



REGULATIONS COVERING

TYPICAL INSTALLATION FOR WATER HEATERS

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INFORMATION
BULLETIN

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What would be the first step when I decide to install a new water heater?

Establish a location for the water heater. No water heater which depends on fuel combustion for heat shall be installed in any room used or designed to be used for sleeping purposes, bathroom (a room equipped with a shower or bathtub), clothes closet, or in any closet or other confined space opening into any bath or bedroom. An exception to the above is a sealed combustion chamber-type direct vent water heater approved by the City and electric water heaters. The location must allow for the water heater to be inspected, repaired or replaced.

What do I need to submit in order to get a permit?

- You need to fill out a building application
- Three copies of a plot plan showing location
- Submit a completed CF1R and MF1R form with your application, you can obtain these forms at www.energy.ca.gov.

Please note: the applicant or owner will be required to supply a CF-6R form upon final.

Are there any special requirements if I decide to place the water heater in the garage?

Yes, if the water heater is located in the garage, the location may not block existing required off-street parking areas. In addition, water heaters generating a glow, spark or flame capable of igniting flammable vapors must be located on a platform, that will raise the pilots, burners or heating elements and switches at least 18 inches above the floor level and protected with adequate barriers or elevated or located out of the normal path of a vehicle using any such garage. However, if the water heater is installed in an approved compartment having access only from the outside of the garage or if the water heater has a sealed combustion chambers are not required to be elevated.

Whether you are replacing or installing a new water heater, the following will be required to be

installed and inspected.

1. Temperature & Pressure relief valve.
2. Combustion air vent.
3. Fume Vent
4. Earthquake strapping.
5. Bucket connector if required.

Temperature & Pressure relief valve.

Temperature & pressure relief valve is required to be installed on the water heater.

- The pipe must be a 3/4" galvanized or copper pipe.
- The discharge line must vent to the exterior of the building.
- The discharge line is not allowed to have threads on the end.
- The discharge line can not be run in an upward direction.
- The end of the discharge line must terminate outside between 6" and 24" above ground level.
- Termination of "B" vent shall be a minimum of 4 feet from the property line.

Combustion air vent.

Fuel burning water heaters must have a sufficient supply of fresh air for proper fuel combustion and ventilation. That is why combustion air vents are required. A total of two combustion air vents must be provided and located within the upper 12 inches of the water heater and within the lower 12 inches of the water heater. The ducts are not allowed to pass through construction where fire dampers are required. If the duct terminates in an attic, neither ends of the ducts can be screened.

Fume vent.

Every water heater designed to be vented shall be connected to a venting system. The venting system shall consist of approved chimneys, Type B vents, Type L vents, or a venting assembly which is an

integral part of or specified by the manufacturer to be used with a listed appliance. Other requirements are:

- Must vent thru the roof.
- Single wall vent requires minimum 6" clearance to combustible materials.
- Double wall type "B" vent requires minimum 1" clearance to combustible materials.
- The B vent must extend 12" above the roof.
- Gravity vents shall extend in a vertical direction with offsets not exceeding 45 degrees.
- Every vent connector, which is part of a gravity-type venting system, shall have a continuous rise of not less than 1/4 inch per foot of length.

What clearance is required for the vents?

- Single wall metal vents shall not be less than 6 inches from combustible material.
- The termination of the vent must extend above the roof structure.
- Gravity type vent can not terminate less than 5 feet above the vent collar.
- Type B vents are a double wall vent for the use with gas-fired appliances. With vent caps over 12 inches in size they shall terminate not less than 2 feet above the highest point where they pass through the roof and at least 2 feet higher than any portion of a building within 10 feet.
- Termination is also not allowed less than 4 feet from, nor less than 1 foot above any door, window or gravity air inlet into any building, nor not less than 3 feet above or less than 10 feet from any forced air inlet and can not be less than 4 feet from any property line.

Can I use my existing venting system when I replace my water heater?

Yes, as long as the venting system complies with the following:

1. The venting system was lawfully installed in compliance with the Code in effect at the time of its installation and shall be in a safe condition.
2. The internal area is not less than the vent collar of the water heater and not less than 7 square inches.
3. The venting system shall be connected to the water heater in a safe manner.

Earthquake strapping.

Any water heater replaced or installed shall be anchored or strapped with approved materials to resist horizontal displacement due to earthquake. The strapping shall be at points within the upper 1/3 and the lower 1/3 of its vertical dimensions. At the lower point, a minimum distance of 4 inches shall be maintained above the controls with the strapping.

Does my water heater require a pan?

Yes, if your water heater is located in an attic or furred space where damage may result from a leaking water heater, a watertight pan of corrosion resistant material must be installed beneath the water heater with a minimum 3/4 inch diameter drain to an approved location.

INSPECTION REQUIREMENTS:

The following requirements listed below, but not limited to, will be verified at inspection.

1. Access shall be provided on the date for which inspection is requested.
2. Address of the property shall be conspicuously posted.
3. Job card shall be posted on or adjacent to the water heater.
4. Replacement water heater shall bear the label of an approved testing agency nationally recognized and as a listed appliance with the California Energy Commission.
5. Installation of seismic straps and pressure relief valve with proper pipe termination.
6. Required combustion air and proper venting system.
7. New gas piping shall be installed with approved/listed materials and air pressure tested with minimum 10 PSI for 15 minutes. (Test gauge to be in place and line charged with air for inspector's viewing).

NOTE: Failure to provide the above listed requirements at inspection may necessitate the applicant to obtain a reinspection permit. If additional information is desired regarding this permit, please contact our office.