

**INITIAL STATEMENT OF REASONS  
FOR  
PROPOSED BUILDING STANDARDS  
OF THE  
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
REGARDING THE 2010 CALIFORNIA GREEN BUILDING STANDARDS CODE (CGBC)  
CALIFORNIA CODE OF REGULATIONS, TITLE 24, PARTS 1 and 11**

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The Administrative Procedure Act requires an Initial Statement of Reasons to 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 requires a statement of specific purpose of **EACH** adoption, amendment or repeal and the rationale of the determination by the agency that EACH adoption, amendment or repeal is reasonably necessary to carry out the purpose for which it is proposed.

- When repealing adopted California original standards, summarize the effect of the standards and explain why the standard is no longer necessary
- When amending a standard, explain the standard proposed to be modified, explain the effect of the proposed modification, explain the inadequacy of the standards being modified, and explain why the proposed amendment is necessary)

**1) The Public Problem, Administrative Requirement, or Other Circumstance Addressed.**

**Administrative Requirement:** Health and Safety Code Section 17921 directs the Department of Housing and Community Development (HCD) to propose adoption, amendment or repeal of building standards for the protection of public health, safety and general welfare.

**2) Specific Purpose**

HCD has determined the amendment of the 2007 California Green Building Standards Code (CGBC) is needed pursuant to the requirements of Health and Safety Code Section 17921.

**The specific purpose** of these regulations is to amend the 2007 CGBC into Part 11, Title 24, and CCR for the following programs:

- a) **State Housing Law:** 1. relative to residential occupancies, buildings or structures accessory thereto and as provided in Health and Safety Code Section 17921; 2. relative to California Fair Employment and Housing accessibility requirements as provided in Government Code Section 12955.1, except where the application is for public use only.
- b) **Employee Housing Act:** relative to any building or structure or outdoors on premises or property in accordance with Health and Safety Code Section 17040.
- c) **Factory-Built Housing Law:** relative to residential buildings, dwellings or portions thereof, or building components, or manufactured assemblies in accordance with Health and Safety Code Section 19990.

**3) Rationale for Necessity**

This proposed action by HCD adopts mandatory and voluntary green building standards for occupancies within its authority, building upon a framework of measures adopted by California Building Standards Commission (CBSC) on HCD's behalf in 2008. The intent of the new version of the code continues to be to (1) reduce greenhouse gas (GHG) emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; and (3) respond to the directives in the Governor's legislative veto messages announced at the conclusion of the 2007-2008 legislative session.

GHG reduction has been mandated in recent years by the Governor through executive orders and in his signing into law AB 32 in 2006. AB 32 requires a cap on GHG emissions by 2020, mandatory emissions reporting, and an ongoing market-based compliance program.

Green building legislation proposed in the 2007-2008 legislative session (AB 1035 concerning residential construction) was vetoed by the Governor. In his veto message, the Governor expressed his support for development of green building standards, but that they should not be statutory, conflict with current safety standards, and rely on private entities to set standards. He directed CBSC to work with state agencies to develop standards, gleaned from nationally recognized programs, ensuring an open public adoption process, for the 2010 code.

The proposed standards are the inclusion of new regulations in Part 1 and amendments to Parts 2, 3, 4, 5, and 6 of Title 24 and are being placed into Title 24, Parts 1 and 11, the CGBC, to provide clarity to users designing or constructing to the green building standards. It is the intent of HCD to integrate these standards into their respective parts at a future date.

The proposed changes to the building standards with statewide application will lead to substantial environmental benefits through reduction in the use of energy, water, and raw materials; improved public and building occupant health due to improved indoor air quality; and overall reduce detrimental environmental impacts.

**Specific Proposed Regulatory Actions:** HCD proposes the inclusion of new regulations in Part 1 and to amend the 2007 CGBC for adoption into the 2010 edition of the California Green Building Standards Code. The rationale for each adoption by chapter, division and section is listed below.

## **PART 1 – CHAPTER 2, ARTICLE 2-1**

### **SECTIONS: 2-101 and 2-102**

HCD proposes to adopt the above referenced California amendments into Chapter 1 of the 2010 edition of Title 24, Part 1, California Administrative Code (CAC). HCD is proposing to add these articles to clarify and implement the provisions of Health and Safety Code Section 17921. California law establishes the authority for HCD to develop building standards, and these sections implement and clarify the development process to ensure full public participation during development.

