



POSITION PAPER

FM Global's FM 1-29 Property Loss Prevention Data Sheet Effects on Roof Deck Securement and Above-Deck Roof Components

In January 2006, Factory Mutual (FM) issued revised Property Loss Prevention Data Sheet 1-29. The revisions in FM 1-29 are significant, especially as they relate to roofing systems that require a FM Class 1-90 rating or higher.

The purpose of the revisions in FM 1-29 was to address the requirements for roofing systems in applications where there is potential for significant winds and wind damage. In that context, the revisions to FM 1-29 make sense.

Unfortunately, the roofing industry is experiencing too many instances where the FM Class 1-90 standard is specified, but is not necessary. Wisconsin simply does not experience the wind speeds for which the FM Class 1-90 standard was designed - more than 150 MPH (not 90 MPH as the name might imply).

Specifying a roof designed to the FM Class 1-90 standard results in an over-designed roofing system. Most of today's roofing systems will not meet the requirements for more substantial roof membranes and fastening patterns and only a limited number of redesigned systems are currently available in the market.

More than that just the roofing system, specifying a FM Class 1-90 rating or higher could require the building to be redesigned from the roof down. The standard may necessitate additional fastening of the steel deck, stronger and more secure roof joists, and possibly the strengthening of the primary structural steel member columns of the building.

In Wisconsin, roofs designed to the FM Class 1-60 and FM Class 1-75 standards are sufficient. The revisions to FM 1-29 do affect these standards, but with far less impact than the FM Class 1-90 or higher rated systems.

It is the position of the WRCA that the industry – architects, engineers, specifiers, contractors, and end-users/owners – work together to increase the level of awareness of these changes, to better understand their effects, and to design and install roofing systems appropriate for this area.

For additional information, contact the Wisconsin Roofing Contractors Association at (414) 227-1230. You may also contact the National Roofing Contractors Association or a contractor member of the Wisconsin Roofing Contractors Association.