

Public Comment CE105-16 WILLIAMS-B :

Proponent : Jeremiah Williams, U.S. Department of Energy, representing U. S. Department of Energy (jeremiah.williams@ee.doe.gov) requests Approve as Modified by this Public Comment.

Modify as Follows:

2015 International Energy Conservation Code

C402.5.1.2.1 Building thermal envelope testing. The *building thermal envelope* shall be tested in accordance with ASTM E 779 or an equivalent method *approved* by the code official. The measured air leakage shall not exceed 0.40 cfm/ft² (0.2 L/s · m²) of the *building thermal envelope* area at a pressure differential of 0.3 inch water gauge (75 Pa).

Exceptions:

1. For buildings having greater than 50,000 square feet (5,000 m²) of gross conditioned floor area, air leakage testing need not be conducted on the whole building provided that the following portions of the building are tested:
 - ~~1.1. The entire floor area of all stories that have any spaces directly under a roof.~~
 - ~~1.2. The entire floor area of all stories that have a building entrance or loading dock.~~
 - 1.1. The entire *building thermal envelope* area of all stories that have any of the following: spaces directly under a roof or above a floor that is part of the *building thermal envelope*, a building entrance, a loading dock, or *building thermal envelope* areas adjacent to the ground.
 - 1.2. Representative above-grade sections of the building totaling not less than 25 percent of the exterior wall area enclosing the remaining conditioned space.

The measured air leakages shall be area-weighted by the surface areas of the building envelope addressed in items ~~1.1 through 1.3~~ and 1.2, then the remainder of the *building thermal envelope* shall be assigned the same air leakage rate as the area tested under 1.2 to determine a whole building value. ~~The test of the areas in item 1.3 shall be applied to the remainder of the building envelope surface area not included in items 1.1 through 1.3 air leakage rate.~~

1. Where the measured air leakage rate exceeds 0.40 cfm/ft² (2.0 L/s·m²) but does not exceed 0.60 cfm/ft² (3.0 L/s·m²), a diagnostic evaluation using smoke tracer or infrared imaging shall be conducted while the building is pressurized and any leaks noted shall be sealed where such sealing can be performed without destruction of existing building components. In addition, a visual inspection of the air barrier shall be conducted and any leaks noted shall be sealed where such sealing can be performed without destruction of existing building components. An additional report identifying the corrective actions taken to seal leaks shall be submitted to the code official and the building owner, and shall be deemed to satisfy the requirements of this

section.

Commenter's Reason: This public comment clarifies the language around sample based leakage testing of larger buildings.

All the items that require testing are combined into one item, with the addition of underground and exterior floors.

The method of weighting the tested areas to arrive at a total leakage for the building is stated in more clear language.

The building size threshold and test requirements have not changed.

The support for testing is in the original reason statement.

The original proposal passed as submitted by the committee vote.

Bibliography: See original reason statement.