## **PARTS 2, 3, 4, 5 AND 6 INTO TITLE 24, CCR PART 11**

### **PREFACE**

HCD proposes to continue adoption of the above referenced California amendment with modification. HCD proposes to amend the Preface of the CGBC to reflect the text used in other parts of the California Building Standards Code. These proposed amendments will promote uniform enforcement throughout the state and ensure local enforcement agencies are provided accurate statutory information regarding the enforcement of building standards in the State of California.

### **EFFECTIVE USE OF THIS CODE**

HCD proposes to continue adoption of the above referenced California amendment with modification. HCD proposes to amend this portion of the CGBC to reflect proposed changes to the format and use of this code. These amendments will promote uniform enforcement throughout the state and ensure code users are provided with accurate direction on the intended use of the CGBC.

### **TABLE OF CONTENTS**

HCD proposes to continue adoption of the above referenced California amendment with modification. HCD proposes to amend the Table of Contents of the CGBC to reflect the organizational changes made in other parts of the CGBC. These proposed amendments will provide accurate information to the code user regarding section location and title.

## **CHAPTER 1. ADMINISTRATION**

HCD proposes to bring forward and adopt the existing California amendments from the 2007 CGBC. As a result of input received during the development process, HCD is also proposing to amend some of the existing sections and is also proposing some new amendments. All amendments to the chapter are described below and will be identified in the Matrix Adoption Table upon publication.

### **SECTIONS: 101.1, 101.5, 101.5.2, 101.5.3, 101.5.4, 101.5.5, 101.5.6, 101.6, 101.6.2, 101.6.3, 102.2, 102.3, and 104.1.**

HCD proposes to continue adoption of the above referenced California sections without modification.

### **SECTION: 101.2**

HCD proposes to continue adoption of the above referenced California amendment with modification. HCD proposes to add language suggested during the development process to clarify that an additional purpose of the CGBC is to reduce the negative impact of the construction process on the environment. The modification is editorial and has no intended change in regulatory effect.

**SECTION: 101.3**

HCD proposes to continue adoption of the above referenced California amendment with modification. HCD proposes to add additional language suggested during the development process to clarify the intended scope of the CGBC. The modification has no intended change in regulatory effect.

**SECTION: 101.3.1**

HCD proposes to continue adoption of the above referenced California amendment with modification. HCD proposes to add language suggested during the development process to clarify and correct a reference to state law and revise some of the section references. In addition, HCD is proposing to clarify its authority for residential buildings by making it consistent with other parts of the California Building Standards code. The modifications have no intended change in regulatory effect.

**SECTION: 101.4**

HCD proposes to continue adoption of the above referenced California amendment with modification. HCD proposes to use the term “are not mandatory” instead of “shall not apply”. The modification promotes consistency with the remainder of the code and has no intended change in regulatory effect.

**SECTION: 101.5.1**

HCD proposes to continue adoption of the above referenced California amendment with modification. HCD proposes to amend the list of parts of Title 24 to reflect the addition of the California Residential Code (Part 2.5).

**SECTION: 101.6.1**

HCD proposes to continue adoption of the above referenced California amendment with modification. HCD proposes to amend this portion of the CGBC to provide clarity to the code user regarding local government’s ability to amend the provisions of this code to address local conditions. This proposed amendment clarifies that a lawfully enacted ordinance is considered a modification to this code and shall govern in the event of conflict with the CGBC. These amendments will promote uniformity throughout the state and ensure code users are provided with accurate direction on the use of the CGBC.

**SECTION: 101.6.4**

HCD is proposing the adoption of this new California amendment section to eliminate uncertainty and provide clarity to the code user regarding references to third party websites or other reference sources where additional information may be found. This proposed amendment clarifies that notes are informational only and not an enforceable part of this code. The modifications have no intended change in regulatory effect.

**SECTION: 101.7**

HCD proposes to continue adoption of the above referenced California amendment with modification. HCD proposes to amend this portion of the CGBC to provide clarity to the code user and remove non-enforceable code language, and correct a section reference. During public workshops HCD received comments stating that unenforceable language should be removed from the CGBC. As a result of input received during the Code Advisory Committee (CAC) process, HCD is also proposing to use more specific language and clarify that local government is a city, county, or city and county. The modifications have no intended change in regulatory effect.

