

GAS WATER HEATERS

PLEASE NOTE, THE NEW CALIFORNIA CODES ARE IN EFFECT.

INTRODUCTION

This information is intended to provide general guidance on the installation of gas water heaters in single family residences. It summarizes information contained in the 2007 California Plumbing Code (CPC) and the 2005 California Energy Efficiency Standards (CEES T-24) and is not meant to replace them. It assumes that a fuel gas system already exists and that adequate venting systems are in place. If conditions are encountered that are not covered, please consult the appropriate plumbing code books. They are available for review in many libraries and the Building Department. All water heater installations and replacements require a building permit and final inspection.

GENERAL REQUIREMENTS

- Water heaters located in garages must be protected from mechanical damage. This means placing them out of the path of vehicular traffic or providing a protective post or partition.
- Water heaters must be seismic strapped. Provide two 1-1/2" X 18 ga. Straps. Locate the top strap 1/3 of the way down and the bottom strap in the lower 1/3 of the water heater. See drawing on page 3. Provide a minimum of 4 inches of clearance from the temperature control valve. Use 3/8" dia. Lag bolts to connect the straps to the framing members. Do not use molly bolts or lag shields into the drywall only.
- Provide a temperature and pressure relief valve as required by the manufacturer and hard pipe plumb to the outside and directed to the ground and terminated a minimum of 6" to a maximum of 24" above grade. When replacing an existing water heater, the T & P may be re-installed to drain to the garage floor provided the new installation is in the existing location. Relief valve may not discharge into a secondary drain pan. (CPC 508.5)
- The first 5 feet of both the hot and cold supply pipes must be insulated per the 2005 Title 24 requirements
- A water heater blanket is required unless the water heater has a 0.58 EF rating or better per the 2005 Title 24 requirements. For water heaters over 50 gallons, consult the 2005 Title 24 for additional insulation requirements.
- A water heater located inside or above habitable space, where damage may occur if a leak developed, a secondary pan with a ¾" minimum drain line to the outside is required. (CPC 510.7)

FUEL GAS

Fuel gas piping must be sized for the demand upon it. If a water heater is replaced with a larger one then the pipe sizing should be reviewed. See the fuel gas pipe sizing handout available at the Building Counter. A listed flexible supply with a maximum length of 3 feet is required. Do not re-use an old flexible supply line.

