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To: ICC-ES Evaluation Committee
From: Woods McRoy, P.E.
Date: January 28, 2010
Subject: Proposed Revisions to the Acceptance Criteria for Cold-formed Steel Framing Members—Interior Nonload-Bearing Wall Assemblies, Subject AC86-0210-R1 (WM/DM)

MEMO

In response to staff's December 29, 2009, letter proposing changes to AC86, we received responses from Mr. Don Allen, P.E., with the Steel Stud Manufacturers Association, and Dr. Reinhold Schuster, PhD, P.Eng. Mr. Allen's response has only one item, which is also included in Dr. Schuster's comments. Therefore, staff's response to comments will be in the context of Dr. Schuster's comments.

Items 1 and 18 request use of the 2009 Supplement in addition to the 2007 edition of the AISI North American Specification for the Design of Cold-Formed Steel Structural Members (AISI S100). The 2009 Supplement provides specific provisions for interior nonload-bearing walls. The results of these specific provisions is a lower safety factor (that may be as low as 1.5) than the safety factor (that will be no less than 2.33) determined using the current provisions in AC86. The issue of the safety factor was first raised during the February 2008 Evaluation Committee meeting. Dr. Schuster was told this should be addressed by AISI first to be certain that we do not take a position that would be in conflict with AISI intentions. This resulted in the 2009 Supplement to AISI S100. Based on the portion of Section 3.3.1.3 that states "unless data justifying other variables are submitted", staff has been accepting the provisions in the 2009 Supplement to AISI S100. Dr. Schuster is now requesting the inclusion of the 2009 Supplement to AISI S100 in AC86. Staff is in general agreement with Dr. Schuster and is revising Section 3.3.1.3 to read:

... unless data justifying other variables are submitted:

For walls subject to transverse loads greater than 10 psf:

β_0 = Target reliability index = 2.5

M_m = Mean value of the material factor = 1.0

V_M = COV of the material factor = 0.10

V_F = COV of the fabrication factor = 0.15

For walls subject to transverse loads of 10 psf or less:

β_0 = Target reliability index = 1.6

M_m = Mean value of the material factor = 1.10

V_M = COV of the material factor = 0.10

V_F = COV of the fabrication factor = 0.05

Item 28 of Dr. Schuster's comments and Mr. Allen's comment are the same. Staff has proposed that spans in evaluation reports subject to AC86 be reported in 3-inch increments. The basis for the proposal was that staff questioned (1) the need to report spans to the nearest inch and (2) whether the results of the testing were accurate enough to justify reporting spans to the nearest inch. Dr. Schuster and Mr. Allen have requested that spans be allowed to be reported to the nearest 1 inch. Staff has no opinion on this request at this time but does request further input from industry on the need to report spans to the nearest 1 inch versus the nearest 3 inches.

The remainder of Dr. Schuster's comments are editorial in nature. Staff is taking these comments into consideration and will incorporate these changes as appropriate.