**SECTION: 101.7.1**

HCD proposes to continue adoption of the above referenced California amendment with modification. HCD proposes to amend this portion of the CGBC to provide clarity to the code user regarding local government’s ability to amend the provisions of this code to address local conditions. This proposed amendment clarifies that a lawfully enacted modification to this code to address specific local environmental conditions shall be considered as a climatic, topographical, or geological condition. These amendments will promote uniformity throughout the state and ensure code users are provided with accurate direction on the use of the CGBC. The modifications have no intended change in regulatory effect.

**SECTION: 101.8**

HCD proposes to continue adoption of the above referenced California amendment with modification. HCD proposes to amend this portion of the CGBC to provide clarity to the code user regarding local government’s ability to approve alternate materials, designs and methods of construction. The proposed modification incorporates some clarifying language obtained from the statutory provisions which govern local government’s approval of alternates. This amendment provides information to local government regarding alternates and will promote uniformity throughout the state. In addition, HCD is proposing to amend a section reference to the California Building Code.

**SECTION: 101.9**

HCD proposes to continue adoption of the above referenced California amendment with modification. HCD proposes to amend this portion of the CGBC to provide clarity to the code user and revise the text to appropriately reference the checklists contained in this code. The modifications have no intended change in regulatory effect.

**SECTION: 101.10**

HCD proposes to continue adoption of the above referenced California amendment with modification. HCD proposes to amend this portion of the CGBC to provide clarity to the code user with a grammatical revision and remove a section reference that would be incorrect in the 2010 CGBC. The modifications have no intended change in regulatory effect.

**SECTION: 101.11**

HCD proposes to continue adoption of the above referenced California amendment with modification. HCD proposes to amend this portion of the CGBC to reflect proposed changes to the format and use of this code. These amendments will promote uniform enforcement throughout the state and ensure code users are provided with accurate direction on the intended use of the CGBC. As a result of input received during the Code Advisory Committee (CAC) process, HCD is also proposing to use more specific language and clarify that local government is a city, county, or city and county.

**SECTION: 102.1**

HCD proposes to continue adoption of the above referenced California amendment with modification. HCD proposes to amend this portion of the CGBC to reflect proposed revisions to indicate that submittals do not necessarily need to be contained in one submittal package and may be submitted separately.

**CHAPTER 2. DEFINITIONS**

HCD proposes to bring forward and adopt the existing California amendments from the 2007 CGBC. As a result of input received during the development process, HCD is also proposing to amend some of the existing sections and is also proposing some new amendments. All amendments to the chapter are described below and will be identified in the Matrix Adoption Table upon publication.

**SECTIONS: 201.1, 201.2, 201.3, 201.4**

HCD proposes to continue adoption of the above referenced California sections without modification.

**SECTION: 202**

HCD proposes to bring forward existing California amendments and new definitions for terms that are used in the 2010 CGBC. Uniform definitions will provide clarity for the code user and consistency in the code application. The terms contained in this section are used within the text of the CGBC and need to have the proposed meanings assigned to them for proper interpretation and understanding.

**CHAPTER 3. GREEN BUILDING**

HCD proposes to bring forward and adopt the existing California amendments from the 2007 CGBC. As a result of input received during the development process, HCD is also proposing to amend some of the existing sections and is also proposing some new amendments. All amendments to the chapter are described below and will be identified in the Matrix Adoption Table upon publication.

**SECTION: 301.1**

HCD proposes to continue adoption of the above referenced California amendment with modification. HCD proposes to amend this portion of the CGBC to provide clarity to the code user and revise the text to appropriately reference the checklists contained in this code. In addition, HCD is also proposing to include text which addresses the ability of local government to make voluntary provisions mandatory at the local level. As a result of input received during the Code Advisory Committee (CAC) process, HCD is also proposing to use more specific language and clarify that local government is a city, county, or city and county. The modifications have no intended change in regulatory effect.

**SECTION: 302.1**

HCD proposes to continue adoption of the above referenced California sections without modification.

**SECTIONS: 303.1 and 303.1.1**

HCD is proposing this new California amendment to provide clarity to the code user regarding projects which are phased or have delayed completion. In some types of developments the shell of a building is constructed and the interior is finished at a later date or by a different entity or owner. This section clarifies that the CGBC requirements shall apply to initial constructions even if the project is phased or a tenant improvement.

