



# PROJECT SUBMITTAL GUIDELINE: CALGREEN CODE

Newly constructed buildings on new or existing sites shall comply with Title 24, Part 11, California Green Building Standards (CALGreen Code) Chapter 5. Additions to existing buildings, newly constructed landscape work and rehabilitated landscape work shall comply with CALGreen Code, Chapter 5, Section 5.304.6. Projects submitted to DSA for review, as a single project or in a series of increments, must comply with the CALGreen Code. For purposes of the Title 24, Part 6, California Energy Code (Energy Code), the application of standards shall be in accordance with Energy Code, Table 100.0-A.

### **DSA Review for CALGreen Mandatory Measures**

The CALGreen compliance review is limited to the mandatory measures, listed in Chapter 5. Chapter A5 is an appendix with voluntary measures provided as a guideline to further encourage green building design practices.

For mandatory Commissioning requirements refer to Energy Code Section 120.8. Note that the measures outlined in CALGreen Code, Chapter 5, Section 5.410.2 for Commissioning and Section 5.410.4 for Testing and Adjusting are *not* mandatory standards for schools and community colleges; however, these additional verification practices are encouraged and recommended to ensure performance, comfort, system durability, reliability, indoor air quality, and efficiency.

**Note:** Each of the following measures is an excerpt from the CALGreen Code; for the complete text, consult the 2016 Title 24, Part 11, California Green Building Standards Code.

A DSA Project Submittal Guideline is a compilation of recommendations based on Code, referenced standards, DSA <u>USP</u> documents, and DSA practices. These guidelines are designed to give the design professional helpful information and insight into the DSA project application, submittal and review processes. Guidelines are provided by DSA in support of the USP goals of giving stakeholders the information they need in order to work smoothly with DSA and to help standardize practices among the four DSA Regional Offices.

Compliance with a guideline does not assure that a project is complete or that it adheres to the requirements of the California Building Standards Code (Title 24 of the California Code of Regulations) or all DSA requirements. Additional information may be required, depending on project complexity or site conditions. For complete submittal requirements see forms DSA 1 and DSA 3.

# **Attachment 1**

### 2016 CALIFORNIA GREEN BUILDING STANDARDS CODE

Division of the State Architect – Structural Safety (DSA-SS) (CCR, Title 24, Part 11)

APPLICATION MATRIX	Mandatory Chapter 5
DIVISION 5.1 - PLANNING AND DESIGN	2113,6101.0
SITE DEVELOPMENT	
<b>5.106.4.2 Bicycle parking.</b> For public schools and community colleges, comply with Sections 5.106.4.2.1 and 5.106.4.2.2	
<b>5.106.4.2.1 Student bicycle parking.</b> Provide permanently anchored bicycle racks conveniently accessed with a minimum of four two-bike capacity racks per new building.	
5.106.4.2.2 Staff bicycle parking. Provide permanent secure bicycle parking conveniently accessed with a minimum of two staff bicycle parking spaces per new building. Acceptable parking facilities shall be convenient from the street or staff parking area and shall meet one of the following:	
1. Covered, lockable enclosures with permanently anchored racks for bicycles;	
2. Lockable bicycle rooms with permanently anchored racks; or	
3. Lockable, permanently anchored bicycle lockers.	
<b>5.106.8 Light pollution reduction.</b> Outdoor lighting systems shall be designed and installed to comply with the following:	
<ol> <li>The minimum requirements in the California Energy Code for Lighting Zones 1-4 as defined in Chapter 10 of the California Administrative Code; and</li> </ol>	
2. Backlight, Uplight and Glare (BUG) ratings as defined in IESNA TM-15-11; and	
3. Allowable BUG ratings not exceeding those shown in Table 5.106.8, or	
Comply with a local ordinance lawfully enacted pursuant to Section 101.7, whichever is more stringent.	
Exceptions:	
<ol> <li>Luminaires that qualify as exceptions in Section 140.7 of the California Energy Code.</li> </ol>	
2. Emergency lighting.	
<ol> <li>Building facade meeting the requirements in Table 140.7-B of the California Energy Code, Part 6.</li> </ol>	
<ol> <li>Custom lighting features as allowed by the local enforcing agency, as permitted by Section 101.8 Alternate materials, designs and methods of construction.</li> </ol>	

