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Metal Roofing Industry Prepares For California's Title 24 Energy Codes

As we take this periodic look at cool metal roofing, we find ourselves less than a half-year away from the start of the California Title 24 building energy codes taking effect in October.

The new guidelines, as noted in the January issue and previous editions of MCN, have a detrimental effect on the use of some metal roof products in certain applications. As written, Title 24 will require low-slope commercial roofs to have an initial reflectance of 0.70 and an initial emittance of 0.75, as rated by the Cool Roof Rating Council (CRRC). Based on these criteria, white metal products (or possibly other light colors) are believed to be the only ones that meet the Title 24 requirements. Unpainted products, which may meet the reflectance standard, do not achieve the emittance numbers that are needed.

The CRRC, which has implemented its rating program for roof materials of various types, reports that its ratings are readily accepted for California's Title 24 compliance. Peter Turnbull, board chair of CRRC, said in May that the group will also be making it simpler for metal roofing to achieve CRRC ratings, by qualifying "families" of metal roof colors—rather than requiring individual ratings for what he estimated as hundreds of color variations.

Turnbull made these comments during his presentation at the recent Cool Roof Symposium in Atlanta, GA. The symposium gave various representatives of the roofing industry an opportunity to share information with architects and designers about cool roof initiatives. The 200-plus attendees included a large number of roofing suppliers representing many product categories.

In addition to metal roofing, the May 12-13 event was strongly populated by suppliers from membrane roof manufacturers. The Cool Roof Symposium was sponsored by the Roof Consultants Institute, Oak Ridge National Laboratories (ORNL) and National Research Council Canada.

As might be expected with such a broad range of products, the metal roof related presentations—including one conducted by Greg Crawford, executive director of the Cool Metal Roofing Coalition (CMRC) and another by Danny Parker of the Florida Solar Energy Center—offered a review of the strengths of metal roofing with regard to the cool topic.

Crawford covered a variety of cool metal roofing material that has been published in past issues of MCN, including data on studies conducted by ORNL, an ongoing California home study and a comparison of two schools in Georgia. During his presentation, Parker focused on a 2002 energy study that was conducted on a handful of Florida homes, each with a different type of roof. These Florida metal roofs, as discussed in past articles, performed well in relation to the alternative materials.

The cool metal roofing issue is one that is likely to affect everyone involved in metal roofing at some point or another in the future. CMRC—made up of American Iron & Steel Institute, Metal Building Manufacturers Association, Metal Construction Association, National Coil Coating Association and Zinc Aluminum Coaters Association—is actively watching out for the industry’s interests at code discussions and related meetings across the country, to ensure that metal roofing is treated fairly as new regulations are being developed.

To learn more about CMRC’s activities, visit the group’s website at coolmetalroofing.org.

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