**SECTIONS: 304.1 and 304.1.1**

HCD is proposing this new California amendment to provide clarity to the code user regarding the intent of voluntary tiers. The previous text was no longer appropriate in this section and has been retained in Section A4.2.1.1. In addition, these new sections describe the use of voluntary measures in Appendices A4 and A5, and how they are to be incorporated into tiers to achieve environmental benefits above the minimum mandatory standards.

**CHAPTER 4. DIVISION 4.1, PLANNING AND DESIGN**

HCD proposes to bring forward and adopt the existing California amendments from the 2007 CGBC. As a result of input received during the development process, HCD is also proposing to amend some of the existing sections and is also proposing some new amendments. This chapter has been renumbered to accommodate the proposed format of the 2010 CGBC. All amendments to the chapter are described below and will be identified in the Matrix Adoption Table upon publication.

**SECTION: 4.1.1.1**

HCD proposes to continue adoption of the above referenced California amendment with modification. HCD proposes to amend this portion of the CGBC to provide clarity to the code user and revise the text to appropriately reference the proposed format of the 2010 CGBC. The modifications have no intended change in regulatory effect.

**SECTION: 4.1.2.1**

HCD proposes to bring forward existing California amendments and new definitions for terms that are used in the 2010 CGBC. Uniform definitions will provide clarity for the code user and consistency in the code application. The terms contained in this section are used within the text of the CGBC and need to have the proposed meanings assigned to them for proper interpretation and understanding.

**SECTION: 4.1.3 (Reserved)****SECTIONS: 4.1.4.1 and 4.1.4.1.1**

HCD is proposing the adoption of this new California amendment section to eliminate uncertainty and provide clarity to the code user regarding the preservation of existing site resources and methods to preserve natural resources during the development process.

**SECTION: 4.1.5 (Reserved)****SECTIONS: 4.1.6.1 and 4.1.6.2**

HCD proposes to continue adoption of the above referenced California sections without modification other than a change in the numbering of the section necessary to fit the format of this code.

**SECTION: 4.1.6.3**

HCD is proposing the adoption of this new California amendment section to eliminate uncertainty and provide clarity to the code user. This section requires that sites are graded to direct surface water away from buildings to prevent water intrusion and structural damage to the building. Grading and paving plans are commonly required by some enforcing agencies and can serve to show how this is to be accomplished. Providing such information on plans should not add significant cost to the project. Most, if not all, projects require some grading; the actual grading should not incur a significant cost as well. Offsetting benefits may be realized in building longevity and occupant well-being.

**CHAPTER 4. DIVISION 4.2, ENERGY EFFICIENCY**

As a result of input received during the development process, HCD is proposing to repeal the majority of this chapter and is proposing that only one section remain. All amendments to the chapter are described below and will be identified in the Matrix Adoption Table upon publication.

**SECTION 4.2.1.1**

HCD is not proposing mandatory energy efficiency standards, referring instead to the California Energy Commission for these standards. However, HCD is proposing the adoption of a new California amendment section to eliminate uncertainty and provide clarity to the code user regarding the ongoing authority of the California Energy Commission to adopt statewide energy mandates.

**SECTIONS: 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, and 513 including all subsections.**

HCD is not proposing mandatory energy efficiency standards, referring instead to the California Energy Commission for these standards. The above sections are not needed in the 2010 CGBC; therefore, HCD is proposing to repeal these sections and all subsections associated with them.

## **CHAPTER 4. DIVISION 4.3, WATER EFFICIENCY AND CONSERVATION**

HCD proposes to bring forward and adopt the existing California amendments from the 2007 CGBC. As a result of input received during the development process, HCD is also proposing to amend some of the existing sections and is also proposing some new amendments. This chapter has been renumbered to accommodate the proposed format of the 2010 CGBC. All amendments to the chapter are described below and will be identified in the Matrix Adoption Table upon publication.

### **SECTIONS: 4.3.1.1 and 4.3.2.1**

HCD proposes to continue adoption of the above referenced California sections without modification.

### **SECTION: 4.3.3.1**

HCD proposes to continue adoption of the above referenced California amendment with modification. HCD proposes to amend this portion of the CGBC to provide clarity to the code user and revise the text to appropriately reference the renumbered tables contained in the 2010 CGBC. HCD is also proposing to add text to provide clarity to the code user that a water savings exceeding 20% is acceptable. The modifications have no intended change in regulatory effect.

