



2019 California Mechanical Code (CMC) Changes

SUMMARY

Below show all the significant changes that were made to the 2019 California Mechanical Code. A few requirements have been added.

Additionally, several code sections have been reorganized, meaning the previous requirements have been included in other or new sections. A 'Section Relocation' Table has been provided on pages xviii-xxi.

SIGNIFICANT CHANGES

NEW - CHANGE	CMC SECTION/TABLE NUMBER	COMMENTARY	MASTER PLAN IMPACT YES - NO
<input type="checkbox"/> <input checked="" type="checkbox"/>	303.10	Appliances and their vent connectors shall be installed with clearances from combustible material, so their operation does not create a hazard.	
<input type="checkbox"/> <input checked="" type="checkbox"/>	303.10.1	Clearance Reduction added the following sections; Type I Hood Exhaust System, Product, Conveying Ducts, Solid Fuel Burning Appliances.	
<input checked="" type="checkbox"/> <input type="checkbox"/>	303.13	Pit Location. Where excavation is necessary to install an appliance, it shall extend to 6 inches below and 12 inches on all sides of appliance.	
<input type="checkbox"/> <input checked="" type="checkbox"/>	404.3.2	Secondary-Recirculation System: For Secondary-recirculation systems where the supply air or portion to each vent zone is recirculated air (air that has not been directly mixed with outdoor air).	
<input checked="" type="checkbox"/> <input type="checkbox"/>	504.4.2.3	Exhaust Duct Power Ventilators. Dryer exhaust duct power ventilators for single residential dryers shall comply with UL 705.	<input checked="" type="checkbox"/> <input type="checkbox"/>
<input checked="" type="checkbox"/> <input type="checkbox"/>	505.3.2 & 505.3.3	Ovens, Furnaces & Deflagration Higher concentrations shall be permitted for ovens and furnaces designed and protected in accordance with NFPA 68.	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> <input type="checkbox"/>	505.4	Air-Moving Devices shall be sized to establish the velocity required to capture, control, and convey materials through the exhaust system.	
<input type="checkbox"/> <input checked="" type="checkbox"/>	505.5	Generating Flames, Sparks, or Hot Materials. Shall not be manifolded into an exhaust system that air conveys flammable or combustible.	
<input type="checkbox"/> <input checked="" type="checkbox"/>	505.6	Fire dampers. Shall be permitted to be installed in exhaust system in accordance with this section.	

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<input checked="" type="checkbox"/> <input type="checkbox"/>	505.7 505.7.1 505.7.2	<p>Fire Detection and Alarm System. Fire detection and alarm systems shall not be interlocked to shut down air-moving devices.</p> <p>Automatic Extinguishing System. Where shutdown is necessary for the effective operation of extinguishing system, it shall interlock systems to shut down air-moving devices.</p> <p>Shut Down Permitted. Where an acceptable risk analysis shows the risk of damage from the fire would be higher with air-moving, it shall be permitted to interlock fire detection and alarm systems.</p>	
<input type="checkbox"/> <input checked="" type="checkbox"/>	506.10	Duct clearances has been updated. Sections 506.10 now has sub sections of 506.10.1-506.10.5 for clarifications.	
<input checked="" type="checkbox"/> <input type="checkbox"/>	519.6	<p>Makeup air shall be provided in accordance with Section 511.3.</p>	
<input type="checkbox"/> <input checked="" type="checkbox"/>	601.2	<p>Sizing Requirements. Ducts shall be in accordance with ACCA manual D listed in Table 1701.1.</p>	
<input checked="" type="checkbox"/> <input type="checkbox"/>	603.13	<p>Air Dispersion System shall be completely in exposed locations in duct systems under positive pressure, and not pass through or penetrate fire-resistant construction.</p>	
<input checked="" type="checkbox"/> <input type="checkbox"/>	802.2.8	<p>Incinerators commercial incinerators shall be vented in accordance with NFPA 82.</p>	
<input type="checkbox"/> <input checked="" type="checkbox"/>	802.6	<p>Gas vents the installation of gas vents shall meet the requirements listed in this section.</p>	
<input type="checkbox"/> <input checked="" type="checkbox"/>	802.6.2.2	<p>Vent offsets. Type B and L vents shall extend in a generally vertical direction with offsets not exceeding 45 degrees except that a vent system having not more than one <i>60-degree</i> offset shall be permitted. Any angle greater than 45 degrees from the vertical is considered horizontal.</p>	
<input checked="" type="checkbox"/> <input type="checkbox"/>	803.2.6	<p>Elbows in Connectors section shows the criteria for elbows in connectors.</p>	
<input checked="" type="checkbox"/> <input type="checkbox"/>	902.7	<p>Use of Air or Oxygen Under Pressure. Where air or oxygen under pressure is used in connection with gas supply, effective means such as back pressure regulator and relief valve shall be provided to prevent air or oxygen from passing back through piping.</p>	
<input checked="" type="checkbox"/> <input type="checkbox"/>	902.15	<p>Gas appliance pressure regulators. Where the gas supply pressure is higher than that at which the appliance is designed to operate or varies beyond the design pressure limits of the appliance, a gas appliance pressure regulator shall be installed.</p>	
<input type="checkbox"/> <input checked="" type="checkbox"/>	918.5	<p>Combustible Material Adjacent to Cooking. Listed and unlisted food service ranges shall be installed to provide clearance to combustible material of not less than 18 inches horizontally for a distance of up to 2 feet above the surface.</p>	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> <input type="checkbox"/>	1002.5	<p>Dual Purpose Water Heater. Water heaters utilized for combined space- and water heating applications shall be listed or labeled in accordance with the standards referenced in Table 1203.2.</p>	<input type="checkbox"/> <input checked="" type="checkbox"/>

