



**2008 BUILDING ENERGY EFFICIENCY STANDARDS
EFFECTIVE JANUARY 1, 2010**

**COOL ROOF REQUIREMENTS FOR NONRESIDENTIAL AND
HIGH RISE RESIDENTIAL AND
HOTEL/MOTEL OCCUPANCIES IN CLIMATE ZONE 12**

New Construction and Reroof – Prescriptive Requirements for Cool Roofs:

- Nonresidential low slope (2/12 or less) roof materials are required to have minimum 3-year Aged Reflectance/Emittance values of 0.55/0.75 or a minimum Solar Reflective Index (SRI) of 64.
- Nonresidential steep slope roof materials weighing 5 lb/ft² or more shall have minimum Aged Reflectance/Emittance values of 0.15/0.75 or a minimum SRI of 10.
- Nonresidential steep slope roof materials weighing less than 5 lb/ft² shall have minimum Aged Reflectance/Emittance values of 0.20/0.75 or an SRI of 16.
 - ◆ There are no *prescriptive* requirements for newly constructed, low slope roofs in High Rise Residential and Hotel/Motel occupancies.

Reroof Requirements – California Energy Code (CEC) Section 149 (b) 1B:

- Nonresidential and high rise residential and Hotel/Motel Occupancies – Additions, Alterations, and Repairs
 - ◆ If >50% or >2,000 ft² of roof area, whichever is less, is being replaced, recovered, or recoated, prescriptive Cool Roof “requirements” take effect [CEC § 149(b) 1 B]; or
 - ◆ Building envelope meets heat gain requirements [CEC § 149(b) 1 Bii and 143(b)].

A Performance Approach to avoid Cool Roof requirements can be used ONLY if other highly efficient energy features are being changed at the same time for trade-offs.

- ◆ When the low slope roof deck or the recover boards are exposed in nonresidential, high rise residential, and hotel/motel occupancies, it shall be insulated with a minimum of R-14 insulation. There are four (4) exceptions to this requirement. Those exceptions are not listed in this handout.
- Roof coverings allowed by the California Building Code (CBC) are not required to meet Section 149(b) 1 B, when **ALL** of the following occur:
 - ◆ The existing roof has a rock or gravel surface; and
 - ◆ The new roof has a rock or gravel surface; and
 - ◆ There is no removal of existing layers of roof coverings of more than 50% of the roof or more than 2,000 sq. ft. of roof, whichever is less; and
 - ◆ There is no recoating with a liquid applied coating; and
 - ◆ There is no installation of a recover board, rigid insulation, or the other rigid, smooth substrate to separate and protect the new roof recovering from the existing roof.