

**INITIAL STATEMENT OF REASONS
FOR
PROPOSED BUILDING STANDARDS
OF THE
OFFICE OF THE STATE FIRE MARSHAL
REGARDING THE 2010 CALIFORNIA FIRE CODE
CALIFORNIA CODE OF REGULATIONS TITLE 24, PART 9
2010 ANNUAL RULEMAKING CYCLE**

The Administrative Procedure Act requires that an Initial Statement of Reasons be available to the public upon request when rulemaking action is being undertaken. The following are the reasons for proposing this particular rulemaking action:

STATEMENT OF SPECIFIC PURPOSE AND RATIONALE

(Government Code Section 11346.2)

The specific purpose of this rulemaking effort by the Office of the State Fire Marshal (SFM) is to act in accordance with Health and Safety Code section 18928, which requires all proposed regulations to specifically comply with this section in regards to the adoption by reference with amendments to a model code within one year after its publication.

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 addressed in the 2009 International Fire Code and published as the 2010 California Fire Code.

The general purpose of this proposed action is principally intended to update the 2010 California Fire Code (California Code of Regulations, Title 24, Part 9) based upon updated information or recent actions of the SFM. This proposed action:

- Repeal certain amendments to the 2009 International Building Code and/or California Building Standards not addressed by the model code that are no longer necessary nor justified pursuant with Health and Safety Code 18930(a)(7).
 - Adopt and implement additional necessary amendments to the 2010 California Fire Code that address inadequacies of the 2009 International Fire Code as they pertain to California laws.
 - Codify non-substantive editorial and formatting amendments to the 2010 California Fire Code.
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The specific purpose and rationale of each adoption, amendment, or repeal is as follows:

[Item No. 1. New California regulation or amendment necessary to address limitations and/or inadequacies of the adopted reference model code and SFM regulations relating to exit access travel distance and fire fighter operations in Group F-1 and S-1 occupancies]

910.1, 910.2.1, 910.3.2.2, 910.3.2.2.1, 910.3.2.2.2, 910.3.2.2.3

Table 1016.1, 1016.3

Table 2306.2

Chapter 47

Referenced Standards

NFPA 13

NFPA 13D

NFPA 13R

The SFM proposes to amend the above Sections and add additional building standards necessary to reinstate a 400 foot travel distances for large warehouse and large factory facilities. The following is the specific purpose and rationale based on work done by the Task Group 400. The attached report "*Report to the California State Fire Marshal on Exit Access Travel Distance of 400 Feet by Task Group 400 December 20, 2010*" (report) and subsequent "*Fire modeling Analysis Report*" (Appendix A to the report) provide the complete rationale as referenced (Attachment A).

Overview

The 2010 California Building Code and California Fire Code will become effective on January 1, 2011. Both of those codes have revised the allowable exit travel distance for large warehouse and large factory facilities. In the 2010 California Codes, warehouses and factories with non-combustible products are allowed an exit access travel distance of 400 feet; however, when those same buildings contain combustible materials, the exit access travel distance is being reduced to 250 feet.

The allowance of an exit travel distance of 400 feet has existed in the California Codes for warehouses and factories with non-combustible products since the early 1960's. The allowance of an exit travel distance of 400 feet for all warehouses and factories has existed in the California Codes for well over a decade. The report provides the basis and an evaluation of the re-inserting the allowance of 400 feet.

Task Group 400 recognized that the item was deleted from the 2009 International Building Code, which is the model code adopted by reference for the 2010 California Building Code. The ultimate goal is to revise the International Building Code, however a revision processed through the International Code Council Code change process will not appear in the code until the 2015 Edition (California adoption possible 2017). "*The immediate goal of Task Group 400 is to submit a code change in the 2011 California Code Change process*".

The following code change consists of Six Parts. This code change provides a sound solution to allowing an exit travel distance of 400 feet. This code change also considers the fact that firefighting operations are impacted when larger buildings are constructed where the exit access travel distance is allowed to be 400 feet. As a result, mitigation to the firefighting impact is included in the code change.

Specific Rationale for Code Changes

Part 1 [Table 1016.1 Footnote A and Section 1016.3]

Part 1 is the main body of the code change. Initially, a simple addition to Footnote A in Table 1016.1 is added to make a reference to a new Section 1016.3.

