

DOCKETED

Docket Number:	17-BSTD-01
Project Title:	2019 Building Energy Efficiency Standards PreRulemaking
TN #:	221564
Document Title:	NAIMA Comments to 2019 DRAFT Residential Appendix
Description:	N/A
Filer:	System
Organization:	North American Insulation Manufacturers Association (NAIMA)
Submitter Role:	Public
Submission Date:	10/20/2017 1:12:36 PM
Docketed Date:	10/20/2017

Comment Received From: Charles Cottrell

Submitted On: 10/20/2017

Docket Number: 17-BSTD-01

NAIMA Comments to 2019 DRAFT Residential Appendix

Additional submitted attachment is included below.



Filed electronically to Docket No. 17-BSTD-01

October 20, 2017

California Energy Commission
Attention: Docket No. 17-BSTD-01
Dockets Office 1516 Ninth Street, MS-4
Sacramento CA 95814

Subject: Comments from the North American Insulation Manufacturers Association on Docket Number 17-BSTD-01 2019: Draft 2019 Standards – RA 3.5 and 3.6

These comments are submitted by the North American Insulation Manufacturers Association (NAIMA) regarding draft changes to the 2019 California Building Energy Efficiency Standards. NAIMA is the association for North American manufacturers of fiber glass, rock wool, and slag wool insulation products. Our role is to promote energy efficiency and environmental preservation through the use of fiber glass, rock wool, and slag wool insulation, and to encourage the safe production and use of these materials.

NAIMA strongly supports the California Energy Commission's (CEC) mission "to reduce wasteful, uneconomical, and unnecessary uses of energy, thereby reducing the rate of growth of energy consumption, [and] prudently conserve energy resources." The Commission is a national leader in promoting building energy efficiency by establishing robust and cost-effective code requirements for the building envelope.

NAIMA generally supports the proposed revisions to the Residential Appendix sections RA3.5 and 3.6 of the 2019 Title 24 and submits specific comments on the following issues:

1. Page RA3-38 – "Compression" definition. Recommend adding the sentence to the end of the definition.

"Compression is permitted when the insulation fills the intended space."

Reason – This clarifies that installing a 6.25 inch thick batt in a wall cavity with a depth of 5.5 inches, a common application, is permissible.

2. Page RA3-39 – "Friction Fit" definition. Recommend revising the definition as shown below.

"A means of ~~attaching~~ installing insulation within the framed cavity without the use of mechanical fasteners such that the material's full thickness in all directions is sufficient to ~~maintain its installation integrity~~ keep the material in its intended position."

Reason – This language provides a clearer definition of "friction fit."

3. Page RA3-39 – “Insulation Types” definition. Recommend inserting “(PIR)” after “polyisocyanurate”.

4. Page RA3-41 – RA3.5.3.1.1 (c). Recommend correcting the terminology related to combustibility as shown below:

“...tested and certified not to exceed a flame spread index (FSI) of 25 and a smoke development index (SDI) rating of 450.”

Reason – This language is consistent with the test standards and other codes.

5. Page RA3-42 – RA3.5.3.2 (a). Recommend revising the language on sealing as shown below:

“Wall stud cavities shall be caulked, ~~or foamed,~~ or otherwise sealed to provide a substantially air-tight envelope....”

Reason – There are other methods and materials for air-sealing other than caulk and foam.

6. Page RA3-43 – RA3.5.3.1 (b). Correct typos “casess” and “door jump.”

7. Page RA3-43 – RA3.5.3.2.5 (b). Recommend revising the language on as shown below:

“The insulation shall be installed without gaps and/or ~~with minimal~~ compression in excess of 30% of the nominal thickness.”

Reason – The standard propose to allow up to 30% compression in the definition of compression and this revision is consistent with that proposed change. Also compression increases the density of the material and hence the R-value per inch. So as long as the intended area is filled with insulation, compression will have a positive effect.

