The 2010 triennial edition of the California Code of Regulations, Title 24 (California Building Standards Code) applies to all occupancies that apply for building permits on or after January 1, 2011, and remains in effect until the effective date of the next triennial edition. It is intended that the following errata will be officially published and distributed by ICC and/or IAPMO prior to the Jan. 1, 2011 effective date. (Note: Items shown in ~~strikethrough~~ or underline denote each erratum change).

Errata for the 2010 Triennial Edition of Title 24, California Building Standards Code, Part 11 California Green Building Standards (CALGreen) Code

(Updated on 3-1-11)

California Agency Information Contact List

Office of Statewide Health Planning and Development

Hospital Standards	(916) 440-~~8409~~ 8356
Skilled Nursing Facility Standards	(916) 440-~~8409~~ 8356
Clinic Standards	(916) 440-~~8409~~ 8356
Permits	(916) 440-~~8409~~ 8356

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SECTION 305 [OSHPD 1]
***CALGreen* TIER 1 AND *CALGreen* TIER 2**

. . .

305.1.1 *CALGreen* Tier 1. To achieve *CALGreen* Tier I, buildings must comply with the latest edition of "Savings By Design, Healthcare Modeling Procedures" found online at http://www.energysoft.com/ep/2007SBDHProcedures.pdf
(Page 11-12)

CALIFORNIA GREEN BUILDING STANDARDS CODE – MATRIX ADOPTION TABLE
CHAPTER 5 – NONRESIDENTIAL MANDATORY MEASURES
DIVISION ~~1~~ 5.1 – PLANNING AND DESIGN

. . .

SECTION 5.106
SITE DEVELOPMENT

. . .

5.106.1 Storm water ~~pollution~~ soil loss prevention plan. For newly constructed projects of less than one acre, develop a Storm Water ~~Pollution~~ soil loss ~~P~~prevention ~~P~~plan ~~(SWPPP)~~ that has been designed, specific to its site, conforming to the State Storm water NPDES Construction Permit 99-08-DWQ or local ordinance, whichever is stricter, as is required for projects one acre or more. The plan should cover prevention of soil loss by storm water run-off and/or wind erosion, of sedimentation, and/or of dust/particulate matter air pollution.

Note: No state permit is required, but construction best management practices (BMPs) shall be followed. BMPs include but are not limited to the following:

1. Erosion and sediment control BMPs
   a. Scheduling construction activity
   b. Preservation of natural features, vegetation and soil
   c. Drainage swales or lined ditches to control stormwater flow
   d. Mulching or hydroseeding to stablilize disturbed soils
   e. Erosion control to protect slopes
   f. Protection of storm drain inlets (gravel bags or catch basin inserts)
   g. Perimeter sediment control (perimeter silt fence, fiber rolls)
   h. Sediment trap or sediment basin to retain sediment on site
   i. Stabilized construction exits
   j. Wind erosion control
2. Housekeeping BMPs:
   a. Material handling and waste management
   b. Building materials stockpile management

c. Management of washout areas (concrete, paints, stucco, etc.)
d. Control of vehicle/equipment fueling to contractor's staging area
e. Vehicle and equipment cleaning performed off site
f. Spill prevention and control

~~Assistance with the permit may be obtained from the California State Water Resources Control Board (SWRCB) at: http://www.swrcb.ca.gov/stormwtr/, from a Regional Water Quality Control Board, and at local public works departments.~~

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5.106.4 Bicycle parking ~~and changing rooms~~. Comply with Sections 5.106.4.1 and 5.106.4.2; or meet local ordinance or the University of California Policy on Sustainable Practices, whichever is stricter.

5.106.4.1 Short-term bicycle parking. If the project is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within ~~100~~ 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of visitor motorized vehicle parking capacity, with a minimum of one two-bike capacity rack.

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. . .

5.106.8 Light pollution reduction. ~~Comply with~~ Meet lighting power requirements in the California Energy Code, CCR, Title 24, Part 6, and design interior and exterior lighting such that zero direct-beam illumination leaves the building site. ~~Meet or exceed exterior light levels and uniformity ratios for~~ Comply with lighting zones 1-4 and lighting zone characteristics as defined in Chapter 10 of the California Administrative Code, CCR, Title 24, Part 1, using the following strategies:

1. Shield all exterior luminaires or provide cutoff luminaires per Section 132 (b) of the California Energy Code.
2. Contain interior lighting within each source.
3. Allow no more than .01 horizontal ~~lumen~~ footcandles to escape 15 feet beyond the site boundary.
4. Automatically control exterior lighting dusk to dawn to turn off or lower light levels during inactive periods.

