Carry over CBC 310.1.4 as applicable to RCFE facilities. Carry over of CBC 310.1.4 as applicable to RF facilities. This proposal identifies CBC 310.1.2 not permitting restraint in Group R2 occupancies.

**Action Taken (Core Group):**

- Approved
- Returned for further Study/Clarification/Justification
- Recommended for Next Code Adoption Cycle
- Disapproved
- Core Group Did Not Review (as of 01/09-11/06)

**Section 310.1 Residential Group R.**

**R-3** Residential occupancies where the occupants are primarily permanent in nature and not classified as R-1, R-2, R-4, or I and where buildings do not contain more than two dwelling units as applicable in Section 101.2, ~~or adult and child care facilities that provide accommodations for five or fewer persons of any age for less than 24 hours. This division includes dwellings used for large family day-care homes (as defined in Chapter 4 Section 419).~~ Licensing categories that may use this classification include, but are not limited to: Adult Day-care facilities, Family Day-Care Homes, Adult Day-support Center, Day Care- Center for Mildly III Children, Infant Care Center and School Age Day-Care Center. Adult and childcare facilities that are within a single family home are permitted to comply with the *International Residential Code* in accordance with Section 101.2

**Purpose and Rationale Statement (Workgroup):**

(SFM) This amended language is necessary in order to include uses and facilities and their occupancy groups that are statutory and currently exist in the 2001 California Building Code, and part of State regulated facilities that are usually licensed by Department of Social Services. Please note that this author had no access to the likely amended section by HCD as this state agency regulates these facilities as well. SFM core group is advised to look into HCD express terms package for coloration of this Section. In addition, the R-2 's work group has produced an amended language of R-3 groups that differs from this amended section and a discussion between both groups is advised in order to reach a consensus.

**Action Taken (Core Group):**

- Approved
- Returned for further Study/Clarification/Justification
- Recommended for Next Code Adoption Cycle
- Disapproved
- Core Group Did Not Review (as of 01/09-11/06)

**Chapter 4 – Special Detailed Requirements Based on Use and Occupancy**

##### **Special Hazards.** Devices generating a glow, spark or flame capable of igniting flammable vapors shall be installed such that sources of ignition are at least 18 inches above the floor of any room in which Class I flammable liquids or flammable gases are used or stored.

**Purpose and Rationale Statement (Workgroup):**

**Action Taken (Core Group):**

The Core Group is recommending not carrying this provision forward as it is covered in the UMC.

- Approved**
- Returned for further Study/Clarification/Justification**
- Recommended for Next Code Adoption Cycle**
- Disapproved**
- Core Group Did Not Review (as of 01/09-11/06)**

**Establish new section in Chapter 4—Special Detailed Requirements Based on Use and Occupancy for Group E Occupancies and a new sub-section—Location on Property within this Section**

**4XX.XX Location on Property.** All buildings housing Group E Occupancies shall front directly on a public street or an exit discharge not less than 20 feet (6096 mm) in width. The exit discharge to the public street shall be a minimum 20-foot-wide (6096 mm) right-of-way, unobstructed and maintained only as access to the public street. At least one required exit shall be located on the public street or on the exit discharge.

**Purpose and Rationale Statement (Workgroup):**

A 20-foot wide public street or exit discharge is required for both emergency access and occupant egress. It is proposed to add language from CBC Section 305.3 is proposed to a new sub-section in Chapter 4 (Special Detailed Requirements Based on Use and Occupancy).

The creation of a Section (Group E Occupancies) and sub-section (Location on Property) is consistent with Section 406.3.7—Location on property: motor-vehicle-related occupancies; and 415.3—Location on property: Groups H-1 through H-5.

**Action Taken (Core Group):**

Use the other file for this code change proposal.

- Approved**
- Returned for further Study/Clarification/Justification**
- Recommended for Next Code Adoption Cycle**
- Disapproved**
- Core Group Did Not Review (as of 01/09-11/06)**

**4XX.XX. Access and Means of Egress.**

1. Locations of Group E Occupancies on property shall comply with Section 4XX.XX.
2. Access to, and egress from, buildings required to be accessible shall be provided as specified in Chapter 11.
3. Means of egress shall be as provided in Chapter 10. (See Section 1014.X for laboratories, vocational shops and areas of similar hazards and Section 1014.6 for stages).

**Purpose and Rationale Statement (Workgroup):**

Subsection will provide guidance to special access and egress issues related to E and I-4 Occupancies.

Creation of sub-section is consistent with 406.3.8 Means of egress: Motor-vehicle related occupancies 408.3 Means of egress: Group I-3.

**Action Taken (Core Group):**

Not needed based upon charging statements in the beginning of Chapter 4

Approved

Returned for further Study/Clarification/Justification

Recommended for Next Code Adoption Cycle

Disapproved

Core Group Did Not Review (as of 01/09-11/06)



**403.1.1** In addition to other applicable requirements of these regulations, the provisions of this section shall apply to every new building of any type of construction or occupancy having floors used for human occupancy located more than 75 feet (22 860 mm) above the lowest level of building access.

**Exceptions:**

1. Hospitals as defined in Section 1250 of the Health and Safety Code.
2. The following structures, while classified as high-rise buildings, shall not be subject to the provisions of this section, but shall conform to all other applicable provisions of these regulations.
  - 2.1. Buildings used exclusively as open parking garages.
  - 2.2. Buildings where all floors above 75 feet (22 860 mm) are used exclusively as open parking garages.
  - 2.3. Floors of buildings used exclusively as open parking garages and located above all other floors used for human occupancy.
  - 2.4. Buildings such as power plants, lookout towers, steeples, grain houses and similar structures with noncontinuous human occupancy, when so determined by the enforcing agency.
  - 2.5. Buildings used exclusively for jails and prisons.

Note: It is the intent of this subsection that, in determining the level from which the highest occupied floor is to be measured, the enforcing agency should exercise reasonable judgment, including consideration of overall accessibility to the building by fire department personnel and vehicular equipment. When a building is located on sloping terrain and there is building access on more than one level, the enforcing agency may select the level that provides the most logical and adequate fire department access.

**403.1.2** For the purposes of this subsection, "building access" shall mean an exterior door opening conforming to all of the following:

1. Suitable and available for fire department use.
2. Located not more than 2 feet (610 mm) above the adjacent ground level.
3. Leading to a space, room or area having foot traffic communication capabilities with the remainder of the building.
4. Designed to permit penetration through the use of fire department forcible-entry tools and equipment unless other approved arrangements have been made with the fire authority having jurisdiction.

**403.1.3** As used herein, "new building" shall mean a high-rise structure, the construction of which is commenced on or after July 1, 1974. For the purpose of this section, construction shall be deemed to have commenced when plans and specifications are more than 50% complete and have been presented to the local jurisdiction prior to July 1, 1974. Unless all provisions of this section have been met, the construction of such buildings shall commence on or before January 1, 1976.

**Purpose and Rationale Statement (Workgroup):**

Statutory provisions should be maintained.

**Action Taken (Core Group):**

- Approved**
- Returned for further Study/Clarification/Justification**
- Recommended for Next Code Adoption Cycle**
- Disapproved**
- Core Group Did Not Review (as of 01/09-11/06)**

(Sec. 404.5)

3. In other than Group I Occupancies, the adjacent spaces of any three floors of the atrium shall not be required to be separated from the atrium where such spaces are included in the design of the smoke control system.

**Purpose and Rationale Statement (Workgroup):**

Acute care hospitals and skilled nursing facilities must, in addition to state and local building codes, also comply with NFPA 101-2000 (Life Safety Code) requirements enforced by CMS and/or JCAHO. Coordination of Building Code and Fire Code requirements with NFPA 101 provisions is essential for these health care facilities. Adopting provisions consistent with NFPA 101 requirements incurs no additional costs and avoids future liability related to noncompliance with federally mandated requirements.

IBC language is in conflict with NFPA 101.

**Action Taken (Core Group):**

- Approved**

- Returned for further Study/Clarification/Justification
- Recommended for Next Code Adoption Cycle
- Disapproved
- Core Group Did Not Review (as of 01/09-11/06)

**404.9 Group I Occupancy Means of Egress.** Required means of egress from sleeping rooms in Group I Occupancies other than jails, prisons and reformatories shall not pass through the atrium.

**Purpose and Rationale Statement (Workgroup):**

Unlike the UBC, the IBC allows two story atria. Smaller atria afford less volume for smoke to accumulate. The IBC no longer limits the combustibility of the atrium contents as imposed by the UBC. IBC atria are smaller and can contain more combustibles than under the provisions of the UBC. The prohibition for the required egress of patients through an atria should be maintained.

**Action Taken (Core Group):**

- Approved
- Returned for further Study/Clarification/Justification
- Recommended for Next Code Adoption Cycle
- Disapproved
- Core Group Did Not Review (as of 01/09-11/06)

**407.2.1 Spaces of unlimited area.** Waiting areas and similar spaces constructed as required for corridors shall be permitted to be open to a corridor, only where all of the following criteria are met:

1. The spaces are not occupied for patient sleeping units, treatment rooms, hazardous or incidental use areas as defined in ~~Section 508.2~~ listed in table 508.2
2. The open space is protected by an automatic ~~fire~~ smoke detection system installed in accordance with Section ~~907 907.2.6.2~~
3. The corridors onto which the spaces open, in the same smoke compartment, are protected by an automatic ~~fire~~ smoke detection system installed in accordance with Section ~~907 907.2.6.2~~, ~~or~~ and the smoke compartment in which the spaces are located is equipped throughout with quick-response sprinklers in accordance with Section 903.3.2.
4. The space is arranged so as not to obstruct access to the required exits.
5. Each space is located to permit direct visual supervision by the facility staff.

**Purpose and Rationale Statement (Workgroup):**

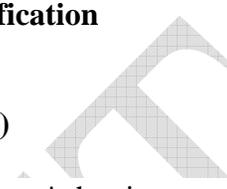
Acute care hospitals and skilled nursing facilities must, in addition to State and local building codes, also comply with NFPA 101-2000 (Life Safety Code) requirements enforced by CMS and/or JCAHO. Coordination of Building Code and Fire Code requirements with NFPA 101 provisions is essential for these health care facilities. Adopting provisions consistent with NFPA 101 requirements incurs no additional costs

and avoids future liability related to noncompliance with federally mandated requirements.

Incidental use areas are not defined in Section 508.2 however they are listed in Table 508.2.

**Action Taken (Core Group):**

- Approved**
- Returned for further Study/Clarification/Justification**
- Recommended for Next Code Adoption Cycle**
- Disapproved**
- Core Group Did Not Review (as of 01/09-11/06)**



**407.2.2 Nurses' stations.** Spaces for doctors' and nurses' charting, communications and related clerical areas shall be permitted to be open to the corridor, when such spaces are constructed as required for corridors, when the fire area is provided with a fire sprinkler system throughout complying with Sections 903.3.1.1 and such spaces are constructed as required for corridors. A minimum of one (1) smoke detector interconnected to the facility fire alarm system shall be installed directly above the nurses' station.

**Purpose and Rationale Statement (Workgroup):**

The IBC does not require smoke detection directly above the nurse station or fire sprinklers in the fire area with the nurse station. Removal of this requirement will create problems in correlating Title 19 CCR limitations on what combustible loading is allowed in a nurse station open to an exit egress system as well as reduce the current levels of protection.

Addition of smoke detection and fire sprinklers at nurse stations open to the corridor will assist in maintaining the current level of protection now found in Title 24/19 CCR and allow for proper correlation between the IBC, IFC, and Title 19 CCR.

A great many of the Group I-2 corridor protection requirements have been reduced or deleted from the IBC with the presumption that the Group I-2 will be provided with fire sprinkler protection. This is however not always true. Hospitals are extremely dynamic buildings undergoing constant change. Existing hospitals undergoing remodeling may not be protected by fire sprinklers. Clarification is necessary to indicate that, when an area is not protected by fire sprinklers, reductions in corridor protection are not appropriate.

In addition, Title 19, CCR, Sec. 3.11(b) prohibits combustibles exposed to the corridor. Fire sprinkler protection for nurses' stations is required in order to provide additional fire protection in these office spaces when they are located in the exit access corridor.

**Action Taken (Core Group):**

- Approved**
- Returned for further Study/Clarification/Justification**
- Recommended for Next Code Adoption Cycle**
- Disapproved**
- Core Group Did Not Review (as of 01/09-11/06)**

**407.3 Corridor walls.** Corridor walls shall be constructed as smoke partitions in accordance with Section 710.

Exception: In existing Group I-2, I-2.1 occupancies, the corridor fire resistance rating shall be 1-hour in accordance with Section 1017 when the fire area is not equipped with an automatic sprinkler system in accordance with Section 903.3.1.1.

**Purpose and Rationale Statement (Workgroup):**

This requirement is important for existing construction where no sprinkler protection was provided based on the date of construction prior to March 4, 1972. It provides an extra degree of protection for the means of egress system and maintains the existing code requirements per the UBC. This is a carry over of statutory requirements per Sec. 407.5.

**Action Taken (Core Group):**

- Approved**
- Returned for further Study/Clarification/Justification**
- Recommended for Next Code Adoption Cycle**
- Disapproved**
- Core Group Did Not Review (as of 01/09-11/06)**

**407.3.1 Corridor doors.** Corridor doors, other than those in a wall required to be rated by Section 508.2 or for the enclosure of a vertical opening or an exit, shall not have a required fire protection rating and shall not be required to be equipped with self-closing or automatic-closing devices, but shall provide an effective barrier to limit the transfer of smoke. ~~and~~ Corridor doors shall be equipped with a gasket installed so as to provide a seal where the door meets the stop on both sides and across the top and shall be equipped with positive latching. Roller latches are not permitted. Other doors shall conform to Section 715.4.

**Purpose and Rationale Statement (Workgroup):**

In Group I-2, corridor doors shall provide an effective barrier to limit the transfer of smoke. There are no additional requirements. Elsewhere in the code (715.4.3) additional requirements referencing NFPA 252, UL 10C, UL1784 and NFPA 105 assure doors will be tight fitting. No such requirement applies to Group I-2 corridor doors. A seal is needed to assure these unlabeled, untested doors will provide an effective smoke barrier.

**Action Taken (Core Group):**

- Approved**

- Returned for further Study/Clarification/Justification
- Recommended for Next Code Adoption Cycle
- Disapproved
- Core Group Did Not Review (as of 01/09-11/06)

**407.3.1.1 Swing of Corridor Doors.** Corridor doors, other than those equipped with self-closing or automatic-closing devices, shall not swing into the required width of corridors.

**Purpose and Rationale Statement (Workgroup):**

Doors that do not have door-closers should not swing into the required width of the corridor. The hospital corridor system is used for the relocation of patients from a contaminated smoke zone to a clean smoke zone. The corridors are equipped with handrails to assist ill and recuperating patients. Many doors installed in hospitals and nursing homes have leafs 4 feet in width. When left open, these doors consume a great deal of space needed for essential services. In addition, open doors and their hardware create obstructions and appendages that impede traffic.

**Action Taken (Core Group):**

- Approved
- Returned for further Study/Clarification/Justification
- Recommended for Next Code Adoption Cycle
- Disapproved
- Core Group Did Not Review (as of 01/09-11/06)

**407.4 Smoke barriers.** Smoke barriers shall be provided to subdivide every story used by patients for sleeping or treatment and to divide other stories with an occupant load of 50 or more persons, into at least two smoke compartments. Such stories shall be divided into smoke compartments with an area of not more than 22,500 square feet (2092 m<sup>2</sup>) and the travel distance from any point in a smoke compartment to a smoke barrier door shall not exceed 200 feet (60 960 mm). The smoke barrier shall be in accordance with Section 709 and 909.5.

