

**Group I-1 Proposed Code Change
From: CTC Care Facilities
9/19/2011**

Issue #1

Address where there is 'ageing in place', or Alzheimer patients in an assisted living environment. Real life is that there are patients who may be slow to respond or incapable of evacuation without direct assistance from staff. Allow for Conditions similar to Group I-3.

**SECTION 308
INSTITUTIONAL GROUP I**

308.1 (IFC [B] 202) Institutional Group I. Institutional Group I occupancy includes, among others, the use of a building or structure, or a portion thereof, in which care or supervision is provided to persons who are ~~or are not~~ capable or incapable of self preservation without physical assistance 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.

308.2 Definitions. The following terms are defined in Chapter 2:

(Actual definitions shown here by editor for reader convenience. The code just shows the terms in Chapter 2)

24 HOUR CARE BASIS. The actual time that a person is an occupant within a facility for the purpose of receiving care. It shall not include a facility that is open for 24 hours and is capable of providing care to someone visiting the facility during any segment of the 24 hours.

GROUP HOME. A facility for social rehabilitation, substance abuse or mental health problems that contain a group housing arrangement that provides *custodial care* but does not provide ~~acute~~ medical care.

308.3 Group I-1. This occupancy shall include buildings, structures or portions thereof more than 16 persons, excluding staff, who reside on a **24 hour basis** in a supervised environment and receive **custodial care in accordance the occupancy condition in Section 308.3.1 or 308.3.2.** ~~The occupants are capable of self-preservation.~~ This group shall include, but not be limited to, the following:

- Alcohol and drug centers
- Assisted living facilities
- Congregate care facilities
- Convalescent facilities
- Group homes*
- Halfway houses
- Residential board and ~~custodial~~ care facilities
- Social rehabilitation facilities

308.3.1 Condition 1. This occupancy condition shall include persons receiving *custodial care* where residents are capable of self-preservation.

308.3.2 Condition 2. This occupancy condition shall include persons receiving *custodial care* where residents are *incapable of self-preservation*.

308.3.2 308.3.3 Six to sixteen persons receiving such custodial care. A facility such as above, housing not fewer than six and not more than 16 persons receiving such *custodial care*, shall be classified as Group R-4.

308.3.4 308.3.4 Five or fewer persons receiving such custodial care. A facility such as the above with five or fewer persons receiving such *custodial care* shall be classified as a Group R-3 or shall comply with the International Residential Code provided an automatic sprinkler system is installed in accordance with Section 903.3.1.3 or with Section P2904 of the International Residential Code.

308.4 Group I-2. This occupancy shall include buildings and structures used for *medical care* on a **24 hour basis** for more than five persons who are *incapable of self-preservation*. This group shall include, but not be limited to, the following:

- Foster care facilities
- Detoxification facilities
- Hospitals
- Nursing homes
- Psychiatric hospitals

308.4.1 Five or fewer persons receiving such medical care. A facility such as the above with five or fewer persons receiving such *medical care* shall be classified as a Group R-3 or shall comply with the International Residential Code provided an automatic sprinkler system is installed in accordance with Section 903.3.1.3 or with Section P2904 of the International Residential Code.

308.6 Institutional Group I-4, day care facilities. This group shall include buildings and structures occupied by more than five persons of any age who receive *custodial care* for fewer than **24 hours per day** by persons other than parents or guardians, relatives by blood, marriage or adoption, and in a place other than the home of the person cared for. This group shall include, but not be limited to, the following:

- Adult day care
- Child day care

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*.

310.6 Residential group R-4. This occupancy shall include buildings, structures or portions thereof for more than five but not more than 16 persons, excluding staff, who reside on a **24 hour basis** in a supervised residential environment and receive *custodial care* in accordance with the occupancy condition in Section 310.3.1 or 310.3.2. ~~The persons receiving such care are capable of self-preservation.~~

- Alcohol and drug centers
- Assisted living facilities
- Congregate care facilities
- Convalescent facilities

Group homes
Halfway houses
Residential board and custodial care facilities
Social rehabilitation facilities

310.3.1 Condition 1. This occupancy condition shall include persons receiving *custodial care* where residents are capable of self-preservation.