### **SECTION: 4.3.3.2**

HCD proposes to continue adoption of the above referenced California amendment with modification. HCD proposes to amend this portion of the CGBC to provide clarity to the code user and revise the text to appropriately indicate that when using the performance calculation method to show at least a 20% reduction in indoor water use that a shower head may have a maximum flow rate of 2.5 gpm @ 60 psi. The modifications have no intended change in regulatory effect.

### **TABLE 4.3.3.1**

HCD proposes to continue adoption of the above referenced California amendment with modification. HCD proposes to amend this portion of the CGBC to provide clarity to the code user by revising the table to appropriately reference only fixtures used in residential applications and remove the X in the occupant column. In addition HCD is proposing to direct the code user to the appropriate worksheet which may be used to calculate baseline water use.

### **TABLE 4.3.3.2**

HCD proposes to continue adoption of the above referenced California amendment with modification. HCD proposes to amend this portion of the CGBC to provide clarity to the code user and revise the table to appropriately reference only fixtures used in residential applications. In addition, HCD is proposing to lower the flow rate of lavatory fixtures to 1.5 gpm @ 60psi maximum and specify a minimum flow rate of 0.8 gpm @ 20psi. The modifications are in compliance with the US EPA lavatory faucet standards required to gain certification in the WaterSense program. HCD also proposes to amend the footnotes to correct state how flush volume is determined.

### **SECTION: 4.3.3.3 and TABLE 4.3.3.3**

HCD is proposing this new section in response to comments received during the previous code cycle. It prescribes specifications for plumbing fixtures and fixtures, including references to US EPA's WaterSense label, for fixture types that could be used to meet the 20% reduction. The information has been put into table format more like the plumbing code, in response to comments from the Green Building Code Advisory Committee (GB CAC).

### **SECTION: 4.3.4.1**

HCD is proposing this new California amendment section to provide clarity to the code user regarding irrigation controllers. It specifies that when irrigation controllers are installed in residential construction, at the time of final inspection, they must be weather- or soil moisture-based controllers.

According to the Irrigation Association, "smart" controllers cost about three times as much as conventional ones, with higher end pricing for those that control more zones and have more features, such as an integral rain sensor. Climate-based models may require a small monthly fee to receive data from local weather stations. Benefits include:

- The amount of outdoor water and energy saved when weather or soil moisture indicates water is not needed.
- Additionally, controllers can be programmed to prevent over-watering in summer and early fall when California generally gets no rain, based on soil types, plants, and other features of the landscape, like shade.
- An indirect benefit is the reduction of liabilities for preventable over-watering resulting in water damage (erosion, foundation damage, mold, and premature death of trees) and runoff, which can migrate to other properties and to stormwater systems and may include contaminants.

One manufacturer estimates that "smart" systems pay for themselves in less than two years.

**SECTION: 4.3.5 (Reserved)**

HCD is proposing to change the name of this section to reflect the current trend in referring to recycled, reclaimed and graywater systems.

**CHAPTER 4. DIVISION 4.4, MATERIAL CONSERVATION AND RESOURCE EFFICIENCY**

HCD proposes to bring forward and adopt the existing California amendments from the 2007 CGBC. As a result of input received during the development process, HCD is also proposing to amend some of the existing sections and is also proposing some new amendments. This chapter has been renumbered to accommodate the proposed format of the 2010 CGBC. All amendments to the chapter are described below and will be identified in the Matrix Adoption Table upon publication.

**SECTION: 4.4.1.1**

HCD proposes to continue adoption of the above referenced California amendment with modification. HCD proposes to amend this portion of the CGBC to provide clarity to the code user and revise the text to appropriately indicate the scope of this division in the proposed format of the 2010 CGBC. The modifications have no intended change in regulatory effect.

**SECTION: 4.4.2.1**

HCD proposes to continue adoption of the above referenced California sections without modification.

**SECTION: 4.4.3 (Reserved)**

**SECTION: 4.4.4 (Reserved)**

**SECTION: 4.4.5 (Reserved)**

**SECTION: 4.4.6.1**

HCD proposes to continue adoption of the above referenced California sections without modification. This section has been moved from Section 506.1 of the 2007 CGBC and has been renumbered to fit the proposed format of the 2010 CGBC.

**SECTION: 4.4.7 (Reserved)**

**SECTION: 4.4.8.1**

HCD proposes to continue adoption of the above referenced California amendment with modification. HCD proposes to amend this portion of the CGBC to provide clarity to the code user and revise the text to remove a redundancy created with the proposed adoption of Section 4.4.8.2, Item 4, which also specifies that the amount of material shall be calculated by weight or volume but not using both methods. The modification has no intended change in regulatory effect.