**Purpose and Rationale Statement (Workgroup):**

Additional reference is added to direct engineering guidelines for construction.

**Action Taken (Core Group):**

- Approved
- Returned for further Study/Clarification/Justification
- Recommended for Next Code Adoption Cycle
- Disapproved
- Core Group Did Not Review (as of 01/09-11/06)

**407.4.2 Independent egress.** At least two means of egress shall be provided from each smoke compartment created by smoke barriers. Means of egress may pass through adjacent compartments provided it does not return through the smoke compartment from which means of egress originated.

**Purpose and Rationale Statement (Workgroup):**

This is to clarify exiting from a smoke compartment. The IBC is not clear on this as was clearly detailed in the CBC. The LSC (NFPA-101) Code Section 18.2.4.3 agrees with this clarification.

**Action Taken (Core Group):**

- Approved**
- Returned for further Study/Clarification/Justification**
- Recommended for Next Code Adoption Cycle**
- Disapproved**
- Core Group Did Not Review (as of 01/09-11/06)**

~~**407.5 Automatic sprinkler system.** Smoke compartments containing patient sleeping units shall be equipped throughout with an automatic fire sprinkler system in accordance with Section 903.3.1.1. The smoke compartments shall be equipped with approved quick-response or residential sprinklers in accordance with Section 903.3.2. [F]~~

Every facility as specified herein wherein more than six guests or patients are housed or cared for on the premises on a 24-hour shall have installed and maintained in an operable condition in every building or portion thereof where guests or patients are housed, an automatic sprinkler system of a type approved by the state fire marshal. The provisions of this subsection shall apply to every person, firm or corporation establishing, maintaining or operating a hospital, children's home, children's nursery or institution, or a home or institution for the care of aged or senile persons, or any sanitarium or institution for insane or mentally retarded persons and any nursing or convalescent home, and to any state-owned or state-occupied building used for any of the types of facilities specified herein.

EXCEPTIONS: 1. This section shall not apply to homes or institutions for the 24-hour-per-day care of ambulatory children if all of the following conditions are satisfied:

1.1 The buildings or portions thereof in which children are housed are not more than two stories in height and are constructed and maintained in accordance with regulations adopted by the state fire marshal.

1.2 The buildings or portions thereof housing more than six such children shall have installed and maintained in an operable condition therein, a fire alarm system of a type approved by the state fire marshal. Such system shall be activated by detectors responding to invisible particles of combustion other than heat, except that detectors used

in closets, usable under-floor areas, storage rooms, bathrooms, attached garages, attics, plenums, laundry rooms and rooms of similar use, may be heat-responsive devices.

1.3 The building or portions thereof do not house mentally ill or mentally retarded children.

2. This section shall not apply to any one-story building or structure of an institution or home for the care of the aged providing 24-hour-per-day care if such building or structure is used or intended to be used for the housing of no more than six ambulatory aged persons. Such buildings or institutions shall have installed and maintained in an operable condition herein a fire alarm system of a type approved by the state fire marshal. Such system shall be activated by detectors responding to either visible or invisible particles of combustion other than heat, except that detectors used in closets, usable under-floor areas, storage rooms, bathrooms, attached garages, attics, plenums, laundry rooms and rooms of similar use, may be heat-responsive devices.

3. This section shall not apply to occupancies or any alterations thereto conforming to the construction provisions of this exception which were under construction or in existence on March 4, 1972. "Under construction" as used in this exception shall mean that actual work had been performed on the construction site and shall not be construed to mean that the hospital, home, nursery, institution, sanitarium or any portion thereof, was or is in the planning stage. The provisions of this exception shall apply to those buildings or structures having bearing walls and structural frame protected in accordance with the provisions of Column Type 1A of Table 601.

When a new addition is to be made to an unsprinklered building or structure as permitted by this subsection, such new addition shall be sprinklered as required by this section and shall be separated from the existing building or structures by not less than a two-hour fire-resistive occupancy separation.

NOTE: The provisions of this section do not apply to any facility used to house six or less persons on the premises.

407.5.1 When a new addition is to be made to an unsprinklered building or structure as permitted by this subsection, such new addition shall be sprinklered as required by this section and shall be separated from the existing building or structures by not less than a two-hour fire-resistive occupancy separation.

When a sprinkler system is added to an existing unsprinklered building or structure, the sprinklered area(s) shall be separated from the remainder of the building by not less than a one-hour fire-resistive occupancy separation.

NOTE: The provisions of this section do not apply to any facility used to house six or less persons on the premises.

4. In detention facilities where inmates are not restrained

**Purpose and Rationale Statement (Workgroup):**

Carryover of statutory language from Health and Safety Code Section 13113 and Title 24 CCR. (Fire Sprinklers Health Care)

**Action Taken (Core Group):**

- Approved**
- Returned for further Study/Clarification/Justification**
- Recommended for Next Code Adoption Cycle**
- Disapproved**
- Core Group Did Not Review (as of 01/09-11/06)**



~~**407.6 Automatic smoke detection.** Corridors in nursing homes (both intermediate care and skilled nursing facilities), detoxification facilities and spaces permitted to be open to the corridors by Section 407.2 shall be equipped with an automatic fire detection system. Hospitals shall be equipped with smoke detection as required in Section 407.2. [F]~~

**Exceptions:**

- ~~1. Corridor smoke detection is not required where patient sleeping units are provided with smoke detectors that comply with UL 268. Such detectors shall provide a visual display on the corridor side of each patient sleeping unit and an audible and visual alarm at the nursing station attending each unit.~~
- ~~2. Corridor smoke detection is not required where patient sleeping unit doors are equipped with automatic door closing devices with integral smoke detectors on the unit sides installed in accordance with their listing, provided that the integral detectors perform the required alerting function.~~

Smoke detectors shall be installed in patient and client sleeping rooms. Actuation of such detectors shall cause a visual display on the corridor side of the room in which the detector is located and shall cause an audible and visual alarm at the respective nurses' station. A nurse call system listed for this function is an acceptable method of providing the audible and visual alarm at the respective nurses station.

EXCEPTION: In rooms equipped with existing automatic door closers having integral smoke detector, the integral detector may substitute for the room smoke detector, provided it meets all the required alerting function.

Note: Operation of the smoke detector shall not include any alarm verification feature.

**Purpose and Rationale Statement (Workgroup):**

The IBC does not require smoke detection in patient or client sleeping rooms when the corridor is provided with smoke detection.

Removal of the exceptions and the addition of a new charging statement maintains the current level of protection now found in the CBC and CFC.

**Action Taken (Core Group):**

- Approved
- Returned for further Study/Clarification/Justification
- Recommended for Next Code Adoption Cycle
- Disapproved
- Core Group Did Not Review (as of 01/09-11/06)

**407.7 Secured yards.** Grounds are permitted to be fenced and gates therein are permitted to be equipped with locks, provided that safe dispersal areas having 30 net square feet (2.8 m<sup>2</sup>) for bed and litter patients and 6 net square feet (0.56 m<sup>2</sup>) for ambulatory patients and other occupants are located between the building and the fence. Such provided safe dispersal areas shall not be located less than 50 feet (15 240 mm) from the building they serve. Each safe dispersal area shall have a minimum of two exits. The aggregate clear width of exits from a safe dispersal area shall be determined on the basis of not less than one exit unit of 22 inches (559 mm) for each 500 persons to be accommodated, and no exit shall be less than 44 inches (1118 mm) in width. Gates shall not be installed across corridors or passageways leading to such dispersal areas unless they comply with egress requirements. Keys to gate locks shall be provided in accordance with the Fire Code.

**Purpose and Rationale Statement (Workgroup):**

There are no provisions in the IBC for egress from a safe dispersal area. Egress must be provided and located so as not to return the evacuated in the direction of danger. Patients should not be expected to remain in exterior locations for extended time periods. There must be provisions for removing and transporting evacuated patients to other medical facilities.

**Action Taken (Core Group):**

- Approved
- Returned for further Study/Clarification/Justification
- Recommended for Next Code Adoption Cycle
- Disapproved
- Core Group Did Not Review (as of 01/09-11/06)

**407.8 Special Hazards.** Storage and handling of flammable, combustible liquids and hazardous materials shall be in accordance with the California Fire Code.

All exterior openings in a boiler room or room containing central heating equipment, if located below openings in another story, or if less than 10 feet (3048 mm) from other doors or windows of the same building, shall be protected by a fire assembly having a three-fourths-hour fire protection rating.

**Purpose and Rationale Statement (Workgroup):**

A direction within the code should be given as to the requirements of handling special hazards in this section for the I-2 occupancy. The IBC doesn't give any direction.

**Action Taken (Core Group):**

- Approved**
- Returned for further Study/Clarification/Justification**
- Recommended for Next Code Adoption Cycle**
- Disapproved**
- Core Group Did Not Review (as of 01/09-11/06)**

**508.2 Incidental uses.** Incidental use areas shall comply with the provisions of this section.

**Exception:** Incidental use areas within and serving a dwelling unit are not required to comply with this section.

**TABLE 508.2 INCIDENTAL USE AREAS**

ROOM OR AREA	SEPARATION AND/OR PROTECTION
Furnace room where any piece of equipment is over 400,000 Btu per hour input	1 hour or provide automatic fire-extinguishing system *
Rooms with boilers where the largest piece of equipment is over 15 psi and 10 horsepower	1 hour or provide automatic fire-extinguishing system*
Refrigerant machinery rooms	1 hour or provide automatic sprinkler system
Parking garage (Section 406.2)	2 hours; or 1 hour and provide automatic fire-extinguishing system
Hydrogen cut-off rooms, not classified as Group H	1-hour in Group B, F, M, S and U occupancies. 2-hour in Group A, E, I and R occupancies.
Incinerator rooms	2 hours and automatic sprinkler system
Paint shops, not classified as Group H, located in occupancies other than Group F	2 hours; or 1 hour and provide automatic fire-extinguishing system
Laboratories and vocational shops, not classified as Group H, located in Group E or I-2 occupancies	1 hour or provide automatic fire-extinguishing system*
Laundry rooms over 100 square feet	1 hour or provide automatic fire-extinguishing system*
Storage rooms over 100	1 hour or provide automatic

square feet	fire-extinguishing system *
Group I-3 cells equipped with padded surfaces	1 hour
Group I-2 waste and linen collection rooms	1 hour
Waste and linen collection rooms over 100 square feet	1 hour or provide automatic fire-extinguishing system*
Stationary lead-acid battery systems having a liquid capacity of more than 100 gallons used for facility standby power, emergency power or uninterrupt power supplies	1-hour in Group B, F, M, S and U occupancies. 2-hour in Group A, E, I and R occupancies.*

\* 1-hour and automatic sprinkler protection for I-2 occupancies.

**410.3.4 Proscenium wall.** Where the stage height is greater than 50 feet (15 240 mm), all portions of the stage shall be completely separated from the seating area by a proscenium wall with not less than a 2-hour fire-resistance rating extending continuously from the foundation to the roof.

Where the stage height is 50 feet (15 240 mm) or less, the stage area shall be separated from accessory spaces by a one-hour fire-restive occupancy separation.

**Exception:** Control rooms and follow spot rooms may be open to the audience.

**Purpose and Rationale Statement (Workgroup):**

Separation of stage from accessory spaces in CBC Section 405.3.1 is more restrictive than that found in IBC 410.3.4 for stage heights 50 feet or less, therefore language carry-over from CBC to IBC is proposed as noted above.

**Action Taken (Core Group):**

Revise the justification so that it does not rely upon “that’s how we’ve always done it”

Approved

Returned for further Study/Clarification/Justification

Recommended for Next Code Adoption Cycle

Disapproved

Core Group Did Not Review (as of 01/09-11/06)

**Chapter 5 – General Building Height and Area**

**504.2 Automatic sprinkler system increase.** Where a building is equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, ~~the value specified in Table 503 for maximum height is increased by 20 feet (6096mm) and the maximum number of stories is increased by one story. These increases are permitted in addition to the area increase in accordance with Sections 506.2 and 506.3. For Group~~

~~R buildings equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.2, the value specified in Table 503 for maximum height is increased by 20 feet (6096mm) and the maximum number of stories is increased by one story, but shall not exceed four stories or 60 feet (18 288 mm), respectively.~~

**Exceptions:**

1. Group I-2 of Type IIB, III, IV or V construction.
2. Group H-1, H-2, H-3 or H-5.
3. Fire-resistance rating substitution in accordance with Table 601, Note d.
4. This increase is not permitted in addition to the area increase in accordance with Section 506.3.

**Purpose and Rationale Statement (Workgroup):**

**Action Taken (Core Group):**

The Core Group felt that this issue would best be served if reviewed and a recommendation of a more global resolution is defined by the Height and Area Workgroup is brought forward.

Approved

Returned for further Study/Clarification/Justification

Recommended for Next Code Adoption Cycle

Disapproved

Core Group Did Not Review (as of 01/09-11/06)

**506.3 Automatic sprinkler system increase.** Where a building is protected throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, the area limitation in Table 503 is permitted to be increased by an additional ~~200~~100 percent ( $I_s = \del{200}100 percent) for multistory buildings and an additional ~~300~~200 percent ( $I_s = \del{300}200 percent) for single-story buildings. ~~These increases are permitted in addition to the height and story increases in accordance with Section 504.2.~~$$

**Exceptions:**

1. Buildings with an occupancy in Group H-1, H-2 or H-3.
2. Fire-resistance rating substitution in accordance with Table 601, Note d.
3. These increases are not permitted in addition to the story increases in accordance with Section 504.2.

**Purpose and Rationale Statement (Workgroup):**

**Action Taken (Core Group):**

The Core Group felt that this issue would best be served if reviewed and a recommendation of a more global resolution is defined by the Height and Area Workgroup is brought forward.

- Approved
- Returned for further Study/Clarification/Justification
- Recommended for Next Code Adoption Cycle
- Disapproved
- Core Group Did Not Review (as of 01/09-11/06)

**506.4 Area determination.** The maximum area of a building with more than one story shall be determined by multiplying the allowable area of the first floor ( $A_a$ ), as determined in Section 506.1, ~~by the number of stories as listed below.~~

- ~~1. For two-multistory buildings, multiply by 2;~~
- ~~2. For three story or higher buildings, multiply by 3; and,~~
3. No story shall exceed the allowable area per floor ( $A_a$ ), as determined in Section 506.1 for the occupancies on that floor.

**Exceptions:**

1. Unlimited area buildings in accordance with Section 507.
- ~~2. The maximum area of a building equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.2 shall be determined by multiplying the allowable area per floor ( $A_a$ ), as determined in Section 506.1 by the number of stories.~~

**Purpose and Rationale Statement (Workgroup):**

**Action Taken (Core Group):**

The Core Group felt that this issue would best be served if reviewed and a recommendation of a more global resolution is defined by the Height and Area Workgroup is brought forward.

- Approved
- Returned for further Study/Clarification/Justification
- Recommended for Next Code Adoption Cycle
- Disapproved
- Core Group Did Not Review (as of 01/09-11/06)

**Chapter 6 – Types of Construction**

**Chapter 7 – Fire Resistance-Rated Construction**

**707.2 Shaft enclosure required.** Openings through a floor/ceiling assembly shall be protected by a shaft enclosure complying with this Section.

**Exceptions:**

1. A shaft enclosure is not required for openings totally within an individual residential dwelling unit and connecting four stories or less.

2. In other than Groups I-2 and I-3, a shaft enclosure is not required in a building equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 for an escalator opening or stairway that is not a portion of the means of egress protected according to Item 2.1 or 2.2:

2.1. Where the area of the floor opening between stories does not exceed twice the horizontal projected area of the escalator or stairway and the opening is protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13. In other than Groups B and M, this application is limited to openings that do not connect more than four stories.

