



City of Calistoga, Building Department

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Main line/ Inspection line: (707)-942-2827

Online permit portal link: <https://www4.citizenserve.com/Portal/PortalController?Action=showApplyPermitPage&type=Permit>

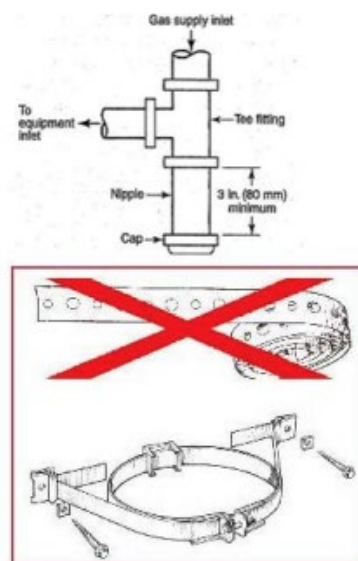
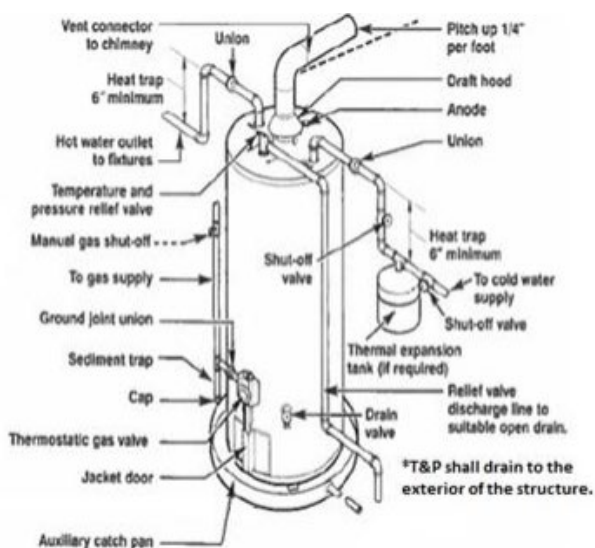
RESIDENTIAL TANK WATER HEATER PERMIT REQUIREMENTS

This is not inclusive of all of water heater code requirements and inspection criteria. Permits are required prior to installation or replacement of water heaters. This guide provides the minimum requirements for the installation or replacement of a residential tank water heater. All work must comply with the 2025 California Plumbing Code (CPC), Mechanical Code (CMC), Electrical Code (CEC), and Energy Code (CEnC).

- ☐ Manufacturer Installation Instructions shall be onsite and attached to the unit at time of inspection.
- ☐ Clearances at front, sides, back and top as described by the manufacturer installations instructions.
- ☐ Seismic Straps – All storage-type water heaters must be secured against seismic. Water heaters shall be anchored or strapped to resist horizontal displacement due to earthquake motion. Strapping shall be at points within the upper one-third (1/3) and lower one-third (1/3) of its vertical dimensions. At the lower point, minimum a distance of not less than four (4) inches (102 mm) shall be maintained above the controls with the strapping. CPC 507.2
- ☐ Flue Clearance – Type B vent terminating min 1 ft. above roof in approved cap. Double-wall vents are required and must have 1 in. clearance to combustibles. Single wall connectors are allowed with a minimum 6 in clear to combustibles.
- ☐ Venting – Water heaters of other than the direct-vent type shall be located as close as practical to the chimney or gas vent (2025 CPC 504.2). The vent height above the roof surface shall be in accordance with 2025 CPC Figure 509.6.1. Up to a 6:12 roof slope the minimum height is 1 foot, terminated in a listed cap. The vent must be of an approved type (e.g., double-wall Type B vent). All single-walled vents and single-walled to double-walled vent joints shall be secured with a minimum of three sheet metal screws, rivets or similar positive connection. Venting systems shall be sized in accordance with Section 510.0.
- ☐ Pressure - Temperature Relief Valve – A new, listed T&P relief valve must be installed on all storage type water heaters, this is a safety device to prevent explosions. Code: CPC 504.6. The valve shall be drained to the exterior and terminate toward the ground or an approved in direct waste receptor maintaining between 6 inches and 24 inches of clearance from the ground and pointing downward (2025 CPC 608.5(3)). The diameter of the valve opening (generally 3/4") must be maintained to the termination of the drain. Check the manufacturer's requirements. Relief valve drains shall not terminate in a building; it also cannot terminate in the drainage pan. (2025 CPC 608.5(3)). Discharge Pipe: The pipe must be of an approved material (e.g., copper, CPVC) and be the same diameter as the valve outlet (typically 3/4 inch). The pipe must run downwards and terminate 6 to 24 inches above the ground or an approved indirect receptor. It cannot terminate in the drainage pan. The end of the pipe must not be threaded. Code: CPC 608.5