**SECTIONS: 4.4.8.2, 4.4.8.2.1, and 4.4.8.2.2**

HCD is proposing the adoption of these new California amendment sections to provide clarity to the code user regarding the use of a waste management plan intended to save raw materials and preserve landfill space, where local regulations do not apply. HCD has included a sample waste management plan in Chapter 8, which can be used by specifiers and contractors and tailored as needed for each user. CBSC has provided an exception for isolated jobsites where C & D waste processing facilities are not readily available, as determined by the enforcement agency.

Based on research done by CBSC staff, including interviews with several general contractors that routinely implement construction waste management plans (WMPs), the cost of developing WMPs will be minimal, using a standard template such as that provided in Chapter 8. The typical time to fill out a form should be roughly 2-4 hrs (\$200-\$400) for basic WMP and 4-8 hrs (\$400-\$800) for detailed WMP.

**SECTION: 4.4.9 (Reserved)**

**SECTION: 4.4.10.1**

HCD proposes to continue adoption of the above referenced California amendment with modification. HCD proposes to amend this portion of the CGBC to provide clarity to the code user and revise the text to provide additional guidance requested by stakeholders regarding the types of information that needs to be included in the manual. The modification has no intended change in regulatory effect.

## **CHAPTER 4. DIVISION 4.5, ENVIRONMENTAL QUALITY**

HCD proposes to bring forward and adopt the existing California amendments from the 2007 CGBC. As a result of input received during the development process, HCD is also proposing to amend some of the existing sections and is also proposing some new amendments. This chapter has been renumbered to accommodate the proposed format of the 2010 CGBC. All amendments to the chapter are described below and will be identified in the Matrix Adoption Table upon publication.

### **SECTION: 4.5.1.1**

HCD proposes to continue adoption of the above referenced California sections without modification.

### **SECTION: 4.5.2.1**

HCD proposes to bring forward existing California amendments and new definitions for terms that are used in the 2010 CGBC. Uniform definitions will provide clarity for the code user and consistency in the code application. The terms contained in this section are used within the text of the CGBC and need to have the proposed meanings assigned to them for proper interpretation and understanding.

### **SECTION: 4.5.3**

As recommended by the CAC HCD is proposing the adoption of this section from the 2008 code to provide clarity to the code user regarding the use of gas and wood burning appliances listed in this section. HCD proposes to restrict the types of fireplaces that can be installed unless allowed or further restricted by local ordinance. The regulations are consistent with the requirements currently in Title 24, Part 6.

### **SECTION: 4.5.4.1**

HCD proposes to continue adoption of the above referenced California sections without modification.

### **SECTIONS: 4.5.4.2, 4.5.4.2.1, 4.5.4.2.2, and 4.5.4.2.3**

HCD proposes to continue adoption of the above referenced California amendment with modification. HCD proposes to amend this portion of the CGBC to provide clarity to the code user and revise the text to provide revised section references and provide additional clarifying information about the origin of the VOC limits. HCD also proposes to include sealants, caulking materials and aerosol paints and coatings in this section and provide guidance to the code user on the classification of materials that are not specifically listed in the tables.

### **TABLES 4.5.4.1, 4.5.4.2, and 4.5.4.3**

HCD proposes to continue adoption of the above referenced California amendment with modification. HCD proposes to amend this portion of the CGBC to provide clarity to the code user by removing tables contained in the 2007 CGBC and replacing them with more complete tables based on tables developed by ARB and the South Coast Air Quality Control District.

HCD is proposing the adoption of these sections to provide clarity to the code user regarding indoor air quality. Most indoor air pollution comes from sources inside the building. Paints, stains, adhesives, carpeting, upholstery, manufactured wood products, pesticides, and cleaning agents may emit volatile organic compounds (VOCs), including formaldehyde. Research shows that some VOCs can cause chronic and acute health effects at high concentrations, and some are known carcinogens. Low to moderate levels of multiple VOCs may also produce acute reactions. HCD is proposing adoption of VOC limits applicable statewide developed by the ARB and is including tables to assist the code user in identification of the VOC limits for adhesives, sealants, paints and other coatings.

### **SECTION: 4.5.4.3**

HCD proposes to continue adoption of the above referenced California sections without modification.

