



# Re-roofing Handout

Policy and Procedure No.: **B-04-01**

July 2004 (Rev. December 2009)

**Purpose**

Re-roof permits are required to ensure that the installation of roofing materials, including plywood decking, nailing, flashing, etc. are properly installed for residential and non-residential buildings according to the provisions of Chapter 15: Roofing and Roof Structures, (2007 California Building Code). This handout outlines the necessary information required to obtain a building permit and shows different allowable construction methods to successfully complete the project.

**Permits Required**

A re-roof permit is required for the following type of work. Repairs may include similar or new roofing materials.

- Repairs to a roof that does not exceed 10% of the roof area, or 1,000 Ft<sup>2</sup>, whichever is less, does not require a permit.

Example:

A building with a total of 20 squares  
 20 Sq x 10% = 2 Sq (no permit required)  
 20 Sq x 15% = 3 Sq (permit is required)  
 (1 Sq = 10-ft x 10-ft, or 100 Ft<sup>2</sup>)


*Note: California's updated 2008 building energy codes require **cool roofs** on existing residential buildings*

**Cool Roofing Products** Alterations to existing roofs need to meet §152(b)1H, which requires that when more than 50 percent of the roof or more than 1,000 ft<sup>2</sup> of exterior existing roof, whichever is less, is replaced, the criteria set forth below must be met.

**1. For steep-sloped roofs,** roofing products with a density of less than 5 lb/ft<sup>2</sup> in climate zones 10 through 15 shall have a minimum aged solar reflectance of 0.20 and a minimum thermal emittance of 0.75, or a minimum SRI of 16.

**2. For steep-sloped roofs,** roofing products with a density of 5 lb/ft<sup>2</sup> or more in climate zones 1 through 16 shall have a minimum aged solar reflectance of 0.15 and a minimum thermal emittance of 0.75, or a minimum SRI of 10.

This label is required for all cool roof roofing products:

	<b>Initial</b>	<b>Weathered</b>	
	Solar Reflectance	0.00	Pending
	Thermal Emittance	0.00	Pending
	Rated Product ID Number	-----	
	Licensed Seller ID Number	-----	
	Classification	Production Line	
Cool Roof Rating Council ratings are determined for a fixed set of conditions, and may not be appropriate for determining seasonal energy performance. The actual effect of solar reflectance and thermal emittance on building performance may vary. Manufacturer of product stipulates that these ratings were determined in accordance with the applicable Cool Roof Rating Council procedures.			

Roofing products with less than 5 lb/ft<sup>2</sup> generally include asphalt shingles and metal roofs. Products with a density more than 5 lb/ft<sup>2</sup> generally include concrete, clay tiles, slate and possibly some synthetic roof coverings.

Cool roof product information is available at this link:

<http://www.coolroofs.org/products/search.php>

When any of the options in items (a) through (h) below are used, they are considered equivalent to the reflectance, emittance, and the SRI requirements described in items 1 and 2 above:

- a. Insulation with a thermal resistance of at least 0.85 hr•ft<sup>2</sup>•°F/Btu or at least a 3/4 inch air-space is added to the roof deck over an attic; **or**
- b. Existing ducts in the attic are insulated and sealed according to §151(f)10; **or**

c. In climate zones 10, 12 and 13, with 1 ft<sup>2</sup> of free ventilation area of attic ventilation for every 150 ft<sup>2</sup> of attic floor area, and where at least 30 percent of the free ventilation area is within two feet vertical distance of the roof ridge; **or**

*(Note: Alterations to existing roofs that replace more than 50 percent of the roof or more than 1,000 ft<sup>2</sup> of exterior existing roof, whichever is less, are required to meet current attic space ventilation requirements per 2007 CBC 1203. The net free ventilating area shall not be less than 1/150 of the area of the space ventilated, with 50 percent of the required ventilating area provided by ventilators located in upper portion of the space to be ventilated at least 3 feet above eave or cornice vents with the balance of the required ventilation provided by eave or cornice vents. If 30 percent of the required ventilation is placed within 2 feet of the ridge exception C applies.)*

d. Buildings with at least R-30 ceiling insulation; **or**

e. Buildings with a radiant barrier in the attic meeting the requirements of §151(f)2; **or**

f. Buildings that have no ducts in the attic; **or**

h. Roof areas covered by building integrated photovoltaic panels and building integrated solar thermal panels and existing roof areas that have thermal mass over the roof.

**NOTE: A CF-1R ALT Form is required to be completed and submitted with all re-roofing permit requests**

The CF-1R-ALT form is available for download at this link:

[http://www.energy.ca.gov/2008publications/CEC-400-2008-016/rev1\\_appendices/appendix\\_A\\_files/Certificate\\_of\\_Compliance\\_CF-1R/2008\\_Residential\\_CF-1R\\_ALT.pdf](http://www.energy.ca.gov/2008publications/CEC-400-2008-016/rev1_appendices/appendix_A_files/Certificate_of_Compliance_CF-1R/2008_Residential_CF-1R_ALT.pdf)

### Work Description

Obtain the following information regarding the existing condition and proposed roofing materials:

- Existing – top and/or second layer material, specify if existing roof material will be removed or if project consists of an overlay.
- Proposed – if overlaying, provide number of layers, type of material and weight per each square; sheathing type; roof skylight locations (include ICC or UL listing number).

