

CITY OF PASADENA
2016 California Green Building Standards Code with City Amendments
Nonresidential Project Requirements

Instructions: The below CalGreen requirements are intended to simplify the plan review, construction, inspection, and documentation process for all nonresidential projects. Each of the below items is mandatory and requires either the submittal of documents at plan review, the installation of items per the “Construction Notes”, the completion/installation or submittal of additional documentation by the contractor, and the verification of each feature by the inspector.

For additions and alterations, only the portions of the building being added or altered within the scope of the permitted work would only be required to show compliance.

1. **Applicant/Designer:** Fill out the project information below (Property Owner’s Name, Project Address, Case Number, & Project Description). Submit for Plan Review the below listed documents (if required for project), and print (copy) the below table & notes onto the plans.
2. **Property Owner/Contractor:** Install the: a) features in accordance with the specifications per the approved plans (or selected specification); b) items listed per the “Construction Notes”; c) and/or provide the required additional documentation. “Construction Notes” are a part of the plans. The property owner or contractor must print & sign this table prior to issuance.

NOTE: Refer to Sec. 14.04.504 of Pasadena’s Municipal Code to determine if the project is required to also comply with Tier 1 **OR** Tier 2 of CalGreen. Also, be aware of City Amendments (Sec. 1404.516 & 1404.526) to CalGreen.

Property Owner's Name:	By signing below, I acknowledge that this project must comply with the CalGreen requirements on this table.
Project Address:	
Case Number:	Property Owner or Contractor (Print Name):
Project Description:	Property Owner's or Contractor's Signature:

MANDATORY MEASURES			Reference Compliance Sheet # for Verification	Applicable Specification, Standard or Field Selected Specification	Field Verification Required (Y or N)	Additional Documentation Required
Plan Review (Show compliance for items below for plan review when required)	Required for Plan Review (Y or N)	Construction Notes (required project features)				
Div. 5.1 – Planning and Design						
Sec. 5.106 – Site Development						
Sec. 5.106.4 – Bicycle Parking						
Sec. 5.106.4.1.1 – Short-Term Bicycle Parking						
If the project is anticipated to generate visitor traffic, provide Permanently Anchored Bicycle Racks within 200-ft of the visitors' entrance, readily visible to passers-by, for 5% of visitor motorized vehicle parking spaces (10 or more added), with a minimum of '1' two-bike capacity rack.						
Sec. 5.106.4.1.2 – Long-Term Bicycle Parking						
For new buildings with over '10' tenant-occupants OR for additions or alterations that add '10' or more tenant vehicular parking spaces, provide Secure Bicycle Parking for 5% of the tenant vehicular parking spaces being added, with a minimum one space.				Acceptable parking facilities shall be convenient from the street and shall meet one of the following: 1. Covered, lockable enclosures with permanently anchored racks for bicycles; OR 2. Lockable bicycle rooms with permanently anchored racks; OR 3. Lockable, permanently anchored bicycle lockers.		
Sec. 5.106.5.2 – Designated Parking						

MANDATORY MEASURES			Reference Compliance Sheet # for Verification	Applicable Specification, Standard or Field Selected Specification	Field Verification Required (Y or N)	Additional Documentation Required
Plan Review (Show compliance for items below for plan review when required)	Required for Plan Review (Y or N)	Construction Notes (required project features)				
For new projects OR additions or alterations that add '10' or more vehicular parking spaces, provide Designated Parking for any combination of Low-Emitting, Fuel-Efficient, and Carpool/Vanpool Vehicles.		Paint the following words such that the lower edge of the last word aligns with the end of the stall striping and is visible beneath a parked vehicle: "CLEAN AIR/VANPOOL/EV"		Table 5.106.5.2 – Number of required Designated Parking Spaces		
Sec. 5.106.5.3 – Electrical Vehicle (EV) Charging						
For new projects with 10 or more parking spaces, provide the minimum EV Charging Spaces capable of supporting future Electrical Vehicle Supply Equipment (EVSE) per Table 5.106.5.3.3. Indicate the type and location of the EVSE on plans. For Multiple EV Charging Spaces: Submit electrical load calculations to verify that the electrical panel & system have sufficient capacity to simultaneously charge all the EVs at their full rated amperage.		Listed raceway (min. trade size 1) shall be installed to accommodate a dedicated 208/240-volt branch circuit. The raceway shall originate at the main service or subpanel and shall terminate into a listed cabinet, box, or other enclosure in close proximity to the proposed location of an EV charger. The service panel and/or subpanel shall provide capacity to install a 40-ampere minimum dedicated branch circuit for the future installation of the EVSE. The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as "EV CAPABLE".		Article 625 of Electrical Code		
Sec. 5.106.8 – Light Pollution Reduction						
For new projects, provide Outdoor Lighting Systems						