2.2. Where the opening is protected by approved power-operated automatic shutters at every penetrated floor. The shutters shall be of noncombustible construction and have a fire-resistance rating of not less than 1.5 hours. The shutter shall be so constructed as to close immediately upon the actuation of a smoke detector installed in accordance with Section 907.11 and shall completely shut off the well opening. Escalators shall cease operation when the shutter begins to close. The shutter shall operate at a speed of not more than 30 feet per minute (152.4 mm/s) and shall be equipped with a sensitive leading edge to arrest its progress where in contact with any obstacle, and to continue its progress on release there from.

3. A shaft enclosure is not required for penetrations by pipe, tube, conduit, wire, cable and vents protected in accordance with Section 712.4.

4. A shaft enclosure is not required for penetrations by ducts protected in accordance with Section 712.4. Grease ducts shall be protected in accordance with the *International Mechanical Code*.

5. In other than Group H occupancies, a shaft enclosure is not required for floor openings complying with the provisions for atriums in Section 404.

6. A shaft enclosure is not required for approved masonry chimneys where annular space protection is provided at each floor level in accordance with Section 717.2.5.

7. In other than Groups I-2, I-2.1 and I-3, a shaft enclosure is not required for a floor opening or an air transfer opening that complies with the following:

7.1. Does not connect more than two stories.

7.2. Is not part of the required means of egress system, except as permitted in Section 1020.1.

7.3. Is not concealed within the building construction.

7.4. Is not open to a corridor in Group I and R occupancies.

7.5. Is not open to a corridor on nonsprinklered floors in any occupancy.

7.6. Is separated from floor openings and air transfer openings serving other floors by construction conforming to required shaft enclosures.

7.7. Is limited to the same smoke compartment.

8. A shaft enclosure is not required for automobile ramps in open and enclosed parking garages constructed in accordance with Sections 406.3 and 406.4, respectively.

9. A shaft enclosure is not required for floor openings between a mezzanine and the floor below.

10. A shaft enclosure is not required for joints protected by a fire-resistant joint system in accordance with Section 713.

11. A shaft enclosure shall not be required for floor openings created by unenclosed stairs or ramps in accordance with Exception 8 or 9 in Section 1020.1.

- 12. Floor openings protected by floor fire doors in accordance with Section 711.8.
- 13. Where permitted by other sections of this code

**Purpose and Rationale Statement (Workgroup):**

**Action Taken (Core Group):**

- Approved**
- Returned for further Study/Clarification/Justification**
- Recommended for Next Code Adoption Cycle**
- Disapproved**
- Core Group Did Not Review (as of 01/09-11/06)**

**707.14.1 Elevator lobby.** An elevator lobby shall be provided at each floor where an elevator shaft enclosure connects more than three stories. The lobby shall separate the elevator shaft enclosure doors from each floor by fire partitions equal to the fire-resistance rating of the corridor and the required opening protection. Elevator lobbies shall have at least one means of egress complying with Chapter 10 and other provisions within this code.

**Exceptions:**

1. Enclosed elevator lobbies are not required at the street floor, provided the entire street floor is equipped with an automatic sprinkler system in accordance with Section 903.3.1.1.
2. Elevators not required to be located in a shaft in accordance with Section 707.2 are not required to have enclosed elevator lobbies.
3. Where additional doors are provided at the hoistway opening in accordance with Section 3002.6. Such doors shall be tested in accordance with UL 1784 without an artificial bottom seal.
4. In other than Group I-3, and buildings having occupied floors located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access, enclosed elevator lobbies are not required where the building is protected by an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2.
5. Smoke partitions shall be permitted in lieu of fire partitions to separate the elevator lobby at each floor where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2.
6. *When approved,* enclosed elevator lobbies are not required where the elevator hoistway is pressurized in accordance with Section 707.14.2.

**Purpose and Rationale Statement (Workgroup):**

(N) The proposed code amendment requires approval by the Building Official in order to apply this exception.

The concept that hoistway pressurization provides an equivalent level of protection to that of an enclosed elevator lobby is contrary to existing building practices established in

the State of California. The enclosed elevator lobby has proven to be a reliable system to prevent smoke migration throughout the building via the elevator hoistway. Installation of an elevator lobby provides a reliable physical barrier that is not reliant on the performance of mechanical systems.

**Action Taken (Core Group):**

- Approved
- Returned for further Study/Clarification/Justification
- Recommended for Next Code Adoption Cycle
- Disapproved
- Core Group Did Not Review (as of 01/09-11/06)

**709.5 Openings.** Openings in a smoke barrier shall be protected in accordance with Section 715.

**Exception:** In Group I-2, where doors are installed across corridors, a pair of opposite-swinging doors without a center mullion or horizontal sliding doors that comply with section 1008.1.3.3 shall be installed. ~~shall be installed having vision panels with fire-protection rated glazing materials in fire protection rated frames, the area of which shall not exceed that tested.~~ Vision panels consisting of fire-rated glazing in approved frames shall be provided in each cross-corridor swinging door and at each cross-corridor horizontal-sliding door in a smoke barrier. The doors shall be close fitting within operational tolerances, and shall not have undercuts, louvers or grilles. The Swinging doors shall have head and jamb stops, and astragals or rabbets at meeting edges, and Doors installed across corridors shall be automatic closing by smoke detection in accordance with Section 715.4.7.3. Positive-latching devices are not required. Doors installed across corridors shall comply with Section 1008.1.1.

**Purpose and Rationale Statement (Workgroup):**

**Action Taken (Core Group):**

- Approved
- Returned for further Study/Clarification/Justification
- Recommended for Next Code Adoption Cycle
- Disapproved
- Core Group Did Not Review (as of 01/09-11/06)

**709.8 Ducts and air transfer openings.** Penetrations in a smoke barrier by ducts and air transfer openings shall comply with Section 716 and Section 909.5.2.

**Purpose and Rationale Statement (Workgroup):**

The above reference further clarifies opening protection in smoke barrier walls.

**Action Taken (Core Group):**

- Approved**
- Returned for further Study/Clarification/Justification**
- Recommended for Next Code Adoption Cycle**
- Disapproved**
- Core Group Did Not Review (as of 01/09-11/06)**

**710.2 Materials.** The walls shall be of materials permitted by the building type of construction. In Group I-2 and I-2.1, smoke partitions shall have framing covered with noncombustible materials having an approved thermal barrier with an index of not less than 15 in accordance with FM 4880, UL 1040, NFPA 286 or UL 1715.

**Purpose and Rationale Statement (Workgroup):**

IBC requires walls used for smoke partitions be made of materials permitted by the building type of construction. The IBC has no requirements for interior partitions for type of construction in Table 601. The proposed provision requires smoke partition walls be covered with drywall membrane. This is the method currently used to provide smoke and fire rated partitions. Without this guidance, there would be no clear direction for the construction of smoke partitions.

**Action Taken (Core Group):**

- Approved**
- Returned for further Study/Clarification/Justification**
- Recommended for Next Code Adoption Cycle**
- Disapproved**
- Core Group Did Not Review (as of 01/09-11/06)**

**715.4.7.3 Smoke-activated doors.** When automatic-closing doors are installed in the following locations, they shall be automatic closing by actuation of the fire alarm system, actuation of smoke detectors installed in accordance with Section 907.10, activation of the sprinkler system installed in accordance with Section 903.1 or by loss of power to the smoke detector or hold-open device. Doors that are automatic closing by smoke detection shall not have more than a 10-second delay before the door starts to close after the smoke detector is actuated:

**Purpose/Rationale: (N)** This requirement is consistent with the Life Safety Code (NFPA-101) Sec. 18.2.4.3 and the existing CBC Sec. 308.2.1 (5.).

Acute care hospitals and skilled nursing facilities must, in addition to state and local building codes, also comply with NFPA 101-2000 (Life Safety Code) requirements enforced by CMS and/or JCAHO. Coordination of California Building Code and California Fire Code requirements with NFPA-101 provisions is essential for these health care facilities. Adopting provisions consistent with NFPA-101 avoids future liability related to noncompliance with federally mandated requirements.

11. Doors installed in smoke partitions in accordance with Section 710.5.3.

(Section 715.4.7.3)

12. Doors installed in walls required to be fire rated in accordance with Table 302.1.1

13. Doors installed in walls required to be fire rated in accordance with Table 302.3.2

**Purpose and Rationale Statement (Workgroup):**

Additional items are needed to include other locations where automatic-closing doors require smoke-detection activation

**Action Taken (Core Group):**

**Approved**

**Returned for further Study/Clarification/Justification**

**Recommended for Next Code Adoption Cycle**

**Disapproved**

**Core Group Did Not Review (as of 01/09-11/06)**

**716.5.2 Fire barriers.** Duct and air transfer openings of fire barriers shall be protected with approved fire *and smoke* dampers installed in accordance with their listing.

**Exceptions:**

1. Fire dampers are not required at penetrations of fire barriers where ~~any of the following apply~~ *the*

1- penetrations are tested in accordance with ASTM E119 as part of the fire-resistance-rated assembly.

2. *Fire and smoke dampers are not required where* ducts are used as part of an approved smoke control system in accordance with Section 909 and where the use of a fire *or smoke* damper would interfere with the operation of the smoke control system.

3. Such walls are penetrated by ducted HVAC systems, have a required fire-resistance rating of 1 hour or less, are in areas of other than Group H and are in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2. For the purposes of this exception, a ducted HVAC system shall be a duct system for conveying supply, return or exhaust air as part of the structure's HVAC system. Such a duct system shall be constructed of sheet steel not less than 26 gage thickness and shall be continuous from the air-handling appliance or equipment to the air outlet and inlet terminals.

**Purpose and Rationale Statement (Workgroup):**

(N) The addition of smoke dampers maintains the current level of protection provided under the UBC. UBC Section 713.10 requires smoke dampers in occupancy separations, horizontal exit walls, and shaft enclosures which are considered to be fire barriers in accordance with Section 706 of the IBC.

Since this Work Group does not have responsibility for specific occupancies, we are distributing this proposed amendment to the other Work Groups that do so they may

consider it as it may apply to occupancy separations involving their particular occupancies.

It should also be noted that this proposed amendment would also apply to exit passageways, vertical exit enclosures, incidental use areas, and single occupancy fire areas based on IBC Section 706 Fire Barriers.

Exception 3

Elimination of this exception maintains the current level of protection as provided under the UBC. This deletion would be consistent with the use of, and exceptions to use of, fire dampers in UBC Section 713.11 since Exception 3 to Section 716.5.2 for the requirements for fire dampers does not exist in the current UBC Section 713.11.

**Action Taken (Core Group):**

**Approved**

**Returned for further Study/Clarification/Justification**

**Recommended for Next Code Adoption Cycle**

**Disapproved**

**Core Group Did Not Review (as of 01/09-11/06)**

**Chapter 8 – Interior Finishes**

**Chapter 9 – Fire Protection Systems**

**[F] 903.2.2 Group E.** An automatic sprinkler system shall be provided for Group E occupancies as follows:

1. Throughout all Group E fire areas greater than 20,000 square feet (1858 m<sup>2</sup>) in area.
2. Throughout every portion of educational buildings below the level of exit discharge.

**Exception:** An automatic sprinkler system is not required in any fire area or area below the level of exit discharge where every classroom throughout the building has at least one exterior exit door at ground level.

3. In rooms or areas with special hazards such as laboratories, vocational shops and other such areas where hazardous materials in exempt amounts is frequently used.

**Purpose and Rationale Statement (Workgroup):**

In buildings containing Group E Occupancies the CBC requirements are as follows:

[CBC 305.2.4] All laboratories, vocational shops and similar areas containing hazardous materials are required to be separated from each other and from other portions of the building by not less than a one-hour fire-resistive occupancy separation.

[CBC 904.2.4.1] All buildings throughout are required to be sprinklered.

To keep with the same level of protection in the CBC, at least in the areas of special hazards, modifications are proposed in Table 302.1.1—Incidental Use Areas and in [F] 903.2.2 Group E as shown above.

**Action Taken (Core Group):**

Not reviewed, will wait for the latest version.

- Approved
- Returned for further Study/Clarification/Justification
- Recommended for Next Code Adoption Cycle
- Disapproved
- Core Group Did Not Review (as of 01/09-11/06)

[F] **903.2.5 Group I.** An automatic sprinkler system shall be provided throughout buildings with a Group I fire area unless otherwise exempted by Chapter 3 of the Building Code.

**Exception:** An automatic sprinkler system installed in accordance with Section 903.3.1.2 or 903.3.1.3 shall be allowed in Group I-1 facilities.

**Purpose and Rationale Statement (Workgroup):**

Needed for reference to statutory provisions.

**Action Taken (Core Group):**

- Approved
- Returned for further Study/Clarification/Justification
- Recommended for Next Code Adoption Cycle
- Disapproved
- Core Group Did Not Review (as of 01/09-11/06)

**907.2.6 Group I.** A manual fire alarm system shall be installed in Group I occupancies. An electrically supervised, automatic smoke detection system shall be provided in accordance with Sections 907.2.6.1 and 907.2.6.2.

An approved manual and automatic fire alarm system shall be provided for Group I-2 Occupancies. Audible alarm devices shall be used in nonpatient areas. Visible alarm devices may be used in lieu of audible devices in patient-occupied areas. For installation requirements, see the California Fire Code

**Exception:** Manual fire alarm boxes in resident or patient sleeping areas of Group I-1 and I-2 occupancies shall not be required at exits if located at all nurses' control stations or other constantly attended staff locations, provided such stations are visible and continuously accessible and that travel distances required in [Section 907.4.1](#) are not exceeded.

In I-2 Occupancies, audible devices placed in patient areas shall be only chimes or similar sounding devices for alerting staff.

In occupancies housing nonambulatory persons in which restraint is practiced, staff and attendants shall be provided and housed or located in such a manner that such supervisory personnel will also be alerted upon activation of any detector required by this section. When an entire facility is used for the housing of persons, none of whom are physically or mentally handicapped or nonambulatory, and are between the ages of 18 and 64, the buildings or structures comprising such facility shall be exempt from the provisions of this subsection relating to the installation of an automatic fire alarm system.

**Purpose and Rationale Statement (Workgroup):**

**Action Taken (Core Group):**

- Approved**
- Returned for further Study/Clarification/Justification**
- Recommended for Next Code Adoption Cycle**
- Disapproved**
- Core Group Did Not Review (as of 01/09-11/06)**

**907.2.6.3 Group I-3.** Group I-3 occupancies shall be equipped with a manual and automatic fire alarm system installed for alerting staff.

[F] All local detention facilities within the scope of Section 6031.4 of the Penal Code shall have a state fire marshal-approved and listed automatic fire alarm system which responds to the products of combustion other than heat. Exception: A manual fire alarm-initiating device shall be installed in all guard control stations and shall be capable of alerting personnel in a central control point to the presence of fire or smoke within the facility.

**Purpose and Rationale Statement (Workgroup):**

**Action Taken (Core Group):**

- Approved**
- Returned for further Study/Clarification/Justification**
- Recommended for Next Code Adoption Cycle**
- Disapproved**
- Core Group Did Not Review (as of 01/09-11/06)**

**[F] 907.2.12.1 Automatic fire detection.** Smoke detectors shall be provided in accordance with this section. Smoke detectors shall be connected to an automatic fire alarm system. The activation of any detector required by this section shall operate the emergency voice/alarm communication system. Smoke detectors shall be located as follows:

1. In each mechanical equipment, electrical, transformer, telephone equipment or similar room which is not provided with sprinkler protection, elevator machine rooms and in elevator lobbies.

