

## Indoor Opening Size and Location Continued

2. The volumes of spaces in different stories shall be considered as communicating spaces where such spaces are connected by one or more openings in doors or floors having a total input rating of appliances.

**Why it changed:** Bringing Section 701.5 of the 2015 UMC into line with the NFPA is noteworthy. However, most contractors may not be aware of the subtle differences between combining spaces on the “same story” and combining spaces in “different stories” and the air flow characteristics specific to each.

## Clothes Dryers

**What changed: Section 504.4 Clothes Dryers;** A clothes dryer exhaust duct shall not be connected to a vent connector, gas vent, chimney, and shall not terminate into a crawl space, attic, or other concealed space. Exhaust ducts shall not be assembled with screws or other fastening means that extend into the duct and that are capable of catching lint, and that reduce the efficiency of the exhaust system. Exhaust ducts shall be constructed of rigid metallic material. Transition ducts used to connect the dryer to the exhaust duct shall be listed for that application or installed in accordance with the clothes dryer manufacturer’s installation instructions. Clothes dryer exhaust ducts shall terminate to the outside of the building in accordance with Section 504.5 and shall be equipped with a backdraft damper. Screens shall not be installed at the duct termination. Devices, such as fire or smoke dampers that will obstruct the flow of the exhaust shall not be used. Where joining of ducts, the male end shall be inserted in the direction of airflow.

**Why it changed:** This new code requirement clarifies the installation of dryer exhaust vents. The new section makes it clear that ducts shall be installed to minimize the collection of lint in the exhaust pipe by installing the pipe with the male end inserted in the direction of flow and no screws will be used on the pipe.

## Identification of a Potable and Non-potable Water System

**What changed: Section 1204.1 General;** In buildings where potable water and non-potable water are installed, each system shall be clearly identified in accordance with Section 1204.2 through Section 1204.5.

**Section 1204.2 Color and Information;** Each system shall be identified with a colored pipe or band and coded with paint, wraps, and materials compatible with the piping.

**Section 1204.3 Potable Water;** Potable water systems shall be identified with a green background with white lettering. The minimum size and length of the color field shall be in accordance with Table 1204.3.

**Section 1204.4 Non-potable Water;** Non-potable water systems shall have a yellow background with black uppercase lettering, with the words “CAUTION: NON-POTABLE WATER. DO NOT DRINK.” Each non-potable water system shall be identified to designate the liquid being conveyed, and the direction of normal flow shall be clearly shown. The minimum size of the letters and length of the color field shall comply with Table 1204.3.

**Section 1204.5 Location of Piping Identification;** The background color and required information shall be indicated every 20 feet but not less than once per room, and shall be visible from the floor level.

**Section 1204.6 Flow Direction;** Flow of directions shall be indicated on the system.

**Why it changed:** Identification of the water supply system is critical to the safe functioning of the building and the protection of the occupants of that building. The system cannot be compromised in any fashion. The first step in the protection of the water supply is the correct labeling of various water systems in the building. This is important during construction, but also especially after the building is occupied when it is subject to maintenance or additions.

# Town of Paradise Building Division

## 2016 CALIFORNIA CODES



## CALIFORNIA MECHANICAL CODE SIGNIFICANT CHANGES

## EFFECTIVE JANUARY 1, 2017

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# 2016 California Mechanical Code Significant Changes

## Sloped Roof

**What changed:** *Section 304.2 Sloped Roof;* Where equipment or appliances that require service are installed on a roof having a slope 4 units vertical in 12 units horizontal (33% slope) or more, a level platform of not less than 30 inches by 30 inches shall be provided at the service side of the equipment or appliance.

**Why it changed:** Section 304.2 requires platforms to be provided where equipment or appliances are installed on a roof with a slope of 4 units vertical in 12 units horizontal (33% slope). The previous code did not clarify that equipment or appliances installed on a sloped roof are required to have proper working space and a platform as well. It is critical that the UMC is clear in regards to the installation on a sloped roof due to the hazards of falling.

The 30 x 30 platform is consistent with the 30 x 30 work space that is required for appliance or equipment access that are installed in other locations in and on the building. This platform requirement was present in the 2000 UMC edition, but was removed in the subsequent years. The integration of NFPA 54 into the UMC seems to be coincidental to the removal of this section.

The catwalk to the platform, the location of the platform in respect to the equipment or appliance control, and the 42" high guard rail at the platform that were required, are not included in the code change.

## Condensate Control

**What changed:** *Section 310.2 Condensate Control;* Where an equipment or appliance is installed in a space where damage is capable of resulting from condensate overflow, a drain line shall be provided in accordance with Section 310.1. An additional protection method for condensate overflow shall be provided in accordance with one of the following:

1. A water level detecting device that will shutoff the equipment or appliance in the event the primary drain is blocked.
2. An additional watertight pan of corrosion-resistant material with a separate drain line, installed beneath the cooling coil, unit, or the appliance to catch the overflow condensate due to the clogged primary condensate drain.
3. An additional drain line at a level that is higher than the primary drain line connection of the drain pan.
4. An additional watertight pan of corrosion-resistant material with a water level detection device installed beneath the cooling coil, unit, or the appliance to catch overflow condensate due to a clogged primary condensate drain and to shutoff the equipment. The additional pan or the additional drain line connection shall be provided with a drain pipe of not less than 3/4 of an inch nominal pipe size, discharging at a point that is readily observed.

**Why it changed:** The modifications in this section clarify the use of primary and secondary condensate drains and requires an additional drain for the removal of condensate.

## Parking Garages

**What changed:** *Section 403.7.1 Parking Garages;* Exhaust rate for parking garages shall be in accordance with Table 403.7. Exhaust rate shall not be required for enclosed parking garages having a floor area of 1,000 square feet or less and used for the storage of 5 or less vehicles.

**Section 403.7.1 Enclosed Parking Garages;** Mechanical ventilation systems for enclosed parking garages shall be permitted to operate continuously.

### *Exceptions:*

Mechanical ventilation systems shall be permitted to operate intermittently where the system is designed to operate automatically upon detection of vehicle operation or the presence of occupants by approved automatic detection devices.

Approved automatic carbon monoxide sensing devices shall be permitted to be employed to modulate the ventilation system to not exceed a maximum average concentration of carbon monoxide of 50 parts per million during an eight hour period, with a concentration of not more than 200 parts per million for a period not exceeding one hour. Automatic carbon monoxide sensing devices installed to modulate parking garage ventilation systems shall be approved in accordance with Section 301.2.

**Why it changed:** Section 403.7.1 through Section 403.7.1.2 will allow an alternate design for ventilation systems for enclosed public parking garages. The alternating or modulating is intended to protect the occupants from excess levels of carbon monoxide and as means of conserving energy.

## Indoor Opening Size and Location

**What changed:** *Section 701.5 Indoor Opening Size and Location;* Openings used to connect indoor spaces shall be sized and located in accordance with the following:

1. Each opening shall have a free area of not less than 1 square inch per 1000 Btu/h of the total input rating of appliances in the space, but not less than 100 square inches. One opening shall commence within 12 inches of the top of the enclosure, and one opening shall commence within 12 inches of the bottom of the enclosure. The dimension of air openings shall be not less than 3 inches.