



City of Newark
Building Inspection Division
 37101 Newark Blvd., Newark, CA 94560

Energy Efficiency Standards Worksheet Residential Alterations

Project Address	Permit No.
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Projects that need to comply with the State Energy Efficiency Standards

All residential alterations to an existing living unit shall comply with the Energy Efficiency Standards. The standards on this worksheet represent the simplest method of documenting compliance with the state Energy Efficiency Standards and may be used by an applicant. If this simplified form is used, the applicant must comply with all applicable improvement and/or conditions listed below.

Construction Activity and Minimum Standards

Comply with each and every applicable condition listed below - no exceptions.

Replacement Windows	Provided the replacement windows are the same size as the original windows there are only two standards that must be met; a) caulk window frames, and b) windows in hazardous locations must have safety glazing. For specifics on hazardous locations please refer to Chapter 24 of the California Building Code.
New Windows	Any new windows, skylights or glazed doors shall have dual glazing. Caulk window frames.
Doors	Any new exterior door shall have weather stripping at all four edges. Caulk door frame.
Ceilings	All modified ceilings shall be insulated with minimum R-19 insulation.
Walls	All modified exterior walls shall be insulated with minimum R-13 insulation. Removal of sheet rock is classified as a modification.
Floors	All modified raised wood framed floors shall be insulated with minimum R-19 insulation.
Lighting	If the lighting system to an existing kitchen and/or bathroom is replaced, the new primary lighting shall be provided by fluorescent fixtures.
Replacement Water Heater	Any existing water heater which is replaced shall meet state Appliance Efficiency Regulations. The first 5 feet of hot and cold water lines at the water heater shall be insulated with R-4. Water heater shall be strapped to wall. Temperature and pressure relief valve and drain line shall be installed.
Replacement Space Heating or Cooling	If a new space heating or cooling is installed, such unit shall meet state Appliance Efficiency Regulation (Most units sold in California meet this standard) and a setback thermostat shall be installed. Any new ducts that are connected to an existing space heater and/or air conditioner shall have minimum R-4.2 insulation and shall be sealed air tight. No electric resistance heating units may be installed.
Fireplace	If a masonry or factory built fireplace is installed, it shall have metal or glass doors covering the entire opening of the firebox and which can be closed when the fire is burning. A combustion air intake shall be installed to draw air from the outside of the building directly into the firebox (not required if fireplace is installed over a concrete slab and not located on an exterior wall). Units shall have a flue damper with readily accessible control.



This worksheet can be used for alterations to existing single-family dwellings. This form replaces the Certificate of Compliance, CF-1R form and the Mandatory Measures Summary MF-1R form. This form shall be attached to the approved drawings.

Revised February 14, 2006

Project Address		Date
Project Description		Compliance Method Mandatory Requirements
		Climate Zone 3
Construction Activity and Minimum Standards Comply with each and every applicable condition listed below.		
Windows Skylights Glass Doors	Total area of new glazing = _____ sf If less than 50 sf, OK - If 50 sf or higher, go to next	All glazing in new, replaced or relocated windows, skylights, and glass doors shall be dual glazed with a U-Factor of 0.67 or less. Fifty square feet (50sf) of window, skylight or glass door glazing can be added to an existing dwelling without triggering maximum glazing area calculations. The 50 sf is accumulative starting October 1, 2005. If the total glazed area exceeds 50 square feet, then the total glazed area shall not exceed 20 percent of the dwelling floor area (garages not included). If the total area exceeds 20 percent, then energy performance calculations are required.
	Floor area of dwelling _____ sf 20% of floor area = _____ sf Area of new & existing windows = _____ sf If equal to or less than 20%, OK If over 20%, this form cannot be used	
Doors	New exterior doors <input type="checkbox"/> yes <input type="checkbox"/> no	New exterior doors shall have weather stripping at all four edges and frame caulked. Doors with more than 50% glass are windows and shall be included in <i>Window</i> requirements.
Ceilings	Altered ceiling w/ attic <input type="checkbox"/> yes <input type="checkbox"/> no If altered, install R-30 insulation	Altered ceilings with attics above shall have minimum R-30 insulation installed. Altered ceiling/roof assemblies (no attic) shall have minimum R-19 insulation installed. The removal of existing ceiling finish at a ceiling/attic assembly or the removal of either the ceiling finish or roof sheathing at a ceiling/roof assembly is considered an altered ceiling.
	Altered ceiling/roof <input type="checkbox"/> yes <input type="checkbox"/> no If altered, install R-19 insulation	
Walls	Altered exterior wall <input type="checkbox"/> yes <input type="checkbox"/> no If altered, install R-13 insulation	Altered exterior walls shall be insulated with minimum R-13 insulation. The removal of either the interior or exterior finish is considered an altered wall.
Floors	Altered raised wood floor <input type="checkbox"/> yes <input type="checkbox"/> no If altered install R-19 insulation	Altered raised wood framed floors shall be insulated with minimum R-19 insulation. The removal of the floor sheathing exposing the framing is considered an altered floor.
Kitchen Lighting	Altered kitchen lighting <input type="checkbox"/> yes <input type="checkbox"/> no If altered, install only fluorescent fixtures	If a kitchen is added or an existing kitchen lighting is completely replaced, no less than 50% of the wattage of all kitchen lighting shall be provided by fluorescent fixtures. If only a portion of an existing kitchen lighting is modified, all new or replaced lighting shall be provided by fluorescent fixtures or 50% of the wattage of all kitchen lighting (new/added/replaced) shall be provided by fluorescent fixtures. Typical fixture wattage = 2' under counter fluorescent = 30 watts Halo recessed 26w fluorescent can light = 39 watts
	or Fluorescent fixture watts = _____ watts Incandescent fixture watts = _____ watts Percent provided by fluorescent = _____ % (amount provided by fluorescent shall not be less than 50%)	
Bathroom Lighting	Altered bathroom lighting <input type="checkbox"/> yes <input type="checkbox"/> no If altered, install only fluorescent light fixtures with the exception of incandescent light fixtures which have manual-on / auto-off occupant sensors.	In a bathroom, existing light fixtures which are moved or replaced, or new light fixtures which are added shall be fluorescent fixtures. Incandescent fixtures may be installed if switching is provided by manual-on / auto-off occupant sensors. A bathroom is any room which contains a bathtub, or shower, or toilet, or sink, or combination thereof. Replacement of an existing surface mounted light fixture due to maintenance does not constitute an alteration.

