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Comment Received From: Walter A. Reiter, III
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EPS-IA comments to 2019 Residential Energy Code Compliance Manual

Additional submitted attachment is included below.

August 3, 2018

Drew Bohan, Executive Director
California Energy Commission
1516 Ninth Street
Sacramento, California

ATTN: Michael Shewmaker
CEC Lead for Chapter 3

Re: 2019 RESIDENTIAL ENERGY CODE COMPLIANCE MANUAL
Docket #: 18-BSTD-02

Dear Mr. Bohan:

On behalf of the EPS Industry Alliance, we respectfully submit these comments to the 2019 Residential Energy Code Compliance Manual.

The EPS Industry Alliance is the North American trade association for expanded polystyrene (EPS). Among many other products, our members mold EPS rigid foam insulation used in high-performance building applications. EPS rigid foam insulations has been used successfully for years in below-grade, wall, ceiling and roofing applications.

For the reason set forth below, we request you consider the following modification to §3.5.6.1 Mandatory Requirements 150.0(f):

Current Proposed Language:

3.5.6 Slab Insulation

3.5.6.1 Mandatory Requirements §150.0(f)

Slab Insulation Products

The mandatory requirements state that the insulation material must be suitable for the application, with a water absorption rate no greater than 0.3 percent when tested in accordance with ASTM C272 Test Method A, 24-Hour Immersion, and a vapor permeance no greater than 2.0 perm/inch when tested in accordance with ASTM E96. An example of an insulating material that meets these specifications is smooth-skin extruded polystyrene.

Change: The mandatory requirements state that the insulation material must be suitable for the application. Insulation material in direct soil contact such as common perimeter insulation

~~application must have with a water absorption rate no greater than 3.0 percent when tested in accordance with ASTM C272 Test Method A, 24-Hour Immersion, and a vapor permeance no greater than 2.0 perm/inch when tested in accordance with ASTM E96. An example of an insulating material that meets these specifications is smooth-skin extruded polystyrene.~~

Reason: The current requirements for the limit on water absorption and vapor permeance are specifically for applications in direct contact with soil and should not be broadened in the new standard to include every slab application. The new language currently under consideration would expand the requirement to any slab application regardless of whether the insulation is in contact with the soil.

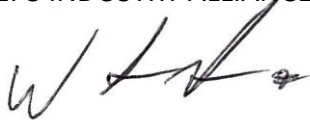
Insulation installed over an intervening drainage or sealing layer below slab or an above grade slab should not need to meet the broadened restriction for water absorption. Common heated slab insulation systems utilize shape molded EPS, which may not meet the restriction.

Method A of ASTM C272 is a 24-hour immersion test in which the material is measured immediately after removal from the submerged condition without any time period for draining. This material property test is not intended to and does not simulate *in situ* building applications and should not be used as a property requirement for insulation. While it is true that extruded polystyrene (XPS) does meet the 0.3% physical property requirements, other insulation materials meet the performance requirements for use below grade. The 0.3% value is far less than water volume that would be present in the surrounding soil in a submerged condition and far less than the moisture content of other building materials used successfully. Inclusion of that value and naming a single material as a suggested example without a basis to link the physical property to building safety and performance is not appropriate.

Therefore, it is requested that the ASTM C272 value be adjusted or removed. It is further requested that the specific product suggestion be deleted from the Compliance Manual.

Thank you for the opportunity to provide comment. Please direct any further inquiries or requests to us. The EPS Industry Alliance looks forward to engagement and participation in this process.

EPS INDUSTRY ALLIANCE



Walter A. Reiter, III
Deputy Director