¹ City Amendments
Rev. 2/1/17

MANDATORY MEASURES			Reference Compliance Sheet # for Verification	Applicable Specification, Standard or Field Selected Specification	Field Verification Required (Y or N)	Additional Documentation Required
Plan Review (Show compliance for items below for plan review when required)	Required for Plan Review (Y or N)	Construction Notes (required project features)				
that are designed and installed in accordance to: a) Minimum requirements in the CA Energy Code for Lighting Zones 1-4 as defined in Ch. 10 of CA Admin Code; AND b) Backlight, Uplight, and Glare (BUG) Ratings as defined in IES TM-15-11; AND c) Allowable BUG Ratings not exceeding those shown in Table 5.106.8.						
Sec. 5.106.10 – Grading and Paving						
Provide a Site Drainage Plan showing how all surface water is managed to prevent water from entering buildings. Exception: Additions and Alterations not altering the drainage path.		Examples of methods of compliance, but not limited to: a) Swales b) Water collection and disposal systems c) French drains d) Water retention gardens e) Other water measures, which keep surface water away from buildings and aid in groundwater recharge				Low Impact Development (LID) plan and/or Stormwater Pollution Prevention Plan (SWPPP) may be required per State Water Board. Contact Bldg & Safety for more info.
Div. 5.2 – Energy Efficiency						
Sec. 5.201 - General						
Project shall meet the minimum requirements of the current Energy Code.				Project Energy Calculations, mandatory measures, and forms as required.		As required by Energy Docs.

¹ City Amendments
Rev. 2/1/17

MANDATORY MEASURES			Reference Compliance Sheet # for Verification	Applicable Specification, Standard or Field Selected Specification	Field Verification Required (Y or N)	Additional Documentation Required
Plan Review (Show compliance for items below for plan review when required)	Required for Plan Review (Y or N)	Construction Notes (required project features)				
Div. 5.3 – Water Efficiency and Conservation						
Sec. 5.303 – Indoor Water Use						
Sec. 5.303.1 – Meters						
Sec. 5.303.1.1 – New Buildings or Additions (greater than 50,000 SF)						
<p>Separate Submeters shall be installed as follows:</p> <p>a) For each individual leased, rented, or other tenant space within the bldg projected to consume more than 100 gal/day, including, but not limited to, spaces used for laundry or cleaners, restaurant or food service, medical or dental office, laboratory, or beauty salon or barber shop.</p> <p>b) Where Separate Submeters are unfeasible, for water supplied to the following subsystems:</p> <ul style="list-style-type: none"> • Makeup water for Cooling Towers where flow through is greater than 500 gpm. • Makeup water for Evaporative Coolers greater than 6 gpm. • Steam and Hot-Water Boilers with energy input more than 						Provide plumbing plans & calculations.

MANDATORY MEASURES			Reference Compliance Sheet # for Verification	Applicable Specification, Standard or Field Selected Specification	Field Verification Required (Y or N)	Additional Documentation Required
Plan Review (Show compliance for items below for plan review when required)	Required for Plan Review (Y or N)	Construction Notes (required project features)				
500,000 Btu/h.						
Sec. 5.303.1.2 – Excess Consumption						
Provide a Separate Submeter OR Metering Device for any tenant within a new building or within an addition that is projected to consume more than 1,000 gal/day.						Provide plumbing plans & calculations.
Sec. 5.303.3 – Water Conserving Plumbing Fixtures & Fittings.						
Show compliance by ONE of the following: a) Specifying on the plans the reduced flow rate fixtures for Water Closets, Urinals, Showerheads, Faucets, & Fountains; OR b) Complete and copy Worksheets WS-1 & WS-2 onto plans.		When a shower is served by more than one showerhead, the combined flow rate of all the showerheads and/or other shower outlets controlled by a single valve shall not exceed the 2.0 gpm at 80 psi, OR the shower shall be designed to only allow one shower outlet to be in operation at a time. NOTE: A hand-held shower shall be considered a showerhead. Kitchen Faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gpm at 60 psi, and must default to a maximum flow rate.		Plumbing Fixtures and Fittings installed per Plumbing Code (CPC), and meet standards per Ch. 6 & CPC Table 1701.1.		
Sec. 5.304 – Outdoor Water Use						
Sec. 5.304.2 – Outdoor Water Use in Landscape Areas						
For new projects with an aggregate Landscape Area	Planning to review if conforming			Chapter 13.22 of Pasadena Municipal Code (PMC) for		