Section 1016.3 is added to provide the criteria for an increased exit access travel distance of 400 feet in Group F-1 and S-1 occupancies. The criteria for application of this section includes:

1. The travel distance increase is only applicable to areas of the building which are one story in height. The allowance for a travel distance of 400 feet in the 2007 CBC is limited to buildings which are one story in height, so this concept is carried forward.
This would not preclude a building with a one story storage warehouses or factory area and a two story office or a mezzanine from also utilizing this section. The section is written so that the one story limitation is only applicable to the area where the 400 foot travel distance is utilized. The two story office building would still be limited to 300 feet as indicated in Table 1016.1.

2. The minimum height from floor to ceiling above, or the underside of the roof deck, must be 24 feet. The 24 feet is measured to the bottom of the roof or ceiling above.
The height is specified as 'minimum'. It is not intended to be applied to an 'average' height, it is the minimum. It is assumed that beams and purlins will extend down below this height of 24 feet.
The 24 feet of clearance is based on the "Fire Modeling Analysis Report" by Aon Fire Protection Engineering¹. The 24 feet ceiling is used to store the smoke during the fire event and provide time for egress.
3. Protection by a fire sprinkler system designed in accordance with Section 903.3.1.1 (NFPA 13). This reference to NFPA 13 will include sprinkler systems designed with control mode sprinklers, ESFR sprinklers and any other design allowed by NFPA 13.

Again, the Fire Modeling Analysis Report demonstrates adequate time for evacuation when control mode sprinklers are utilized in buildings with 24 feet minimum to the underside of the roof deck or ceiling above. The control mode sprinkler was utilized in the fire modeling to demonstrate the more conservative approach. Certainly, ESFR or specialty sprinklers will provide more water than the control mode sprinkler and would therefore be more effective.

Part 2 [Section 910.1]

This part of the code change is now focused towards the installation of smoke/heat vents. Since the revision in Part 1 will allow an exit access travel distance of 400 feet, buildings will be larger. It can be demonstrated in this manner, if the occupant can travel 400 feet to the closest exit door, then the reverse of that means that a firefighter must drag hose 400 feet from that closest door back to the fire. Certainly this is the worst case, but it does show the point that the firefighting operation becomes more difficult, and more dangerous, with the increased exit access travel distance.

One of the most dangerous aspects of firefighting operations is working on the roof of a building when the fire is just below. Although it is frequently and routinely done, there are many dangers when working on the roof of a building which is burning. But ventilating the building, or exhausting the smoke, is a critical function. Releasing the smoke and heat from a building allows the firefighters to make entry and attack the fire in a safer environment. Releasing the smoke reduces property loss as a result of smoke damage during the fire.

Typical ventilation practices during a fire include creating openings in the roof to allow the hot gases and heated smoke to escape. Smoke/heat vents are one method of providing those openings in the roof. The proposed code change allows larger buildings based on sprinklers and ceiling height rather than on the installation of smoke/heat vents. Typically, ESFR sprinkler systems are installed without smoke/heat vents. One reason for this is that when the smoke/heat vents are open prior to the fire, the smoke/heat vents can delay the operation of the first fire sprinkler. Section 910.1 Exception 2 currently reads that smoke/heat vents are not required in buildings protected with ESFR sprinklers. Part 2 will modify Exception 2 to require smoke/heat vents when ESFR sprinkler systems are used in the following situations:

1. If the building is a state institution, smoke/heat vents will be installed in all cases even when ESFR sprinklers are installed.
2. If the building is a state-owned building or a state-occupied building, smoke/heat vents will be installed in all cases even when ESFR sprinklers are installed.
3. If the building is any occupancy regulated by the State Fire Marshal as indicated in Section 1.11 smoke/heat vents will be installed in all cases even when ESFR sprinklers are installed.
4. If the building is a Group F-1 or S-1 occupancy with an exit access travel distance in excess of 250 feet, smoke/heat vents will be installed in all cases even when ESFR sprinklers are installed.

As was mentioned previously, there is a concern with smoke/heat vents impacting the operation of ESFR sprinklers. To address this situation, revisions are also proposed to CFC and CBC Section 910.3.2.2 (Part 4) and Section 12.1.1.2 of NFPA 13 (Part 6).