	APPLICATION MATRIX	Mandatory Chapter 5
	<b>Note:</b> See also <i>California Building Code</i> , Chapter 12, Section 1205.6 for college campus lighting requirements for parking facilities and walkways.	
	E 5.106.8 MAXIMUM ALLOWABLE BACKLIGHT, UPLIGHT, AND GLARE ) RATINGS	
draina buildir	10 Grading and paving. Construction plans shall indicate how site grading or a tige system will manage all surface water flows to keep water from entering tigs. Examples of methods to manage surface water include, but are not limited to, lowing:	
1.	Swales.	
2.	Water collection and disposal systems.	
3.	French drains.	
4.	Water retention gardens.	
5.	Other water measures which keep surface water away from buildings and aid in groundwater recharge.	
DIVIS	SION 5.2 - ENERGY EFFICIENCY	
GENE	RAL	
standa manda	A California Energy Code. For the purposes of mandatory energy efficiency ands in this code, the California Energy Commission will continue to adopt atory standards. New construction, additions, and alterations must comply with the rnia Energy Code. Refer to California Energy Code Table 100.0-A.	
DIVIS	SION 5.3 - WATER EFFICIENCY AND CONSERVATION	
INDO	OR WATER USE	
	3 Water conserving plumbing fixtures and fittings. Plumbing fixtures (water s and urinals) and fittings (faucets and showerheads) shall comply with the ing:	
ex pe	<b>303.3.1 Water closets.</b> The effective flush volume of all water closets shall not sceed 1.28 gallons per flush. Tank-type water closets shall be certified to the efformance criteria of the U.S. EPA WaterSense Specifications for Tank-Type bilets.	
	<b>Note</b> : The effective flush volume of dual flush toilets is defined as the composite, average flush volume of two reduced flushes and one full flush.	
5.:	303.3.2 Urinals.	
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0.	<b>5.303.3.2.1 Wall mounted Urinals</b> . The effective flush volume of wall mounted urinals shall not exceed 0.125 gallons per flush.	

APPLICATION MATRIX	Mandatory Chapter 5
5.303.3.3 Showerheads	
<b>5.303.3.3.1 Single showerhead.</b> Showerheads shall have a maximum flow rate of not more than 2.0 gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the U.S. EPA WaterSense Specifications for showerheads.	
<b>5.303.3.2 Multiple showerheads serving one shower</b> . When a shower is served by more than one showerhead, the combined flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 2.0 gallons per minute at 80 psi, or the showerhead shall be designed to allow only one shower outlet to be in operation at one time.	
Note: A hand-held shower shall be considered a showerhead.	
5.303.3.4 Faucets and fountains.	
<b>5.303.3.4.1 Non-residential lavatory faucets.</b> Non-residential lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi.	
<b>5.303.3.4.2 Kitchen faucets.</b> Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.8 gallons per minute at 60 psi.	
<b>5.303.3.4.3 Wash fountains.</b> Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute/20 [rim space (inches) at 60 psi].	
<b>5.303.3.4.4 Metering faucets.</b> Metering faucets shall not deliver more than 0.20 gallons per cycle.	
<b>5.303.3.4.5 Metering faucets for wash fountains.</b> Metering faucets for wash fountains shall have a maximum flow rate of not more than 0.20 gallons per cycle/20 [rim space (inches) at 60 psi].	
<b>Note</b> : Where complying faucets are unavailable, aerators or other means may be used to achieve reduction.	
<b>5.303.6 Standards for plumbing fixtures and fittings.</b> Plumbing fixtures and fittings shall be installed in accordance with the <i>California Plumbing Code</i> , and shall meet the applicable standards referenced in Table 1701.1 of the <i>California Plumbing Code</i> and in Chapter 6 of this code.	