310.3.2 Condition 2. This occupancy condition shall include persons receiving *custodial care* where residents are *incapable of self-preservation*.

SECTION 420 GROUPS I-1, R-1, R-2, R-3 and R-4

420.1 General. Occupancies in Groups I-1, R-1, R-2, and R-3 and R-4 shall comply with the provisions of this section and other applicable provisions of this code.

(Option to reference 407, however, Adhoc Healthcare may be revising size of smoke compartments)

420.4 Smoke barriers in Group I-1 Condition 2. Smoke barriers shall be provided in Group I-1 Condition 2 facilities to subdivide every story used by persons receiving care, treatment or sleeping and to provide other stories with an occupant load of 50 or more persons, into no fewer than two smoke compartments. Such stories shall be divided into smoke compartments with an area of not more than 22,500 square feet (2092 m²) 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 710.

420.4.1 Refuge area. Refuge areas shall be provided within each smoke compartment. The size of the refuge area shall accommodate the occupants and care recipients from the adjoining smoke compartment. Where a smoke compartment is adjoined by two or more smoke compartments, the minimum area of the refuge area shall accommodate the largest occupant load of the adjoining compartments. The size of the refuge area shall provide the following:

1. Not less than 15 net square feet (1.4 m²) for each care recipient.
2. Not less than 6 net square feet (.56 m²) for other occupants.

Areas or spaces permitted to be included in the calculation of the refuge area are corridors, lounge or dining areas and other low hazard areas.

[F] 420.5 Smoke detection and fire alarm systems. *Fire alarm* systems and *smoke alarms* shall be provided in Group I-1, R-1, and R-2 and Group R-4 occupancies in accordance with Sections 907.2.6, 907.2.8, and 907.2.9 and 907.2.10, respectively. Single- or multiple- station *smoke alarms* shall be provided in Groups I-1, R-2, R-3 and R-4 in accordance with Section 907.2.11.

SECTION 504 BUILDING HEIGHT

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 building height is increased by 20 feet (6096 mm) and the maximum number of stories is increased by one. These increases are permitted in addition to the building 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 building height is increased by 20 feet (6096 mm) and the maximum number of stories is increased by one, but shall not exceed 60 feet (18 288 mm) or four stories, respectively.

Exception: The use of an automatic sprinkler system to increase building heights shall not be permitted for the following conditions:

1. Buildings or portions of buildings, classified as a Group I-1 Condition 2 or Group I-2 occupancy of Type IIB, III, IV or V construction.
2. Buildings or portions of buildings, classified as a Group H-1, H-2, H-3 or H-5 occupancy.
3. Fire resistance rating substitution in accordance with Table 601, Note d.

SECTION 709 SMOKE BARRIERS

709.5 Openings. Openings in a smoke barrier shall be protected in accordance with Section 716.

Exceptions:

1. In Group I-1 Condition 2, Group I-2, and ambulatory care facilities, 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 in excess of 3/4- inch, 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 715.4.8.3. Where permitted by the door manufacturer's listing, positive-latching devices are not required.
2. In Group I-1 Condition 2, Group I-2, and ambulatory care facilities, horizontal sliding doors installed in accordance with Section 1008.1.4.3 and protected in accordance with Section 716.

SECTION 903 AUTOMATIC SPRINKLER SYSTEMS

[F] 903.2.6 Group I. An automatic sprinkler system shall be provided throughout buildings with a Group I fire area.

Exceptions:

1. An automatic sprinkler system installed in accordance with Section 903.3.1.2 shall be permitted in Group I-1 Condition 1 facilities.
- ~~2. An automatic sprinkler system installed in accordance with Section 903.3.1.3 shall be allowed in Group I-1 facilities when in compliance with all of the following:
2.1. A hydraulic design information sign is located on the system riser
2.2. Exception 1 of Section 903.4 is not applied, and
2.3. Systems shall be maintained in accordance with the requirements of Section 903.3.1.2.~~
3. An automatic sprinkler system is not required where Group I-4 day care facilities are at the level of exit discharge and where every room where care is provided has at least one exterior exit door.