Part 3 [Section 910.2.1]

The revision to 910.2.1 is mainly a clean-up item. This change adds Group F-1 aircraft hangars (manufacturing) to the already exempted Group S-1 aircraft hangars (repair). Currently the Group S-1 aircraft hangar is exempt from the requirement for smoke/heat vents. The Group F-1 aircraft hangar is of a similar construction and design. Essentially this code change will take the exception which applies to hangars where aircraft are repaired, and extend that same exception to the hangar where the same aircraft were built.

Part 4 [Section 910.3.2.2, 910.3.2.1, 910.3.2.2 and 910.3.2.3]

Section 910.3.2.2 is modified to specify the operating characteristics of smoke/heat vents in sprinklered buildings. This revision is formatted to provide a list of requirements.

Section 910.3.2.2.1 simply relocates the requirement for automatic operation of smoke/heat vents from the previous section.

Section 910.3.2.2.2 adds the requirement that the thermal element of smoke/heat vents shall have a higher temperature rating than the fire sprinklers. This will allow the sprinklers to operate before the smoke/heat vent operates. This is consistent with NFPA 13 Section 12.1.1.1 which states in part "...roof vents with operating elements that have a *higher temperature* classification than the automatic sprinklers shall be permitted."² [emphasis added]

Section 910.3.2.2.2 adds the requirement that where an ESFR sprinkler system is installed, the thermal element of smoke/heat vents shall have a temperature rating of at least 100°F above the sprinkler temperature and a minimum of 360°F. This will allow the ESFR sprinklers to operate before the smoke/heat vent operates. This is consistent with NFPA 13 Section 12.1.1.2 which states in part "...ESFR sprinklers shall not be used in buildings with automatic heat or smoke vents *unless* the vents use a high-temperature rated, standard response operating mechanism."³ [emphasis added]. This requirement is also consistent with the Factory Mutual Approval Standard for Smoke and Heat Vents, FM 4430 Section 4.8.1 which states in part "As an option, heat and smoke vents shall be permitted to be subjected to a modified fire test in order to determine if the product can be used in conjunction with ESFR sprinklers without adversely affecting their ability to activate. This shall be determined by assessing the dome's ability not to allow venting until a 360°F (182°C) fusible link has activated."⁴

Therefore, smoke/heat vents are required to be installed, and must be equipped with a fusible link that is above the sprinkler operating temperature. This will ensure that the sprinklers operate prior to the smoke/heat vent. It might also result in smoke/heat vents that do not open on their own during a fire situation. However, California is susceptible to earthquake activity. During a seismic event, the water system could be incapacitated. In that case, the sprinklers will be inoperative, but the smoke/heat vents will operate automatically.

Part 5 [Table 2306.2 Footnote J]

This part amends Footnote J on CFC Table 2306.2 by adding the requirement for smoke/heat vents when the exit access travel distance exceeds 250 feet. The revision also correlates the requirements in the footnote with the proposed changes to Section 910.1 in Part 2.

The reference is revised from "NFPA 13" to "Section 903.3.1.1" to be consistent with code format. Section 903.3.1.1 is the code section which references directly to NFPA 13.

Part 6 [CFC Chapter 47 (Chapter 35 CBC) NFPA Reference Standard]

This part adds amendments to NFPA 13. These revisions specifically address the temperature rating of the thermal element of smoke/heat vents when utilized with ESFR sprinkler systems. The 360°F rating comes from the requirements in the FM 4430 Standard, and the 100°F requirement simply provides a specific separation between the thermal element of the sprinkler and the thermal element of the smoke/heat vent.

- 1 "Fire Modeling Analysis Report", Aon Fire Protection Engineering, November 29, 2010.
- 2 "NFPA 13, Standard for the Installation of Sprinkler Systems" 2010 Edition, NFPA, Section 12.1.1.1.
- 3 "NFPA 13, Standard for the Installation of Sprinkler Systems" 2010 Edition, NFPA, Section 12.1.1.2.
- 4 "Approval Standard for Smoke and Heat Vents FM 4430", 2007 Edition, FM Approvals, Section 4.8.1.

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 2009 International Fire Code and published as the 2010 California Fire Code pursuant to Health and Safety Code Section 13108, 13143, 13146 and 18949.2.