8. Page RA3-44 – RA3.5.4.2.8 (b). Recommend revising the language on thermal bridging and add examples of acceptable methods as shown below:

“Insulation shall be installed in a manner that ~~restricts~~ reduces heat loss/gain due to thermal bridging through the structural framing assembly.”

Reason – The current language is vague regarding what methods can be used to reduce the effects of thermal bridging. Note: Similar language appears in other sections on “Special Situations.”

9. Page RA3-45 – RA3.5.3.3 (i). Recommend revising the language to read “insulation ~~cover~~ contact (IC)” as this is the correct terminology for lighting fixtures. This error is also in following sections on roofs and ceilings.

10. Page RA3-48 – RA3.5.4.1 (c). Recommend revising the language on combustibility as detailed in item 4 above.

11. Page RA3-49 – RA3.5.4.2 (a). Recommend revising the language on sealing as shown below:

“.....All gaps in the air barrier shall be caulked, taped or sealed with expansive or minimally expansive foam or other acceptable sealing system(s).”

Reason – There are other methods and materials for air-sealing other than caulk and foam.

12. Page RA3-52 – RA3.5.4.3 (l). Recommend revising the time frame for settling as shown below:

“If the HERS rater does not verify the insulation thickness at the time of installation, and if the insulation has been in place less than ~~seven~~ fourteen days, the insulation thickness shall be greater than the manufacturer’s minimum required thickness to achieve the given R-value at the time of installation, less 1/2 inch to account for settling. If the insulation has been in place for ~~seven~~ fourteen days or more, the insulation thickness shall be greater than or equal to the manufacturer’s minimum required settled thickness to achieve the given R-value.”

Reason – Cellulose insulation usually takes up to 30 days to settle to its final installed thickness, therefore assuming the bulk of the settling occurs after 7 days is too permissive.

13. Page RA3-53 – RA3.5.4.3.4 (i). Correct typo “atrtached.”

14. “Insulation Types” definition. Recommend inserting “(PIR)” after “polyisocyanurate”.

15. Page RA3-56 – RA3.5.5.1 (c). Recommend revising the language on combustibility as detailed in item 4 above.

16. Page RA3-57 – RA3.5.5.2 (a). Recommend revising the language on sealing as shown below:

“Wall stud cavities shall be caulked, ~~or foamed,~~ or otherwise sealed to provide a substantially air-tight envelope to the outdoors, attic, garage, and crawl space.”

Reason – There are other methods and materials for air-sealing other than caulk and foam.

17. Page RA3-63 – RA3.5.6. Recommend reducing the maximum allowable depressions in ocSPF to 0.5 inches as shown below:

“Nominal Thickness: ocSPF sprayed into framed cavities or on flat surfaces
Depressions in the foam insulation surface shall not be greater than ~~4-inch~~ 0.5 inch of the required thickness provided these depressions do not exceed 10% of the surface area being insulated.”

Reason – Allowing ocSPF to be 1 inch less than the specified thickness for up to 10% of the area can result in significant increase in the overall U-value of the assembly. Reducing this to 0.5 inches will result in more efficient assemblies and greater energy savings.

18. Page RA3-66 – RA3.5.6.2.4 (b) and RA3.5.6.2.5 (g) Recommend revising the language as shown below:

“...insulation shall be installed without gaps or voids.”

Reason – SPF insulation can experience voids that will reduce the overall R-value of the material. Adding the requirement that it be installed without voids will increase the efficiency of assemblies insulated with these materials.

19. Page RA3-80 – RA3.6.2 NAIMA strongly supports adding the requirement for 1 inch thick pipe insulation on domestic hot water systems. This will increase the efficiency of hot water systems and reduce the amount of water wasted when waiting for hot water to reach the point of use.

Thank you for your consideration of these comments and please contact me if you have any questions.

Sincerely,



Charles C. Cottrell
Vice President, Technical Services