¹ City Amendments
Rev. 2/1/17

MANDATORY MEASURES			Reference Compliance Sheet # for Verification	Applicable Specification, Standard or Field Selected Specification	Field Verification Required (Y or N)	Additional Documentation Required
Plan Review (Show compliance for items below for plan review when required)	Required for Plan Review (Y or N)	Construction Notes (required project features)				
<p>equal to or greater than 500 square feet, provide Water Budget Calculations complying with ONE of the following:</p> <p>a) Local water efficient landscape ordinance (contact Planning for more info.); OR</p> <p>b) California Department of Water Resources Model Water Efficient Landscape Ordinance (MWELO).</p> <p>c) Per Sec. 5.304.4, projects with aggregate Landscape Areas of 2,500 square feet or less may comply with the performance requirements of MWELO OR the prescriptive compliance measures of MWELO's Appendix D.</p>	to local ordinance.			local ordinance.		
5.304.3 – Outdoor Water Use in Rehabilitated Landscape Projects						
<p>For Rehabilitated Landscape projects with an aggregate Landscape Area equal to or greater than 2,500 square feet, provide Water Budget Calculations complying with ONE of the following:</p> <p>a) Local water efficient landscape ordinance (contact Planning for</p>	Planning to review if conforming to local ordinance.			Chapter 13.22 of Pasadena Municipal Code (PMC) for local ordinance.		

¹ City Amendments
Rev. 2/1/17

MANDATORY MEASURES			Reference Compliance Sheet # for Verification	Applicable Specification, Standard or Field Selected Specification	Field Verification Required (Y or N)	Additional Documentation Required
Plan Review (Show compliance for items below for plan review when required)	Required for Plan Review (Y or N)	Construction Notes (required project features)				
more info.); OR b) California Department of Water Resources Model Water Efficient Landscape Ordinance (MWELO).						
Div. 5.4 – Material Conservation and Resource Efficiency						
Sec. 5.407.2.2 – Entries and Openings						
Exterior Entries and/or Openings shall be designed to prevent water intrusion into the building by the following: a) Primary exterior entries shall be covered with nonabsorbent floor and wall finished within at least 2-ft around and perpendicular to such openings plus at least ONE of the following: <ul style="list-style-type: none"> • An installed Awning at least 4-ft in depth; OR • A Roof Overhang at least 4-ft in depth; OR • Door is recessed at least 4-ft; OR • Other methods which provide equivalent protection. b) Install Flashings integrated with drainage plane.						

MANDATORY MEASURES			Reference Compliance Sheet # for Verification	Applicable Specification, Standard or Field Selected Specification	Field Verification Required (Y or N)	Additional Documentation Required
Plan Review (Show compliance for items below for plan review when required)	Required for Plan Review (Y or N)	Construction Notes (required project features)				
Sec. 5.410.2 – Commissioning (10,000 SF or more ONLY)						
Sec. 5.410.2.1 – Owner’s or Owner’s Rep Project Requirements (OPR)						
<p>Prior to design phase begins, provide OPR documentation that indicate the building’s expectations and requirements, which include:</p> <ul style="list-style-type: none"> a) Environmental and sustainability goals b) Energy efficiency goals c) Indoor environmental quality requirements d) Project program, including facility functions and hours of operation, and need for after-hours operation e) Equipment and systems expectations f) Building occupant and operation and maintenance (O&M) personnel expectations 						
Sec. 5.410.2.2 – Basis of Design (BOD)						
<p>Provide BOD documentation explaining how the design of the building systems meet the OPR, which covers the following systems:</p> <ul style="list-style-type: none"> a) Heating, Ventilation, Air Conditioning (HVAC) Systems & Controls 						