[Item No. 2. Antifreeze solutions in residential fire sprinkler systems – permanent emergency rulemaking]

Chapter 47

Referenced Standards

NFPA 13

NFPA 13D

NFPA 13R

The SFM proposes to make permanent the emergency regulations approved by the California Building Standards Commission October 19, 2010. The above sections amended as part of that emergency rulemaking and have no further modification proposed in this rulemaking to make permanent. This Rulemaking is submitted accordance with Government

Code Section 11346.1(e).

For the specific purpose and rationale for each section containing California regulation, modification, amendment or repeal **see the Initial Statement of Reasons for Part 2.5 California Residential Code (CRC) Item No. 1**. The SFM is correlating amendments for Part 9 California Fire Code (CFC) which are derived from the amendments proposed to the CRC relating to antifreeze solutions in residential fire sprinkler systems.

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 2009 International Fire Code and published as the 2010 California Fire Code pursuant to Health and Safety Code Section 13108, 13113, 13114, 13131.5, 13143, 17921, and 18949.2.

[Item No. 3. Amendments for further clarification, correction and consistency with other SFM regulations]

907.2.2

The SFM is proposing this amendment to allow a NFPA 13 sprinkler system to substitute for the model code required fire alarm system for Group B occupancies 3 stories or less. The SFM feels that the current code is overly restrictive regarding the installation of fire alarm systems in Group B occupancies where an approved sprinkler system is installed.

The IFC/IBC model codes do not require Group B occupancies to be sprinklered except where the building is classified as a high-rise building or where the building use includes certain mixed occupancies. Many jurisdictions throughout California already have sprinkler ordinances for most commercial occupancies. This exception could save thousands in construction cost by the elimination of the manual fire alarm system in these buildings while maintaining fire and life safety.

The SFM and has previously approved this fire sprinkler substitution as an approved alternate means of protection in Group B occupancies. The SFM feels that a sprinkler system installed in these occupancies will constitute a higher level of fire and life safety for the building occupants than that of a manual fire alarm system.

To use this exception the building will need to have a sprinkler system installed throughout in accordance with NFPA 13 as amended by The SFM, and the sprinkler system shall be monitored by an approved supervising station in accordance with the California

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1008.1.2, 1008.1.4.3

For the specific purpose and rationale for each section containing California regulation, modification, amendment or repeal **see the Initial Statement of Reasons for Part 2 California Building Code (CBC) Item No. 3**. The SFM is correlating amendments for Part 9 California Fire Code (CFC) which are derived from the amendments proposed to the CBC relating to horizontal sliding doors.

2404.2 (CBC 3102.3.1)

The SFM is correlating the provisions of the CBC and CFC with existing regulations contained in CCR, Title 19 Division 1, Chapters 2 and 8 for flame resistance standards in accordance with Health and Safety Code Section 13115. During the adoption of the 2010 CBC and CFC the SFM replaced prior provisions contained in Chapter 31E of the 2007 CBC with the 2009 International Building and Fire code provisions contained in Chapter 31 and 24 respectively. However, the repeal of Chapter 31E and moving modifications into CBC Chapter 31 and CFC Chapter 24 the coordination with CCR, Title 19, Division 1, Chapters 2 and 8 was omitted. This modification corrects those omissions. The modifications proposed have no change in regulatory effect.

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 2010 California Building and Fire Code pursuant to Health and Safety Code Section 13115, and 18949.2.

[Item No. 4. Modifications that have no change in regulatory effect or repeal of amendments that are no longer necessary]

1011.3

For the specific purpose and rationale for each section containing California regulation, modification, amendment or repeal **see the Initial Statement of Reasons for Part 2 California Building Code (CBC) Item No. 4**. The SFM is correlating amendments for Part 9 California Fire Code (CFC) which are derived from the amendments proposed to the CBC relating to tactile exit signage.

1011.7

For the specific purpose and rationale for each section containing California regulation, modification, amendment or repeal **see the Initial Statement of Reasons for Part 2 California Building Code (CBC) Item No. 4**. The SFM is correlating amendments for Part 9 California Fire Code (CFC) which are derived from the amendments proposed to the CBC relating to path marking.

1025.5

For the specific purpose and rationale for each section containing California regulation, modification, amendment or repeal **see the Initial Statement of Reasons for Part 2 California Building Code (CBC) Item No. 4**. The SFM is correlating amendments for Part 9 California Fire Code (CFC) which are derived from the amendments proposed to the CBC relating to path marking.