- ❑ Located in a Garage – Water heaters located in a garage must be elevated so the pilot light and controls are at least 18” above the garage floor surface unless listed as flammable vapor ignition resistant (2025 CPC 507.13).
- ❑ Water Pipe Insulation - The first 8 feet of piping from the water heater of both hot and cold-water pipes must be insulated. (2025 CPC 609.12) Code: CEnC 120.3 (3, A&B) Hot water pipe insulation shall have a minimum wall thickness of not less than the diameter of the pipe for a pipe up to 2 inches (50 mm) in diameter. Insulation wall thickness shall be not less than 2 inches (51 mm) for a pipe of 2 inches (50 mm) or more in diameter. (2025 CPC 609.12.2)
- ❑ I If subject to vehicle damage, adequate barriers must be installed (2025 CPC 507.13.1).
- ❑ Located in a Furred Space – If located in a furred space (i.e. closet) where leaking could cause damage to underlying wood framing the water heater must be set in a pan constructed of watertight corrosion resistant material (2025 CPC 507.5). The pan must be fitted with a minimum ¾” drain that drains to an approved location (2025 CPC 507.5). The P/T line is not allowed to terminate at this pan or be connected to it.
- ❑ Location & Access - Prohibited Locations: Fuel-burning water heaters shall not be installed in bedrooms, bathrooms, or closets opening into these rooms unless they are of a direct-vent type or installed in a dedicated, sealed closet with combustion air taken from outdoors. Code: CPC 504.1 Combustion air (CRITICAL): Fuel-burning appliances require sufficient air for proper combustion to prevent the formation of deadly carbon monoxide. The source and sizing of combustion air openings must comply with code. Code: CPC 506.0 Access: The water heater must be accessible for inspection, service, and replacement.
- ❑ Shut Off Valves & Gas Connector – Both gas and water shut off valves are required adjacent and within 6 feet of the water heater (2025 CPC 1212.6). Maximum 3 feet long listed gas flex connector must be used (2025 CPC 1212.4.3). New gas piping shall be pressure tested (2025 CPC 1213.0).
- ❑ Thermal Expansion Tank - A water system provided with a check valve, backflow preventer, or other normally closed device that prevents dissipation of building pressure back into the water main, independent of the type of water heater used, shall be provided with an approved, listed, and adequately sized expansion tank or other approved device having a similar function to control thermal expansion. The tank is required to be secured to the structure, not supported by the piping (2025 CPC 608.3). Exception: A thermal expansion tank shall not be required for an instantaneous non-storage water heater (tankless).
- ❑ Sediment Trap - A minimum 3-inch long vertical sediment trap shall be installed on the gas line downstream of the appliance shut-off valve, as close to inlet of the equipment as practical, and upstream of the flex connector (2025 CPC 1212.9) unless manufacturers installation instructions specify a different location (manufacturer installation instructions must be left onsite at all times). The sediment trap shall be either a tee fitting with a capped nipple in the bottom outlet (see diagram below) or another recognized as an effective sediment trap. All work must be complete and the water heater fully operational before calling for the Final Inspection. The permit card and any relevant manufacturer's instructions must be available for the inspector.

★★★ NEW for 2025 - Electric Ready Requirement ★★★ The 2025 California Energy Code requires that when a new gas-fired water heater is installed (new construction), the building must be made ready for a future all-electric heat pump water heater. Requirement: The installer must provide all of the following: A dedicated 125-volt, 20-amp electrical receptacle that is connected to the electric panel with a 120/240-volt, 10 AWG copper branch circuit. This must be located within 3 feet of the water heater. The unused conductor must be labeled "SPARE" at both ends. A reserved single-pole circuit breaker space in the electrical panel must be labeled "Future 240V Use." A condensate drain line must be installed near the base of the water heater. Code: CEnC 150.0(n); CEnC 160.4



Disclaimer: This document is a guide and does not replace the full text of the California Building Standards Code. The City of Calistoga is not responsible for any errors or omissions.

I have read and will comply with the items relevant to this project per the code.

Signature of: _____

Date: _____

- ☐ Owner
- ☐ Authorized Agent
- ☐ Contractor/or Designer