APPLICATION MATRIX	Mandatory Chapter 5
OUTDOOR WATER USE	
<b>5.304.6 Outdoor potable water use in landscape areas.</b> For public schools and community colleges, landscape projects as described in Sections 5.304.6.1 and 5.304.6.2 shall comply with the California Department of Water Resources Model Water Efficient Landscape Ordinance (MWELO) commencing with Section 490 of Chapter 2.7, Division 2, Title 23, <i>California Code of Regulations</i> , except that the evapotranspiration adjustment factor (ETAF) shall be 0.65 with an additional water allowance for special landscape areas (SLA) of 0.35.	
<b>Exception</b> : Any project with an aggregate landscape area of 2,500 square feet or less may comply with the prescriptive measures contained in Appendix D of the MWELO.	
<b>5.304.6.1 Newly constructed landscapes.</b> New construction projects with an aggregate landscape area equal to or greater than 500 square feet.	
<b>5.304.6.2 Rehabilitated landscapes</b> . Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 1,200 square feet.	
DIVISION 5.4 - MATERIAL CONSERVATION AND RESOURCE EFFICIENCY	
WATER RESISTANCE AND MOISTURE MANAGEMENT	
<b>5.407.1 Weather protection.</b> Provide a weather-resistant exterior wall and foundation envelope as required by <i>California Building Code</i> , Section 1403.2 (Weather Protection) and <i>California Energy Code</i> Section 150, (Mandatory Features and Devices), manufacturer's installation instructions, or local ordinance, whichever is more stringent.	
<b>5.407.2 Moisture control.</b> Employ moisture control measures by the following methods:	
<b>5.407.2.1 Sprinklers.</b> Design and maintain landscape irrigation systems to prevent spray on structures.	
<b>5.407.2.2 Entries and openings.</b> Design exterior entries and/or openings subject to foot traffic or wind-driven rain to prevent water intrusion into buildings as follows:	
<b>5.407.2.2.1 Exterior door protection.</b> Primary exterior entries shall be covered to prevent water intrusion by using nonabsorbent floor and wall finishes within at least 2 feet around and perpendicular to such openings plus at least one of the following:	
1. An installed awning at least 4 feet in depth.	
2. The door is protected by a roof overhang at least 4 feet in depth.	
3. The door is recessed at least 4 feet.	
4. Other methods which provide equivalent protection.	
5.407.2.2.2 Flashing. Installed flashings integrated with a drainage plane.	

APPLICATION MATRIX	Mandatory Chapter 5
DIVISION 5.4 - MATERIAL CONSERVATION AND RESOURCE EFFICIENCY	
CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING	
<b>5.408.1 Construction waste management.</b> Recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition waste in accordance with Section 5.408.1.1, 5.408.1.2 or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent.	
<b>5.408.1.1 Construction waste management plan.</b> Where a local jurisdiction does not have a construction and demolition waste management ordinance that is more stringent, submit a construction waste management plan that:	
<ol> <li>Identifies the construction and demolition waste materials to be diverted from disposal by efficient usage, recycling, reuse on the project or salvage for future use or sale.</li> </ol>	
<ol><li>Determines if construction and demolition waste materials will be sorted on- site (source-separated) or bulk mixed (single stream).</li></ol>	
<ol><li>Identifies diversion facilities where construction and demolition waste material collected will be taken.</li></ol>	
<ol> <li>Specifies that the amount of construction and demolition waste materials diverted shall be calculated by weight or volume, but not by both.</li> </ol>	
<b>5.408.1.2 Waste management company.</b> Utilize a waste management company that can provide verifiable documentation that the percentage of construction and demolition waste material diverted from the landfill complies with this section.	
<b>Note:</b> The owner or contractor shall make the determination if the construction and demolition waste material will be diverted by a waste management company.	
Exceptions to Sections 5.408.1.1 and 5.408.1.2:	
<ol> <li>Excavated soil and land-clearing debris.</li> </ol>	
<ol> <li>Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist.</li> </ol>	
<ol> <li>Demolition waste meeting local ordinance or calculated in consideration of local recycling facilities and markets.</li> </ol>	
<b>5.408.1.3 Waste stream reduction alternative.</b> The combined weight of new construction disposal that does not exceed two pounds per square foot of building area may be deemed to meet the 65 percent minimum requirement as approved by the enforcing agency.	