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 2009 International Fire Code and published as the 2010 California Fire Code pursuant to Health and Safety Code Section 13108, 13113, 13114, 13131.5, 13143, 17921, and 18949.2.

[Item No. 5. Statutory modification and/or correction of existing regulation]

202 General Definitions

Bedridden Person

For the specific purpose and rationale for each section containing California regulation, modification, amendment or repeal **see the Initial Statement of Reasons for Part 2 California Building Code (CBC) Item No. 5**. The SFM is correlating amendments for Part 9 California Fire Code (CFC) which are derived from the amendments proposed to the CBC relating to care facilities.

Occupancy Classification

Group I-4, day-care facilities – Adult day-care facility

For the specific purpose and rationale for each section containing California regulation, modification, amendment or repeal **see the Initial Statement of Reasons for Part 2 California Building Code (CBC) Item No. 5**. The SFM is correlating amendments for Part 9 California Fire Code (CFC) which are derived from the amendments proposed to the CBC relating to care facilities.

Appendix Chapter 4

425.3.2

For the specific purpose and rationale for each section containing California regulation, modification, amendment or repeal **see the Initial Statement of Reasons for Part 2 California Building Code (CBC) Item No. 5**. The SFM is correlating amendments for Part 9 California Fire Code (CFC) which are derived from the amendments proposed to the CBC relating to care facilities.

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 2009 International Fire Code and published as the 2010 California Fire Code pursuant to Health and Safety Code Section 13108, 13113, 13114, 13131.5, 13143, 17921, and 18949.2.

[Item No. 6. Modifications for elevator standards and correlation with CCR, Title 8, Division 1, DOSH Elevator Safety Orders]

508.1.5

607.1

The SFM is deleting all references to ASME, A17.1 /CSA B44 *Safety Code For Elevators and Escalators* and instead referencing; California Code of Regulations, Title 8, Division 1, Chapter 4, Subchapter 6, *Elevator Safety Orders* for correlation and to resolve conflicts with California Division of Occupational Health and Safety (DOSH) adoption and amendments to A17.1

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 2009 International Fire Code and published as the 2010 California Fire Code pursuant to Health and Safety Code Section 13108, 13113, 13114, 13131.5, 13143, 17921, and 18949.2.

903.3.1.1.1

For the specific purpose and rationale for each section containing California regulation, modification, amendment or repeal **see the Initial Statement of Reasons for Part 9 California Fire Code (CFC) Item No. 6.** The SFM is correlating amendments for Part 2 California Building Code (CBC) which are derived from the amendments proposed to the CFC relating to elevators.

907.4.3

1007.4

Chapter 47

Referenced Standards

ASME A17.1

The SFM is deleting all references to ASME, A17.1 /CSA B44 *Safety Code For Elevators and Escalators* and instead referencing; California Code of Regulations, Title 8, Division 1, Chapter 4, Subchapter 6, *Elevator Safety Orders* for correlation and to resolve conflicts with California Division of Occupational Health and Safety (DOSH) adoption and amendments to A17.1

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 2009 International Fire Code and published as the 2010 California Fire Code pursuant to Health and Safety Code Section 13108, 13113, 13114, 13131.5, 13143, 17921, and 18949.2.

[Item No. 7. Editorial modification correcting code references to the appropriate California Code]

102.3, 102.4, 102.5,

304.1.3, 306.1, 308.3, 311.1.1, 311.3, 313.1

408.7.2

504.1

607.3

704.1

Table 914.8.2

1104.6, 1106.17, 1107.1, 1107.4

1203.3, 1204.2.1, 1205.3, 1207.1

1604.5

2402.1, 2403.8.4

3006.2

4006.4

4601.2, 4601.3, 4604.5, 4604.18, 4604.18.1. Table 4604.18.2

Appendix A - A101.1

Appendix D - D101.1, D107.1, D108 Referenced Standards

Appendix E - E101.1, E102.1.1, E102.1.8.1, E103.2, E104 Referenced Standards

Appendix F - F101.1, F102 Referenced Standards

Appendix J - J103.2.2, J103.3.2, J104 Referenced Standards

The SFM is amending the above sections to correctly reference the appropriate California Code edition. There is no change in regulatory effect.

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 2009 International Fire Code and published as the 2010 California Fire Code pursuant to Health and Safety Code Section 13108, 13113, 13114, 13131.5, 13143, 17921, and 18949.2.