2. In the main return air and exhaust air plenum of each air-conditioning system having a capacity greater than 2,000 cubic feet per minute (cfm) (0.94 m<sup>3</sup>/s). Such detectors shall be located in a serviceable area downstream of the last duct inlet.
3. At each connection to a vertical duct or riser serving two or more stories from a return air duct or plenum of an air-conditioning system. In Group R-1 and R-2 occupancies a listed smoke detector is allowed to be used in each return air riser carrying not more than 5,000 cfm (2.4 m<sup>3</sup>/s) and serving not more than 10 air inlet openings.
4. For Group R, Division 1 Occupancies in all interior corridors serving as a means of egress for an occupied load of 10 or more.

**Purpose and Rationale Statement (Workgroup):**

(SFM) This requirement of Section 403.3 of CBC has not been addressed by the IBC and needs to be carried forward.

**Action Taken (Core Group):**

- Approved
- Returned for further Study/Clarification/Justification
- Recommended for Next Code Adoption Cycle
- Disapproved
- Core Group Did Not Review (as of 01/09-11/06)

**[F] 909.5.2 Opening protection.** Openings in smoke barriers shall be protected by self-closing devices or automatic-closing devices actuated by the required controls for the mechanical smoke control system. Door openings shall be protected by fire door assemblies complying with Section 715.4.3.

**Exceptions:**

1. Passive smoke control systems with automatic-closing devices actuated by spot-type smoke detectors listed for releasing service installed in accordance with Section 907.10. When used in a Group I-2, such detectors shall activate the fire alarm system.
2. Fixed openings between smoke zones that are protected utilizing the airflow method in other than Group I-2.
3. In Group I-2, where doors are installed across corridors, a pair of opposite-swinging doors without a center mullion or horizontal sliding doors that comply with section 1008.1.3.3 shall be installed. ~~shall be installed having vision panels with fire protection-rated glazing materials in fire protection-rated frames, the area of which shall not exceed that tested.~~ Vision panels consisting of fire-rated glazing in approved frames shall be provided in each cross-corridor swinging door and at each cross-corridor horizontal-sliding door in a smoke barrier. The doors shall be close fitting within operational tolerances, and shall not have undercuts, louvers or grilles. The Swinging doors shall have head and jamb stops; and astragals or rabbets at meeting edges, and Doors installed across corridors shall be automatic closing by smoke detection in accordance with Section 715.4.7.3. Positive-latching devices are ~~not~~ required. Doors installed across corridors shall comply with Section 1008.1.1.

4. Group I-3.
5. Openings between smoke zones with clear ceiling heights of 14 feet (4267 mm) or greater and bank-down capacity of greater than 20 minutes as determined by the design fire size.
6. In Group I-2, smoke damper activation may be accomplished by a fire alarm control panel provided that an open area smoke detection system as required by the California Fire Code is provided within all areas served by an HVAC system.

**Purpose and Rationale Statement (Workgroup):**

These proposals are necessary to clarify intent, simplify compliance and maintain consistency in the requirements for smoke control and related control devices used for smoke control in health care occupancies located in Chapter 7 and NFPA 101.

This proposal allows the use of both automatic-closing and self-closing doors in smoke barrier walls. The exclusive use of automatic-closing doors at locations such as restrooms, storage rooms and mechanical rooms are costly and impractical.

Exception 1 has been amended to require smoke detectors provided for releasing service also activate the fire alarm system. This is necessary for compliance with NFPA 101.

Exception 2 is provided with clarifying language indicating the airflow method is not acceptable in a Group I-2. This is required for compliance with NFPA 101.

Exception 3 is amended to specify one-hour fire rated doors installed across corridors be provided with positive latching. Such doors when not provided with latching do not provide an effective smoke or fire barrier. Due to air pressure differentials, such doors may not remain closed when latching is not provided.

Exception 6 is added to indicate the scope of a total detection system for this application. Without this amendment, a total detection system installed in accordance with NFPA 72 would require detection in all areas including attics, sub floor spaces and above ceilings. This amendment limits the installation of detection system to locations served by the HVAC system.

- Approved**
- Returned for further Study/Clarification/Justification**
- Recommended for Next Code Adoption Cycle**
- Disapproved**
- Core Group Did Not Review (as of 01/09-11/06)**

**907.9.1.2 Employee work areas.** Where employee work areas have audible alarm coverage, the notification appliance circuits serving the employee work areas shall be initially designed with a minimum of 20 percent spare capacity to account for the potential of adding visible notification appliances in the future to accommodate hearing impaired employees. [F]

(Editor's note: paragraph text follows the annotation)

Visual alarm-signaling devices are allowed to substitute for audible devices in patient use areas of I-2 occupancies.

(Sec. 909.5.2)

3. In Group I-2, where such doors are installed across corridors, a pair of opposite-swinging doors without a center mullion shall be installed having vision panels with fire protection-rated glazing materials in fire protection-rated frames, the area of which shall not exceed that tested. The doors shall be close-fitting within operational tolerances and shall not have undercuts, louvers or grilles. The doors shall have head and jamb stops, astragals or rabbets at meeting edges and shall be automatic-closing by smoke detection in accordance with Section 715.4.7.3. Positive-latching devices are ~~not~~ required.

**Purpose and Rationale Statement (Workgroup):**

Positive latching is consistent with existing CBC code language. Positive latching provides a improved sealing affect to

**Action Taken (Core Group):**

- Approved**
- Returned for further Study/Clarification/Justification**
- Recommended for Next Code Adoption Cycle**
- Disapproved**
- Core Group Did Not Review (as of 01/09-11/06)**

**Chapter 10 – Means of Egress**

PHOTOLUMINESCENT see section 1002.

SELF-LUMINOUS see section 1002.

SECTION 1002

PHOTOLUMINESCENT is the property of emitting light as the result of absorption of visible light, which continues for a length time after excitation.

SELF-LUMINOUS means powered continuously by a self-contained power source other than a battery or batteries, such as radioactive tritium gas. A self-luminous sign is independent of external power supplies or other energy for its operation.

**Purpose and Rationale Statement (Workgroup):**

These terms which are used in the following recommended amendments are not defined in the codes.

**Action Taken (Core Group):**

- Approved**
- Returned for further Study/Clarification/Justification**
- Recommended for Next Code Adoption Cycle**
- Disapproved**
- Core Group Did Not Review (as of 01/09-11/06)**

**1003.2 Ceiling height.** The means of egress shall have a ceiling height of not less than 7 feet 6 inches (2286 mm).

**Exceptions:**

1. Sloped ceilings in accordance with Section 1208.2.
2. Ceilings of dwelling units and sleeping units within residential occupancies in accordance with Section 1208.2.
3. Allowable projections in accordance with Section 1003.3.
4. Stair headroom in accordance with Section 1009.2.
5. Door height in accordance with Section 1008.1.1.
6. In Group I-2 occupancies, the means of egress shall have a ceiling height of not less than 8 feet (2439mm).

**Purpose and Rationale Statement (Workgroup):**

Acute care hospitals and skilled nursing facilities must, in addition to state and local building codes, also comply with NFPA 101-2000 (Life Safety Code) requirements enforced by CMS and/or JCAHO. Coordination of Building Code and Fire Code requirements with NFPA 101 provisions is essential for these health care facilities. Adopting provisions consistent with NFPA 101 requirements incurs no additional costs and avoids future liability related to noncompliance with federally mandated requirements.

**1003.3 Protruding objects.** Protruding objects shall comply with the requirements of Sections 1003.3.1 through 1003.3.4.

Exception: In Group I-2 and Group I-2.1 occupancies, protruding objects shall not extend more than 12 inches (305 mm) below the minimum ceiling height required by Section 1003.2.

**Purpose and Rationale Statement (Workgroup):**

An exception specific to Group I-2 is necessary in order to coordinate with OSHPD requirements for ceiling height. The exception is placed at this location so as to avoid the adoption of the 50% ceiling area reduction in section 1003.3.1. A reduction in ceiling height for the Group I-2 is not acceptable. The additional ceiling height is necessary to allow additional capacity for the accumulation of smoke when it is necessary to relocate patients to a safe area or defend patients in place area.

**1003.5 Elevation change.** Where changes in elevation of less than 12 inches (305 mm) exist in the means of egress, sloped surfaces shall be used. Where the slope is greater than one unit vertical in 20 units horizontal (5-percent slope), ramps complying with Section 1010 shall be used. Where the difference in elevation is 6 inches (152 mm) or less, the ramp shall be equipped with either handrails or floor finish materials that contrast with adjacent floor finish materials.

**Exceptions:**

1. A single step with a maximum riser height of 7 inches (178 mm) is permitted for buildings with occupancies in Groups F, H, R-2 and R-3 and Groups S and U at exterior doors not required to be accessible by Chapter 11.
2. A stair with a single riser or with two risers and a tread is permitted at locations not required to be accessible by Chapter 11, provided that the risers and treads comply with Section 1009.3, the minimum depth of the tread is 13 inches (330 mm) and at least one handrail complying with Section 1012 is provided within 30 inches (762 mm) of the centerline of the normal path of egress travel on the stair.
3. A step is permitted in aisles serving seating that has a difference in elevation less than 12 inches (305 mm) at locations not required to be accessible by Chapter 11, provided that the risers and treads comply with Section 1025.11 and the aisle is provided with a handrail complying with Section 1025.13.

Any change in elevation in a corridor or exit passageway serving nonambulatory persons in a Group I-2 occupancy shall be by means of a ramp or sloped walkway.

**Purpose and Rationale Statement (Workgroup):**

This proposal is intended to facilitate the evacuation and relocation of patients by means of beds and gurneys. For this purpose, no other method of changing elevations can be found acceptable. If not amended, model code would allow changes in elevation in an exit passageway to be by steps. In hospitals where patients may need to be transported by means of beds, gurneys or wheelchairs, steps would necessitate the use of additional personnel to assist in moving the bed, gurney or wheelchair over the steps and would impede the movement of patients. This is critical during emergency situations when it is important to evacuate/relocate patients quickly.

**1008.1.1 Size of doors.** The minimum width of each door opening shall be sufficient for the occupant load thereof and shall provide a clear width of not less than 32 inches (813 mm). Clear openings of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees (1.57 rad). Where this section requires a minimum clear width of 32 inches (813 mm) and a door opening includes two door leaves without a mullion, one leaf shall provide a clear opening width of 32 inches (813 mm). The maximum width of a swinging door leaf shall be 48 inches (1219 mm) nominal. Means of egress doors in a Group I-2 occupancy used for the movement of beds and litter patients shall provide a clear width not less than ~~41.5~~ 44 inches (1054 mm). The height of doors shall not be less than 80 inches (2032 mm).

**Purpose and Rationale Statement (Workgroup):**

This proposal is necessary to provide adequate clear width for the passage of beds, gurneys and similar equipment. The IBC has reduced the clear width of door openings from 44 inches to 41.5 inches. This proposal reinstates the clear width at 44 inches. The reduction in clear width contained in the IBC is a problem. The width of a gurney with an I.V. attached on one side is 40.5 inches. The width of hospital beds produced by the major manufactures can be 41.5 inches. The clear width of 41.5 inches allowed by the IBC is insufficient for the passage of beds and gurneys. Adequate clear width is critical during emergency situations when it is important to evacuate/relocate patients quickly.

**1008.1.1.1 Projections into clear width.** There shall not be projections into the required clear width lower than 34 inches (864 mm) above the floor or ground. Projections into the clear opening width between 34 inches (864 mm) and 80 inches (2032 mm) above the floor or ground shall not exceed 4 inches (102 mm).

Exception: In a Group a I-2 occupancy, there shall be no projections into the clear width of means of egress doors used for the movement of beds and litter patients.

**Purpose and Rationale Statement (Workgroup):**

(N) This proposal is necessary to provide adequate clear width for the passage of beds, gurneys and similar equipment. The IBC has reduced the clear width of door openings from 44 inches to 41.5 inches. This proposal reinstates the clear width at 44 inches. The reduction in clear width contained in the IBC is a problem. The width of a gurney with an I.V. attached on one side is 40.5 inches. The width of hospital beds produced by the major manufactures can be 41.5 inches.

The clear width of 41.5 inches allowed by the IBC is insufficient for the passage of beds and gurneys. If projections such as door hardware or handrails are allowed to project into the clear width, the 41.5 inches specified in the IBC for Group I-2 could be reduced to 37.5 inches. The clear width of 44" proposed by the proposed amendment could be reduced to 40". Neither dimension is sufficient for the passage of beds or gurneys. Adequate clear width is critical during emergency situations when it is important to evacuate/relocate patients quickly.

**Action Taken (Core Group):**

- Approved**
- Returned for further Study/Clarification/Justification**
- Recommended for Next Code Adoption Cycle**
- Disapproved**
- Core Group Did Not Review (as of 01/09-11/06)**

**1008.1.2 Door swing.** Egress doors shall be side-hinged swinging.

**Exceptions:**

1. Private garages, office areas, factory and storage areas with an occupant load of 10 or less.
2. Group I-3 occupancies used as a place of detention.
3. Critical or intensive care patient rooms within suites of health care facilities.
4. Doors within or serving a single dwelling unit in Groups R-2 and R-3.
5. In other than Group H occupancies, revolving doors complying with Section 1008.1.3.1.
6. In other than Group H occupancies, horizontal sliding doors complying with Section 1008.1.3.3 are permitted in a means of egress.
7. Power-operated doors in accordance with Section 1008.1.3.2.
8. Doors serving a bathroom within an individual sleeping unit in Group R-1.

Doors shall swing in the direction of egress travel where serving an occupant load of 50 or more persons or a Group H occupancy. In a Group I-2 occupancy, all required exterior egress doors shall open in the direction of egress regardless of the occupant load served.

The opening force for interior side-swinging doors without closers shall not exceed a 5-pound (22 N) force. For other side-swinging, sliding and folding doors, the door latch shall release when subjected to a 15-pound (67 N) force. The door shall be set in motion when subjected to a 30-pound (133 N) force. The door shall swing to a full-open position when subjected to a 15-pound (67 N) force. Forces shall be applied to the latch side.

**Purpose and Rationale Statement (Workgroup):**

This amendment reinstates the provision requiring exterior exit doors in a Group I-2 swing in the direction of egress regardless of occupant load. In hospitals where patients may need to be transported by means of beds, gurneys or wheelchairs, egress doors that open against the direction of egress would necessitate the use of additional personnel to assist in moving the bed, gurney or wheelchair over the steps and would impede the movement of patients. This is critical during emergency situations when it is important to evacuate/relocate patients quickly.

**Action Taken (Core Group):**

- Approved**
- Returned for further Study/Clarification/Justification**
- Recommended for Next Code Adoption Cycle**
- Disapproved**
- Core Group Did Not Review (as of 01/09-11/06)**

**1008.1.8.6 Delayed egress locks.** Approved, listed, delayed egress locks shall be permitted to be installed on doors serving any occupancy except Group A, E and H occupancies in buildings that are equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 ~~or~~ and an approved automatic smoke ~~or heat~~ detection system installed in accordance with Section 907, provided that the doors unlock in accordance with Items 1 through 6 below. A building occupant shall not be required to

pass through more than one door equipped with a delayed egress lock before entering an exit.

1. The doors unlock upon actuation of the automatic sprinkler system or automatic ~~fire~~ smoke detection system.
2. The doors unlock upon loss of power ~~controlling the lock or lock mechanism to~~ any one of the following:
  - 2.1 The lock or lock mechanism.
  - 2.2 The automatic smoke detection system.
  - 2.3 Means of egress illumination as required by Section 1006.
3. The door locks shall have the capability of being unlocked by a signal from an approved location and a fire command center, when provided.
4. The initiation of an irreversible process which will release the latch in not more than 15 seconds shall be initiated when a force of not more than 15 pounds (67 N) is applied for 1 second to the release device. Initiation of the irreversible process shall activate an audible signal in the vicinity of the door. Once the door lock has been released by the application of force to the releasing device, relocking shall be by manual means only at the door.

