



## National Fire Protection Association

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### MEMORANDUM

**TO:** NFPA Technical Committee on Fire Tests  
**FROM:** Tracy Golinveaux, Staff Liaison  
**DATE:** June 15, 2011  
**SUBJECT:** NFPA 275 ROC TC FINAL (F2011)

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The Final Results of the NFPA 275 ROC Letter Ballot are as follows:

- 21 Members Eligible to Vote**
  - 1 Not Returned** (A. Marshall)
  - 14 Affirmative on All**
  - 4 Negatives** (M. Hirschler, M. Khan, D. Sloan and R. Wessel) (on one or more comments as noted in the attached report)
  - 2 Abstentions** (K. Newman and R. Thornberry) (on one or more comments as noted in the attached report)

There are two criteria necessary to pass ballot [(1) affirmative  $\frac{2}{3}$  vote and (2) simple majority].

- (1) The number of affirmative votes needed for the comment to pass is **12**.  
(21 eligible to vote - 1 not returned - 2 abstentions =  $18 \times 0.66 = 11.88$ )
- (2) In all cases, an affirmative vote of at least a simple majority of the total membership eligible to vote is required. This is the calculation for simple majority:  
[21 eligible  $\div$  2 = 10.5 = **(11)**]

Reasons for negative votes, etc. from alternate members are not included unless the ballot from the principal member was not received.

According to the final ballot results, all ballot items received the necessary  $\frac{2}{3}$  required affirmative votes to pass ballot.

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275-1 Log #1  
(5.2.3 (New) )

Final Action: Accept in Principle

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Submitter: Rick Thornberry, The Code Consortium, Inc.

Comment on Proposal No: 275-12

Recommendation: Accept the proposal 275-12 to add new Section 5.2.3 and its associated Annex A note.

Substantiation: I am required to abstain on this proposal in accordance with the NFPA Regulations for Technical Committees since I have a direct client interest in this ballot item.

However, if I could vote, I would vote Negative on this item since I believe it is appropriate to allow such an exception to the testing of thermal barriers where the material used as the thermal barrier would actually cause the material to fail that portion of the thermal barrier test based on the acceptance criteria for the test. The purpose of this part of the acceptance criteria for testing thermal barriers is to determine that the foam plastic insulation or other material being protected by the thermal barrier (such as MCMs) does not become involved in the fire that may be exposing the thermal barrier protecting the material for a minimum duration of 15 minutes. If the thermal barrier material burns, yet still protects the foam plastic insulation or other material so that it does not become involved in the fire, so be it. Such performance should be satisfactory since the concern is to not have the foam plastic insulation involved in the early stages of a fire. Certainly, a visual inspection of the foam plastic insulation at the end of the test after the thermal barrier is removed would indicate if the foam plastic insulation became involved as a result of the fire exposure.

These room corner tests used as part of the thermal barrier fire test for the determination of the ability of the thermal barrier to remain in place during a room corner fire test exposure have acceptance criteria developed for other reasons. The test methods were referenced since they provided the most readily available and referenced test methods for implementing a test to determine the ability of the thermal barrier to remain in place and protect the foam plastic insulation or other material it is intended to protect for the 15 minute fire exposure in the room corner test apparatus. However, these room corner tests have been developed with acceptance criteria for assessing the performance of interior finish materials to satisfy other code requirements which may not be applicable to the material being used as the thermal barrier in actual applications in buildings. Therefore, it seems overly restrictive to require thermal barriers to meet the acceptance criteria for these room corner tests in order to demonstrate that they will remain in place for the duration of the 15 minute fire exposure.

Committee Meeting Action: Accept in Principle

Revise the language developed in ROP 275-12 as follows:

5.2.3 When the fire performance of the thermal barrier does not meet the acceptance criteria described in 5.2.1 or 5.2.2, the thermal barrier shall be acceptable for use if it remains in place and prevents the foam plastic insulation or MCM from contributing to the fire growth for during the 15 minute test period. This shall be determined by conducted through visual inspection of the foam plastic insulation or MCM after the thermal barrier has been completely removed subsequent to the end of the test period.

A.5.2.3 This alternate acceptance criterion recognizes that some materials can meet the Temperature Transmission test but may fail the acceptance criteria in the Integrity Fire test. Even though the thermal barrier protects the foam plastic insulation or MCM, its own nature may cause excessive flame-spread or flashover to occur, prior to any involvement of the foam plastic insulation or MCM. One example of this type of material is 19 mm (0.75 inch) thick plywood.

Committee Statement: Revising the language in the proposed text clarifies that the test includes MCM and shall be conducted for the full 15 minute testing period.

Number Eligible to Vote: 21

Ballot Results: Affirmative: 14 Negative: 4 Abstain: 2

Ballot Not Returned: 1 Marshall, A.

Explanation of Negative:

HIRSCHLER, M.: Accepting this comment means that the pass/fail criteria of the room-corner test become meaningless because a material can be declared to be a thermal barrier material even if when tested in the NFPA 286 test, the test results in flashover. This is absurd. This means that the "thermal barrier" test can be passed with wood materials. Traditionally the codes read as follows: "approved thermal barrier consisting of 0.5 inch gypsum wallboard or equivalent thermal barrier material". Clearly covering foam plastic insulation (or an MCM) with a material that causes the assembly to go to flashover in the NFPA 286 room-corner test will not be using a material that is equivalent to gypsum wallboard as a thermal barrier. At the ROP stage the committee stated that accepting this proposal would be equivalent to removing the acceptance criteria. That is still true. It is important to note that the code language has been changed in building codes (IBC and NFPA 5000) to replace make a direct reference to NFPA 275.

KHAN, M.: Existing requirement should be maintained as they provide the appropriate criteria for acceptance. Proper performance otherwise can not be assured. Proposed criteria will not assure that fire performance is adequate.

SLOAN, D.: For the test methods referenced in Section 5, specifically UL1715 and NFPA 286, flashover typically indicates conclusive test results, and consequently the tests are terminated. These methods are not intended as post flashover tests. Test laboratories have limited or no experience conducting these tests potentially well beyond flashover for the purpose of examining the foam or MCM being protected. There are test safety concerns as well as equipment safety concerns.

In addition, determining whether the foam or MCM contributes to the fire growth may be difficult through visual inspection when the room corner assembly has gone beyond flashover.

WESSEL, R.: I would like to change my vote to “negative” on the proposal for NFPA 275. I agree with the rationale stated by Marcello. This test method needs to retain the existing pass/fail criteria. One of the methods purposes is to evaluate and limit materials that exhibit flashover. It makes no sense to cover a nonpassing material with another nonpassing material and call it “good.” We need to retain the flashover as a mode of failure. It is a system or assembly that is being tested and flashover of the system, regardless of the protective material, should not be considered to be a passing performance.

**Explanation of Abstention:**

NEWMAN, K.: Not qualified to comment on this section.

THORNBERRY, R.: I am required to abstain by the NFPA technical Committee Projects Regulations since I have a direct client interest in this item. However, I fully support the Committee Action taken on this ballot item.