Exceptions:

1. CCR, Title 24, Part 2, Chapter 12, Section 1205.6 for campus lighting requirements for parking facilities and walkways.

. . .

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. . .

MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MLO). The California ordinance regulating landscape design, installation and maintenance practices that will ensure commercial, multifamily and other developer installed landscapes greater than 2500 square feet meet an irrigation water budget developed based on landscaped area, and climatological parameters.

5.303.1 Meters. Separate meters or metering device shall be installed for the uses described in Sections 5.303.1.1 and 5.303.1.2.

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. . .

5.303.4 Wastewater reduction. Each building shall reduce by 20% wastewater by one of the following methods:

1. [DSA-SS] The installation of water-conserving fixtures (water closets, urinals) meeting the criteria established in section~~s~~ 5.303.2 ~~or 5.303.3~~ or . . .

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. . .

5.410.4 Testing and adjusting. Testing and adjusting of systems shall be required for buildings less than 10,000 square feet.

5.410.4.1 (Reserved)

5.410.4.2 Systems. Develop a written plan of procedures for testing and adjusting systems. Systems to be included for testing and adjusting shall include at a minimum, as applicable to the project: . . .

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. . .

VOC. A volatile organic compound broadly defined as a chemical compound based on carbon chains or rings with vapor pressures greater than 0.1 millimeters of mercury at room temperature. These compounds typically contain hydrogen and may contain oxygen, nitrogen and other elements. See CCR Title 17, Section 94508(a).

Note: Where specific regulations are cited from different agencies such as South Coast Air Quality Management District (SCAQMD), Air Resources Board (ARB), etc, the VOC definition included in that specific regulation is the one that prevails for the specific measure in question.
(Page 38)

. . .

5.504.4.1 Adhesives, sealants, and caulks. Adhesives, sealants, and caulks used on the project shall meet the requirements of the following standards.

1. Adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers, and caulks shall comply with local or regional air pollution control or air quality management district rules where applicable, or SCAQMD Rule 1168 VOC limits, as shown in Tables 5.504.4.1 and 5.504.4.2. Such products also shall comply with the Rule 1168 prohibition on the use of certain toxic compounds (chloroform, ethylene dichloride, methylene chloride, perchloroethylene, and trichloroethylene), except for aerosol products as specified in subsection 2, below.
(Page 38)

. . .

5.504.4.3 Paints and coatings. Architectural paints and coatings shall comply with VOC limits in Table 1 of the ARB Architectural Coatings Suggested Control Measure, as shown in Table 5.504.4.3, unless more stringent local limits apply. The VOC content limit for coatings that do not meet the definitions for the specialty coatings categories listed in Table 5.504.4.3, shall be determined by classifying the coating as a Flat, Nonflat, or Nonflat-High Gloss coating, based on its gloss, as defined in subsections 4.21, 4.36, and 4.37 of the 2007 California Air Resources Board, Suggested Control Measure, and the corresponding Flat, Nonflat, or Nonflat-High Gloss VOC limit in Table 5.504.4.3 shall apply.
(Page 39)

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5.504.4.6.1 Verification of compliance. Documentation shall be provided verifying that resilient flooring materials meet the pollutant emission limits.

Notes: Products compliant with CHPS criteria certified under the Greenguard Children & Schools program may also be used.

1. CHPS Low-emitting Materials List may be found at www.chpsregistry.com/live or http://www.chps.net/dev/Drupal/node/381 .
2. Products certified under the FloorScore program may be found at: http://www.rfci.com/int_FS-ProdCert.htm .
3. Products certified under the Greenguard Children & Schools program and compliant with CHPS criteria may be found at: http://www.greenguard.org/Default.aspx?tabid=135.

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. . .

5.506.1 Outside air delivery. For mechanically or naturally ventilated spaces in buildings, meet the minimum requirements of Section 121 (Requirements For Ventilation) of the California Energy Code, CCR, Title 24, Part 6, or the applicable local code, whichever is more stringent, and Division 1, Chapter 4 of CCR, Title 8.
(Page 41)

. . .

5.507.4.2 Interior sound. Wall and floor-ceiling assemblies separating tenant spaces and tenant spaces and public places shall have an STC of at least 40.

