

Oregon
Interpretive Ruling No. 93-8
REQUIRED INSULATION LEVEL AT THE PERIMETER OF FLAT CEILINGS

Initiated By: PPPI TASK GROUP
AMEND PPPI 3001

REGARDING: Energy Conservation
Chapter 53, Energy Conservation, Sections 5303(c), 5303(c)4 and Table 53-P
Construction Means and Methods (Group R Buildings, three stories and less in height)

QUESTION CONSIDERED

Does the roof framing have to be changed or redesigned to accommodate thicker layers of insulation in the attic?

APPLICABLE CODE SECTIONS

Oregon Structural and One and Two Family Dwelling Specialty Codes. Sections 5303(c), 5303(c)4 and Table 53-P.

BACKGROUND

The insulation level required for flat ceilings in Group R, three stories and less in height, specify levels of insulation that cannot normally be obtained at the perimeter of conventional trusses.

Prescriptive compliance paths 3, 5, 6, and 7 require "advanced frame construction." Section 5303(c)4 specifies the requirements for advanced frame ceilings.

Attic space ventilation shall not be obstructed by insulation.

FINDINGS

1. Insulation Requirements for Conventional Framed Ceilings
 - Where tolerated by code, conventional framed ceilings do not need to have consistent R-values throughout the ceiling.
 - The prototypical models for the energy analysis assumed reduced insulation levels at the perimeter.
2. Insulation Requirements for Advanced Frame Ceilings
 - Advanced frame construction is required in Table 53-P where indicated with the suffix "A."
 - The insulation level specified shall be maintained throughout the ceiling, including the perimeter.

RULING

1. **Insulation Requirements for Conventional Framed Ceilings**
 - Conventional roof trusses are acceptable whenever advanced framing is not required or specified.
2. **Insulation Requirements for Advanced Frame Ceilings**
 - Where required, advanced frame ceilings shall be constructed so the R-value is maintained throughout the ceiling.

The Energy Conservation Board and Structural Code Advisory Board make this recommendation as an interpretation to the requirements in Chapter 53, Energy Conservation.

(signed August 4, 1993)

Rodger Bekooy, Chairman
Energy Conservation Board

(signed July 21, 1993)

John Talbott, Chairman
Structural Code Advisory Board

The recommendations and findings of the Energy Conservation Board and Structural Code Advisory Board are accepted and the interpretations are adopted as stated above.

(signed August 6, 1993)

Michele J. Patterson for Gary J. Wicks,
Administrator Building Codes Agency