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To: ICC-ES Evaluation Committee
From: Yamil Moya, P.E.
Date: September 29, 2009
Subject: Proposed Revisions to the Acceptance Criteria for Water-resistive Coatings Used as Water-resistive Barriers over Exterior Sheathing, Subject AC212-B-1009-R1 (YM/MB)

MEMO

Public comments have been received regarding the subject criteria. The comments are posted on our web site and will be available at the Evaluation Committee meeting.

The following are staff responses to public comments received:

1. **Regarding Mr. Egan's letter dated September 17, 2009.** The purpose of this letter is to tell staff that the proposed revisions to AC212-B are unrelated to each other and therefore should be considered separately by the committee during the hearing. Staff agrees with Mr. Egan and will instruct the committee members accordingly during the voting session.
2. **Letter from William Egan of BASF, dated September 18, 2009.**
 - a. Regarding item 1 of the letter: The Air Barrier Association of America (ABAA) requirements for liquid-applied membranes are similar to the requirements found in AC212, with the exception of fastener sealability testing. The fastener sealability test method described in the ABAA requirements is conducted by subjecting a fastener driven through the membrane to a water head and establishing whether water penetration occurred through the fastener shank. It is not clear whether this test method described in the ABAA requirements would apply to the air permeance performance of water-resistive coating. Staff would also like to point out that code-prescribed water-resistive barriers, such as ASTM D 226 building paper, do not include requirements for fastener sealability. It is staff opinion that the inclusion of fastener sealability in AC212 goes beyond current requirements for water-resistive barriers.
 - b. Regarding item 2 of the letter: The letter states that the proposal seeks to eliminate the intervening layer on all hard substrates over framed construction, which includes gypsum and wood-based sheathing. Staff would like to point out that an intervening layer is not required over gypsum substrates. The code requires that the wood based sheathing be protected

by either two layers of water-resistive barrier or one layer of a water resistive barrier and an intervening layer when use is in exterior cement plaster applications.

- c. Regarding items 2a and 2c of the letter: It is staff opinion that the proposed detrimental movement tests do not provide a correlation for the end use installation of an intervening layer as required by code.
- d. Regarding item 2b of the letter: Staff would like to know if drainage performance tests on a stucco system without an intervening layer can demonstrate adequate drainage performance.

3. Letter from Theresa Weston of DuPont, dated September 18, 2009.

- a. Regarding item 1 of the letter. It is staff understanding that the air permeance tests will only be conducted on the water-resistive coating material. Therefore, staff proposes that Section 3.9 of the proposed criteria be revised to clarify this requirement. The following is a revision to Section 3.9:

3.9 *When the product is to be evaluated as an air barrier material, reports of air permeance testing in accordance with ASTM E 2178 shall be submitted. A minimum of three specimens shall be tested. Three specimens of the water-resistive coating are prepared by applying the coating, at the recommended thickness, to a nonadhesive surface. After curing for a duration specified by the manufacturer, the films are removed from the surface and the average thickness is determined from material density, area, and weight. Minimum conditions of acceptance shall be an air permeance less than or equal to 0.2 L/sAm² at 75 Pa (0.004 cfm/ft² at 0.3 inch w.g. (1.57 psf)) for each specimen.*

- b. Regarding item 2 of the letter: Staff thinks that the comments raised in the letter are applicable and should be addressed.

4. Staff thinks that the comments raised in the letter from Peter Harrison of Parex LaHabra, dated September 18, 2008, are applicable and should be addressed.