**Exception:** Where approved, a delay of not more than 30 seconds is permitted.

5. A sign shall be provided on the door located above and within 12 inches (305 mm) of the release device reading: PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 [30] SECONDS. Sign lettering shall be at least 1 inch (25 mm) in height and shall have a stroke of not less than 1/8 inch (3.2 mm). In addition, tactile exit signs shall be provided in accordance to Section 1011.3.
6. Emergency lighting shall be provided at the door.

**Purpose and Rationale Statement (Workgroup):**

Delayed egress locks restrict immediate egress from occupancies. Both fire sprinkler protection and smoke detection should be provided so that the hazards associated with the delay created by the delayed egress mechanism is minimized. Additional assurances are needed to minimize the dangers associated with the loss of power when occupants are trying to egress a building and encounter the delayed egress hardware.

The proposed amendments reinstate UBC requirements, which require both fire sprinkler protection and smoke detection. In addition, reference to the Fire Code is provided for additional information related to the installation of the required smoke detection system. The amendment also includes additional revisions for clarification of requirements pertaining to the loss of power, relocking by manual means and the legibility of the required sign.

**Action Taken (Core Group):**

- Approved**
- Returned for further Study/Clarification/Justification**
- Recommended for Next Code Adoption Cycle**
- Disapproved**

[ ] Core Group Did Not Review (as of 01/09-11/06)

**1008.1.9 Panic and fire exit hardware.** Where panic and fire exit hardware is installed, it shall comply with the following:

1. The actuating portion of the releasing device shall extend at least one-half of the door leaf width.
2. The maximum unlatching force shall not exceed 15 pounds (67 N).

Each door in a means of egress from a Group A, ~~E~~ or I-2 occupancy having an occupant load of 50 or more and any Group H occupancy shall not be provided with a latch or lock unless it is panic hardware or fire exit hardware.

Exception: A main exit of a Group A occupancy in compliance with Section 1008.1.8.3, Item 2.

Electrical rooms with equipment rated 1,200 amperes or more and over 6 feet (1829 mm) wide that contain over current devices, switching devices or control devices with exit access doors must be equipped with panic hardware and doors must swing in the direction of egress.

If balanced doors are used and panic hardware is required, the panic hardware shall be the push-pad type and the pad shall not extend more than one-half the width of the door measured from the latch side.

**1008.1.9 Panic and fire exit hardware.** Where panic and fire exit hardware is installed, it shall comply with the following:

1. The actuating portion of the releasing device shall extend at least one-half of the door leaf width.
2. (Editor's note: paragraph text follows the annotation)

2. The maximum unlatching force shall not exceed 15 pounds (67 N).

Each door in a means of egress from a Group A, ~~E~~, I-2 or I-2.1 occupancy having an occupant load of 50 or more and any Group H occupancy shall not be provided with a latch or lock unless it is panic hardware or fire exit hardware.

**Purpose and Rationale Statement (Workgroup):**

Amendment reinstates the provision requiring panic hardware on each door in a means of egress serving 50 or more in a Group I-2 or I-2.1 occupancies. In hospitals patients may need to be transported by means of beds, gurneys, or wheelchair, doors that are not equipped with panic hardware would necessitate the use of additional personnel to assist in moving the bed, gurney or wheelchair over steps and impede the movement of patients. This is critical during emergency situations it is important to evacuate/relocate patient quickly.

**1009.1 Stairway width.** The width of stairways shall be determined as specified in Section 1005.1, but such width shall not be less than 44 inches (1118 mm). See Section 1007.3 for accessible means of egress stairways.

**Exceptions:**

1. Stairways serving an occupant load of less than 50 shall have a width of not less than 36 inches (914 mm).
2. Spiral stairways as provided for in Section 1009.8.
3. Aisle stairs complying with Section 1025.
4. Where an incline platform lift or stairway chairlift is installed on stairways serving occupancies in Group R-3, or within dwelling units in occupancies in Group R-2, a clear passage width not less than 20 inches (508 mm) shall be provided. If the seat and platform can be folded when not in use, the distance shall be measured from the folded position.

Means of egress stairs in a Group I-2 occupancy used for the movement of beds and litter patients shall provide a clear width not less than ~~41.5~~ 44 inches (1118 mm).

**Purpose and Rationale Statement (Workgroup):**

This proposal is necessary to provide adequate clear width for the passage of litters, gurneys and similar equipment. The IBC allows a stairway width of 36 inches serving an occupant load of 50 or less. The IBC allows a stairway 44 inches in width for other occupant loads. The IBC allows handrails and other projections to reduce the clear width 4.5 inches. This proposal reinstates the clear width at 44 inches in Group I-2 when stairways serve bed or litter patients.

The reductions in clear width contained in the IBC are a problem. The length and width of gurneys and litters will not allow the movement of patients in stairways without lifting patients and equipment above the newel posts and handrails. Such an effort would necessitate the use of additional personnel to assist in moving the patients through stairways. Adequate clear width is critical during emergency situations when elevators are not available including extended power interruptions, earthquakes and fires. Stairways may be needed to relocate or evacuate patients when other building systems fail or an emergency occurs when it is important to evacuate/relocate patients quickly.

**Action Taken (Core Group):**

- Approved**
- Returned for further Study/Clarification/Justification**
- Recommended for Next Code Adoption Cycle**
- Disapproved**
- Core Group Did Not Review (as of 01/09-11/06)**

**1011.6 Floor-level exit signs.** Where exit signs are required by Section 1011.1, additional approved low-level exit signs which are internally or externally illuminated, photoluminescent or self-luminous, shall be provided in all interior corridors of Group I

and in all interior corridors serving guest rooms of hotels in Group R, Division 1 occupancies.

Exceptions:

1. Group I occupancies which are provided with smoke barriers constructed in accordance with Section 407.4
2. Group I, Division 3 occupancies.

The bottom of the sign shall not be less than 6 inches (152 mm) or more than 8 inches (203 mm) above the floor level and shall indicate the path of exit travel. For exit and exit access doors, the sign shall be on the door or adjacent to the door with the closest edge of the sign or marker within 4 inches (102 mm) of the door frame.

Note: Pursuant to Health and Safety Code Section 13143, this California amendment applies to all newly constructed buildings or structures subject to this section for which a building permit is issued (or construction commenced, where no building permit is issued) on or after January 1, 1989.

**1011.6.2. (1007.6.2.1.1, 2001 CBC) Path Marking.** When exit signs are required by Chapter 10, in addition to approved floor-level exit signs, approved path marking shall be installed at floor level or no higher than 8 inches (203 mm) above the floor level in all interior rated exit corridors of unsprinklered Group R, Division 1 and Division 2 Occupancies. Such marking shall be continuous except as interrupted by door-ways, corridors or other such architectural features in order to provide a visible delineation along the path of travel.

NOTE: Pursuant to Health and Safety Code Section 13143, the California amendments of this section shall apply to all newly constructed buildings or structures subject to this section for which a building permit is issued (or construction commenced, where no building permit is issued) on or after January 1, 1989.

**Purpose and Rationale Statement (Workgroup):**

(SFM) The specific requirement is not statutory. The mandate is to have regulations addressing floor level exit signs and path markings. Health and Safety Code 13143

Group recommended language is italicized additions to code language draft taken from the eSolutions web site and added R 1's and R2's.

**Action Taken (Core Group):**

- Approved**
- Returned for further Study/Clarification/Justification**
- Recommended for Next Code Adoption Cycle**
- Disapproved**
- Core Group Did Not Review (as of 01/09-11/06)**

**1012.7 Projections.** On ramps, the clear width between handrails shall be 36 inches (914 mm) minimum. Projections into the required width of stairways and ramps at each handrail shall not exceed 4.5 inches (114 mm) at or below the handrail height. Projections into the required width shall not be limited above the minimum headroom height required in Section 1009.2.

Exception: In Group I-2 occupancy, on ramps and stairways used for the movement of bed and litter patients, the clear width between handrails shall be 44 inches (1118 mm) minimum.

**Purpose and Rationale Statement (Workgroup):**

This proposal is necessary to provide adequate clear width for the passage of beds, litters, gurneys and similar equipment. The IBC allows the clear width between ramp handrails to be 36 inches. The IBC allows a stairway width of 36 inches serving an occupant load of 50 or less. The IBC allows a stairway 44 inches in width for other occupant loads. The IBC allows handrails and other projections to reduce the clear width 4.5 inches. This proposal reinstates the clear width at 44 inches in Group I-2 when ramps or stairways serve bed or litter patients.

The reductions in clear width contained in the IBC are a problem. The length and width of gurneys and litters will not allow the movement of patients in stairways or on ramps without lifting patients and equipment above the newel posts and handrails. Such an effort would necessitate the use of additional personnel to assist in moving the patients through stairways. Adequate clear width is critical during emergency situations when elevators are not available including extended power interruptions, earthquakes and fires. Stairways and ramps may be needed to relocate or evacuate patients when other building systems fail or an emergency occurs when it is important to evacuate/relocate patients quickly.

**Action Taken (Core Group):**

- Approved**
- Returned for further Study/Clarification/Justification**
- Recommended for Next Code Adoption Cycle**
- Disapproved**
- Core Group Did Not Review (as of 01/09-11/06)**

**SECTION 1014  
EXITS AND EXIT ACCESS DOORWAYS**

Provide for a minimum of two exits for laboratories, vocational shops and similar areas having a floor area of 200 square feet or more where special hazards exist. Also limit maximum travel distance to an exit or exit access door to a maximum 75 feet. (CBC 1007.3.8) (Item 11) (Alternate new section in Chapter 4 for Group E and I-4 Occupancies)—

**1014.1 Exit or exit access doorways required.** Two exits or exit access doorways from any space shall be provided where one of the following conditions exists:

- a. The occupant load of the space exceeds the values in Table 1014.1.
- b. The common path of egress travel exceeds the limitations of Section 1013.3.
- c. Where required by Sections 1014.3, 1014.4, and 1014.5 and 1014.X.

**Exception:** Group I-2 occupancies shall comply with Section 1013.2.2.

<b>TABLE 1014.1 SPACES WITH ONE MEANS OF EGRESS</b>	
<b>OCCUPANCY</b>	<b>MAXIMUM OCCUPANT LOAD</b>
A, B, E, F, M, U	50
H-1, H-2, H-3	3
H-4, H-5, I-1, I-3, I-4, R	10
S	30

**1.** For special hazardous areas such as laboratories and vocation shops and similar areas, see Section 1014.X

**1014.X Special hazardous areas not classified as H Occupancies in Group E Occupancies.** Laboratories, vocational shops and other areas with similar hazards having a floor area of 200 square feet (18.6 m<sup>2</sup>) or more shall have access to not less than two separate exits or exit-access doorways. All portions of such laboratories shall be within 75 feet (22 860 mm) of an exit or exit access door.

**Purpose and Rationale Statement (Workgroup):**

Modifications to Sections 1014.1 and Table 1014.1 are proposed to reference new section 1014.X ('X' being number to be selected by Core committee) which provides for a minimum of two exits and a maximum travel distance of 75 feet to an exit or exit access in areas with special hazards that are 200 square feet or more.

This requirement is consistent with CBC Section 1007.3.8.

**Action Taken (Core Group):**

Revise justification to not rely upon CBC See 1013.3 for common path of exit travel.

- Approved
- Returned for further Study/Clarification/Justification
- Recommended for Next Code Adoption Cycle
- Disapproved
- Core Group Did Not Review (as of 01/09-11/06)

(Sec. 1014.2)

4. Means of egress from dwelling units or sleeping areas shall not lead through other sleeping areas, toilet rooms or bathrooms.

5. Exits shall not pass through any room subject to locking except in Group I, Division 2 occupancies classified as mental hospitals and Group I, Division 3 occupancies classified as detention facilities.

**Purpose and Rationale Statement (Workgroup):**

This amendment is retained for clarification. If not specifically accepted, it may not be clear that it may be appropriate to lock some rooms or areas to restrain the occupants.

**Action Taken (Core Group):**

- Approved**
- Returned for further Study/Clarification/Justification**
- Recommended for Next Code Adoption Cycle**
- Disapproved**
- Core Group Did Not Review (as of 01/09-11/06)**

**1014.2.2.1 Basement exits.** All rooms below grade shall have not less than one exit access that leads directly to an exterior exit door opening directly to an exit discharge at grade plane or the public way.

**Purpose and Rationale Statement (Workgroup):**

This amendment reinstates the UBC provision that requires a direct exit to grade when a Group I-2 is located in a basement. It is much more difficult to evacuate patients up stairs. Evacuating upstairs requires additional staff. Fires occurring in basements are more difficult to extinguish. Smoke from basement fires will rise to higher levels, much of which may enter stairwells when evacuation is necessary and may be underway. A direct exterior exit to grade plane provides an egress path that does not encounter stairs or smoke filled enclosures. Such a route will also be available should elevators not be useable due to a fire, earthquake or power outage.

**Action Taken (Core Group):**

- Approved**
- Returned for further Study/Clarification/Justification**
- Recommended for Next Code Adoption Cycle**
- Disapproved**
- Core Group Did Not Review (as of 01/09-11/06)**

**(Sec. 1014.2)**

5. For rooms other than patient sleeping rooms located within a suite, exit access travel from within the suite shall be permitted through two intervening rooms where the travel distance to the exit access door is not greater than 50 feet (15 240 mm).

Suites of sleeping rooms shall not exceed 5,000 square feet (465 m<sup>2</sup>). Suites of rooms

other than patient sleeping rooms shall not exceed 10,000 square feet (929 m<sup>2</sup>). Any patient sleeping room, or any suite that includes patient sleeping rooms, of more than 1,000 square feet (93 m<sup>2</sup>) shall have at least two exit access doors remotely located from each other. Any room or suite of rooms other than patient sleeping rooms of more than 2,500 square feet (232 m<sup>2</sup>) shall have at least two access doors remotely located from each other. The travel distance between any point in a Group I-2 occupancy and an exit access door in the room shall not exceed 50 feet (15 240 mm). The travel distance between any point in a suite of sleeping rooms and an exit access door of that suite shall not exceed 100 feet (30 480 mm).

Each suite of rooms shall be separated from the remainder of the building by not less than a one-hour fire barrier.

Egress for portions of the building outside the suite shall not require passage through the suite.

**Purpose and Rationale Statement (Workgroup):**

In lieu of corridors with smoke partitions, suites are provided in health care occupancies. These spaces are partitioned or open areas of 5,000 to 10,000 square feet with no fire rated or smoke separations.

The first amendment reinstates the requirement for a fire barrier to define the perimeter of each suite. Without a clearly defined perimeter, it would not be possible to design or review a suite for compliance with the maximum area or the maximum travel distance requirements.

The second amendment provides clarification that a suite shall not be used for egress from other portions of the building. While this requirement can be found in other provisions of Chapter 10, it is provided here for additional clarity and direction.

**Purpose and Rationale Statement (Workgroup):**

**Action Taken (Core Group):**

- Approved**
- Returned for further Study/Clarification/Justification**
- Recommended for Next Code Adoption Cycle**
- Disapproved**
- Core Group Did Not Review (as of 01/09-11/06)**

**(Sec. 1017.1)**

4. A fire-resistance rating is not required for corridors in an occupancy in Group B which is a space requiring only a single means of egress complying with Section 1015.1.

