

**FINAL STATEMENT OF REASONS  
FOR  
PROPOSED BUILDING STANDARDS  
OF THE  
OFFICE OF THE STATE FIRE MARSHAL  
REGARDING THE ADOPTION BY REFERENCE OF THE  
2012 EDITION OF THE INTERNATIONAL FIRE CODE  
WITH AMENDMENTS INTO THE 2013 CALIFORNIA FIRE CODE  
CALIFORNIA CODE OF REGULATIONS TITLE 24, PART 9**

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The Administrative Procedure Act requires that every agency shall maintain a file of each rulemaking that shall be deemed to be the record for that rulemaking proceeding. The rulemaking file shall include a final statement of reasons. The Final Statement of Reasons shall be available to the public upon request when rulemaking action is being undertaken. The following are the reasons for proposing this particular rulemaking action:

**UPDATES TO THE INITIAL STATEMENT OF REASONS**

(Government Code Section 11346.9(a)(1))

The Office of the State Fire Marshal has not added any additional data or any technical, theoretical or empirical studies, reports or similar documents on which the Office of the State Fire Marshal relied on in proposing these amendments to Title 24, Part 9 into this Final Statement of Reason.

The SFM is correcting the Initial Statement of Reasons regarding the non-adoption of Section 503 until further study is done regarding the adoption of Fire Apparatus Access Roads as a "building standard" as follows:

The SFM proposes to adopt Chapter 5 with amendment and California regulation, furthermore, the SFM proposes to not adopt Sections 503 and 510.3. See item 62 for additional amendments or building standards proposed for high-rise buildings, developed by the SFM High-rise Task Force. Furthermore, the SFM is maintaining the adoption of those existing California amendments or building standards in Chapter 5 without modification.

(Note: See Part 2 [item 67] of this document for existing California amendments brought forward from the 2010 California Fire Code for adoption into the 2013 California Fire Code without change except for nonsubstantive editorial corrections.)

The actions described above are reasonably necessary to carry out the purpose for which it is proposed. The rationale for these actions is to establish minimum requirements for the prevention of fire and for the protection of life and property against fire and panic in occupancies that are addressed in the 2012 International Fire Code and published as the 2013 California Fire Code pursuant to Health and Safety Code Section 13108, 13113, 13114, 13131.5, 13143, 17921, and 18949.2.

**MANDATE ON LOCAL AGENCIES OR SCHOOL DISTRICTS**

(Government Code Section 11346.9(a)(2))

The Office of the State Fire Marshal has determined that the proposed regulatory action would not impose a mandate on local agencies or school districts.

**OBJECTIONS OR RECOMMENDATIONS MADE REGARDING THE PROPOSED REGULATION(S)**

(Government Code Section 11346.9(a)(3))

The following is the Office of the State Fire Marshal's summary of and response to comments specifically directed at the agency's proposed action or to the procedures followed by the agency in proposing or adopting the actions or reasons for making no change:

## COMMENTS RECEIVED DURING THE 45-DAY COMMENT PERIOD.

Pursuant to the requirements of Government Code Section 11346.8 (c), and Section 44 of Title 1 of the California Code of Regulations, the California Building Standards Commission provided a notice of proposed adoption by reference of the 2012 edition of the International Fire Code with California Amendments into the California Code of Regulations Title 24, Part 9 which were the subject of a Notice of Proposed Action, notice File No. Z-2012-0821-09. The text with the modifications clearly indicated, were made available to the public for a 45-day written public comment period from August 31, 2012 to October 15, 2012.

[Section 507.5, Appendix C]

**Name/Organization:** Greg Schwab, Fire Chief, Georgetown Fire District,

Robert L. Gill, Fire Chief, Pioneer Fire Protection District

Michael Lilienthal, Fire Marshal, El Dorado Hills Fire Department,

Gary E. Baldock, Fire Protection Specialist, Diamond Springs / El Dorado Fire Protection District,

**Comments:** The commenters state that when applying the Fire Code where two sections are in conflict that the most restrictive shall apply, referring section 507.5 for fire hydrant systems which states "Fire hydrant systems shall comply with sections 507.5.1 through 507.5.6 and Appendix C or by an approved method.