¹ City Amendments
Rev. 2/1/17

MANDATORY MEASURES			Reference Compliance Sheet # for Verification	Applicable Specification, Standard or Field Selected Specification	Field Verification Required (Y or N)	Additional Documentation Required
Plan Review (Show compliance for items below for plan review when required)	Required for Plan Review (Y or N)	Construction Notes (required project features)				
b) Indoor Lighting System & Controls c) Water Heating System d) Renewable Energy Systems e) Landscape Irrigation Systems f) Water Reuse Systems.						
Sec. 5.410.2.3 – Commissioning Plan						
Prior to permit issuance, provide a Commissioning Plan documenting how the project will be commissioned, which includes: a) General project info. b) Commissioning goals. c) Plans to test systems and components shall include: <ul style="list-style-type: none"> • An explanation of the original design intent. • Equipment and systems to be tested, including the extent of tests. • Functions to be tested. • Conditions under which the test shall be performed. • Measurable criteria for acceptable performance. d) Commissioning team info. e) Commissioning process						

¹ City Amendments
Rev. 2/1/17

MANDATORY MEASURES			Reference Compliance Sheet # for Verification	Applicable Specification, Standard or Field Selected Specification	Field Verification Required (Y or N)	Additional Documentation Required
Plan Review (Show compliance for items below for plan review when required)	Required for Plan Review (Y or N)	Construction Notes (required project features)				
activities, schedules, and responsibilities. Plans for the completion of commissioning requirements shall be included.						
Div. 5.5 – Environmental Quality						
Sec. 5.503 – Fireplaces						
Specify the manufacturer’s name, model number/type, and listing number of the Direct-Vent Sealed-Combustion Type (gas only) Fireplace.		Any installed woodstove or pellet stove shall have a permanent label indicating they are certified to meet the Emission Limits per US EPA NSPS.		Subchapter 7, Sec. 150 of Energy Code		
Sec. 5.507 – Environmental Comfort						
Sec. 5.507.4 – Acoustical Control (Comply with Prescriptive OR Performance Method)						
Sec. 5.507.4.1 – Exterior Noise Transmission (Prescriptive Method)						
Provide construction details for Sound-Rated Wall & Roof-Ceiling Assemblies making up the building or addition envelope or altered envelope shall meet a composite STC rating of at least 50 OR composite OITC rating of no less than 40, with exterior windows of a minimum STC of 40 OR OITC of 30 in the following locations: a) Within the 65 CNEL noise contour of an airport.				Sound Transmission Coefficient (STC) values are determined in accordance with ASTM E90 and ASTM E413 OR Outdoor-Indoor Sound Transmission Class (OITC) determined in accordance with ASTM E1332		

¹ City Amendments
Rev. 2/1/17

MANDATORY MEASURES			Reference Compliance Sheet # for Verification	Applicable Specification, Standard or Field Selected Specification	Field Verification Required (Y or N)	Additional Documentation Required
Plan Review (Show compliance for items below for plan review when required)	Required for Plan Review (Y or N)	Construction Notes (required project features)				
b) Within the 65 CNEL or L _{dn} noise contour of a freeway or expressway, railroad, industrial source, or fixed-guideway source as determined by the Noise Element of the General Plan. (Contact Planning for more info.)						
Sec. 5.507.4.1.1 – Noise Exposure where Noise Contours are Not Readily Available						
Buildings exposed to a noise level of 65 dB L _{eq} -1-hr during any hour of operation shall provide construction details for Sound-Rated Wall & Roof-Ceiling Assemblies of building, addition, or alteration meeting a composite STC rating of at least 45 OR OTIC 35, with exterior windows of a minimum STC of 40 OR OTIC 30.				Sound Transmission Coefficient (STC) values are determined in accordance with ASTM E90 and ASTM E413 OR Outdoor-Indoor Sound Transmission Class (OITC) determined in accordance with ASTM E1332		
Sec. 5.507.4.2 – Performance Method						
Sec. 5.507.4.2.1 – Site Features & Sec. 5.507.4.2.2 – Documentation of Compliance						
Provide Exterior Features such as Sound Walls OR Earth Berms as appropriate to mitigate sound migration to the interior. Provide an Acoustical Analysis documenting compliance to the interior		Envelope shall be constructed to provide an interior noise environment attributable to exterior sources that does not exceed an hourly equivalent noise level (L _{eq} -1-hr) of 50dBA in occupied areas during any hour of operation.		Sound Transmission Coefficient (STC) values are determined in accordance with ASTM E90 and ASTM E413 OR Outdoor-Indoor Sound Transmission Class (OITC) determined in accordance with ASTM E1332		

