

**ALTERATIONS - HVAC**

CEC-CF1R-ALT-04-E (Revised 06/14)

CALIFORNIA ENERGY COMMISSION



CERTIFICATE OF COMPLIANCE	CF1R-ALT-04-E
Alterations - HVAC CZ 2, and 8-15 (formerly CF-1R-ALT-HVAC) All parts of Contra Costa except West County	(Page 1 of 1)

<b>Site Address:</b>		<b>Enforcement Agency:</b> Contra Costa County DCD		<b>Date Prepared:</b>	<b>Permit#:</b>
Equipment Type		Equipment Efficiency		New Ducting, Plenums, Lineset: Required R-value	Conditioned Floor Area (sq ft)
<input type="checkbox"/> Packaged System	<input type="checkbox"/> Evaporator Coil	_____ AFUE	_____ COP	<input type="checkbox"/> R-6 (CZ 2, 8-13) Ducting	Served by system _____ sqft
<input type="checkbox"/> Split System	<input type="checkbox"/> Condensing Unit	_____ SEER	_____ HSPF	<input type="checkbox"/> R-8 <sup>1</sup> (CZ 11, 14, 15) Ducting	<input type="checkbox"/> Setback (If not already present, must be installed)
<input type="checkbox"/> Mini Split	<input type="checkbox"/> Compressor	_____ EER		<input type="checkbox"/> R-6 (all CZ's) Plenums	
<input type="checkbox"/> Furnace	<input type="checkbox"/> Lineset			<input type="checkbox"/> R-5 or R7.5) Lineset <sup>4</sup>	
	<input type="checkbox"/> TXV				

**HERS VERIFICATION SUMMARY** Installer determines work to be completed and matches to one of the options below. At permit application this form is allowed to be filled out by hand. For final inspection all forms are to be registered (no hand filled forms allowed) and a copy left on site.

<input type="checkbox"/> <b>1. HVAC Changeout/Repair</b>	<b>Required Compliance Documents to be left on site for Final:</b>
All Equipment, Condenser Unit, Evaporator Coil, Compressor, TXV, Lineset, Air Handler/Furnace <sup>2</sup> (Can include new ducting)	CF1R-ALT-02-E CF2R: MECH-01, MECH-20-HERS, MECH-(23 or 24) <sup>2</sup> -HERS, MECH-25-HERS <sup>2</sup> CF3R: MECH-20-HERS, MECH-(23 or 24)-HERS <sup>2</sup> , MECH-25-HERS <sup>2</sup>
<b>Installer Requirement:</b> Duct leakage ( $\leq 15\%$ , or $\leq 10\%$ to outside, or seal all accessible leaks), Air Flow $\geq 300$ CFM/ton, Refrigerant Charge. Exempted from duct leakage testing if: <input type="checkbox"/> 1. Duct system registered with HERS provider as previously sealed, or <input type="checkbox"/> 2. There is less than 40 linear feet of duct in unconditioned space, or <input type="checkbox"/> 3. Existing duct systems are constructed, insulated or sealed with asbestos (list manufacture date of building _____)	
<input type="checkbox"/> <b>2. New HVAC System</b>	<b>Required Compliance Documents to be left on site for Final:</b>
All new equipment and All New Ducts <sup>3</sup> including Mini Split	CF1R-ALT-02-E CF2R: MECH-01, MECH-20-HERS, MECH-22-HERS, MECH-(23 or 24)-HERS <sup>2</sup> , MECH-25-HERS <sup>2</sup> CF3R: MECH-20-HERS, MECH-22-HERS, MECH-(23 or 24)-HERS <sup>2</sup> , MECH-25-HERS <sup>2</sup> Mini Splits require CF1R-ALT-02-E, CF2R-MECH-01, and (CF2R-CF3R) MECH-25-HERS
<b>Installer Requirement:</b> Duct leakage $\leq 6\%$ , Fan Efficacy (.58W/CFM), Air Flow $\geq 350$ CFM/ton (or alternative), Refrigerant Charge	
<input type="checkbox"/> <b>3. All New Ducts with Replacement</b>	<b>Required Compliance Documents to be left on site for Final:</b>
All New Ducts <sup>3</sup> and one or more of the following replaced: Condenser Unit, Evaporator Coil, Compressor, TXV, Lineset, Furnace <sup>2</sup>	CF1R-ALT-02-E CF2R: MECH-01, MECH-20-HERS, MECH-(23 or 24)-HERS, MECH-25-HERS CF3R: MECH-20-HERS, MECH-(23 or 24)-HERS, MECH-25-HERS
<b>Installer Requirement:</b> Duct leakage $\leq 6\%$ , Air Flow $\geq 350$ CFM/ton (or alternative), Refrigerant Charge Exempted from duct leakage testing if: <input type="checkbox"/> 1. Existing duct systems are constructed, insulated or sealed with asbestos	
<input type="checkbox"/> <b>4. New Ducting over 40 feet</b>	<b>Required Compliance Documents to be left on site for Final:</b>
New ducting but less than All New Ducts <sup>3</sup>	CF1R-ALT-02-E, CF2R: MECH-20-HERS, CF3R: MECH-20-HERS
<b>Installer Required to:</b> Duct leakage ( $\leq 15\%$ or, $\leq 10\%$ to outside or, or seal all accessible leaks) <input type="checkbox"/> EXCEPTION: Existing duct systems constructed, insulated or sealed with asbestos.	
<sup>1</sup> All new ducting R-8 required when more than 40 ft installed and R-6 when less than 40 ft installed. This includes in walls, between floors etc. <sup>2</sup> Heating only systems and Air Handler/Furnace changes do not require Air Flow MECH-(23 or 24), or Refrigerant Charge verification MECH-25 <sup>3</sup> All New Ducts is when at least 75 percent of the duct system is new duct material, and up to 25 percent may consist of reused parts from the dwelling unit's existing duct system (e.g., registers, grilles, boots, air handler, coil, plenums, duct material) <sup>4</sup> R-5 (1" thick insulation) for linesets 1" and less. R-7.5 (1.5" thick insulation) for linesets over 1 inch. Most mfg will require Suction line Diameter with insulation as the following 1.5-2T-2 $\frac{5}{8}$ ", 2.5-3T-2 $\frac{3}{4}$ ", 3.5 to 4T-2 $\frac{3}{8}$ ", 5T-4 $\frac{1}{2}$ "	

**Contractor (Documentation Author's /Responsible Designer's Declaration Statement)**

I certify the following under penalty of perjury, under the laws of the State of California:

- The information provided on this Certificate of Compliance is true and correct.
- I am eligible under Division 3 of the California Business and Professions Code to accept responsibility for the information on this document.
- That the energy features and performance specifications for the design identified on this Certificate of Compliance conform to the requirements of Title 24, Parts 1 and 6 of the California Code of Regulations (CCR).
- That the energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the CCR.
- The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.

Responsible Designer Name:	Responsible Designer Signature:	Date Signed:	License:
Company :	Address:	City/State/Zip:	Phone:

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