



ICC Evaluation Service, Inc.  
Birmingham Regional Office  
900 Montclair Road, Suite A  
Birmingham, AL 35213  
tel: 205.599.9800  
fax: 205.599.9850  
www.icc-es.org

**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, Subject AC46-0210-R1 (WM/DM)

## MEMO

In response to staff's December 29, 2009, letter proposing changes to AC46, we received responses from Mr. Don Allen, P.E., with the Steel Stud Manufacturers Association, and Mr. Gregory S. Ralph with Dietrich Metal Framing. The comments from both Mr. Allen and Mr. Ralph are essentially the same and will be addressed together. Comments are:

1. A concern was raised that results of analysis under the 2009 *International Building Code* (2009 IBC) versus the 2006 *International Building Code* (2006 IBC) would be different, due to the distortional buckling requirements that have been added to the 2007 edition of the AISI North American Specification for the Design of Cold-Formed Steel Structural Members (AISI S100). This would result in reports under the 2009 IBC, that include the 2006 IBC, having different values for the same product evaluated in an existing report under the 2006 IBC only. (This would apply only to calculated capacities of members, and not to the listed section properties.) In order to resolve this issue, staff is revising its proposed changes to include only the 2009 IBC in AC46. This will include striking out "2006 and" from the 4<sup>th</sup> and 5<sup>th</sup> lines of Section 1.1 and striking out Sections 1.3.3 and 1.3.4 from the acceptance criteria. For inclusion of the 2006 IBC in reports issued starting July 1, 2010, the **current** edition of AC46 can be continued to be used.
2. A request was made to revise the requirements in Section 3.1.3 for referring to the protective coating. Staff is unaware of any problems with the current provisions and discussed this issue with Mr. Allen. Staff believes this issue may not be editorial only in nature. If the Evaluation Committee approves the proposed revisions to AC46, staff anticipates a July 1, 2010, effective date. Staff would prefer to address this item at a later date and, if the changes are editorial only, then AC46 can be editorially revised without committee action. If the changes are technical, staff believes this issue could be handled through the alternate agenda process or brought back to the June 2010 Evaluation Committee meeting.
3. Concerns were expressed that some of the requirements for calculations in Section 3.2.3 were not clear. To address these concerns, staff is revising the proposal as follows:
  - a. In the 4<sup>th</sup> line of Section 3.2.3, add the word "All" just before the word "Calculations".
  - b. Add the statement to the end of the section as requested and presented in Item 3 of Mr. Allen's letter.

4. The comments noted the addition of distortional buckling requirements of AISI S100 and the need to add this to the table in Appendix A of AC46. Staff agrees and is revising the proposal to include adding distortional buckling moment ( $M_{nd}$ ) to the structural properties table in Appendix A.
5. The comments include the need to address, in the notes to the structural properties table in Appendix A, lateral/torsional buckling parameters associated with the allowable moment in the structural properties table in Appendix A. Staff agrees and is revising the notes to include "Continuous bracing of the compression flange is required. For other conditions of compression flange bracing, the allowable moment must be determined in accordance with AISI S100."
6. Comments included the need to revise Section 5.0 of AC46. Staff concurs and is changing the spacing of identification information from 48 inches to 96 inches to be consistent with ASTM C 645-07 and ASTM C 955-06. With regards to the comment about the coating label, this goes back to the issued in item 2 above. As noted above, staff does not support this request at this time and would prefer to address it at a later time.