

<b>Prescriptive Certificate of Compliance: Water Heating</b>		<b>CF-1R-ALT</b>	
<i>Residential Alterations</i>		<b>(Page 1 of 2)</b>	
Address:	City: <b>San Ramon</b>	Climate Zone #: 12	Permit #:

<b>WATER HEATING</b>					
<p>List water heaters and boilers for both domestic hot water (DHW) heaters and hydronic space heating. Individual dwelling DHW heaters must be gas or propane fired, and may not exceed 50 gallons. Hot water pipe insulation from the DHW heater to the kitchen(s) and on all underground hot water pipes is required in all component packages in all climate zones.</p> <p><b>* Circle selection or enter your own choice below:</b></p> <p>If water heater/fuel type, tank capacity, or efficiency factor (EF) of the water heater finally bought to be installed is different, submit revised information to the Building Department prior to installation.</p>					
Water Heater Type/Fuel Type <sup>1</sup>	Distribution Type (Standard, Recirculating) <sup>2</sup>	Number In System	Tank Capacity (gal)	Energy Factor or Thermal Efficiency	External Tank Insulation R-Value <sup>3</sup> <i>(R-12 for EF&lt;0.06)</i>
* Storage Tank/Gas	Standard/ Recirculating		50 Max	0.60 Min	R-0/R-6/R-9/R-12
* Tankless/Gas	Standard/ Recirculating		—	0.80 Min	—
<p>1. Indicate Type (Storage Gas, Heat Pump, Instantaneous, etc.)</p> <p>2. Recirculating systems serving multiple dwelling units shall meet the recirculation requirements of §150(n). The Prescriptive requirements do not allow the installation of a recirculating water heating system for single dwelling units.</p> <p>3. The external water heating tank and pipes shall be insulated to meet the requirements of §150(j).</p>					

<b>Declaration Statement</b>	
<ul style="list-style-type: none"> <li>• I certify under the penalty of perjury, under the laws of the State of California, the information provided on this form is accurate and complete.</li> <li>• I certify that the energy features and performance specifications identified on this Certificate of Compliance conform to the requirements of Title 24, Parts 1 and 6 of the California Code of Regulations.</li> </ul>	
Name:	Signature:
Company:	Date:
Address:	License:
City/State/Zip:	Phone:

**For assistance or questions regarding the Energy Standards, contact the Energy Hotline at: 1-800-772-3300.**

Registration Number: \_\_\_\_\_ Registration Date/Time: \_\_\_\_\_ HERS Provider: \_\_\_\_\_  
 2008 Residential Compliance Forms August 2009

<b>Mandatory Measures Summary</b>		<b>MF-1R</b>
<b>Residential</b>		<b>(Page 2 of 2)</b>
<b>Project Address:</b>	<b>Climate Zone:</b>	<b>Permit Number:</b>

*NOTE: Low-rise residential buildings subject to the Standards must comply with all applicable mandatory measures listed, regardless of the compliance approach used. More stringent energy measures listed on the Certificate of Compliance (CF-1R, CF-1R-ADD, or CF-1R-ALT Form) shall supersede the items marked with an asterisk (\*) below. This Mandatory Measures Summary shall be incorporated into the permit documents and the applicable features shall be considered by all parties as minimum component performance specifications whether they are shown elsewhere in the documents or in this summary. Submit all applicable sections of the MF-1R Form with plans.*

<b>DESCRIPTION</b>	
<b>Water Heating and Plumbing System Measures:</b>	
§110-§113:	Water heaters, showerheads, faucets and all other regulated appliances are certified by the Energy Commission.
§113(c)5:	Water heating recirculation loops serving multiple dwelling units and High-Rise residential occupancies meet the air release valve, backflow prevention, pump isolation valve, and recirculation loop connection requirements of §113(c)5.
§115:	Continuously burning pilot lights are prohibited for natural gas: fan-type central furnaces, household cooking appliances (appliances with an electrical supply voltage connection with pilot lights that consume less than 150 Btu/hr are exempt), and pool and spa heaters.
§150(i):	Heating systems are equipped with thermostats that meet the setback requirements of Section 112(c).
§150(j)1A:	Storage gas water heaters rated with an Energy Factor no greater than the federal minimal standard are externally wrapped with insulation having an installed thermal resistance of R-12 or greater.
§150(j)1B:	Unfired storage tanks, such as storage tanks or backup tanks for solar water-heating system, or other indirect hot water tanks have R-12 external insulation or R-16 internal insulation where the internal insulation R-value is indicated on the exterior of the tank.
§150(j)2:	First 5 feet of hot and cold water pipes closest to water heater tank, non-recirculating systems, and entire length of recirculating sections of hot water pipes are insulated per Standards Table 150-B.
§150(j)2:	Cooling system piping (suction, chilled water, or brine lines), and piping insulated between heating source and indirect hot water tank shall be insulated to Table 150-B and Equation 150-A.
§150(j)2:	Pipe insulation for steam hydronic heating systems or hot water systems >15 psi, meets the requirements of Standards Table 123-A.
§150(j)3A:	Insulation is protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind.
§150(j)3A:	Insulation for chilled water piping and refrigerant suction lines includes a vapor retardant or is enclosed entirely in conditioned space.