REPI-150-21 (Modification)

IECC®: R503.1.1, R503.1.1.1, R503.1.1.2 (N1111.1.1.2) (New), 503.1.1.3 (N1111.1.1.3) (New), R503.1.1.4 (N1111.1.1.4) (New), R503.1.1.5 (N1111.1.1.5) (New), R503.1.1.6 (N1111.1.1.6) (New)

Proponents: Jay Crandell, P.E., ABTG/ARES Consulting, representing Foam Sheathing Committee of the American Chemistry Council (jcrandell@aresconsulting.biz)

2021 International Energy Conservation Code

REMAINDER OF ORIGINAL PROPOSAL UNCHANGED

Add new definition s as follows:

APPROVED SOURCE. An independent person, firm or corporation, approved by the building official, who is competent and experienced in the application of engineering principles to materials, methods or systems analyses.

CONSTRUCTION DOCUMENTS. Written, graphic and pictorial documents prepared or assembled for describing the design, location and physical characteristics of the elements of a project necessary for obtaining a building permit.

Revise existing definition as follows:

ROOF REPLACEMENT. ~~The process of removing the existing roof covering, repairing any damaged substrate and installing a new roof covering.~~ An alteration that includes the removal of all existing layers of roof assembly materials down to the roof deck and installing replacement materials above the existing roof deck.

Modify Section R 503.1.1.2 of REPI-150 as follows:

R503.1.1.2 (N1111.1.1.2) Roof alterations. Roof insulation complying with Section R402.1 or an approved design shall be provided for the following roof alteration conditions as applicable:

1. An alteration to roof-ceiling construction where S   compliance with Section R402.1 cannot be met due to limiting conditions on an existing roof, the following

demonstrate compliance with the insulation requirements the insulation

3.

				CEILING U-FACTOR <mark>g</mark>	WOOD FRAME WALL U-FACTOR	MASS WALL U-FACTOR[b]	FLOOR U-FACTOR	BASEMENT WALL U-FACTOR	CRAWL SPACE WALL U-FACTOR

…
g. Roofs with insulation entirely above deck shall comply with Section C402.2.1 and the "Group R" U-factors of Table C402.1.4.

TABLE R402.1.3
INSULATION MINIMUM R-VALUES AND FENESTRATION RCRAWL

									SPACE[c,g] WALL R-VALUE

…
j. Roofs with insulation entirely above deck shall comply with Section C402.2.1 and the "Group R" R-values of Table C402.1.3.

Reason (MODIFICATIONS ONLY): This

roof replacements for roofs with insulation entirely above deck (Item 2). CEPI 225 and CEPI-17 Part I (also approved by the commercial envelope subcommittee) provided three definitions that are also included in this modification of REPI-150 since these terms are relevant to this modification and the original REPI-150 proposal. These modifications deal primarily with existing roofs with insulation entirely above deck (e.g., typical low-slope roofs). This is aimed at low-rise multifamily buildings that fall under the IECC-Residential scope of provisions. Many of these buildings are like their taller commercial Group R building counterparts and differ only the allowed number of stories (not roof size or type or energy use characteristics).   Therefore, a footnote is added to the R-value and U-factor tables since this type of roofing system is not addressed in the residential energy provisions and is needed for both new buildings as well as roof replacements on existing buildings that have insulation entirely above the roof deck.

Finally, Item 1 of Section R503.1.1.2 is revised by this modification. Item 1 is focused on addressing roofs in existing buildings that have no roof insulation at all. Item 1 is based on the REPI-150 proposal's deletion and moving of Exception #5 into Section 503.1.1.2 (mainly because Exception #5 is actually a requirement and not an exception -- see original REPI-150 proposal). However, the requirement was triggered based on "re-roofing" which by definition includes roof recovers that remain globally exempted in Exception 4 of Section R503.1.1. Thus, it was conflicted in the existing code's Exception #5 to Section R503.1.1 and in REPI-150's