¹ City Amendments
Rev. 2/1/17

MANDATORY MEASURES			Reference Compliance Sheet # for Verification	Applicable Specification, Standard or Field Selected Specification	Field Verification Required (Y or N)	Additional Documentation Required
Plan Review (Show compliance for items below for plan review when required)	Required for Plan Review (Y or N)	Construction Notes (required project features)				
sound levels prepared by personnel approved by the Architect- or Engineer-of-Record.						
Sec. 5.507.4.3 – Interior Sound Transmission						
Provide construction details & documentation for Sound-Rated Wall & Floor-Ceiling Assemblies separating tenant spaces and tenant spaces & public places having a minimum STC Rating of 40.				Sound Transmission Coefficient (STC) values are determined in accordance with ASTM E90 and ASTM E413 OR Outdoor-Indoor Sound Transmission Class (OITC) determined in accordance with ASTM E1332		

2016 California Green Building Standards Code with Pasadena Amendments
CALGreen Construction Notes for Nonresidential

1. **Sec. 5.106.1.2 – Best Management Practices (BMP).** Prevent the loss of soils through wind or water erosion by implementing an effective combination of erosion & sediment control and good housekeeping BMP.
 - a. Soil loss BMP
 - b. Good housekeeping BMP to manage construction equipment, materials, & wastes
2. **Sec. 5.303.4.1 – Food Waste Disposers.** Disposers shall either modulate the use of water to no more than 1 gpm when the disposer is not in use (not actively grinding food waste/no-load) **OR** shall automatically shut off after no more than 10 minutes of inactivity. Disposers shall use no more than 8 gpm of water.
3. **Sec. 5.304.5 – Graywater or Rainwater Use in Landscape Areas.** For projects using treated or untreated graywater or rainwater captured on site, any lot or parcel within the project that has less than 2,500 square feet of landscape and meets the landscape water requirement (Estimated Total Water Use) is subject only to Appendix D Section (5) of MWEL0.
4. **Sec. 5.407.1 – Weather Protection.** Exterior wall and foundation envelope must be weather resistive per Sec. 1403.2 of the Building Code & 150 of the Energy Code; **OR** manufacturer’s instructions, whichever is more stringent.
5. **Sec. 5.407.2.1 – Sprinklers.** Landscape irrigation system shall be installed to prevent spray on structures.
6. **Sec. 5.408.1 – Construction Waste Management.** Recycle and/or salvage for reuse a minimum of 75% of the nonhazardous construction and demolition waste per local ordinance PMC 8.62. Obtain Public Works’ approval.¹
7. **Sec. 5.410.1 – Recycling by Occupants.** Provide readily accessible areas that serve the entire building and are identified for the deposing, storage, and collection of nonhazardous materials for recycling.

Per Sec. 5.410.1.1, the requirement above will also apply to additions conducted within a 12-month period under 1 or more permits, resulting in an increase of 30% or more in floor area.
8. **Sec. 5.410.2.4 – Functional Performance Testing.** Provide functional performance testing reports containing info. addressing each bldg components tested, testing methods utilized, and any readings & adjusting made.
9. **Sec. 5.410.2.5.1 – Systems Manual.** A system manual shall be completed and delivered to the building owner or rep. The manual shall include:
 - a. Site info., including facility description, history, and current requirements
 - b. Site contact info.
 - c. Basic operations & maintenance, including general site operating procedures, basic troubleshooting, recommended maintenance requirements, and site events log
 - d. Major systems
 - e. Site equipment inventory and maintenance notes
 - f. A copy of verifications required by Building & Safety or this code
 - g. Other resources and documentation, if applicable
10. **Sec. 5.410.2.5.2 – Systems Operations Training.** A training program manual shall be completed and included in the commissioning report, which includes:
 - a. System/equipment overview (what it is, what it does, and with what other systems and/or equipment it interfaces)
 - b. Review and demonstration of servicing/preventive maintenance
 - c. Review of the info. in the systems manual
 - d. Review of the record drawings on the system/equipment
11. **Sec. 5.410.2.6 – Commissioning Report.** A commissioning report shall be completed and provided to the owner or rep.
12. **Sec. 5.410.4.2 – Systems.** A procedure manual shall be created for testing & adjusting the following systems:
 - a. HVAC systems & controls
 - b. Indoor and outdoor lighting & controls
 - c. Water heating systems
 - d. Renewable energy systems
 - e. Landscape irrigation systems
 - f. Water reuse systems