Note: Examples of assemblies and their various STC ratings may be found in the Catalog of STC and IIC Ratings for Wall and Floor/Ceiling Assemblies.
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Chapter 8 Compliance Forms and Worksheets

Worksheet (WS-1)
Baseline Water Use

BASELINE WATER USE CALCULATION TABLE											
Fixture Type	**Quantity**		**Flow-rate (gpm)**		**Duration**		**Daily uses**		**Occupants[3, 4]**		**Gallons per day**
. . .											
Lavatory Faucets Residential		X	2.2	X	.25 min.	X	3	X		=	
Lavatory Faucets Nonresidential		X	0.5	X	.25 min.		3	X		=	
Kitchen Faucets		X	2.2	X	4 min.	X	1	X		=	
Replacement Aerators		X	2.2	X		X		X		=	
Wash Fountains		X	2.2	X		X		X		=	
Metering Faucets		X	0.25	X	.25 min.	X	3	X		=	
Metering Faucets for Wash Fountains		X	2.2	X	.25 min.	X		X		=	
. . .											
Total daily baseline water use (BWU)										=	
_____ (BWU) X .80 = _____ Allowable water use											

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. . .

Worksheet (WS-2)
20 Percent Reduction Water Use

20% REDUCTION WATER USE CALCULATION TABLE											
Fixture Type	**Quantity**		**Flow-rate (gpm)[2]**		**Duration**		**Daily uses**		**Occupants[3, 4]**		**Gallons per day**
. . .											
Lavatory Faucets Residential		X		X	.25 min.	X	3	X		=	
Lavatory Faucets Nonresidential		X		X	.25 min.		3	X		=	
Kitchen Faucets		X		X	4 min.	X	1	X		=	
Replacement Aerators		X		X		X		X		=	
Wash Fountains		X		X		X		X		=	
Metering Faucets		X		X	.25 min.	X	3	X		=	
Metering Faucets for Wash Fountains		X		X	.25 min.	X		X		=	

. . .											
Proposed water use										=	
_____ (BWU from WS-1) X .80 = _____ Allowable water use											

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. . .

Worksheet (WS-3)
30-35 or 40 Percent Reduction Water Use

30%, 35% or 40% REDUCTION WATER USE CALCULATION TABLE											
Fixture Type	**Quantity**		**Flow-rate (gpm)** [2]		**Duration**		**Daily uses**		**Occupants** [3,]		**Gallons per day**
. . .											
Lavatory Faucets Residential		X		X	.25 min.	X	3	X		=	
Lavatory Faucets Nonresidential		X		X	.25 min.		3	X		=	
Kitchen Faucets		X		X	4 min.	X	1	X		=	
Replacement Aerators		X		X		X		X		=	
Wash Fountains		X		X		X		X		=	
Metering Faucets		X		X	.25 min.	X	3	X		=	
Metering Faucets for Wash Fountains		X		X	.25 min.	X		X		=	
. . .											
Proposed water use										=	
30% Reduction_____ (BWU from WS-1) X .70 = _____ Allowable water use 35% Reduction_____ (BWU from WS-1) X .65 = _____ Allowable water use 40% Reduction_____ (BWU from WS-1) X .60 = _____ Allowable water use											

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. . .

A5.106.3 Low impact development (LID). Reduce peak runoff in compliance with Section 5.106.~~3.~~1. Employ at least two of the following methods or other best management practices to allow rainwater to soak into the ground, evaporate into the air, or collect in storage receptacles for irrigation or other beneficial uses. LID strategies include, but are not limited to: **. . .**
(Page 89)

. . .

A5.106.11 Heat island effect. Reduce nonroof heat islands by Section A5.106.11.1 and roof heat islands by A5.106.11.2 ~~or [DSA-SS] A5.106.11.4~~.
(Page 91)

. . .

A5.106.11.2 Cool roof. [BSC] Use roofing materials having a minimum 3-year aged solar reflectance and thermal emittance complying with A5.106.11.2.1 and A5.106.11.2.2 or a minimum aged Solar Reflectance Index (SRI)~~3~~ complying with A5.106.11.2.3 and as shown in Table A5.106.11.2.1 or A5.106.11.2.2.
(Page 91)

. . .

A5.203.1.1 Tier 1 [BSC] Energy efficiency – 15% above Title 24, Part 6 [DSA-SS] Exceed California Energy Code requirements, based on the 2008 Energy Efficiency Standards, by 15% and meet the requirements of Division A~~4~~5.6.

A5.203.1.2 Tier 2 [BSC] Energy efficiency – 30% above Title 24, Part 6 [DSA-SS] Exceed California Energy Code requirements, based on the 2008 Energy Efficiency Standards, by 30% and meet the requirements of Division A~~4~~5.6.
(Page 95)

. . .

A5.211.1.1 Documentation. ~~Calculate renewal on-site energy costs savings as a percentage of estimated local utility rates for conventional fuel types.~~ Using a calculation method approved by the California energy Commission, calculate the renewable on-site energy system to meet the requirements of Section A5.211.1, expressed in kW. Factor in net-metering, if offered by local utility, on an annual basis.