**TABLE 1017.1 CORRIDOR FIRE-RESISTANCE RATING**

OCCUPANCY	OCCUPANT LOAD SERVED BY CORRIDOR	REQUIRED FIRE-RESISTANCE RATING (hours)	
		Without sprinkler system	With sprinkler system <sup>c</sup>
H-1, H-2, H-3	All	Not Permitted	1
H-4, H-5	Greater than 30	Not Permitted	1

A, B, E, F, M, S, U	Greater than 30	1	0
R	Greater than 10	Not Permitted	0.5
I-2 <sup>a</sup> , I-4	All	Not Permitted <sup>d</sup>	0
I-1, I-3	All	Not Permitted	1 <sup>b</sup>

- a. For requirements for occupancies in Group I-2, see Section 407.3.
- b. For a reduction in the fire-resistance rating for occupancies in Group I-3, see Section 408.7.
- c. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 where allowed.
- d. In existing Group I, Division 2 Occupancies, the corridor fire-resistance rating shall be 1-hour when the fire area is not equipped with an automatic sprinkler system in accordance with Section 903.1.1

**Purpose and Rationale Statement (Workgroup):**

The table has been revised with a footnote to acknowledge that not all corridors in Group I-2 occupancies will be protected by fire sprinklers and to require such corridors be 1-hour fire resistive construction when they are not protected by fire sprinklers.

With IBC, there is a presumption that the Group I-2 will be provided with fire sprinkler protection. This is however not always true. Hospitals are extremely dynamic buildings undergoing constant change. Existing hospitals undergoing remodeling may not be protected by fire sprinklers. Clarification is necessary to indicate that, when an area is not protected by fire sprinklers, reductions in corridor protection are not appropriate.

**Action Taken (Core Group):**

- Approved
- Returned for further Study/Clarification/Justification
- Recommended for Next Code Adoption Cycle
- Disapproved
- Core Group Did Not Review (as of 01/09-11/06)

**(Sec. 1019.2)**

**TABLE 1019.2 BUILDINGS WITH ONE EXIT**

OCCUPANCY	MAXIMUM HEIGHT OF BUILDING ABOVE GRADE PLANE	MAXIMUM OCCUPANTS (OR DWELLING UNITS) PER FLOOR AND TRAVEL DISTANCE
A, B <sup>d</sup> , E <sup>e</sup> , F, M, U	1 Story	49 occupants and 75 feet travel distance
H-2, H-3	1 Story	3 occupants and 25 feet travel distance
H-4, H-5, I, R	1 Story	10 occupants and 75 feet travel distance
<u>I-2</u>	<u>1 Story</u>	<u>8 occupants and 50 feet travel distance</u>
S <sup>a</sup>	1 Story	29 occupants and 100 feet travel distance
B <sup>b</sup> , F, M, S <sup>a</sup>	2 Stories	30 occupants and 75 feet travel distance
R-2	2 Stories <sup>c</sup>	4 dwelling units and 50 feet travel distance

**Purpose and Rationale Statement (Workgroup):**

(N) A row has been added to Table 1019.2 to separate Group I-2 requirements from other Group I occupancies. The number of occupants is reduced from 10 occupants to 8 occupants and the travel distance has been reduced from 75 feet to 50 feet when two exits are required. The revised requirements more closely resemble the requirements of section 1013.2.2 for Group

**Action Taken (Core Group):**

- Approved**
- Returned for further Study/Clarification/Justification**
- Recommended for Next Code Adoption Cycle**
- Disapproved**
- Core Group Did Not Review (as of 01/09-11/06)**



**1021.2 Width.** The width of exit passageways shall be determined as specified in Section 1005.1 but such width shall not be less than 44 inches (1118 mm), except that exit passageways serving an occupant load of less than 50 shall not be less than 36 inches (914 mm) in width.

The required width of exit passageways shall be unobstructed.

**Exception:** Doors, when fully opened, and handrails, shall not reduce the required width by more than 7 inches (178 mm). Doors in any position shall not reduce the required width by more than one-half. Other nonstructural projections such as trim and similar decorative features are permitted to project into the required width 1.5 inches (38 mm) on each side.

The clear width of exit passageways in a Group I-2 occupancy used for the movement of beds and litters shall be 44" (1118) minimum.

**Purpose and Rationale Statement (Workgroup):**

This proposal is necessary to provide adequate clear width for the passage of beds, litters, gurneys and similar equipment. The IBC allows an exit passageway width of 36 inches serving an occupant load of 50 or less. The IBC allows an exit passageway 44 inches in width for other occupant loads. The IBC allows handrails and other projections to reduce the clear width 4.5 inches. This proposal reinstates the clear width at 44 inches in Group I-2 when exit passageways serve bed or litter patients.

The reductions in clear width contained in the IBC are a problem. The length and width of beds, gurneys and litters will not allow the movement of patients in passageways without encountering projections and obstructions that limit free passage. Such an effort would necessitate the use of additional personnel to assist in moving the patients through obstructed passageways. Adequate clear width is critical during emergency situations when elevators are not available including extended power interruptions, earthquakes and fires. Like stairways and ramps, passageways may be needed to relocate or evacuate

patients when other building systems fail or an emergency occurs when it is important to evacuate/relocate patients quickly.

**Action Taken (Core Group):**

**Approved**

**Returned for further Study/Clarification/Justification**

**Recommended for Next Code Adoption Cycle**

**Disapproved**

**Core Group Did Not Review (as of 01/09-11/06)**

**1026.1 General.** In addition to the means of egress required by this chapter, provisions shall be made for emergency escape and rescue in Group R and I-1 occupancies. Basements and sleeping rooms below the fourth story above grade plane shall have at least one exterior emergency escape and rescue opening in accordance with this section. Where basements contain one or more sleeping rooms, emergency egress and rescue openings shall be required in each sleeping room, but shall not be required in adjoining areas of the basement. Such openings shall open directly into a public way or to a yard or court that opens to a public way.

Exceptions:

1. In other than Group R-3 occupancies, buildings equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.
2. In other than Group R-3 occupancies, sleeping rooms provided with a door to a fire-resistance-rated corridor having access to two remote exits in opposite directions.
3. The emergency escape and rescue opening is permitted to open onto a balcony within an atrium in accordance with the requirements of Section 404, provided the balcony provides access to an exit and the dwelling unit or sleeping unit has a means of egress that is not open to the atrium.
4. Basements with a ceiling height of less than 80 inches (2032 mm) shall not be required to have emergency escape and rescue windows.
5. High-rise buildings in accordance with Section 403.
6. Emergency escape and rescue openings are not required from basements or sleeping rooms that have an exit door or exit access door that opens directly into a public way or to a yard, court or exterior exit balcony that opens to a public way.
  - d. Basements without habitable spaces and having no more than 200 square feet (18.6 m<sup>2</sup>) in floor area shall not be required to have emergency escape windows.

**1026.2 Minimum size.** Emergency escape and rescue openings shall have a minimum net clear opening of 5.7 square feet (0.53 m<sup>2</sup>).

Exception: The minimum net clear opening for emergency escape and rescue grade-floor openings shall be 5 square feet (0.46 m<sup>2</sup>).

1026.2.1 Minimum dimensions. The minimum net clear opening height dimension shall be 24 inches (610 mm). The minimum net clear opening width dimension shall be 20 inches (508 mm). The net clear opening dimensions shall be the result of normal operation of the opening.

**1026.3 Maximum height from floor.** Emergency escape and rescue openings shall have the bottom of the clear opening not greater than 44 inches (1118 mm) measured from the floor.

**1026.4 Operational constraints.** Emergency escape and rescue openings and any exit doors shall be maintained free of any obstructions other than those allowed by this section and shall be operational from the inside of the room without the use of keys or tools. Bars, grilles, grates or similar devices are permitted to be placed over emergency escape and rescue openings provided the minimum net clear opening size complies with Section 1026.2 and such devices shall be releasable or removable from the inside without the use of a key, tool, special knowledge or effort or force greater than that which is required for normal operation of the escape and rescue opening. Where such bars, grilles, grates or similar devices are installed ~~in existing buildings~~, smoke alarms shall be installed in accordance with Sections 907.2.10 regardless of the valuation of the alteration. The release mechanism shall be maintained operable at all times.

Such bars, grills, grates or any similar devices shall be equipped with an approved exterior release device for use by the fire department only when required by the authority having jurisdiction.

When security bars (burglar bars) are installed on emergency escape and rescue openings and doors, such devices shall comply with the California Building Code Standard XXXXX.

Group R Division 1 occupancies provided with a monitored fire sprinkler system is accordance with section 903.2.7 and designed in accordance with NFPA 13 may have openable windows permanently restricted to a maximum 4-inch (102mm) open position.

**Purpose and Rationale Statement (Workgroup):**

(SFM) Bars, grilles, grates and similar devices used for security purposes have contributed to many fire deaths and injuries. When used on emergency escape and rescue opening and doors, these devices can greatly slowdown or prevent the victims of residential emergencies from exiting the building. Because of this, it is very important that we maintain these existing amendments to the California Building Code, see section 310.4, in regards to bars, grills, grates or similar devices.

**Action Taken (Core Group):**

- Approved**
- Returned for further Study/Clarification/Justification**
- Recommended for Next Code Adoption Cycle**
- Disapproved**

Core Group Did Not Review (as of 01/09-11/06)

## Chapter 11 – Accessibility

### Chapter 12 – Interior Environment

**1203.5 Other ventilation and exhaust systems.** Ventilation and exhaust systems for occupancies and operations involving flammable or combustible hazards or other contaminant sources as covered in the ~~International~~ California Mechanical Code or the ~~International~~ California Fire Code shall be provided as required by both codes.

**1203.5.1 Exhaust Ventilation.** In all buildings or portions thereof where Class I and II liquids are used, a mechanically operated exhaust ventilation system shall be provided sufficient to produce six air changes per hour. Such exhaust ventilation shall be taken from a point at or near the floor level.

**Purpose and Rationale Statement (Workgroup):**

**Action Taken (Core Group):**

The Core Group suggested this item be re-reviewed.

Approved

Returned for further Study/Clarification/Justification

Recommended for Next Code Adoption Cycle

Disapproved

Core Group Did Not Review (as of 01/09-11/06)

Chapter 13 – Energy Efficiency

Chapter 14 – Exterior Walls

Chapter 15 – Roof Assemblies and Rooftop Structures

Chapter 16 – Structural Design

Chapter 17 – Structural Tests and Special Inspections

Chapter 18 – Soils and Foundations

Chapter 19 – Concrete

Chapter 20 – Aluminum

Chapter 21 – Masonry

Chapter 22 – Steel

Chapter 23 – Wood

Chapter 24 – Glass and Glazing

Chapter 25 – Gypsum Board and Plaster

Chapter 26 – Plastic

Chapter 27 – Electrical

Chapter 28 – Mechanical Systems

Chapter 29 – Plumbing Systems

Chapter 30 – Elevators and Conveying Systems

Chapter 31 – Special Construction

Chapter 32 – Encroachment Into The Public Way  
 Chapter 33 – Safeguards During Construction  
 Chapter 34 – Existing Structures

**Chapter 35 – Referenced Standards**

ACRONYM = NFPA

Standard reference number	Title	Referenced in code section number
11—98	Low Expansion Foam	904.7
11A—99	Medium- and High-expansion Foam Systems	904.7
12—00	Carbon Dioxide Extinguishing Systems	904.8, 904.11
12A—04	Halon 1301 Fire Extinguishing Systems	904.9
13—02	Installation of Sprinkler Systems	704.12, 707.2, 903.3.1.1, 903.3.2, 903.3.5.1.1, 904.11, 907.8, 3104.5, 3104.9

Amendments to NFPA 13 2002 edition

**Add a sentence to the beginning of Section 9.3.5.8.9 as follows:**

Where pipe is used for sway bracing, it shall have a wall thickness of not less than Schedule 40.

**Replace Section 9.3.5.9.4 as follows:**

Lag screws or power-driven fasteners shall not be used to attach braces to the building structure.

13D—02	Installation of Sprinkler Systems in One- and Two-family Dwellings and Manufactured Homes	903.1.2, 903.3.1.3, 903.3.5.1.1
13R—02	Installation of Sprinkler Systems in Residential Occupancies Up to and Including Four Stories in Height	903.1.2, 903.3.1.2, 903.3.5.1.1, 903.3.5.1.2, 903.4
14—03	Installation of Standpipe and Hose System	905.2, 905.3.4, 905.4.2, 905.8
16—03	Installation Foam-Water Sprinkler and Foam-Water Spray Systems	904.7, 904.11
17—02	Dry Chemical Extinguishing Systems	904.6, 904.11
17A—98	Wet Chemical Extinguishing Systems	904.5, 904.11
30—03	Flammable and Combustible Liquids Code	415.3
31—01	Installation of Oil-Burning Equipment	2113.15
32—00	Dry Cleaning Plants	415.7.4

40—01	Storage and Handling of Cellulose Nitrate Film	409.1
61—99	Prevention of Fires and Dust Explosions in Agricultural and Food Product Facilities	415.7.1
72—02	National Fire Alarm Code	505.4, 901.6, 903.4.1,904.3.5, 907.2, 907.2.1, 907.2.1.1, 907.2.10, 907.2.10.4, 907.2.11.2, 907.2.11.3, 907.2.12.2.3, 907.2.12.3, 907.4, 907.5, 907.9.2,907.10, 907.14, 907.16,907.17, 911.1, 3006.5
80—99	Fire Doors and Fire Windows	302.1.1.1, 715.3, 715.4.6.1, 715.4.4, 715.4.7.2, 715.5, 1008.1.3.3
85—04	Boiler and Combustion System Hazards Code (Note: NFPA 8503 has been incorporated into NFPA 85)	415.7.1
92B—05	Smoke Management Systems in Malls, Atria and Large Spaces	909.8
101—00	Life Safety Code	1024.6.2
105—03	Standard for the Installation of Smoke Door Assemblies	405.4.2, 715.3.3
110—02	Emergency and Standby Power Systems	2702.1
111—01	Stored Electrical Energy Emergency and Standby Power Systems	2702.1
120—99	Coal Preparation Plants	415.7.1
211—00	Chimneys, Fireplaces, Vents and Solid Fuel Burning Appliances	2112.5
230—99	Standard for the Fire Protection of Storage	507.2, 909.20.4.1
252—03	Standard Methods of Fire Tests of Door Assemblies	715.3.1, 715.3.2, 715.3.3, 715.3.4.1
253—00	Test for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source	406.6.4, 804.2, 804.3
257—00	Standard for Fire Test for Window and Glass Block Assemblies	715.3.3, 715.4, 715.4.1, 715.4.2
259—04	Test Method for Potential Heat of Building Materials	2603.4.1.10, 2603.5.3
265—02	Method of Fire Tests for Evaluating Room Fire Growth Contribution of Textile Wall Coverings on Full Height Panels and Walls	803.6.1, 803.6.1.1, 803.6.1.2
268—01	Standard Test Method for Determining Ignitibility of Exterior Wall Assemblies Using a Radiant Heat Energy Source	1406.2.1, 1406.2.1.1,

285—98	Standard Method of Test for the Evaluation of Flammability Characteristics of Exterior Non load-bearing Wall Assemblies Containing Combustible Components	1406.2.1.2, 2603.5.7
286—00	Standard Method of Fire Test for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth	1407.10.4, 2603.5.5 402.14.4, 803.2, 803.2.1, 803.5, 2603.4, 2603.8
288—01	Standard Methods of Fire Tests of Floor Fire Door Assemblies in Fire-Resistance-Rated Floor Systems	712.4.6
303—00	Fire Protection Standards for Marinas and Boatyards	905.3.7
409—01	Aircraft Hangars	412.2.6, 412.4.5
418—01	Standard for Heliports	412.5.6
651—98	Machining and Finishing of Aluminum and the Production and Handling of Aluminum Powders	415.7.1
654—00	Prevention of Fire & Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids	415.7.1
655—93	Prevention of Sulfur Fires and Explosions	415.7.1
664—98	Prevention of Fires Explosions in Wood Processing and Woodworking Facilities	415.7.1
701—99	Standard Methods of Fire Tests for Flame-Propagation of Textiles and Films	802.1, 805.1, 805.2, 3102.3.1, 3105.3,
704—01	Standard System for the Identification of the Hazards of Materials for Emergency Response	414.7.2, 415.2
1124—03	Manufacture, Transportation, and Storage of Fireworks and Pyrotechnic Articles	415.3.1
2001—04	Clean Agent Fire Extinguishing Systems	904.10

**Purpose and Rationale Statement (Workgroup):**

These amendments are needed due to the documented fire sprinkler attachment failures as a direct result of the 1994 Northridge Earthquake. The sway bracing attachment requirements in NFPA 13 do not address the anticipated high seismic loads placed upon a fire sprinkler system during an earthquake in California.