APPLICATION MATRIX	Mandatory Chapter 5
BUILDING MAINTENANCE AND OPERATION	Onapter 0
<b>5.410.1 Recycling by occupants.</b> Provide readily accessible areas that serve th building and are identified for the depositing, storage and collection of non-hazar materials for recycling, including (at a minimum) paper, corrugated cardboard, gl plastics, organic waste, and metals or meet a lawfully enacted local recycling ord if more restrictive.	dous ass,
<b>Exception:</b> Rural jurisdictions that meet and apply for the exemption of Publ Resources Code 42649.82 (a)(2)(A) et seq. will also be exempt from the organiset portion of this section.	
<b>5.410.1.2 Sample ordinance.</b> Space allocation for recycling areas shall comply Chapter 18, Part 3, Division 30 of the <i>Public Resources Code</i> . Chapter 18 is knothe California Solid Waste Reuse and Recycling Access Act of 1991 (Act).	
<b>Note:</b> A sample ordinance for use by local agencies may be found in Appending the document at the CalRecycle's website.	ix A of
DIVISION 5.5 ENVIRONMENTAL QUALITY	
POLLUTANT CONTROL	
<b>5.504.3 Covering of duct openings and protection of mechanical equipmen construction.</b> At the time of rough installation and during storage on the construction site until final startup of the heating, cooling and ventilating equipment, all duct a related air distribution component openings shall be covered with tape, plastic, s metal or other methods acceptable to the enforcing agency to reduce the amound dust, water and debris which may enter the system.	ction nd other neet
<b>5.504.4 Finish material pollutant control.</b> Finish materials shall comply with Se 5.504.4.1 through 5.504.4.6.	ctions
5.504.4.1 Adhesives, sealants, and caulks. Adhesives, sealants, and caulk on the project shall meet the requirements of the following standards:	s used
<ol> <li>Adhesives, adhesive bonding primers, adhesive primers, sealants, se primers, and caulks shall comply with local or regional air pollution co air quality management district rules where applicable, or SCAQMD F 1168 VOC limits, as shown in Tables 5.504.4.1 and 5.504.4.2. Such p also shall comply with the Rule 1168 prohibition on the use of certain compounds (chloroform, ethylene dichloride, methylene chloride, perchloroethylene, and trichloroethylene), except for aerosol products specified in subsection 2, below.</li> </ol>	ntrol or ule roducts roxic
<ol> <li>Aerosol adhesives, and smaller unit sizes of adhesives, and sealant of caulking compounds (in units of product, less packaging, which do no more than one pound and do not consist of more than 16 fluid ounces comply with statewide VOC standards and other requirements, includ prohibitions on use of certain toxic compounds, of <i>California Code of Regulations</i>, Title 17, commencing with Section 94507.</li> </ol>	: weigh ) shall