¹ City Amendments
Rev. 2/1/17

13. **Sec. 5.410.4.3.1 – HVAC Balancing.** Before the space-conditioning system is operated for normal use, the system shall be balanced in accordance with:
- Testing Adjusting and Balancing Bureau National Standards; **OR**
 - National Environmental Balancing Bureau Procedural Standards; **OR**
 - Associated Air Balance Council National Standards; **OR**
 - As approved by the Building Official.
14. **Sec. 5.410.4.4 – Reporting.** Provide a final report signed by the individual responsible for performing the testing and adjusting & balancing of the ‘6’ systems per Sec. 5.410.4.2.
15. **Sec. 5.410.4.5 – Operation & Maintenance (O&M) Manual.** Provide an O&M Manual to the owner or rep, which include a copy of all inspection verifications and reports required by Building & Safety.
16. **Sec. 5.504.1 – Temporary Ventilation.** The permanent HVAC system shall only be used during construction if necessary to condition the building **OR** areas of addition or alteration within the required temperature range for material and equipment installation. If the HVAC system is used during construction, use return air filters with a Minimum Efficiency Report Value (MERV) of 8 **OR** an average efficiency of 30% based on ASHRAE 52.1-1992.
- Replace all Filters immediately prior to occupancy, **OR**, if the building is occupied during alteration, at the conclusion of construction.
17. **Sec. 5.504.3 – Covering of Duct Openings & Protection of Mechanical Equipment During Construction.** At the time of rough installation and during storage on the construction site until final startup of the HVAC, all ducts and other related air distribution component openings shall be covered with tape, plastic, sheet metal, or other acceptable methods to Building & Safety.
18. **Sec. 5.504.4.1 – Adhesives, Sealants, & Caulks.** Adhesives, Sealants and Caulks shall meet the following standards:
- Local or regional air pollution control **OR** SCAQMD Rule 1168 VOC limits (Tables 5.504.4.1 & 5.504.4.2)
 - Statewide VOC standards for aerosol adhesives and smaller unit size
19. **Sec. 5.504.4.3 – Paints & Coatings.** Paints and coatings shall comply with VOC limits per Table 5.504.4.3.
- Verification of compliance shall be provided at the request of Building & Safety. Supportive documentation may include, but is not limited to:
- Manufacturer’s product specification.
 - Field verification of on-site product containers.
20. **Sec. 5.504.4.3.1 – Aerosol Paints & Coating.** Aerosol paints and coatings shall meet the PWMIR Limits for ROC in Sec. 5.504.4.3.1.
- Verification of compliance shall be provided at the request of Building & Safety. Supportive documentation may include, but is not limited to:
- Manufacturer’s product specification.
 - Field verification of on-site product containers.
21. **Sec. 5.504.4.4 – Carpet Systems.** All interior carpets installed shall meet ONE of the testing and product requirements of:
- Carpet and Rug Institute’s Green Label Plus Program; **OR**
 - CDPH Standard Method VI.1 or Specification 01350; **OR**
 - NSF/ANSI 140 (Gold or higher); **OR**
 - Scientific Certifications Systems Sustainable Choice; **OR**
 - CA-CHPS Criteria Interpretation for EQ 7.0 & 7.1 (July 2012) and listed in CHPS High Performance Product Database.
22. **Sec. 5.504.4.4.1 – Carpet Cushion.** All interior carpet cushions installed shall conform to Carpet and Rug Institute’s Green Label Program’s requirements.
23. **Sec. 5.504.4.4.2 – Carpet Adhesive.** All carpet adhesives shall comply with the VOC limit per Table 5.504.4.1.
24. **Sec. 5.504.4.5 – Composite Wood Products.** Interior/exterior use of hardwood plywood, particleboard, and medium density fiberboard composite wood products shall meet the requirements of the following:
- For formaldehyde as specified in ARB’s Air Toxics Control Measure (ATCM) for Composite Wood (17 CCR 93120 et seq).
 - Materials not exempted under the ATCM must meet the emission limits per Table 5.504.4.5.