4. In buildings where Group I-4 day care is provided on levels other than the *level of exit discharge*, an *automatic sprinkler system* in accordance with 903.3.1.1 shall be installed on the entire floor where care is provided and all floors between the level of care and the level of *exit discharge*, all floors below the *level of exit discharge*, other than areas classified as an open parking garage.

[F] 903.2.8 Group R. An *automatic sprinkler system* installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R *fire area*.

[F] 903.2.8.1 Group R-3 or R-4 congregate residence. An *automatic sprinkler system* installed in accordance with 903.3.1.3 shall be permitted in Group R-3. ~~or R-4 congregate residence with 16 or fewer residents.~~

[F] 903.2.8.1 Group R-4 Condition 1. An *automatic sprinkler system* installed in accordance with 903.3.1.3 shall be permitted in Group R-4 Condition 1.

[F] 903.2.8.2 Group R-4 Condition 2. An *automatic sprinkler system* installed in accordance with 903.3.1.2 shall be permitted in Group R-4 Condition 2.

In addition, attics used for living purposes, storage or fuel fired equipment shall be protected in accordance with one of the following:

1. Attics shall be protected throughout by a heat detector system arranged to activate the building fire alarm system in accordance with Section 907.2.10.
2. Attics shall be protected with an automatic sprinkler system in accordance with 903.3.1
3. Attics shall be constructed of non-combustible materials.
4. Attics shall be constructed of fire-retardant-treated wood framing complying with Section 2303.2.

[F] 903.2.8.2 Care facilities. An *automatic sprinkler system* installed in accordance with 903.3.1.3 shall be permitted in care facilities with 5 or fewer individuals in a single family dwelling.

[F] 903.3.1.3 NFPA 13D sprinkler systems. *Automatic sprinkler systems* installed in one and two-family *dwelling*s, Group R-3, and R-4 ~~congregate residences~~ Condition 1 and *townhouses* shall be permitted to be installed throughout in accordance with NFPA 13D.

SECTION 907 FIRE ALARM AND DETECTION SYSTEMS

[F] 907.2.6.1 Group I-1. In Group I-1 occupancies, an automatic smoke detection system shall be installed in corridors, waiting areas open to corridors and habitable spaces other than sleeping units and kitchens. The system shall be activated in accordance with Section 907.5.

Exceptions:

1. For Group I-1 Condition 1 s Smoke detection in habitable spaces is not required where the facility is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
2. Smoke detection is not required for exterior balconies.

SECTION 1018 CORRIDORS

1018.1 Construction. *Corridors* shall be fire-resistance rated in accordance with Table 1018.1. The *corridor* walls required to be fire-resistance rated shall comply with Section 708 for *fire partitions*.

Exceptions:

1. A *fire-resistance rating* is not required for *corridors* in an occupancy in Group E where each room that is used for instruction has at least one door opening directly to the exterior and

rooms for assembly purposes have at least one-half of the required *means of egress* doors opening directly to the exterior. Exterior doors specified in this exception are required to be at ground level.

2. A *fire-resistance rating* is not required for *corridors* contained within a dwelling or sleeping unit in an occupancy in Group I-1 and Group R.
3. A *fire-resistance rating* is not required for *corridors* in *open parking garages*.
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.
5. *Corridors* adjacent to the *exterior walls* of buildings shall be permitted to have unprotected openings on unrated *exterior walls* where unrated walls are permitted by Table 602 and unprotected openings are permitted by Table 705.8.

Reason:

Under development

Condition 2 would have higher requirements for smoke compartments, sprinklers and smoke detection. See excel spreadsheet – *Care Facilities Spectrum 091811.xls*

Issue #2 –

The new ‘residential’ atmosphere for assisted living and nursing home design has shared living spaces open to corridors. This may include kitchens used for incidental baking (not commercial cooking for the facility). The following is a proposal for range hoods over domestic appliances with limited use.

