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All 4470 Manufacturers

Subject: FM Approval Standard 4470

This letter is to provide you with highlights of changes recently made to Approval Standard 4470. Some of these changes (such as steel deck stress limitation) were included in the previous version of 4470. They are also included here for reference. The standard was updated to include all testing required in Standard 4450. In addition, several other changes have been made as outlined below. The revised standard refers to existing consensus standards where available and FM Approvals test procedures for others.

You will find a copy of the Approval Standard at our RoofNav website. Go to www.roofnav.com and select Reference Materials followed by Approval Standards. [4470](#) and all [Approval Standards](#) are also available on the FM Approvals website.

The title of the standard has been changed to reflect the various types of Class 1 roof covers available today:

Single-Ply, Polymer-Modified Bitumen Sheet, Built-Up Roof (BUR) and Liquid Applied Roof Assemblies for use in Class 1 and Noncombustible Roof Deck Construction

The following new requirements have been added to the standard:

- Stresses induced to steel roof decking shall be determined by rational analysis and shall not exceed the allowable stresses per the latest edition of the North American Specification for the Design of Cold-Formed Steel Structural Members, AISI S100-2007. Limits on roof deck fastener stress have also been added.

FM Approvals will review all steel deck assemblies to determine which currently Approved assemblies overstress the deck. After identifying the overstressed assemblies, FM Approvals will make the following changes:

- For the existing RoofNav assemblies, reduce the deck span, increase the deck thickness and/or the grade of steel to provide the maximum number of steel deck options available while maintaining the qualified wind rating of the assembly.
- Create new RoofNav assemblies from the existing assemblies with the wind rating reduced to a level where the roof deck is not overstressed while maintaining all parameters of the assembly (i.e. deck span, grades and thicknesses).

We anticipate the above changes being completed by the effective date of the Standard which is 12/31/12. A request for Proposal, sent to your project engineer, is needed for any ratings or FM Approvals you wish to pursue beyond the above. Any request for a proposal must include details of the Approvals desired along with Project ID Numbers for all supporting information.



- Screening tests may be used to identify critical components for use in full scale testing or to evaluate components as alternate to those already tested and found to be satisfactory via the full scale tests. Alternate components must perform to an equal or higher level than the component qualified via large scale testing.
- The revised standard also includes three optional ratings shown below. Send correspondence to your Approvals Engineer if you wish to pursue recognition with either of these ratings.
 1. Dynamic Puncture Resistance Rating of Roof Covers
 2. NCC (Noncombustible Core) Rated Roof Insulation
 3. Solar Reflectance of Roof Surfaces

Please contact your Approvals Engineer with any questions.

Very truly yours,



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