Verification of compliance shall be provided at the request of Building & Safety. Supportive documentation that include ONE of the following:

- a. Product certification and specifications; **OR**
 - b. Chain of custody certifications; **OR**
 - c. Product labeled and invoiced as meeting Composite Wood Products reg; **OR**
 - d. Exterior grade products marked as meeting PS1 or PS-2 standards of Engineered Wood Association, the Australian AS/NZS 2269, or European 636 3S standards; **OR**
 - e. Other methods acceptable to Building & Safety.
25. **Sec. 5.504.4.6 – Resilient Flooring Systems.** For 80% of the floor area receiving resilient flooring, the installed flooring shall comply with ONE of the following:
- a. Certified under RFCI FloorScore program; **OR**
 - b. CDPH Standard Method V1.1 or Specification 01350; **OR**
 - c. CA-CHPS Criteria Interpretation for EQ 7.0 & 7.1 (July 2012) and listed in CHPS High Performance Product Database.
 - d. Certified under UL GREENGUARD Gold.
- Provide documentation verifying that the resilient flooring material installed meet the pollutant emission limits.
26. **Sec. 5.504.5.3 – Filters.** At least a Minimum Efficiency Reporting Value (MERV) of 8 shall be provided for regularly occupied areas of the building (mechanically ventilated buildings) with air filtration media for outside and return air prior to occupancy.
- Installed filters shall be clearly labeled by the manufacturer indicating the MERV rating.
27. **Sec. 5.504.7 – Environmental Tobacco Smoke (ETS) Control.** Where outdoor areas are provided for smoking, smoking is prohibited within 25-ft of building entries, outdoor air intakes, and operable windows, and inside buildings.
28. **Sec. 5.505.1 – Indoor Moisture Control.** Buildings shall meet **OR** exceed the provisions of Section 1203 (Ventilation) and Chapter 14 (Exterior Walls) of the Building Code (CBC).
29. **Sec. 5.506.1 – Outside Air Delivery.** For mechanically or naturally ventilated spaces in buildings, the spaces shall meet the minimum requirements of Section 120.1 (Requirements For

Ventilation) of Energy Code and Division 1, Chapter 4 of CCR, Title 8.

30. **Sec. 5.506.2 – Carbon Dioxide (CO₂) Monitoring.** For buildings **OR** additions equipped with demand control ventilation, CO₂ sensors and ventilation controls shall be specified and installed in accordance with Sec. 121(c)(4) of Energy Code.
31. **Sec. 5.508.1.1 – Chlorofluorocarbons (CFCs).** All installed HVAC, refrigeration, and fire suppression equipment shall NOT contain CFCs.
32. **Sec. 5.508.1.2 – Halons.** All installed HVAC, refrigeration, and fire suppression equipment shall NOT contain Halons.
33. **Sec. 5.508.2 – Supermarket Refrigerant Leak Reduction.** New refrigeration systems **OR** replacement of existing refrigeration systems in a retail food store (8,000 square feet or more conditioned area) that contain high-global-warming potential (high-GWP) refrigerants with a GWP of 150 or greater shall comply with the provisions of Sec. 5.508.2.
34. **Sec. 5.508.2.1 – Refrigerant Piping.** Piping shall be installed where it is accessible for leak protection & repair and comply with Section 5.508.2.1 and Mechanical Code. Runs using threaded pipe, Copper tubing with an outside diameter less than 1/4", flared tubing connections, and short radius elbows shall not be used in refrigerant systems.
35. **Sec. 5.508.2.2 – Valves.** Valves & fitting shall in be installed in accordance to Mechanical Code & provisions of Sec. 5.508.2.2.1 – 5.508.2.2.2.
36. **Sec. 5.508.2.3 – Refrigerated Service Cases.** Refrigerant service cases holding food products containing vinegar and salt shall have evaporator coils of corrosion-resistant material, such as stainless steel; **OR** be coated (Sec.5.508.2.4) to prevent correction from these substances.
37. **Sec. 5.508.2.4 – Refrigerant Receivers.** Refrigerant receivers with capacities greater than 200 lbs shall be fitted with a device that indicates the level of refrigerant in the receiver.
38. **Sec. 5.508.2.5 – Pressure Testing.** The system shall be pressure tested during installation prior to evacuation and charging. Refer to Sec. 5.508.2.5.1 – 5.508.2.5.3 for testing requirements.
39. **Sec. 5.508.2.6 – Evacuation.** The system shall be evacuated after pressure testing and prior to charging. Refer to Sec. 5.508.2.6.1 – 5.508.2.6.3 for evacuation requirements.