. . .

A5.211.3 Green Power. ~~Using a calculation method approved by the California energy Commission, calculate the renewable on-site energy system to meet the requirements of Section 511.1, expressed in kW. Factor in net-metering, if offered by local utility, on an annual basis~~. If offered by local utility provider, participate in a renewable energy portfolio program that provides a minimum of 50% electrical power from renewable sources. Maintain documentation through utility billings.
(Page 127)

. . .

A5.303.2.3.1 Tier 1 – 30% Savings. [BSC] 30% Savings. [DSA-SS] A schedule of plumbing fixtures and fixture fittings that will reduce the overall use of potable water within the building by 30% shall be provided. The reduction shall be based on the maximum allowable water use per plumbing fixture and fitting~~s~~ as required by the California Building Standards Code. The 30% reduction in potable water use shall be demonstrated by one of the following methods. **. . .**
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. . .

A5.304.7 Previously developed sites. On previously developed or graded sites, restore or protect at least 50% of the site area with adaptive and/or non-invasive vegetation. Projects complying with Section ~~A5.204.5.2~~ A5.106.3, Item 3 may apply vegetated roof surface to this calculation if the roof plants meet the definition of adaptive and non-invasive.
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. . .

A5.405.3 Reused materials. Use salvaged, refurbished, refinished, or reused materials for a minimum of 5% of the total value, based on estimated cost of materials on the project. Provide documentation as to the respective values.

Note: Sources of some reused materials can be found at CalRecycle. ~~http://www.ciwmb.ca.gov/RCP/Product.asp?VW=CAT&CATID=257~~. See also Appendix A5, Division A5.1, Section A5.105.1 for on-site materials reuse.
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. . .

A5.405.5.2.1 Supplementary cementitious materials (SCMs). Use concrete made with one or more of the following supplementary cementitious materials (SCMs): **. . .**

7. Other materials with comparable or superior environmental benefits, as approved by the engineer and enforcing authority.

Note: CalTrans specifications for UFFA and metakaolin may be found in the 2009-09 updates to the 2006 CalTrans specifications on pages 339 and 340.
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A5.405.5.2.1.1 Mix design equation. Use any combination of one or more SCM~~s~~, satisfying the equation:

F/25 + SL/50 + UF/12 ≥ 1 Equation A5.4-1

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. . .

A5.410.4.5 Operation and maintenance manual [DSA-SS]. Provide the building owner with detailed operating and maintenance instructions and copies of guaranties/warranties for each system prior to final inspection.

~~**Notes:**~~

~~1. Software for calculating life cycle costs for materials and assemblies may be found at: The Athena Institute web site at:~~
~~The NIST BEES web site at:~~
~~Life Cycle assessment may also be done in accordance with ISO Standard 14044.~~
~~2. More information on life cycle assessment may be found at the Sustainable Products Purchasers Coalition:; at the American Center for Life Cycle Assessment: ; at U.S. EPA Life Cycle Assessment Research: ; and at U.S. EPA Environmentally Preferable Products.~~

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CALIFORNIA GREEN BUILDING STANDARDS CODE – MATRIX ADOPTION TABLE
CHAPTER A5 – NONRESIDENTIAL VOLUNTARY MEASURES
DIVISION A5.5– ENVIRONMENTAL QUALITY

Adopting Agency	BSC	SFM	HCD			DSA		OSHPD				CSA	DPH	A	DWR	CEC	CA	SL	SLC
			1	2	1/AC	AC	SS	1	2	3	4								
Adopt Entire CA Chapter																			
Adopt Entire Chapter as amended (amended sections listed below)																			
Adopt only those sections that are listed below	X						X	X	X		X								
Chapter / Section																			
A5.501.1	X						X												
A5.502.1 Definitions	X						X												
A5.504.1 and subsections	X						X												
A5.504.2	X						X												
A5.504.2.1 and subsections	X																		
A5.504.4.5.1	X						X	X	X		X								
A5.504.4.7	X						X												
A5.504.4.7.1	X																		
A5.504.4.7.2	X																		
. . .	X						X												

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. . .

A5.507.1 Lighting and thermal comfort controls. Provide controls in the workplace as described in Sections A5.507.1.1 and A5.507.1.2.

A5.507.1.1 Single-occupant spaces. Provide individual controls that meet energy use requirements in the ~~2007~~ California Energy Code in accordance with Sections A5.507.1.1.1 and A5.507.1.1.2.

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. . .

A5.507.2 Daylight. Provide daylit spaces as required for toplighting and sidelighting in the ~~2007~~ California Energy Code. In constructing a design, consider the following: . . .

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. . .