**Action Taken (Core Group):**

Approved

Returned for further Study/Clarification/Justification

Recommended for Next Code Adoption Cycle

Disapproved

Core Group Did Not Review (as of 01/09-11/06)

## Appendix X\_\_\_\_\_

### APPENDIX

#### GROUP L - LABORATORIES

##### SECTION 101 GENERAL

**101.1 Group L.** This occupancy shall include buildings and structures or portions thereof, used as laboratories for scientific experimentation or research having quantities of materials not in excess of those listed in Tables 307.7(1) and 307.7(2) except as modified in this Appendix and not classified as Group B. This occupancy shall be designed and constructed in accordance with the requirements for a Group B Occupancy except as specified in this Appendix.

##### SECTION 102 REQUIREMENTS FOR GROUP L

**102.1 Multiple Hazards.** When a hazardous material has multiple hazards, all hazards shall be addressed and controlled in accordance with the provisions of this code.

**102.2 Requirement for Report.** The enforcing agency may require a technical opinion and report to identify and develop methods of protection from the hazards presented by the hazardous materials. A qualified person, firm, or corporation, approved by the enforcing agency, shall prepare the opinion and report, and shall be provided without charge to the enforcing agency. The opinion and report may include, but is not limited to, the preparation of a hazardous material management plan (HMMP); chemical analysis; recommendations for methods of isolation, separation, containment or protection of hazardous materials or processes, including appropriate engineering controls to be applied; the extent of changes in the hazardous behavior to be anticipated under conditions of exposure to fire or from hazard control procedures; and the limitations or conditions of use necessary to achieve and maintain control of the hazardous materials or operations. The report shall be entered into the files of the code enforcement agencies. Proprietary and trade secret information shall be protected under the laws of the state or jurisdiction having authority.

**102.3 Laboratory Suite.** For purposes of this Appendix the definition of a “laboratory suite” shall be the same as a “control area” as defined by the *Building Code*.

**102.4 Emergency Power.** An emergency power system shall be provided. The emergency power system shall be designed and installed in accordance with the Electrical Code to automatically supply power to all required electrical equipment when the normal electrical supply system is interrupted. The exhaust system may be designed to operate at

not less than one half the normal fan speed on the emergency power system when it is demonstrated that the level of exhaust will maintain a safe atmosphere.

**102.5 Construction Type.** Buildings containing Group L Occupancies shall be of Type I or Type IIA construction.

**102.6 Floor Construction.** Liquid-tight floors, which comply with ASTM D 2843 (OI greater than 25) and ASTM E 84 (Class 1), shall be required. Pipe and similar penetrations shall maintain the fire-resistive and liquid-tight characteristics of the floor a minimum of 4 inches (102 mm) at the bottom of walls from the floor level.

**102.7 Occupancy Separation.** The interstitial space above a laboratory shall be separated from a corridor by one-hour construction. Laboratories and similar areas shall not require an occupancy separation from each other when the use of the area is determined to be compatible. Classrooms and offices directly related to the use shall not require an occupancy separation.

**102.8 Fume Hood Exhaust Ducts.** Fume hood exhaust ducts exposed to fire-resistive exit corridors shall be separated from the corridor by one-hour fire-resistive construction.

## **SECTION 103 HAZARDOUS MATERIAL RESTRICTIONS**

**103.1 Hazardous Material Restrictions - Floors 1, 2, 3, and 1<sup>st</sup> Basement Level.** Up through the third floor and down through the first basement level, the maximum quantity of hazardous materials per laboratory suite shall comply with Tables 307.7 (1) and 307.7 (2). Quantities of materials shall not be permitted to be increased with an approved automatic sprinkler system.

**103.2 Hazardous Material Restrictions - Floors 4, 5, 6, and 2<sup>nd</sup> and 3<sup>rd</sup> Basement Levels.** For the fourth, fifth, sixth floors, and the second and third basement levels, the maximum quantity of hazardous materials per laboratory suite shall be reduced to 75% of those allowed by Tables 307.7 (1) and 307.7 (2). Quantities of materials shall not be permitted to be increased with an approved automatic sprinkler system.

**103.3 Hazardous Material Restrictions - Floors 7 and Above, and Below 3<sup>rd</sup> Basement Level.** For the seventh floor and above, and below the third basement floor level, the maximum quantity of hazardous materials per laboratory suite shall be reduced to 50% of those allowed by Tables 307.7 (1) and 307.7 (2). Quantities of materials shall not be permitted to be increased with an approved automatic sprinkler system.

## **SECTION 104 VENTILATION**

**104.1 General Ventilation.** In all Group L Occupancies, exhaust streams when combined shall not create a physical hazard or react to degrade the containment material.

The building official may require a technical report in accordance with Section 102.2 of this Appendix.

Fire and smoke dampers in fume hood exhaust ducts are prohibited.

Ducts from laboratory hoods and local exhaust systems shall be constructed entirely of noncombustible material.

**Exceptions:**

1. Flexible ducts for special local exhausts used within a laboratory work suite.
2. Combustible ducts with flame-spread index less than 75 located within a shaft of noncombustible construction where passing through areas other than the laboratory suite they serve and provided with internal fire sprinklers.
3. Combustible ducts or duct linings having a flame spread of 25 or less.

Exhaust ducts from each laboratory suite shall be separately ducted to a point outside the building, to a mechanical space or to a shaft. Connection to a common duct may occur at those points. Exhaust ducts within the same laboratory suite may be combined within that laboratory suite.

Perchloric acid hoods and exhaust ducts shall be constructed of materials that are acid resistant, nonreactive, and impervious to perchloric acid. A water-spray system shall be provided for washing down the hood interior behind the baffle and the entire duct system. Ductwork shall provide a positive drainage slope back to the hood and shall consist of sealed sections. The hood baffle shall be removable for inspection.

**104.2 Ventilation Rates.** Ventilation rates shall comply with the requirements of the *Mechanical Code*.

**SECTION 105  
SPECIAL HAZARDS**

**105.1 Special Hazards.** Storage, handling and use of hazardous materials in Group L shall comply with the *International Fire Code*.

**SECTION 106**

**MEANS OF EGRESS**

**106.1 Access to Exits.** Every portion of a Group L Occupancy having a floor area of 200 square feet or more shall have access to not less than two separate exits or exit-access doors.

**106.2 Travel within Rooms.** Within a Group L Occupancy all portions of any room shall be within 75 feet (22 860 mm) of an exit or exit-access door from the room. The distance of travel to an exit corridor or to an exit shall not exceed 100 feet (30 480 mm).

**106.3 Door Swing.** All exit and exit-access doors serving areas with hazardous materials shall swing in the direction of exit travel, regardless of the occupant load served.

**106.4 Panic Hardware.** Exit and exit-access doors from areas with hazardous materials shall not be provided with a latch or lock unless it is panic hardware.

**106.5 Horizontal Exits.** Buildings containing Group L Occupancies located four or more floors above the first floor shall have each floor of the building separated with at least one horizontal exit constructed as required for a two-hour fire-resistive occupancy separation. Each side of the horizontal exit shall be provided with a separate mechanical exhaust system without interconnection. No side shall be less than 30 percent of the total area for the floor. At least one elevator shall be provided to serve the floor on each side of the horizontal exit wall and shall comply with the provisions of the *Building Code*.

## **SECTION 107 FIRE PROTECTION SYSTEMS**

**107.1 Automatic Fire Protection System.** An automatic fire protection system shall be installed throughout buildings housing Group L Occupancies. Sprinkler system design for research laboratories and similar areas of a Group L Occupancy shall not be less than that required for Ordinary Hazard Group 2 with a design area of not less than 3,000 square feet (279 m<sup>2</sup>).

## **SECTION 108 EXISTING BUILDINGS**

**108.1 General.** Alterations, repairs, or additions may be made to any building or structure without requiring the existing building or structure to comply with all the requirements of this Appendix, provided the addition, alteration, or repair conforms to the requirements of this Appendix.

**108.2 Unsafe Condition.** Alterations, repairs, or additions shall not be made to an existing building or structure that will cause the existing building or structure to be in violation of any of the provisions of this code, nor shall such alterations or additions cause the existing building or structure to become unsafe. An unsafe condition shall be deemed to have been created if an alteration or addition will cause the existing building or structure to become structurally unsafe or overloaded; will not provide adequate egress in compliance with the provisions of this code or will obstruct existing exits; will create a fire hazard; will reduce required fire resistance or will otherwise create conditions dangerous to human life.

**108.3 Changes in Use or Occupancy.** Any building so altered, which involves a change in use or occupancy, shall not exceed the height, number of stories and area permitted for new buildings. Any building plus new additions shall not exceed the height, number of stories and area permitted for new buildings.

**108.4 Buildings Not in Compliance with Code.** Alterations or additions shall not be made to an existing building or structure when such existing building or structure is not in full compliance with the provisions of this code except when such alteration or addition will result in the existing building or structure being no more hazardous, based on life safety, fire safety and sanitation, than before such additions or alterations are undertaken.

**108.5 Maintenance of Structural and Fire Resistive Integrity** Alterations or repairs to an existing building or structure that are nonstructural and do not adversely affect any structural member of any part of the building or structure having required fire resistance may be made with the same materials of which the building or structure is constructed.

**108.6 Continuation of Existing Use.** Buildings in existence at the time of the adoption of this code may have their existing use or occupancy continued if such use or occupancy was legal at the time of the adoption of this code, provided such continued use is not dangerous to life.

**108.7 Automatic Fire Protection Systems.** In mixed occupancies, portions of floors or buildings not classified as Group L Occupancies shall be provided with sprinkler protection designed of not less than that required for Ordinary Hazard Group 1 with a design area of not less than 3,000 square feet (279 m<sup>2</sup>).

**Purpose and Rationale Statement (Workgroup):**

## APPENDIX \_\_\_\_

### GROUP L - LABORATORIES

#### SECTION 101 GENERAL

**101.1 Group L.** This occupancy shall include buildings and structures or portions thereof, used as laboratories for scientific experimentation or research having quantities of materials not in excess of those listed in Tables 307.7(1) and 307.7(2) except as modified in this Appendix and not classified as Group B. This occupancy shall be designed and constructed in accordance with the requirements for a Group B Occupancy except as specified in this Appendix.

#### SECTION 102 REQUIREMENTS FOR GROUP L

**102.1 Multiple Hazards.** When a hazardous material has multiple hazards, all hazards shall be addressed and controlled in accordance with the provisions of this code.

**102.2 Requirement for Report.** The enforcing agency may require a technical opinion and report to identify and develop methods of protection from the hazards presented by the hazardous materials. A qualified person, firm, or corporation, approved by the enforcing agency, shall prepare the opinion and report, and shall be provided without charge to the enforcing agency. The opinion and report may include, but is not limited to, the preparation of a hazardous material management plan (HMMP); chemical analysis; recommendations for methods of isolation, separation, containment or protection of hazardous materials or processes, including appropriate engineering controls to be

applied; the extent of changes in the hazardous behavior to be anticipated under conditions of exposure to fire or from hazard control procedures; and the limitations or conditions of use necessary to achieve and maintain control of the hazardous materials or operations. The report shall be entered into the files of the code enforcement agencies. Proprietary and trade secret information shall be protected under the laws of the state or jurisdiction having authority.

**102.3 Laboratory Suite.** For purposes of this Appendix the definition of a “laboratory suite” shall be the same as a “control area” as defined by the *Building Code*.

**102.4 Emergency Power.** An emergency power system shall be provided. The emergency power system shall be designed and installed in accordance with the Electrical Code to automatically supply power to all required electrical equipment when the normal electrical supply system is interrupted. The exhaust system may be designed to operate at not less than one half the normal fan speed on the emergency power system when it is demonstrated that the level of exhaust will maintain a safe atmosphere.

**102.5 Construction Type.** Buildings containing Group L Occupancies shall be of Type I or Type IIA construction.

**102.6 Floor Construction.** Liquid-tight floors, which comply with ASTM D 2843 (OI greater than 25) and ASTM E 84 (Class 1), shall be required. Pipe and similar penetrations shall maintain the fire-resistive and liquid-tight characteristics of the floor a minimum of 4 inches (102 mm) at the bottom of walls from the floor level.

**102.7 Occupancy Separation.** The interstitial space above a laboratory shall be separated from a corridor by one-hour construction. Laboratories and similar areas shall not require an occupancy separation from each other when the use of the area is determined to be compatible. Classrooms and offices directly related to the use shall not require an occupancy separation.

**102.8 Fume Hood Exhaust Ducts.** Fume hood exhaust ducts exposed to fire-resistive exit corridors shall be separated from the corridor by one-hour fire-resistive construction.

## **SECTION 103 HAZARDOUS MATERIAL RESTRICTIONS**

**103.1 Hazardous Material Restrictions - Floors 1, 2, 3, and 1<sup>st</sup> Basement Level.** Up through the third floor and down through the first basement level, the maximum quantity of hazardous materials per laboratory suite shall comply with Tables 307.7 (1) and 307.7 (2). Quantities of materials shall not be permitted to be increased with an approved automatic sprinkler system.

**103.2 Hazardous Material Restrictions - Floors 4, 5, 6, and 2<sup>nd</sup> and 3<sup>rd</sup> Basement Levels.** For the fourth, fifth, sixth floors, and the second and third basement levels, the maximum quantity of hazardous materials per laboratory suite shall be reduced to 75% of

those allowed by Tables 307.7 (1) and 307.7 (2). Quantities of materials shall not be permitted to be increased with an approved automatic sprinkler system.

**103.3 Hazardous Material Restrictions - Floors 7 and Above, and Below 3<sup>rd</sup> Basement Level.** For the seventh floor and above, and below the third basement floor level, the maximum quantity of hazardous materials per laboratory suite shall be reduced to 50% of those allowed by Tables 307.7 (1) and 307.7 (2). Quantities of materials shall not be permitted to be increased with an approved automatic sprinkler system.

## **SECTION 104 VENTILATION**

**104.1 General Ventilation.** In all Group L Occupancies, exhaust streams when combined shall not create a physical hazard or react to degrade the containment material. The building official may require a technical report in accordance with Section 102.2 of this Appendix.

Fire and smoke dampers in fume hood exhaust ducts are prohibited.

Ducts from laboratory hoods and local exhaust systems shall be constructed entirely of noncombustible material.

**Exceptions:**

4. Flexible ducts for special local exhausts used within a laboratory work suite.
5. Combustible ducts with flame-spread index less than 75 located within a shaft of noncombustible construction where passing through areas other than the laboratory suite they serve and provided with internal fire sprinklers.
6. Combustible ducts or duct linings having a flame spread of 25 or less.