**Energy Efficiency Standards
Amended CF-1R & MF-1R Forms
Residential Alterations**

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Garage, Laundry or Utility Room Lighting	Garage, Laundry or Utility Room altered <input type="checkbox"/> yes <input type="checkbox"/> no Fluorescent fixture <input type="checkbox"/> yes <input type="checkbox"/> no Occupant sensor <input type="checkbox"/> yes <input type="checkbox"/> no	If a garage, utility room or laundry is remodeled/altered, all new or replaced existing lighting shall be provided by fluorescent fixtures. Incandescent fixtures may be installed if switching is provided by manual-on / auto-off occupant sensors.
Indoor Lighting	Altered or new interior light fixtures <input type="checkbox"/> yes <input type="checkbox"/> no If yes, then comply with one of the following Fluorescent fixtures <input type="checkbox"/> yes <input type="checkbox"/> no Auto sensors or dimmers <input type="checkbox"/> yes <input type="checkbox"/> no	Altered existing or new permanently installed interior light fixtures (other than those in kitchens and bathrooms) shall be fluorescent fixtures unless controlled with either a dimmer or motion sensor switch. Replacement of an existing surface mounted light fixture due to maintenance does not constitute an alteration.
Outdoor Lighting	Fixed lights <input type="checkbox"/> yes <input type="checkbox"/> no If yes, then comply with one of the following Fluorescent <input type="checkbox"/> yes <input type="checkbox"/> no Auto sensor <input type="checkbox"/> yes <input type="checkbox"/> no	Altered existing or new light fixtures mounted to the exterior of a dwelling or accessory structure shall be fluorescent fixtures unless controlled by motion sensor switch or photo control. Replacement of an existing surface mounted light fixture due to maintenance does not constitute an alteration.
Water Heater	Existing water heater replaced <input type="checkbox"/> yes <input type="checkbox"/> no If replaced, type of existing <input type="checkbox"/> Gas fired storage <input type="checkbox"/> Electric storage Type of replacement water heater <input type="checkbox"/> Gas fired storage (____ gals) <input type="checkbox"/> Electric storage (____ gals) <input type="checkbox"/> Gas instantaneous tankless BTUH input - _____ <input type="checkbox"/> Electric instantaneous tankless Watts = _____	Replaced water heaters shall meet state Appliance Efficiency Regulations and be installed per plumbing code. Electric water heaters can be replaced by electrical or gas storage type water heaters, or electric or gas instantaneous tankless water heaters. Gas water heaters must be replaced with gas storage type water heaters or gas instantaneous tankless water heaters. Gas water heaters cannot be replaced by any type of electric water heater. Gas fired instantaneous tankless water heaters shall have an Energy Factor of 0.80 or higher. Electric instantaneous tankless water heaters shall have an Energy Factor of 0.93 or higher. If a new water heater is installed in addition to the existing water heater resulting in more than one water heater, then this form can not be used.
Heating and A/C Units	New or replaced heating and/or air conditioning system <input type="checkbox"/> yes <input type="checkbox"/> no AFUE_____ SEER_____ Input rating of new/replaced heater = _____ BTUH	New or replaced heating and/or A/C equipment shall meet energy efficiency standards. Minimum heater AFUE of 78%. Minimum air conditioner SEER of 13.0. Setback thermostat required. (AFUE – Annual Fuel Utilization Efficiency) (SEER – Seasonal Energy Efficiency Ratio)
HVAC Ducts	Extend or replace existing ducts <input type="checkbox"/> yes <input type="checkbox"/> no	New ducts shall have minimum R-6.0 insulation and sealed air tight. The requirement that if more than 40 ft. lineal of duct is installed or replaced or a heater is replaced, the entire duct system must be sealed air tight and certified by a HERS tester DOES NOT APPLY TO ZONE 3. Duct layout shown on drawings may be required.
Fireplace	New fireplace installed/rebuilt <input type="checkbox"/> yes <input type="checkbox"/> no	Glass doors covering the firebox opening required. Outside combustion air intake required. Flue damper with readily accessible control required.

A copy of this document shall be attached to the City approved construction documents.
This document shall be retained in perpetuity with the permit record.