SECTION 505

DOMESTIC KITCHEN EXHAUST EQUIPMENT

505.1 Domestic systems. Where domestic range hoods and domestic appliances equipped with downdraft exhaust are ~~located within dwelling units~~ provided, such hoods and appliances shall discharge to the outdoors through sheet metal ducts constructed of galvanized steel, stainless steel, aluminum or copper. Such ducts shall have smooth inner walls, shall be air tight, shall be equipped with a backdraft damper, and shall be independent of all other exhaust systems.

Exceptions:

1. In other than Group I-1 and I-2, where installed in accordance with the manufacturer’s installation instructions and where mechanical or *natural ventilation* is otherwise provided in accordance with Chapter 4, *listed* and *labeled* ductless range hoods shall not be required to discharge to the outdoors.
2. Ducts for domestic kitchen cooking appliances equipped with downdraft exhaust systems shall be permitted to be constructed of Schedule 40 PVC pipe and fittings provided that the installation complies with all of the following:
 - 2.1. The duct shall be installed under a concrete slab poured on grade.
 - 2.2. The under floor trench in which the duct is installed shall be completely backfilled with sand or gravel.
 - 2.3. The PVC duct shall extend not more than 1 inch (25 mm) above the indoor concrete floor surface.
 - 2.4. The PVC duct shall extend not more than 1 inch (25 mm) above grade outside of the building.
 - 2.5. The PVC ducts shall be solvent cemented.

505.2 Makeup air required. Exhaust hood systems capable of exhausting in excess of 400 cfm (0.19 m³/s) shall be provided with *makeup air* at a rate approximately equal to the *exhaust air* rate. Such *makeup air* systems shall be equipped with a means of closure and shall be automatically controlled to start and operate simultaneously with the exhaust system.

IMC 505.3 Other than Group R. In other than Group R occupancies, where domestic cooking appliances are utilized for domestic purposes they shall be equipped with domestic hoods that discharge directly to the outdoors. Hoods shall be constructed in accordance with Section 505.1 and 505.2.

IMC 507

COMMERCIAL KITCHEN HOODS

IMC 507.2.3 Domestic cooking appliances used for commercial purposes. Domestic cooking appliances utilized for commercial purposes shall be provided with Type I or Type II hoods as required for the type of appliances and processes in accordance with Sections 507.2, 507.2.1 and 507.2.2. Domestic cooking appliances utilized for domestic purposes shall comply with Section 505.

Reason: The intent of this proposal is to clarify requirements and address new situations as Assisted Living and Nursing Home designs change.

Current requirements for domestic appliances used for domestic purposes are geared towards Group R facilities. When a stove is located in another use group, often a requirement for commercial hoods is misapplied. In a residential dwelling unit, often a range hood is not required if there is enough ventilation. Given the different types of facilities, this proposal would always require a hood when a range was provided in another use group.

As the style of assisted living facilities and nursing homes attempts to produce a more residential atmosphere, domestic ranges are provided either within the unit (some assisted living) or in common use areas (assisted living or nursing home residential 'suites'). Residents use this equipment for light cooking duties (few people and only occasional meals) or special cooking (i.e., cookies, cakes). If this equipment is used for cooking for a large number of residents on a regular basis, it is being used for commercial purposes, and it would fall under 507.2.3.

Hospitals or outpatient rehab facilities sometimes have domestic ranges in occupational therapy and dietician areas. The goal being to provide residents with training on good eating habits when they are at home.

Changes to 505.1 would allow residential and areas such as business break rooms to allow for recirculation if the mechanical system is designed for it.

Issue #3 –

Items under discussion include:

- areas open to the corridor,
- suites/groups of patient rooms with shared living space,
- fixed seating on the corridor.

Issue #4 –

Coordination with Adhoc Health Care proposals

- CTC study group agrees with intent of many of the proposals in the reports for Adhoc Health Meeting #3
- CTC will review further work in reports for Adhoc Health Meeting #4
- CTC will coordinate with Adhoc health for when parallel proposals are needed, or when co-proponents is an option

Issue #5 –

Coordination with Code Action Committee

- Scope of <5 care facilities not currently in IRC
- Use of defined term – 24 hour care (part of proposal under Issue #1)