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<td><strong>Docket Number:</strong></td>
<td>18-BSTD-02</td>
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<td><strong>Project Title:</strong></td>
<td>2019 ENERGY CODE COMPLIANCE MANUALS</td>
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<td>Owens Corning Comments on 2019 Energy Code Compliance Manuals</td>
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<td><strong>Description:</strong></td>
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<td><strong>Organization:</strong></td>
<td>Shawn Mullins</td>
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<td>7/30/2018</td>
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Owens Corning Comments on 2019 Energy Code Compliance Manuals

Additional submitted attachment is included below.
July 27, 2018

California Energy Commission
Attention: Docket No. 18-BSTD-02
1516 Ninth Street
Sacramento CA 95814-5512
Attn: Payam Bozorgchami
Filed electronically at: https://efiling.energy.ca.gov/Ecomment/Ecomment.aspx?docketnumber=18-BSTD-02

RE: 2019 Energy Code Compliance Manuals Comments

Dear Mr. Bozorgchami and Staff:

Owens Corning, through our numerous businesses has the privilege of touching numerous markets and building categories across the globe. Our portfolio of products and solutions is not restricted to one particular industry or segment. Accordingly, our approach to building codes and standards is wholistic and broad-based. We have previously stated our belief in strong building envelopes, enclosures and energy efficient assemblies as being critical to sustainable building practices and policy. We appreciate the inclusive efforts of the California Energy Commission and view these compliance manuals as the means by which previously adopted energy code policy is to be executed in the marketplace. We trust our comments will help clarify the CEC’s expectations and intent as the new code is put into practice across the state.

Our comments for your consideration are as follows:

Item 1: 3.4.2.1 Joints and Other Openings §110.7

**Concern:** When rigid wall or continuous insulation is used as the primary air barrier, it is necessary for such to be taped, gasketed, otherwise sealed or used in conjunction with an appropriate house wrap to limit air infiltration. It is recommended that a reference to these air sealing requirements be included.
Item 2:  3.5.1.2 Loose-Fill Insulation

Concern: The language in this section referencing blown and sprayed-in wall insulation R-value as being determined by the thickness of the material is only marginally correct. As noted in other sections of the Manuals, it is the density at time of installation coupled with the installed thickness that determines the delivered R-value. We recommend staying consistent throughout the Manual with installed density and the appropriate verification language.

Item 3:  3.5.1.3 Spray Polyurethane Foam (SPF)

Concern: This text does not address filling the cavity in 2x6 walls as required to meet the new mandatory requirements. Recommend adding clarification language.
Item 4:  3.5.1.4 Rigid Insulation

Concern: The language used in the last sentence of this section is coupling rigid insulation used for thermal performance as well as rigid insulation used for air-infiltration mitigation. If rigid insulation is only being installed for thermal performance, sealing of the joints is not necessary. Recommend revising the language to clarify the different applications and installation requirements.

Item 5:  3.6.1 Unvented Attics

Concern: The requirements listed in this section for unvented attics conflict with the 2016 California Residential Code (CRC). The CRC was appropriately revised to be more consistent with the International Residential Code language. See partial excerpts of section 806.5 in the 2016 CRC below. We recommend revising the language and associated diagrams in 3.6.1 to be consistent with the 2016 CRC. We also recommend the Commission NOT adopt any language that would be introducing new
requirements not already enshrined in the building codes, and instead, rely on system evaluation reports for addressing any specific manufacturer system related requirements.

The referenced table includes criteria for condensation control in all 16 California climate zones.
Item 6: 3.6.2 and Figure 3-47, Option C & D – Wedged Foam

**Concern:** The “wedged insulation” below roofing tiles is an approach that has not been proven to be commercially viable. The manufacturer introduced this concept with market claims which later became very suspect. Delivered R-values are in question as are some of the standards the manufacturer references to claim compliance or equivalency in the code. At this time there does not appear to be any other manufacturers promoting this type of product or application. It is therefore misleading to the larger market and inappropriate for the California Energy Commission to be advocating this particular assembly. Recommend striking these images and the referencing language from this section. Should a better design find its way to the market post publication of these manuals, the performance path would continue to allow for such product(s) to demonstrate code compliance. Leave in the reference to Insulated Roof Tiles as per their proven contribution and commercial viability to applicable sections of the energy code.
Item 7:  4.4.3.5 Buried and Deeply Buried Ducts

Concern: The existing requirements for improving the energy performance of HVAC distribution ducts via burying ducts is antiquated and does not allow for more recent studies showing enhanced performance without having to build soffits to encase the ducts. We recommend consideration be given for deeply buried ducts above the ceiling plane wherein it can be demonstrated that insulation mounds around and on top of the duct can be sufficiently contained so as to deliver sustainable thermal performance. Specifically, we advocate for such systems (where low leakage ducts are also installed) to be given compliance credit equal to, or as close to equal to as can be demonstrated, to ducts in conditioned space. This is similar to the 2018 IRC methodology and modified Home Innovation Research Labs illustration shown above.

Regards,

Shawn P. Mullins
Market Development Leader/Regulatory Affairs – West
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