APPLICATION MATRIX	Mandatory Chapter 5
TABLE 5.504.4.1 - ADHESIVE VOC LIMIT; TABLE 5.504.4.2 - SEALANT VOC LIMIT	•
<b>5.504.4.3 Paints and coatings.</b> 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.	
TABLE 5.504.4.3 - VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS	
<b>5.504.4.3.1 Aerosol paints and coatings.</b> Aerosol paints and coatings shall meet the PWMIR Limits for ROC in Section 94522(a)(3) and other requirements, including prohibitions on use of certain toxic compounds and ozone depleting substances, in Sections 94522(c)(2) and (d)(2) of <i>California Code of Regulations</i> , Title 17, commencing with Section 94520; and in areas under the jurisdiction of the Bay Area Air Quality Management District additionally comply with the percent VOC by weight of product limits of Regulation 8 Rule 49.	
<b>5.504.4.4 Carpet systems.</b> All carpet installed in the building interior shall meet at least one of the following testing and product requirements:	
<ol> <li>Carpet and Rug Institute's Green Label Plus Program;</li> </ol>	
<ol> <li>Compliant with the VOC-emission limits and testing requirements specified in the California Department of Public Health Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers, Version1.1, February 2010 (also known as CDPH Standard Method V1.1 or Specification 01350);</li> </ol>	
3. NSF/ANSI 140 at the Gold level or higher;	
4. Scientific Certifications Systems Sustainable Choice; or	
<ol> <li>Compliant with the Collaborative for High Performance Schools California (CA-CHPS) Criteria Interpretation for EQ 7.0 and EQ 7.1 (formerly EQ 2.2) dated July 2012 and listed in the CHPS High Performance Product Database.</li> </ol>	
<b>5.504.4.4.1 Carpet cushion.</b> All carpet cushion installed in the building interior shall meet the requirements of the Carpet and Rug Institute's Green Label program.	
<b>5.504.4.4.2 Carpet adhesive.</b> All carpet adhesive shall meet the requirements of Table 5.504.4.1.	
<b>5.504.4.5</b> Composite wood products. Hardwood plywood, particleboard, and medium density fiberboard composite wood products used on the interior or exterior of the building shall meet the requirements for formaldehyde as specified in ARB's Air Toxics Control Measure (ATCM) for Composite Wood (17 CCR 93120 et seq.). Those materials not exempted by the ATCM must meet the specified emission limits as shown in Table 5.504.4.5.	

APPLICATION MATRIX	Mandatory Chapter 5
TABLE 5.504.4.5 - FORMALDEHYDE LIMITS	- Gridptor G
<b>5.504.4.6 Resilient flooring systems.</b> For 80 percent of floor area receiving resilient flooring, installed resilient flooring shall meet at least one of the following:	
<ol> <li>Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program;</li> </ol>	
<ol> <li>Compliant with the VOC-emission limits and testing requirements specified in the California Department of Public Health's 2010 Standard Method for the Testing and Evaluation Chambers, Version 1.1, February 2010;</li> </ol>	
<ol> <li>Compliant with the Collaborative for High Performance Schools California (CA-CHPS) Criteria Interpretation for EQ 7.0 and EQ 7.1 (formerly EQ 2.2) dated July 2012 and listed in the CHPS High Performance Product Database; or</li> </ol>	
<ol> <li>Products certified under the UL GREENGUARD Gold (formerly the Greenguard Children &amp; Schools program).</li> </ol>	
<b>5.504.5.3 Filters.</b> In mechanically ventilated buildings, provide regularly occupied areas of the building with air filtration media for outside and return air prior to occupancy that provides at least a Minimum Efficiency Reporting Value (MERV) of 8. MERV 8 filters shall be installed prior to occupancy and recommendations for maintenance with filters of the same value shall be included in the operation and maintenance manual.	
Exceptions:	
<ol> <li>An ASHRAE 10-percent to 15-percent efficiency filter shall be permitted for an HVAC unit meeting the 2016 California Energy Code having 60,000 Btu/h or less capacity per fan coil, if the energy use of the air delivery system is 0.4 W/cfm or less at the design air flow.</li> </ol>	
2. Existing mechanical equipment.	
<b>5.504.5.3.1 Labeling.</b> Installed filters shall be clearly labeled by the manufacturer indicating the MERV rating.	
INDOOR MOISTURE CONTROL	
<b>5.505.1 Indoor moisture control.</b> Buildings shall meet or exceed the provisions of <i>California Building Code</i> , CCR, Title 24, Part 2, Sections 1203 (Ventilation) and Chapter 14 (Exterior Walls). For additional measures not applicable to low-rise residential occupancies, see Section 5.407.2 of this code.	
INDOOR AIR QUALITY	
<b>5.506.1 Outside air delivery.</b> For mechanically or naturally ventilated spaces in buildings, meet the minimum requirements of Section 120.1 (Requirements For Ventilation) of the <i>California Energy Code</i> , or the applicable local code, whichever is more stringent, and Division 1, Chapter 4 of CCR, Title 8.	

