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Project Title:	2019 Building Energy Efficiency Standards PreRulemaking
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<b>Document Title:</b>	2019 High Performance Wall Standards, 1.5 foam, and fire ratings
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TO: CEC 2019 Title 24 Pre-rulemaking Docket

RE: 2019 High performance wall standards, 1.5" foam, and fire ratings

FROM: Nick Brown, Stucco Manufacturers Association

DATE: 6/7/17

Stucco manufacturers maintain evaluation reports from third parties, such as ICC-ES, to document that their continuous insulation stucco systems are equivalent to code-approved stucco systems. Each manufacturer has conducted a variety of testing and engineering in order to obtain these reports and document the safety and durability of their products; including ASTM E119 fire testing to create one hour fire-resistant rated assemblies in the reports.

One of the identified issues in the stakeholder discussions around the 2019 residential wall standards was the availability of 1-hour fire-rated assemblies using foam thicker than 1 inch. This is because all manufacturers' current reports use 1" foam in their fire-rated assemblies. At the time of the testing, there was no reason to anticipate thicker foams than 1 inch. The question we have to answer in support of thicker foam with stucco is: what would it take to revise the stucco reports to allow for 1.5" foam?

One of our members discussed this issue with Intertek, which is one of several certification agencies qualified to issue evaluation reports. Discussions were with Juan Flores of Intertek in early June 2017. We asked him what would be required to edit the Omega Diamond Wall Stucco report to include 1.5" foam in the fire-rated assemblies. We supplied him with the current report and the original ASTM E199 fire test results, so that he could offer an informed opinion.

His opinion is that adding 0.5" of foam to the assembly will not have any significant impact on fire resistance of the assembly. Therefore, fire testing would not be required by the manufacturers to certify assemblies with 1.5" foam. He felt that engineering would be required in order to verify proper attachment of the lath to the framing, whether that was accomplished using staples or nails. Each manufacturer will need to submit engineering reports on fasteners in order to have their reports updated to allow for 1.5" foam in fire-rated assemblies. This is a preferable option to fire testing, which is more costly and time-consuming than engineering reports.

It should be noted that there is some uncertainty around this question still, and this opinion is from one certification agency regarding one manufacturer's report. However, it is my opinion that Intertek's position is likely to be representative of all manufacturers' reports, given the similarity of the fire-rated assemblies in stucco exception reports.