### **SECTION: 4.5.4.4**

HCD proposes to continue adoption of the above referenced California amendment with modification. HCD proposes to amend this portion of the CGBC to provide clarity to the code user. HCD received a comment from ARB stating current supplies of residential Green Label Plus are appropriate as a mandatory measure. HCD has verified that sufficient carpet meeting the Green Label Plus rating exists and is anticipated to expand in the future. In response to these comments, HCD is proposing carpet meeting the Green Label Plus standard. HCD is also proposing to provide guidance to the code user by including informational notes regarding carpet systems.

### **SECTION: 4.5.4.4.1**

HCD proposes to continue adoption of the above referenced California sections without modification.

**SECTION: 4.5.4.4.2**

HCD proposes to continue adoption of the above referenced California amendment with modification. HCD proposes to amend this portion of the CGBC to provide clarity to the code user by revising the section reference. The modifications have no intended change in regulatory effect.

**SECTION: 4.5.4.5**

HCD is proposing the adoption of this section to provide clarity to the code user regarding VOC emissions of interior resilient flooring systems. Emission limits are based on the Collaborative for High Performance Schools (CHPS) Low-emitting Materials List or the FloorScore certification standards developed by the Resilient Floor Covering Institute (RFCI). The availability of product lines on the CHPS list and/or certified as FloorScore compliant is quite robust, and CBSC staff contacted several listed manufacturers, including Armstrong, Mannington, Stainmaster, and Roppe. All of these manufacturers' products are certified by RFCI in conjunction with Scientific Certification Systems (SCS). From the list of manufacturers and products on the CHPS list, there is no cost comparison to non-complying products and there appears to be an adequate supply of product.

**SECTIONS: 4.5.4.6 and 4.5.4.6.1**

HCD proposes to continue adoption of the above referenced California amendment with modification. HCD proposes to amend this portion of the CGBC to provide clarity to the code user by revising the section reference and provide a reference to the origin of the requirements. The modifications have no intended change in regulatory effect.

**TABLE 4.5.4.6**

HCD proposes to continue adoption of the above referenced California amendment with modification. HCD proposes to amend this portion of the CGBC to provide clarity to the code user by revising the table to eliminate past dates that no longer are relevant. The modifications have no intended change in regulatory effect.

**SECTION: 4.5.5.1**

HCD proposes to continue adoption of the above referenced California amendment with modification. HCD proposes to amend this portion of the CGBC to provide clarity to the code user by removing a reference to residential occupancies that is no longer needed because this chapter no longer applies to other occupancies. In addition, HCD is proposing to remove the specific reference to a code section and use a broader reference to allow for the proposed adoption of the California Residential Code. The modifications have no intended change in regulatory effect.

**SECTIONS: 4.5.5.2, 4.5.5.2.1, and 4.5.5.3**

HCD proposes to continue adoption of the above referenced California sections with minor modification to expand the acronym for The American Concrete Institute.

**SECTION: 4.5.6.1**

HCD proposes to continue adoption of the above referenced California amendment with modification. HCD proposes to amend this portion of the CGBC to provide clarity to the code user by clarifying the control requirements and establishing acoustic limits for fans used to satisfy this section.

**SECTION: 806.4**

HCD proposes to repeal this section because it is no longer needed and is covered by the California Energy Code.

**SECTION: 4.5.7.1**

HCD proposes to continue adoption of the above referenced California sections without modification except for a change to the title of the section.

**SECTION: 4.5.7.2**

HCD is proposing the adoption of this new California amendment section to require HVAC systems to be appropriately sized to the heating and cooling loads of the structure. In addition, HCD is proposing an exception to allow qualified individuals latitude to use appropriate design temperature that accurately reflect the design needs of buildings instead of relying on broad based climate information that may not be accurate for a specific area. The ability of design duct systems to be sized in accordance with specified standard. Cost may be from \$300 to over \$800 dollars for individual dwelling units and substantially less for production builders constructing the same building several times. Offsetting benefits may be realized in HVAC equipment longevity, increased occupant comfort, reduced utility costs and improved occupant well-being.

**SECTION: 4.5.8 (Reserved)**

## **CHAPTER 6. REFERENCED ORGANIZATIONS AND STANDARDS**

### **SECTION: 601.1**

HCD proposes to bring forward and adopt the existing California amendments from the 2007 CGBC. As a result of input received during the development process, HCD is also proposing to amend some of the existing the chapter title to accurately reflect the contents of the chapter and is proposing to remove some of the organizations and standards that are not referenced in the 2010 CGBC.

