



# LABORATORIES

## U.S. TESTING DIVISION

CERTIFICATION

TESTING

INSPECTION

8385 WHITE OAK AVENUE  
RANCHO CUCAMONGA, CA 91730  
T: 909.483.0250  
F: 909.483.0336  
www.qai.org • info@qai.org

May 28, 2009

Michael O'Reardon, P.E.  
ICC-ES Evaluation Service

**RE: Proposed Acceptance Criteria for Wood Structural Panels with Factory-applied Fire-retardant Coatings, Subject AC405-0609-R4 (MO/SF)**

Dear Mr. O'Reardon,

This letter is in regard to the proposed criteria AC405. QAI has the following comments on the sections as referenced:

Section 5.2.1.3

The third sentence currently reads:

*The samples shall be labeled and sent to the inspection agency or a designated independent laboratory to confirm surface burning characteristics in accordance with Section 4.1.*

This statement is problematic as it is suggesting the inspection agency may evaluate the materials per ASTM E84, and in many cases the inspection agency would not have the equipment or accreditation to perform such an evaluation.

We suggest changing that sentence to the following:

*The samples shall be labeled and sent to a designated accredited laboratory to confirm surface burning characteristics in accordance with Section 4.1.*

Sections 5.5.3.1 & 5.3.4.1

In your cover letter you indicated that at a previous ICC-ES meeting, industry raised concern over stipulating an "in-house fire test" as defined in the quality documentation. If you wish to stipulate a quality control test, we suggest that a procedure is defined. A general term such as "in-house fire test" is too vague for the manufacturer and inspection agency to judge what ICC-ES is asking for. The purpose of such a quality control tests is assumed to relate to the fire performance standard being measured, ASTM E84.

QAI Fire Technologies Lab is not aware of a small-scale standardized method specifically designed for this purpose, though we do have two suggestions for possible procedures that could be defined:

1) We are aware of an ad-hoc method for quality control testing fire-treated woods that involves testing a sample panel placed at a 45 degree angle before a Bunsen burner, and measuring the time of flame travel over a specified distance. The qualifying control sample would be compared to an actual E84 test run of a sample from the same manufacturing lot, and a control target value is determined for future quality control testing.



2) There are simple means of measuring burn rate such as placing a small strip of the material before a Bunsen flame, and measuring rate of burn, similar to method ASTM D635 for measuring burn rate of plastics. A control value could be generated in the same manner as we described above in option 1).

QAI would be happy to provide assistance to ICC-ES in developing wording for a simple standardized procedure for small-scale quality control testing as requested.

Thank you for the opportunity to provide commentary on the proposed AC405.

Sincerely,

**QAI LABORATORIES**  
U.S. Testing Division

**Chris Bowness, P.E., P.Eng.**  
*General Manager*

Ph: (909) 483-0250  
Email: [cbowness@qai.org](mailto:cbowness@qai.org)