

Tankless Water Heater Requirements

GENERAL TANKLESS WATER HEATER REQUIREMENTS

BASED ON THE 2010 CALIFORNIA PLUMBING CODE

Prior to this inspection, all required sequential inspections and correction notices must be completed. This is not an all-inclusive list and additional items may be required as determined during the inspection.

	Permits required CPC 503.0
	Permits and documents on site
	CF-6R-MECH-01 complete and on site
	Installation instructions available for inspection
	For exterior installations, equipment is located where approved by the Planning Division of the City of
	Oakland.
	Gas-fired water heaters, which depend on the combustion of fuel for heat, shall not be
	installed in the following locations: CPC 505.0
	1. A room used or designed to be used for sleeping purposes,
	2. A bathroom,
	3. A clothes closet, or
	4. In a closet or other confined space opening into a bathroom or bedroom.
	Exception: Direct vent water heaters. CPC 505.1
	Closet shall be equipped with a listed, gasketed door assembly.
	Listed self closing device. (HOLD-OPEN FEATURE IS NOT ALLOWED)
	Door assembly shall be installed with a threshold and bottom door seal.
	Combustion air shall be only obtained from the outdoors.
	Not installed in attic or other spaces where damage may result from a leaking water heater, without an
	approved safe pan beneath the water heater with a minimum ¾ inch drain to an approved, readily
	visible location. CPC 508.4
	Required access, clearances to combustibles and vent termination location per manufacturer's
	instructions.
	Combustion air vents are unobstructed and located within 12" from top and bottom of any enclosure
	less than 50 c.f. per 1000 BTU per hour. Vent openings are sized to 1 sq-in per 4000 BTU of
	appliance(s) input capacity and protected with 1/4" screen mesh CPC 507
	Minimum ¾ inch T&P drain to terminate "outside" of the building no closer than 6 inches or further than
	24 inches from grade. T&P line must be looking downward with no threads on the end. Water heaters
	located in the garage may terminate on the garage floor with the same distance requirements CPC
	505.6 CPC §505.4, 508.5 & 608.5
	T&P does not discharge into a water heater drain pan. CPC508.5
	Provide gas line sizing calculations and isometric riser diagram of the gas delivery piping system for
	the equipment with permit application.
	NOTE: waive calculations if a 3/4" dedicated line is connected (split) at the main by up-sizing the

	meter tee. (up-seized tee example: install 1"x3/4"x3/4" tee for existing 3/4" building service) OAK
	Sediment trap (T, 3" nipple and cap) installed on gas supply CPC 1212.7
	Gas connectors sized for the BTU input rating of appliance. Does not exceed 3 feet in length and is
	connected downstream of approve shut of valve.
	Building gas piping test is under pressure not less than 15 lbs pressure for 10 minutes CPC 1214.3.
	30 lbs gauge min. for new and altered portions of gas delivery system.
	A full bore shut off valve is required on cold water side
	Unions must be installed within 12 inch of water heater to facilitate removal
	First five (5) feet of water line insulated (maintains min. 6" from flue). If reticulating pump in system;
	insulation is applied to the entire loop. For exterior installations insulating material is listed and approve
	to be exposed to weather) 2008 RBEES
	Thermal expansion tank installed to protect water delivery system per CPC 608.3 & CMC 1006.0 if a
	pressure regulator with an integral back flow preventer is installed on the domestic main supply line.
	110/120V receptacle installed within 3 feet of equipment. When located outdoors such receptacle is of
	approved type and bubble type cover is installed. Equipment connector or conduit listed for sun
	exposure and wet locations. May be dedicated circuit.
	Attic or basement installations will require a 110/120 receptacle and switched luminary at or near the
	equipment. The switch for the luminary must be located adjacent to the attic or basement access.
	Bonding electrode installed between hot, cold and gas metallic piping with a min. #8 bare copper CEC 250.104
	All new electrical work requires an electric permit.
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	Venting system sized and constructed per manufacture's specifications CPC 510.10.3 Positive pressure (forced) vents comply with the vent manufacturer's installation instructions for
	Category III and IV appliances. Most are Stainless Steel due to the slightly acidic content of the
	condensate. Most do not allow common vent with other appliances. All positive pressure vent pipes
	shall be sealed air tight at each joint from flue collar to termination. Type B venting material is not
	acceptable for positive pressure vents.
	CPVC, PVC or ABS pipe vents installed per equipment manufacturer. Where required, primer should
	be of contrasting color. CPC 510.4.3
	Vent termination shall be per manufacturer's installation instructions. Distances to building openings,
	floors, overhangs etc. must be maintained. Wall vents shall not discharge trough walls located 5 feet or
	less from any property line.
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