APPLICATION MATRIX	Mandatory Chapter 5
ENVIRONMENTAL COMFORT	Chapter 5
<b>5.507.4 Acoustical control.</b> Employ building assemblies and components with Sound Transmission Class (STC) values determined in accordance with ASTM E 90 and ASTM E 413 or Outdoor–Indoor Sound Transmission Class (OITC) determined in accordance with ASTM E 1332, using either the prescriptive or performance method in Section 5.507.4.1 or 5.507.4.2.	
<b>Exception:</b> Buildings with few or no occupants or where occupants are not likely to be affected by exterior noise, as determined by the enforcement authority, such as factories, stadiums, storage, enclosed parking structures and utility buildings.	
<b>Exception:</b> [DSA-SS] For public schools and community colleges, the requirement of this section and all subsections apply only to new construction.	
<b>5.507.4.1 Exteriors noise transmission, prescriptive method.</b> Wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall meet a composite STC rating of at least 50 or a 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:	
<ol> <li>Within the 65 CNEL noise contour of an airport.</li> </ol>	
Exceptions:	
<ol> <li>L<sub>dn</sub> or CNEL for military airports shall be determined by the facility Air Installation Compatible Land Use Zone (AICUZ) plan.</li> </ol>	
<ol> <li>L<sub>dn</sub> or CNEL for other airports and heliports for which a land use plan has not been developed shall be determined by the local general plan noise element.</li> </ol>	
<ol> <li>Within the 65 CNEL or L<sub>dn</sub> noise contour of a freeway or expressway, railroad, industrial source or fixed-guideway source as determined by the Noise Element of the General Plan.</li> </ol>	
<b>5.507.4.1.1 Noise exposure where noise contours are not readily available.</b> Buildings exposed to a noise level of 65 dBL <sub>eq</sub> -1-hr during any hour of operation shall have building, addition or alteration exterior wall and roof-ceiling assemblies exposed to the noise source meeting a composite STC rating of at least 45 (or OITC 35), with exterior windows of a minimum STC of 40 (or OITC 30).	
<b>5.507.4.2 Performance method.</b> For buildings located as defined in Section 5.507.4.1 or 5.507.4.1.1, wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall be constructed to provide an interior noise environment attributable to exterior sources that does not exceed an hourly equivalent noise level ( $L_{eq}$ -1Hr) of 50 dBA in occupied areas during any hour of operation.	
<b>5.507.4.2.1 Site features.</b> Exterior features such as sound wall or earth berms may be utilized as appropriate to the building, addition or alteration project to mitigate sound migration to the interior.	

APPLICATION MATRIX	Mandatory Chapter 5
5.507.4.3 Interior sound transmission. Wall and floor-ceiling assemblies separating tenant spaces and tenant spaces and public places shall have an STC of at least 40.	
<b>Note</b> : Examples of assemblies and their various STC rating may be found at the California Office of Noise Control website.	
OUTDOOR AIR QUALITY	
<b>5.508.1 Ozone depletion and greenhouse gas reductions.</b> Installations of HVAC, refrigeration and fire suppression equipment shall comply with Sections 5.508.1.1 and 5.508.1.2.	
5.508.1.1 Chlorofluorocarbons (CFCs) Install HVAC, refrigeration and fire suppression equipment that do not contain CFCs.	
<b>5.508.1.2 Halons</b> Install HVAC, refrigeration and fire suppression equipment that do not contain Halons.	