[Item No. 8. Reprint and/or modification of various provisions of California Code of Regulations, Title 19, Division 1 provisions following the CFC Sections noted below.]

1.11.2, 1.11.2.1, 1.11.2.1.1

[California Code of Regulations, Title 19, Division 1, §1.11] Enforcement of Regulations.

[California Code of Regulations, Title 19, Division 1, §3.12] Enforcement Agency.

1.11.2.2

[California Code of Regulations, Title 19, Division 1, §1.08] Report of Arrest.

[California Code of Regulations, Title 19, Division 1, §1.13] Penalty.

1014.4

[California Code of Regulations, Title 19, Division 1, §3.06(a)] Bonding of Chairs and Spacing of Tables.

1028.12

[California Code of Regulations, Title 19, Division 1, §3.06(a)] Bonding of Chairs and Spacing of Tables.

1029.4

[California Code of Regulations, Title 19, Division 1, §4.2] Labeling.

[California Code of Regulations, Title 19, Division 1, §4.3(a) through (c)] Warning Information.

The SFM proposes to make changes without regulatory effect for various Sections of existing Title 19, California Code of Regulations (CCR) to be brought forward and reprinted or referenced into the 2010 California Fire Code (CFC). The SFM has worked with the California Fire Prevention Officers Association, a section of the California Fire Chiefs Association, and identified those code Sections of Title 19, CCR that local fire authorities enforce and requested to have identified for daily use in the CFC. This project is an important piece to the California fire service by providing cohesion for enforcement provisions with a single "inspector friendly" code document.

The SFM further proposes to also reference the Title 19 Section in brackets below the appropriate CFC Section to clarify to the enforcement agency where the original Section derived. The above Sections containing California regulations are brought forward with editorial modification only. These amendments do not create a change in regulatory effect.

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

(Government Code Section 11346.2(b)(2))

[Item 1] Report to the California State Fire Marshal on Exit Access Travel Distance of 400 Feet by Task Group 400 December 20, 2010 (Attachment A). Including:

Fire Modeling Analysis Report", Aon Fire Protection Engineering, November 29, 2010 (Appendix A),
NFPA 13, Standard for the Installation of Sprinkler Systems 2010 Edition,
Approval Standard for Smoke and Heat Vents FM 4430, 2007 Edition.

The SFM did not rely on any other technical, theoretical, and empirical study, report, or similar documents outside of those contained in this rulemaking in proposing that CBSC adopt said model code as a reference standard for the placement of existing SFM regulatory amendments for the California Building Standards Codes.

CONSIDERATION OF REASONABLE ALTERNATIVES

(Government Code Section 11346.2(b)(3)(A))

The SFM has determined that no alternative considered would be more effective in carrying out the purpose for which the regulation is proposed or would be as effective and less burdensome to affected private persons than the proposed adoption by reference with SFM amendments. Therefore, there are no alternatives available to the SFM regarding the proposed adoption of an electrical code.

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

(Government Code Section 11346.2(b)(3)(B))

The SFM has determined that no alternative available would be more effective in carrying out the purpose for which the regulation is proposed or would be as effective and less burdensome to affected private persons than the proposed adoption by reference with SFM amendments. Therefore, no alternatives have been identified or that have otherwise been identified and brought to the attention of the SFM that would lessen any adverse impact on small business.

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

(Government Code Section 11346.2(B)(4))

The SFM has made a determination that this proposed action will not have a significant adverse economic impact on business. Health and Safety Code Section 18928 requires the SFM, when proposing the adoption of a model code, national standard, or specification shall reference the most recent edition of the applicable model code, national standard, or specification. Therefore, there are no other facts, evidence, documents, testimony, or other evidence on which the SFM relies to support this rulemaking.

DUPLICATION OR CONFLICTS WITH FEDERAL REGULATIONS

(Government Code Section 11346.2(b)(5))

The SFM has determined that this proposed rulemaking action does not unnecessary duplicate or conflict with federal regulations contained in the Code of Federal Regulations that address the same issues as this proposed rulemaking.

Attachment A (file name Part-9_ISOR_Attachment_A_20101221.pdf)

- *Report to the California State Fire Marshal on Exit Access Travel Distance of 400 Feet by Task Group 400 December 20, 2010* (report)
- *"Fire modeling Analysis Report"* (Appendix A to the report)