Commenters believe that a conflict appears in Section 507.5.1: "Where a portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than 400 feet from a hydrant on approved fire apparatus access road... Appendix C as adopted requires the average spacing of hydrants to be 500 feet. Again the most restrictive applies, so the language needs to be amended in one or the other to remove this conflict.

Commenters state that a conflict appears with the adoption of Appendix C and where Appendix C does not allow for an approved method whereas section 507.5.1 allows for such. Commenters state that since it is the most restrictive, the approved method has been superseded by the Appendix C and does not apply.

Additional comments relating to section 507.5.1 Exception: For Group R-3 and Group U occupancies equipped throughout with an approved automatic sprinkler system.... This distance required shall not be more than 600 feet. Appendix C being the most restrictive does not address the exception therefore making the exception invalid. Is it the intent of the SFM to require fire hydrants to place fire hydrants on driveways within 500 feet of newly constructed homes on large parcels of 5, 10, 20 acres or larger when the driveway exceeds the 500 feet?

Solution: in our view the conflicts we have described can be solved in one of two ways:

- The SFM retract the adoption of Appendix C. in the 2013 California Fire Code. This would allow local jurisdictions to use the appendix as is, or amend the appendix to suit their local needs. For example in our rural areas we have amended Appendix C in the past prior to the SFM adoption of the table, to allow for fire hydrants to be placed 1000 feet apart in areas zoned 2 acres and larger. Appendix C as currently adopted does not allow for that amendment.

The SFM still has control of the number fire hydrants and their distribution in state and school facilities through their adoption of Appendix CC.

- The other alternative we offer is to amend Appendix C section C101, General, C101 Scope to read: Fire hydrants shall be provided in accordance with this appendix for the protection of buildings, or portions of building, hereafter constructed "or as approved by the fire official." or similar wording.

An additional comment made on Appendix C section C105.1 that states the Table C105.1 allows for one hydrant when less than 1750 gallons or less is the required fire flow. Standard dry barrel hydrants are listed to provide 1000 gallons per minute. Therefore, with a minimum fire flow of 1500 gallons per minute as required by Appendix C, a minimum of 2 hydrants are required so that the listing of the hydrant is not exceeded.

**Response:** The SFM agrees in part with the comments made and believes that further clarification of the adopted and amended provisions should be made. However, additional modifications to be proposed in this rulemaking cycle to these sections or the appendix are beyond the scope of this rulemaking, the SFM did not propose in the original rulemaking (45-day comment period) any further amendments and the existing provisions are only being carried forward. However, the adoption and amendment of Section 507.5 provides the scoping and the authority for the local enforcing agency to adopt by ordinance or allow other approved methods for fire hydrant spacing. The SFM's existing amendment to section 507.5 where text was added to include "*or by an approved method*" is intended to afford the local enforcing agency the ability to allow or adopt other methods based on their criteria, including; greater distances of fire hydrant spacing based on operations, staffing, equipment or other local conditions. The SFM will continue to evaluate the commenter's proposal and consider them in the next rulemaking cycle for the CFC.

[Section 906.1]

**Name/Organization:** Craig Voelkert, CFPS, CFEI, Amerex, Chair, FEMA Government Relations Committee

**Comment:** Commenter request that no changes to Section 906.1 be made as a result of changes made to the model code from the prior edition.

**Response:** The SFM is making no additional changes to the 2012 IFC other than bringing forward existing additions to the section that are statutory required or that are contained in CCR, Title 19. The SFM agrees with the commenter that changes made to the 2012 IFC from the 2009 IFC are an improvement.

[Section 1004.1.1.1]

**Name/Organization:** Greg Schwab, Fire Chief, Georgetown Fire District,

Robert L. Gill, Fire Chief, Pioneer Fire Protection District

Michael Lilienthal, Fire Marshal, El Dorado Hills Fire Department,

Gary E. Baldock, Fire Protection Specialist, Diamond Springs / El Dorado Fire Protection District,

**Comment:** Commenters request the SFM to remove the proposed language “assigned individually for each area and considered. Leave existing language “...be based on the cumulative occupants loads of all rooms, areas or spaces to that point along the path of egress travel”. Commenters state the proposed language says the same as what is currently in code but not as clearly stated. Section 1004.1.1.1 deals with occupant load. Section 1014.2 deals with the path of exit travel.