### Re-roofing Overlays Allowed

#### General

#### Recovering versus replacement.

New roof coverings shall not be installed without first removing all existing layers of roof coverings where any of the following conditions occur:

1. Where the existing roof or roof covering is water soaked or has deteriorated to the point that the existing roof or roof covering is not adequate as a base for additional roofing.
2. Where the existing roof covering is wood shake, slate, clay, cement or asbestos-cement tile.
3. Where the existing roof has two or more applications of any type of roof covering.

#### Exceptions:

1. Complete and separate roofing systems, such as standing-seam metal roof systems, that are designed to transmit the roof loads directly to the building's structural system and that do not rely on existing roofs and roof coverings for support, shall not require the removal of existing roof coverings.
2. Metal panel, metal shingle and concrete and clay tile roof coverings shall be permitted to be installed over existing wood shake roofs when applied in accordance with Section 1510.4.
3. The application of a new protective coating over an existing spray polyurethane foam roofing system shall be permitted without tear-off of existing roof coverings. 2007 CBC, Section 1510.3

#### Roof recovering.

Where the application of a new roof covering over wood shingle or shake roofs creates a combustible concealed space, the entire existing surface shall be covered with gypsum board, mineral fiber, glass fiber or other approved materials securely fastened in place. 2007 CBC, Section 1510.4

### ***Overlay on Existing Built-up Roofs***

Built-up roof covering may be applied over one existing roof covering provided the roof structure is sufficient to sustain the weight of the additional roof. All blisters, buckles and other irregularities shall be cut and made smooth and secure; a base sheet shall be secured in place with approved fasteners. The following conditions shall be prepared for these applications:

#### 1. Gravel-surfaced Roofing

All existing gravel shall be cleaned of loose gravel and debris. The base sheet shall not be mopped to the old roofing. New roofing conforming to Section 1507.10 shall be applied.

#### 2. Smooth or Cap-sheet Surface

A base sheet shall be nailed or, in the case of non-nailable decks, mopped to the existing roofing. Apply new roofing conforming to CBC Section 1507.11.

### ***Overlay on Existing Wood Roofs or Asphalt Shingle Roofs***

Only fire-retardant roofing assemblies or noncombustible roof covering may be applied over existing wood shake or shingle roofs in accordance with the manufacturer's installation requirements.

#### 1. Asphalt Shingle Application

Not more than one overlay of asphalt/composition shingles shall be applied over an existing composition or asphalt shingle roof.

Not more than one overlay of asphalt/composition shingles shall be applied over an existing wood shingle roof.

#### 2. Wood Shingle Application

Not more than one overlay of wood shingles shall be applied over existing wood or asphalt shingles, and shall be installed to manufacturer's specifications.

#### 3. Flashing and Edgings

Rusted or damaged flashing and counterflashing, vent caps and metal edgings shall be replaced with new materials as necessary.

### ***Composite Material***

Prior to permit issuance, a structural analysis will be required when reroofing with tile in place of a lighter roofing material. Composite materials

include: tile, cellulose, cement, and any products with weights in *excess of 350 pounds per square*.

Submittal of structural calculations (two "wet" stamped and signed sets) prepared by a licensed professional engineer shall be submitted in order to evaluate if the existing roof structure is adequate to sustain the added load. Analysis may be required at the Building Official's discretion.

### **Inspections**

#### ***Overlay Applications***

##### 1. Final Inspection

Required only after the project is complete.

#### ***Tear-off Applications***

##### 1. Pre-Inspection

Required after the existing roofing is torn off completely.

##### 2. Roof Sheathing Inspection

Required after the; new decking, nails and staples are installed according to nationally recognized standards, and roof assembly installation instructions (also refer to Plywood Sheathing Nail Diagram). Inspection is required prior to concealing the roof with felt, paper, roofing or any other material concealment.

##### 3. Final Inspection

Required after the project is complete.

### ***In-progress Roofing Agreement***

This is a comprehensive **one-time inspection** process which allows the building inspector to visit the job site once, provided the agreement is signed by both the contractor and building owner. The in-progress inspection permits the builder to completely remove the existing roofing material and install the new roof sheathing; the new roofing material may be installed but only cover half of the roof area. The remaining half shall not be covered with felt or roofing material until it is inspected. Felting over the entire roof surface may be permitted during the rainy season upon approval by the city inspector. Please note the in-progress agreement is not allowed for roof pitches under 2:12, built-up roofs, or roof systems requiring structural review.

### **Inspection Phone Line**

The inspection phone line is **(916) 478-2225**, available 24 hours/day. Inspection requests received after 5:00 am will be scheduled for the following business day.

(Note: morning or afternoon inspections cannot be guaranteed, please call the office in advance).

### **Fees**

Re-roofing permit fees are based on the total value of all construction work (including labor and materials). Consult with a Permit Technician for

### **Application Forms**

An Application for Permit form may be requested at the Building Safety & Inspection office located at:

*Address: 8401 Laguna Palms Way*

*Phone: (916) 478-2235*

*Hours: Monday through Friday  
8 am – 5 pm*