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<input checked="" type="checkbox"/> <input type="checkbox"/>	1102.2	Ammonia Refrigeration Systems. Refrigeration systems using ammonia as refrigerant shall comply with IAR 2, IAR3, IAR4, and IAR5 and shall not be required to comply with chapter 11.	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	1103.1	Classification of Refrigerants. Refrigerants shall be classified in accordance with Table 1102.3 or ASHRAE 34.	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> <input type="checkbox"/>	1103.1.1	Safety Group. Table 1102.3 classifies refrigerants by toxicity and flammability and assigns safety groups using combinations of toxicity class and flammability class. Each refrigerant is assigned into not more than one group.	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	1106.2-1106.2.5.2	Refrigeration Machinery Room General Requirements.	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> <input type="checkbox"/>	1112.5	Hydrostatic Expansion. Pressure rise resulting from hydrostatic expansion due to temperature rise of liquid refrigerant trapped in or between closed valves.	
<input type="checkbox"/> <input checked="" type="checkbox"/>	1202.3	Compatibility. Fluids used in hydronic systems shall be compatible with all components that will contact the fluid.	
<input type="checkbox"/> <input checked="" type="checkbox"/>	1205.2	Pressure Testing. Exception has been added.	
<input type="checkbox"/> <input checked="" type="checkbox"/>	1209.0	Expansion Tanks. This section has been broken down into general, installation, open-type expansion tanks, closed-type tanks, and sizing.	
<input type="checkbox"/> <input checked="" type="checkbox"/>	Table 1210.1	Materials for Hydronic System Piping, Tubing and Fittings. This table has been updated with new materials.	
<input checked="" type="checkbox"/> <input type="checkbox"/>	1211.3	CPVC/AL/CPVC Plastic Pipe and Joints shall be installed in accordance with one of the methods listed in this section.	
<input type="checkbox"/> <input checked="" type="checkbox"/>	1214.6	Air-Removal Device. Exception has been added. Drainback type solar thermal systems shall not require an air-removal device.	
<input type="checkbox"/> <input checked="" type="checkbox"/>	1214.7	Air-Separation Device. To assist with removal of entrained air, an air- separation device shall be installed in hydronic system.	
<input type="checkbox"/> <input checked="" type="checkbox"/>	1217.2	Radiant Under-Floor Heating. 85°F in general occupied applications. 90°F in bathrooms, foyers and distribution areas. 88°F in industrial spaces 93°F in radiant panel perimeter areas.	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> <input type="checkbox"/>	1217.3	Radiant Cooling System. This system shall be designed to minimize the potential for condensation. The water temperature shall not be less than 3°F above the anticipated space dewpoint temperature.	
<input type="checkbox"/> <input checked="" type="checkbox"/>	1217.5.3	Joint systems and Subfloors. An airspace of not less than 1 inch and not more than 2 shall be maintained between the top of the insulation and the underside of the floor unless a conductive plate is installed.	
<input type="checkbox"/> <input checked="" type="checkbox"/>	1308.5.10	Flange Specification. The following sub sections have been added: steel flanges, non-ferrous flanges, ductile iron flanges, and dissimilar flange connections.	

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<input type="checkbox"/> <input checked="" type="checkbox"/>	1308.5.11	Flange Gaskets. The following sub sections have been added: flange gasket materials, metallic flange gaskets, non-metallic flange gaskets, full-face flange gasket and separated flanges.	
<input checked="" type="checkbox"/> <input type="checkbox"/>	1308.8	Overpressure Protection. The following sections have been added for over pressure protection: pressure limitation requirements, overpressure protection required, overpressure protection devices, detection of failure, and flow capacity	
<input type="checkbox"/> <input checked="" type="checkbox"/>	1310.1.3	Protection Against Corrosion. This section has been updated with subsections zinc coating, underground piping criteria, cathodic protection system criteria, sacrificial anodes, system failing tests, documentation, dissimilar metals, and steel risers.	
<input type="checkbox"/> <input checked="" type="checkbox"/>	1311.2	Bonding of CSST Gas Piping. The following sub sections have been added: bonding jumper connection, bonding jumper size, bonding jumper length, bonding connections, and devices used for bonding.	
<input type="checkbox"/> <input checked="" type="checkbox"/>	1315.6	Variable Gas Pressures. The following has been added for clarification. Where the supply gas pressure exceeds 5 psi for natural gas and 10 psi for undiluted propane or is less than 6 inches of water column.	