**Response:** The SFM has revised the proposed modification during the 15-day comment period to align with actions taken at the ICC final action code development hearing to correct this section. The proposed modifications have been approved to correct the 2012 IBC/IFC. Revised text and reason statement for 1004.1.1.1 through 1004.1.1.3 below:

**1004.1.1.1 Intervening spaces or accessory areas.** Where occupants egress from one or more room, area or space through another others, the design occupant load shall be the combined occupant load of interconnected accessory or intervening spaces. Design of egress path capacity shall be based on the cumulative portion of occupant loads of all rooms, areas or spaces to that point along the path of egress travel.

**1004.1.1.2 Adjacent levels for mezzanines.** ~~The~~ That portion of occupant load of a mezzanine with required egress through a room, area or space on an adjacent level shall be added to the occupant load of that room, area or space.

~~Where a mezzanine is served by a means of egress, independent of the room or space in which it is located, the portion of occupant load accumulated to the room or space shall be added to the occupant load of that room or space.~~

**Exception:**

~~Mezzanines that conform with the egress requirements for a story.~~

**1004.1.1.3 Adjacent stories.** ~~Where occupants from an adjacent story require access through a story under consideration, the cumulative occupant load from the adjacent story shall not be added when determining the capacity and number of exits. The required capacity and number of egress paths from the adjacent story through the story under consideration shall not be reduced. Other than for the egress components designed for convergence in accordance with Section 1005.6, the occupant load from separate stories shall not be added.~~

**Rational for revision:**

The SFM is proposing additional modifications to correct the above sections in line with the most recent national code hearing results. The following is the commenter's reasons that the SFM agrees with and is proposing these additional modifications to correct the 2012 IBC.

Commenter's Reason: Over the past two code cycles there have been numerous changes to the egress provisions. Along the way a number of basic premises of the code have been slightly modified with the result of inconsistent interpretation and application of the code.

The goal of this code change is to state how occupant load is addressed in one place (Section 1004) so that the user can consistently apply the occupant load in other sections utilized to calculate the width (or capacity) and determine the number of exits or exit access paths. During the past two code cycles seemingly straight forward changes have had the effect of making the code more restrictive through interpretation even though they were not advertised as such.

1004.1.1.1 Intervening spaces: The current code as written gives inconsistent interpretations as shown in the 2012 ICC Code and Commentary Figure 1004.1.1 on page 10-10 and Figure 1021.2(1) on page 10-135. In Figure 1004.1.1, if interpreted literally as written, a small lobby with 10 occupant load with one path of exit travel through it would either have all or part of the occupant load from the next room added to it to determine both number and capacity of exits. If the code is applied literally in this example, then the design occupant load (now much larger) would require two exits or exit access from the lobby on its own even though the large room driving egress already has access to two exits. In the example accompanying Figure 1021.2(1) part of the occupant load is added to the corridor to determine the corridor now needs three exits which is incorrect as the room driving this condition already had access to three exits or exit access and the overall story only needs three exits.

Instead of taking occupant load from one space and adding it to another as implied by the current code for the overall design occupant load, this public comment emphasizes rooms that share an egress path must be looked at for the occupant load in the aggregate to address number of exits, door swing, hardware, etc. and each path of egress travel width (or capacity) must be designed for an accumulation of the portion of occupant load with egress along that path. Each individual room must also have access to the required egress as currently required by code.

1004.1.1.2 Mezzanines: Egress from mezzanines has been treated differently than stories in the IBC code for a number of years. The concept provided here is only the portion of occupant load with required egress through the room, area or space shall be added to the occupant load of the room, area or space below. This accounts for mezzanines where there is considerable independent egress directly off of the mezzanine and also for the conditions where some or all of the required egress from the mezzanine is through the level below.

