



## Land Use Services Department Building and Safety Division

### Water Heater Replacement – Self Inspection Program

Contractor shall provide photos demonstrating compliance with the following items.

**504.6 Temperature, Pressure, and Vacuum Relief Devices.**

**507.2 Seismic Provisions.**

*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 ( $\frac{1}{3}$ ) and lower one-third ( $\frac{1}{3}$ ) of its vertical dimensions. At the lower point, a minimum distance of four (4) inches (102 mm) shall be maintained above the controls with the strapping.*

**507.13 Installation in Residential Garages.**

Appliances in residential garages and in adjacent spaces that open to the garage and are not part of the living space of a dwelling unit shall be installed so that all burners and burner-ignition devices are located not less than 18 inches (457 mm) above the floor unless listed as flammable vapor ignition resistant.

**507.13.1 Physical Damage.**

Appliances installed in garages, warehouses, or other areas subject to mechanical damage shall be guarded against such damage by being installed behind protective barriers or by being elevated or located out of the normal path of vehicles.

**604.13 Water Heater Connectors.**

Flexible metallic (copper and stainless steel), reinforced flexible, braided stainless steel, or polymer braided with EPDM core connectors that connect a water heater to the piping system shall comply with ASME A112.18.6/CSA B125.6. Copper, copper alloy, or stainless-steel flexible connectors shall not exceed 24 inches (610 mm).

**608.3 Expansion Tanks, and Combination Temperature and Pressure-Relief Valves.**

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. Such expansion tank or other approved device shall be installed on the building side of the check valve, backflow preventer, or other device and shall be sized and installed in accordance with the manufacturer's installation instructions.

**1212.9 Sediment Trap.**

Where a sediment trap is not incorporated as a part of the appliance, a sediment trap shall be installed downstream of the appliance shutoff valve as close to the inlet of the appliance as practical, before the flex connector, where used at the time of appliance installation. The sediment trap shall be either a tee fitting with a capped nipple in the bottom outlet.

**Water-heating System.** Altered or replacement service water-heating systems or components shall meet the applicable requirements below:

- i. **Pipe insulation.** For newly installed piping, the insulation requirements of Section 150.0(j)2 shall be met. For existing accessible piping, the applicable requirements of Section 150.0(j)2Ai, iii, and iv shall be met.

### 608.5 Discharge Piping.

The discharge piping serving a temperature relief valve, pressure relief valve, or combination of both shall have no valves, obstructions, or means of isolation and be provided with the following:

- (1) Equal to the size of the valve outlet and shall discharge full size to the flood level of the area receiving the discharge and pointing down.
- (2) Materials shall be rated at not less than the operating temperature of the system and approved for such use or shall comply with ASME A112.4.1.
- (3) Discharge pipe shall discharge independently by gravity through an air gap into the drainage system or outside of the building with the end of the pipe not exceeding 2 feet (610 mm) and not less than 6 inches (152 mm) above the ground and pointing downwards.
- (4) Discharge in such a manner that does not cause personal injury or structural damage.
- (5) No part of such discharge pipe shall be trapped or subject to freezing.
- (6) The terminal end of the pipe shall not be threaded.
- (7) Discharge from a relief valve into a water heater pan shall be prohibited.

### 509.7.2 Termination.

The termination of single-wall metal pipe shall meet the following requirements:

- (1) Single-wall metal pipe shall terminate at least 5 feet (1524 mm) in vertical height above the highest connected appliance draft hood outlet or flue collar.

