



City of Union City – Economic and Community Development Department
Building Division
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RESIDENTIAL FURNACE:

A permit is required to install a new residential furnace unit and for the replacement of an existing furnace unit. The following is a listing of the general requirements for furnace replacements based on the 2013 California Mechanical Code, 2013 California Plumbing Code, and the 2013 California Electrical Code. This handout is intended to provide general information, contact the Building Division for any questions or additional information.

CalCERTS Registration Required for all Residential HVAC Installs and Change outs

As of January 1, 2014, all residential HVAC installs and change outs will require duct leakage testing and verification by a HERS Rater. All required energy compliance forms for all residential HVAC alterations shall be registered with an approved HERS provider. *To help verify that all forms are registered, please follow these guidelines:*

- The CF1R shall be completed, signed, registered, and submitted along with the construction permit application form by the individual applying for the permit.
- For the final inspection, the building inspector shall verify that the following energy compliance forms are completed, signed, and registered by an approved HERS provider:
 - CF2R
 - CF3R

General Requirements for Residential Furnaces:

- Furnaces shall be installed per manufacturer's installation and operating instructions (CMC 303). All furnaces shall be labeled, they shall bear a permanent and legible factory-applied nameplate on which shall appear; the manufacturer's name, fuel input rating in BTU's, model and serial number, instructions for lighting, operating and shutdown, type of fuel approved for use, symbol of approved agency, and required clearances (CMC 307).
- Shall be installed on non-combustible floors. (CMC 904.3)
- Where required by manufacturer drip leg shall be installed in such locations so that it will be readily accessible to permit cleaning or emptying. (CMC 1311.7.2)
- A gas shut off valve shall be accessible and located within 6' of furnace. Where a connector is used, the valve shall be installed upstream of the connector. A union or flanged connection shall be provided downstream from this valve to permit removal of controls (CMC 13.12.4).
- Furnaces shall be securely fastened in place to sustain vertical and horizontal loads (CMC 303.5).
- **Furnaces located in bedrooms or bathrooms:** Shall be direct vent type or shall be equipped with a listed, gasketed door assembly; listed self-closing device; the door assembly shall be installed with a threshold and bottom door seal; all combustion air shall be obtained from the outdoors; and the closet shall be used for exclusive use of the furnace (CMC 904).
- **Furnaces located in attics:** Truss system shall be engineered for furnace location; attic access shall be a minimum 22" x 30" net clear opening, where the height of the passageway is less than 6', the distance to the appliance shall not exceed 20'; the passageway must be of solid flooring not less than 24" wide; a level working platform surface of 30" x 30: in front of the service side of the appliance shall be provided; a 120 volt permanent receptacle outlet and a lighting fixture shall be installed near the appliance (CMC 904.10).
- **Furnaces located in the garage:** Ignition device shall be a minimum of 18" above floor; 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 (CMC 308).

FEE: The replacement of a furnace unit is usually a Minimum Mechanical Permit Fee.

INSPECTIONS: One final inspection is required after all the work has been completed.