1004.1.1.3 Stories: Historically in the IBC occupant load has not needed to be accumulated through exits from one story to another as long as both the maximum number and capacity at any story is maintained in the stories below. This has been referred to the “cascading stairway” loading effect. The concern of “conflict with the cascading stairway loading utilized by the code for years” was mentioned by the egress committee in the disapproval of E14, E15 and E17. In past codes, there is one instance where occupant load is added between stories when there is convergence with egress to a central level occurring at the same time from both above and below. This is acknowledged in this public comment.

The loss of the cascading loading for stairways may have occurred, in the minds of some, when unenclosed exit stairways found in section 1020, exceptions 8 and 9, of the 2006 IBC were relocated by E122-06/07 from the exit provisions to the exit access provisions. E122-06/07 stated it did not increase the cost of construction and there was no discussion in the E122-06/07 reason of any effect on cascading stairway loading at that time. Yet by renaming unenclosed exit stairs as unenclosed exit access stairs some practitioners interpreted this as a need to now add the portion of occupant load from an exit access stairway to the story below (as part of the exit access) instead of maintaining both the capacity and number of means of egress from the story as has historically been done for exits. This cascade stairway loading concept was alive and well regarding egress width from a story in section 1004.4 of the 2006 IBC, again in the last sentence of section 1005.1 of the 2006 IBC, and finally addressed for the number of exits from a story in 2006 IBC section 1019.1. The last section of this public comment attempts to address this issue to ensure, even though egress through an adjacent story has been reorganized, the intent of maintaining the cascade stairway loading is maintained as pointed out by the egress committee.

[Section 605.11 (IBC 3111)]

**Name/Organization:** Larry G. Williams, Fire Prevention Supervisor, Ventura County Fire Protection District

**Comments:** The Ventura County Fire Protection District requested modifications to Section 3111.4.3.1 to read:

3111.4.3.1 Access. There shall be a minimum 6-foot wide (1829 mm) clear perimeter around the edges of the roof, as measured from the exterior bearing walls of the building to the nearest photovoltaic panel.

Exception: If either axis of the building is 250 feet (76200 mm) or less, there shall be a minimum 4-foot wide (1290 mm) clear perimeter around the edges of the roof, as measured from the exterior bearing walls of the building to the nearest photovoltaic panel.

The additional modification addresses concerns raised by our truck company officers regarding cantilevered roofs that may not have proper support during a fire. This also allows a minimum setback from the exterior wall so the pathway will be located over the interior of the building to allow for proper ventilation of the roof if needed during a fire and not over exposed exterior area underneath the roof.

**Response:** The SFM agrees with the intent and merit of the proposed modification, however, the proposed modification are beyond the scope of this current rulemaking. The SFM's proposals in this rulemaking related to Section 3111 were only to reproduce the IFC provisions without modification into the CBC and CRC. The SFM will continue to evaluate the commenter's proposal and consider them in the next rulemaking cycle for the CBC, CRC

and the CFC. Additionally the SFM is developing modifications for the national code development process through ICC for the 2015 IFC where these proposals would be heard.

**DETERMINATION OF ALTERNATIVES CONSIDERED AND EFFECT ON PRIVATE PERSONS**

(Government Code Section 11346.9(a)(4))

The Office of the State Fire Marshal had made an initial determination at the start of the 45-Day Public Comment Period that no alternative considered would be more effective in carrying out the purpose for which the regulation is proposed or would be as effective as and less burdensome to affected private persons than the adopted regulation.

**REJECTED PROPOSED ALTERNATIVE THAT WOULD LESSEN THE ADVERSE ECONOMIC IMPACT ON SMALL BUSINESSES**

(Government Code Section 11346.9(a)(5))

No proposed alternatives were received by Office of the State Fire Marshal.

**COMMENTS MADE BY THE OFFICE OF SMALL BUSINESS ADVOCATE**

(Government Code Section 11347.6))

The Office of Small Business Advocate did not offer comments to the Office of the State Fire Marshal on this proposed rulemaking action.