Exhaust ducts from each laboratory suite shall be separately ducted to a point outside the building, to a mechanical space or to a shaft. Connection to a common duct may occur at those points. Exhaust ducts within the same laboratory suite may be combined within that laboratory suite.

*Perchloric acid hoods and exhaust ducts shall be constructed of materials that are acid resistant, nonreactive, and impervious to perchloric acid. A water-spray system shall be provided for washing down the hood interior behind the baffle and the entire duct system. Ductwork shall provide a positive drainage slope back to the hood and shall consist of sealed sections. The hood baffle shall be removable for inspection.*

**104.2 Ventilation Rates.** Ventilation rates shall comply with the requirements of the *Mechanical Code*.

## **SECTION 105 SPECIAL HAZARDS**

**105.1 Special Hazards.** Storage, handling and use of hazardous materials in Group L shall comply with the *International Fire Code*.

## SECTION 106

### MEANS OF EGRESS

**106.1 Access to Exits.** Every portion of a Group L Occupancy having a floor area of 200 square feet or more shall have access to not less than two separate exits or exit-access doors.

**106.2 Travel within Rooms.** Within a Group L Occupancy all portions of any room shall be within 75 feet (22 860 mm) of an exit or exit-access door from the room. The distance of travel to an exit corridor or to an exit shall not exceed 100 feet (30 480 mm).

**106.3 Door Swing.** All exit and exit-access doors serving areas with hazardous materials shall swing in the direction of exit travel, regardless of the occupant load served.

**106.4 Panic Hardware.** Exit and exit-access doors from areas with hazardous materials shall not be provided with a latch or lock unless it is panic hardware.

**106.5 Horizontal Exits.** Buildings containing Group L Occupancies located four or more floors above the first floor shall have each floor of the building separated with at least one horizontal exit constructed as required for a two-hour fire-resistive occupancy separation. Each side of the horizontal exit shall be provided with a separate mechanical exhaust system without interconnection. No side shall be less than 30 percent of the total area for the floor. At least one elevator shall be provided to serve the floor on each side of the horizontal exit wall and shall comply with the provisions of the *Building Code*.

## SECTION 107 FIRE PROTECTION SYSTEMS

**107.1 Automatic Fire Protection System.** An automatic fire protection system shall be installed throughout buildings housing Group L Occupancies. Sprinkler system design for research laboratories and similar areas of a Group L Occupancy shall not be less than that required for Ordinary Hazard Group 2 with a design area of not less than 3,000 square feet (279 m<sup>2</sup>).

## SECTION 108 EXISTING BUILDINGS

**108.1 General.** Alterations, repairs, or additions may be made to any building or structure without requiring the existing building or structure to comply with all the requirements of this Appendix, provided the addition, alteration, or repair conforms to the requirements of this Appendix.

**108.2 Unsafe Condition.** Alterations, repairs, or additions shall not be made to an existing building or structure that will cause the existing building or structure to be in violation of any of the provisions of this code, nor shall such alterations or additions cause the existing building or structure to become unsafe. An unsafe condition shall be deemed to have been created if an alteration or addition will cause the existing building or structure to become structurally unsafe or overloaded; will not provide adequate egress in compliance with the provisions of this code or will obstruct existing exits; will create a

fire hazard; will reduce required fire resistance or will otherwise create conditions dangerous to human life.

**108.3 Changes in Use or Occupancy.** Any building so altered, which involves a change in use or occupancy, shall not exceed the height, number of stories and area permitted for new buildings. Any building plus new additions shall not exceed the height, number of stories and area permitted for new buildings.

**108.4 Buildings Not in Compliance with Code.** Alterations or additions shall not be made to an existing building or structure when such existing building or structure is not in full compliance with the provisions of this code except when such alteration or addition will result in the existing building or structure being no more hazardous, based on life safety, fire safety and sanitation, than before such additions or alterations are undertaken.

**108.5 Maintenance of Structural and Fire Resistive Integrity** Alterations or repairs to an existing building or structure that are nonstructural and do not adversely affect any structural member of any part of the building or structure having required fire resistance may be made with the same materials of which the building or structure is constructed.

**108.6 Continuation of Existing Use.** Buildings in existence at the time of the adoption of this code may have their existing use or occupancy continued if such use or occupancy was legal at the time of the adoption of this code, provided such continued use is not dangerous to life.

**108.7 Automatic Fire Protection Systems.** In mixed occupancies, portions of floors or buildings not classified as Group L Occupancies shall be provided with sprinkler protection designed of not less than that required for Ordinary Hazard Group 1 with a design area of not less than 3,000 square feet (279 m<sup>2</sup>).

**Purpose and Rationale Statement (Workgroup):**

(Government Code Section 11346.2 requires a statement of specific purpose of **EACH** adoption, amendment, or repeal and the rational the determination by the agency that EACH adoption, amendment, or repeal is reasonably necessary to carry out the purpose for which it is proposed.)

**Chapter 34**  
**Existing Structures**

**SECTION 3403 ADDITIONS, ALTERATIONS OR REPAIRS**

**3403.1 Existing buildings or structures.**

Additions or alterations to any building or structure shall conform with the requirements of the code for new construction. Additions or alterations shall not be made to an existing building or structure which will cause the existing building or structure to be in violation of any provisions of this code. An existing building plus additions shall comply with the height and area provisions of Chapter 5. Portions of the structure not altered and not

affected by the alteration are not required to comply with the code requirements for a new structure. [For SMF] Existing Group H8 Laboratories. Existing laboratories and similar areas used for scientific experimentation, research, or instructional purposes, (former California Building Code Occupancy Group H-8) designed in compliance with previous code requirements, may have existing laboratories renovated or non-laboratory spaces converted into laboratory facilities provided they comply with all provisions of Appendix Chapter \_\_\_\_\_, Group L, Laboratories.

In the 1990s, a San Francisco Bay Area multidisciplinary team of consultants, fire marshals, and university administrators, working with the California State Fire Marshal, developed distinct fire and life safety code requirements for research laboratories not associated with the semiconductor fabrication industry or general industry use. This effort recognized the need for code requirements based on risks and hazards related to the use of hazardous chemicals in laboratories. The resulting work was an occupancy classification known as “H-8” based on the Uniform Building Code. While not ideal, this classification was the first step toward recognizing the differences in facilities where scientific investigation occurred.

The International Building Code being adopted by California imposes new restrictions on the new construction and height of buildings that use, store, or handle hazardous materials not commensurate with the actual risks and hazards related to laboratories. Furthermore, the “B” and “H” occupancy classifications are the only classifications for laboratories. The IBC requirements and its referenced documents are overly restrictive, impractical, and impose severe hardships on existing H8 research laboratories, and make it difficult or prevent existing laboratories from being remodeled, renovated, or expanded. This result would be a significant setback to the design and construction of these types of facilities in California. Therefore, a new Appendix Chapter, L, Laboratories, is proposed specifically to address these types of laboratory facilities and the actual hazards of their operation.

Under the 2001 California Building Code, an existing 15 story H-8 laboratory building with a laboratory suite on the 7<sup>th</sup> floor built to code could be renovated or expanded as long as that laboratory suite’s quantities of hazardous materials remained within the allowable limits. If that same laboratory were to be renovated under the 2003 IBC, the entire floor would be required to have two control zones separated by a two-hour occupancy separation fire wall. This would require extensive construction outside the project area and disrupt the occupancy in the adjacent occupied areas. An inventory would be required for every room within the control area, which would also include the laboratory where the construction work would take place. Once the control area inventory is totaled up, including the laboratory to be remodeled, then it is necessary to verify that those quantities will not exceed 5% of those allowed in Tables 307.7(1) and 307.7 (2).

Recognizing the past efforts and success of the H-8 occupancy classification, it is critical that research laboratories, in which limited quantities of hazardous materials are used, continue to have a distinct occupancy apart from the industrial or production-scale user of hazardous materials. Also, laboratories designed to these H8 California standards for the

past 15 years have operated successfully, especially in academic research facilities, with exemplary fire and life safety records. Therefore, a new Appendix Chapter \_\_\_\_\_, L, Laboratories is being proposed for the new California Building Code. This chapter is the compilation of requirements that were located throughout the building code. They can be used for both new construction of research laboratories and for renovations to existing laboratories.

The chapter incorporates requirements not found in the IBC and allows the design of “open space” research laboratories (i.e., flexibility) that promotes collaboration in the pursuit of scientific discovery and intellectual property that result from the interdisciplinary nature of academic research in this environment. Facilities built as H-8, e.g., Clark Center on the Stanford University campus, report that significant developments have been made that would not have been possible if the researchers did not have the openness and contact with those from other disciplines. Other institutions in California and in the United States are using this multidisciplinary scientific discovery approach in laboratories. To eliminate the code requirements that allow the construction of these types of facilities would be setback to scientific community.

This Appendix’s requirements for research laboratories would in a safe environment:

- Promote scientific interactions;
- Promote sharing of commonly used re-agents, reducing costs;
- Allow the use of fewer chemical storage areas resulting in initial construction or renovation cost savings and fewer places where accidents can occur;
- Allow fewer waste accumulation areas and making it easier to install "space for waste" cabinets and making pick up of wastes easier (few places mean fewer trips to fewer areas by waste pick-up personnel);
- Restrict the amount of hazardous material that can be maintained per square foot by adhering to exempt limits of hazardous materials
- Require less space for storage, which means more space for laboratory benches, equipment, support rooms, etc. and reducing costs.

This proposed Appendix Chapter defines research laboratory occupancy and provides minimum standards specific to such laboratories. The State Fire Marshal could adopt the entire Appendix Chapter, thereby, not affecting other parts of the model code.

**TECHNICAL, THEORETICAL, AND EMPIRICAL STUDY, REPORT, OR SIMILAR DOCUMENTS:**

(Government Code Section 11346.2(b)(2) requires an identification of each technical, theoretical, and empirical study, report, or similar document, if any, upon which the agency relies in proposing the regulation(s).)

A December 2004 Vanderbilt University Report by Robert F. Wheaton, Director Vanderbilt Environment, Health and Safety, was written on the adoption of the 2003 International Building Code and referenced International Fire Code. The report found

problems using the code for the design of its research and clinical program laboratories, particularly in biomedical research – severe restrictions such as the per floor limitations on the quantity of hazardous materials and the allowable number of control or fire zones. Excerpts from the report stated:

“These codes are highly restrictive of the aggregate amount of certain classes of hazardous chemicals that can be used and stored in research laboratories. In particular, they fail to recognize that the risk involved in the use of hazardous chemicals in research laboratories is significantly less than in the similar use in industrial applications.” It further states that: “the application of certain sections of these codes to newly constructed, planned and/or existing research facilities will substantially limit research scope and can adversely affect the use of hundreds of thousands of square feet of research space with little or no impact on Metro fire fighters, first responders or public safety.” ...

The risks and hazards related to the use of hazardous chemicals in laboratories are often overestimated. Laboratory use of hazardous chemicals means handling or use of hazardous chemicals in a manner such that: (i) chemical manipulations are done on a “laboratory scale” (i.e., conducted by a single or a few individuals in small quantities);... (iii) the procedures involved are not part of a production process...; and (iv) protective laboratory practices and equipment are available and in common use to minimize the potential for exposure to hazardous chemicals.”

#### **CONSIDERATION OF REASONABLE ALTERNATIVES**

(Government Code Section 11346.2(b)(3)(A) requires a description of reasonable alternatives to the regulation and the agency’s reason for rejecting those alternatives. In the case of a regulation that would mandate the use of specific technologies or equipment or prescribe specific action or procedures, the imposition of performance standards shall be considered as an alternate)

[Describe reasonable alternatives and reason for rejecting those alternatives]

An alternative to the stand-alone Appendix Chapter would be amending the entire model code to include fire and life safety requirements specifically for research laboratories. This alternative has been rejected because it would not represent the philosophy and approach described in State Fire Marshal Grijalva’s letter of July 12, 2005 and reiterated in State and Consumer Services Agency Chairman, Fred Aguiar’s letter of September 21, 2005 to the code community. That approach of developing fire and life safety provisions of the California Building and Fire Codes is described as “a holistic approach to public safety ...the intent is that the final adoption package will include amendments necessary to reasonably maintain a substantially equivalent level of fire and life safety in California.”

**REASONABLE ALTERNATIVES THE AGENCY HAS IDENTIFIED THAT WOULD LESSEN ANY ADVERSE IMPACT ON SMALL BUSINESS.**

(Government Code Section 11346.2(b)(3)(B) requires a description of any reasonable alternatives that have been identified or that have otherwise been identified and brought to the attention of the agency that would lessen any adverse impact on small business. Include facts, evidence, documents, testimony, or other evidence upon which the agency relies to support an initial determination that the action will not have a significant adverse impact on business.)

[Describe reasonable alternatives and reason for rejecting]

Not applicable.

FACTS, EVIDENCE, DOCUMENTS, TESTIMONY, OR OTHER EVIDENCE OF NO SIGNIFICANT ADVERSE IMPACT ON BUSINESS.

(Government Code Section 11346.2(B)(4) requires the facts, evidence, documents, testimony, or other evidence on which the agency relies in to support an initial determination that the action will not have a significant adverse economic impact on business)

[Describe the facts, evidence, documents, testimony or other evidence]

Not applicable.

DUPLICATION OR CONFLICTS WITH FEDERAL REGULATIONS

(Government Code Section 11346.2(b)(5) requires a department, board, or commission within the Environmental Protection Agency, the Resources Agency, or the Office of the State Fire Marshal to describe its efforts, in connection with a proposed rulemaking action, to avoid unnecessary duplication or conflicts with federal regulations contained in the Code of Federal Regulations addressing the same issues. These agencies may adopt regulations different from these federal regulations upon a finding of one or more of the following justifications: (A) The differing state regulations are authorized by law and/or (B) The cost of differing state regulations is justified by the benefit to human health, public safety, public welfare, or the environment. It is not the intent of this paragraph to require the agency to artificially construct alternatives or to justify why it has not identified alternatives)

[DESCRIBE EFFORTS, if applicable]

Many guidelines have been written for the design and operation of research laboratories, but these standards are best used in conjunction with the state or local building and fire codes. Therefore, there is no duplication

Southern H Occupancy Workgroup Comments:

- Do not make this “H” an appendix section. Put the section into the body of the code identifying them appropriately, such as a Section 415.10
- Section 103 puts allowable quantities into a text format...make it a Table

- Limit this to University/College campuses only in the first paragraph or scope
- Control area concept referred to would require 2 hour separation and for Type IIA at floor 4 and above...might want to review, would have to propose an exception to 414.
- 102.7 refers to “occupancy separation” which is no longer used in the I code
- Clean up to make consistent with the I code language

**Action Taken (Core Group):**

The Core Group discussed this proposal at length and question whether it would be appropriate to place the Group “L” Occupancy within the H Occupancy Section(s) of the Code or leave it as an Appendix Item unto itself. A further discussion was held on the term “campus” and discussion as to whether it was for Public and Private Colleges and Universities and what situations could arise if Group “L” Occupancies were built within an Office Building used by a University or College defined as a “campus”. These issues would be referred back to the WorkGroup for clarification.

- Approved  
 Returned for further Study/Clarification/Justification  
 Recommended for Next Code Adoption Cycle  
 Disapproved  
 Core Group Did Not Review (as of 01/09-11/06)

# # # #

**Purpose and Rationale Statement (Workgroup):**

**Action Taken (Core Group):**

- Approved  
 Returned for further Study/Clarification/Justification  
 Recommended for Next Code Adoption Cycle  
 Disapproved  
 Core Group Did Not Review (as of 01/09-11/06)