



RON NYBO, CBO
Building Official

City of Boulder City
Community Development Department
Building & Safety Division
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702-293-9282 (Main Line)
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INFORMATION REGARDING

Water Heater Installation Requirements

Q. Is a plumbing permit required to install or replace a water heater?

A. Yes. When a water heater is being installed or replaced, please submit a permit application (available in the office or on our website) indicating the size (gallons) and type (gas or electric) of the water heater. In most cases, the permit can be issued over the counter within 10-15 minutes.

Q. Who can install a water heater?

A. In Residential Properties, the property owner has two options, 1) install the water heater his or herself and pull a permit as an Owner/Builder, **only if the property is their primary residence**, or 2) hire a licensed plumbing contractor to install the water heater and pull the permit.

In Commercial Properties, a licensed contractor must be contracted to obtain a permit and complete the installation. *NOTE: Residential rental properties are considered commercial properties.*

Q. Is an inspection of the installation required?

A. Yes. Once a permit is issued and the installation is complete, the permit holder will follow instructions on the back of the permit to set up a final plumbing inspection. An adult must be onsite to provide access to the water heater at the time of inspection.

Q. What happens after the inspection?

A. If the installation passes inspection, the inspection record will be signed off by the inspector and the City copy of the permit will be marked "Complete" and filed in the permanent address file in the Community Development Department.

Q. Are there any restrictions on mobile homes?

A. Yes. The Building and Safety Division **does not issue permits or conduct inspections on mobile home water heater replacement installations**. The installer must be a licensed Manufactured Housing Approved Installer and must obtain a permit and all related inspections through the Nevada Division of Manufactured Housing. Please contact NDMH for installation and inspection information at 702-486-4135.

Q. What other requirements apply, such as seismic straps, drain pans, etc.?

A. Please see reverse for some code requirements and a general guide designed to aid in the safe installation of a water heater. **NOTE:** The guide on the reverse is **NOT** a detailed instruction manual. Always be sure to check all of the current applicable codes for **all** installation requirements. If you are the holder of the permit, you are responsible for the installation or corrections thereof.

Water Heater Replacement Check List

- ✓ All electric water heaters shall have an electrical disconnect. The branch-circuit switch or circuit breaker shall be permitted to serve as the disconnecting means where the switch or circuit breaker is within sight from the appliance or is capable of being locked in the open position.
- ✓ 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 and lower one third of its vertical dimensions. At the lower point, a distance of not less than four (4) inches shall be maintained above the controls with the strapping.
- ✓ A water heater supported from the ground shall rest on level concrete or other approved base extending not less than three (3) inches above the adjoining ground level.
- ✓ Water heaters located in a garage and that generate a glow, spark, or flame capable of igniting flammable vapors, shall be installed with the pilots and burners or heating elements and switches at least eighteen (18) inches above floor level.
- ✓ Water heaters shall be located or protected so they are not subject to physical damage by a moving vehicle.
- ✓ When a water heater is located where damage may result from a leaking water heater, a water-tight pan of corrosion-resistant materials shall be installed beneath the water heater with not less than three-quarters (3/4) inch drain to an approved location.
- ✓ Shut-off valves are required and must be accessible. The cold water shut-off valve must be installed on the incoming water line. The gas shut-off valve must be installed on the incoming gas line ahead of the gas connector.
- ✓ A thermal expansion tank is required if the building water system is provided with a pressure reducing valve, check valve, backflow preventer, or any other normally closed device that prevents dissipation of building pressure back into the water main, as per the Uniform Plumbing Code.



Additional Specifications for Gas Water Heaters...



- ✓ Gas water heaters **shall not** be installed in sleeping rooms, bathrooms, closets, or other confined spaces opening to a bedroom or bathroom.
- ✓ Where a sediment trap is not incorporated as a part of the gas utilization equipment, a sediment trap shall be installed.
- ✓ Gas water heaters placed in an enclosure shall be provided with proper combustion air in accordance with the requirements of the UPC.
- ✓ Single wall gas vents shall not be closer than six (6) inches to a combustible surface. Double wall (Type B) gas vents shall not be closer than one (1) inch to a combustible surface.
- ✓ Flexible gas line connectors require replacement with new connectors.

WHEN IN DOUBT, PLEASE REFER TO THE CURRENT
CODES

COPIES MAY BE REFERENCED IN CITY HALL