## **CHAPTER 7. INSTALLER AND THIRD PARTY QUALIFICATIONS**

HCD proposes to bring forward and adopt this existing chapter from the 2007 CGBC. As a result of input received during the development process, HCD is also proposing new California amendment section to provide guidance regarding installer and inspector training necessary to ensure substantial compliance with the provisions of the CGBC.

### **SECTION: 701 (Reserved)**

### **SECTION: 702.1**

HCD is proposing the adoption of this new California amendment section to eliminate uncertainty and provide clarity to the code user regarding installer training. HCD received comments stating that installation of HVAC systems is in some instances problematic and not at an acceptable level. HCD believes that installer training and verification of installation are necessary to implement the intent of this code. Stakeholders also asked for guidance pertaining to type of training that may be acceptable for installers. In addition, HCD is also proposing to provide an exception from the training requirement for persons working under the direct supervision of someone who is trained or certified.

### **SECTION: 702.2**

HCD is proposing the adoption of this new California amendment section to eliminate uncertainty and provide clarity to the code user regarding special inspector qualification or training. HCD received comments stating that inspection quality in some instances problematic and not at an acceptable level. HCD believes that inspection and verification of installation are necessary to implement the intent of this code. Stakeholders also asked for guidance pertaining to type of training that may be acceptable for special inspectors.

### **SECTION: 703.1**

HCD is proposing the adoption of this new California amendment section to eliminate uncertainty and provide clarity to the code user regarding documentation required to show compliance with the measures contained in this code. HCD received comments stating that guidance should be provided for enforcing agency to clarify methods that may be acceptable to demonstrate compliance. The modifications have no intended change in regulatory effect.

## **CHAPTER 8. FORMS AND WORKSHEETS**

The 2008 CGBC has being reformatted and renumbered. Chapter 8 has been renumbered from Chapter 11 and contains the Water Use Worksheets and new forms to assist code users with implementation of Construction Waste Management. HCD is also proposing adoption of application checklists in a new California appendix, A4, Division A4.6.

## **APPENDIX A4, DIVISIONS A4.1 THROUGH A4.7**

HCD proposes to adopt this new appendix as a California amendment to be included in the 2010 CGBC. The measures contained in this appendix are not mandatory as adopted by HCD. In response to numerous comments from stakeholders during development of the 2007 CGBC, HCD has proposed a tier based voluntary checklist of measures that can be used by enforcing agencies wishing to go beyond the mandatory requirements of this code. Comments received from stakeholders expressed concern about the lack of a consistent and streamlined method local government could use to further enhance their local environment or further reduce the impact of development. State agencies expressed support for this concept and viewed it as a vehicle to increase the use and acceptability of advanced or enhanced technology which ultimately would translate to an elevated level of construction and may serve to raise the mandatory requirements in the future. In addition, HCD has included a method for local government to use the checklist to establish any special verification or inspection requirements. Lastly, as with other parts of Title 24, HCD has included a sample resolution that may be used during the local adoption process.

**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).)

California Green Builder  
LEED for Homes Pilot  
NAHB Model Green Homebuilding Guidelines  
US Environmental Protection Agency - Indoor Air Package  
Build It Green  
American Concrete Institute - Standard ACI 302.1R-04 and ACI 302.2R-06  
South Coast Air Quality Management District – Rule 1113 and Rule 1168  
California State Water Resources Control Board- Construction Storm Water Program  
A California Builders Guide to Reduced Mold Growth – A Report to the California Energy Commission

**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 alternative.)

None. There were no alternatives available to HCD. Recent proposed green building legislation (AB 35 regarding state-owned buildings, AB 888 regarding commercial B-occupancy buildings and AB 1035 regarding residential construction) was vetoed by the Governor. However, in his veto messages, the Governor expressed his support for development of green building standards, but advised that they should not be statutory, not conflict with current safety standards, and not rely on private entities to set standards. HCD has collaborated with the CBSC and other state agencies to develop green building standards, gleaned from all nationally recognized programs, ensuring an open public adoption process.

**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.)

HCD has determined that this regulatory action would have no significant adverse economic impact on California business enterprises and individuals, including the ability of California businesses to compete with businesses in other states.

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

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

None.

**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.)

These regulations neither duplicate nor conflict with federal regulations.