



New torch-safety guidelines

NRCA changes its torching recommendations, affecting the CERTA program

by Mark S. Graham

Torch-applied polymer-modified bitumen sheet products have been used successfully and safely in North America since the late 1970s; however, in a limited number of situations, rooftop fires have occurred during the application of these products.

NRCA is of the opinion torch-applied polymer-modified bitumen sheet products can be used safely if roof decks, roof membranes and construction details are designed properly and installed with fire safety techniques taken into consideration. NRCA recommends designs be based on guidelines contained in *The NRCA Roofing Manual* and torch-applied applications should only be carried out by CERTA-trained workers.

[The NRCA Roofing Manual](#)

Torch-applied polymer-modified bitumen sheet products are addressed in *The NRCA Roofing Manual: Membrane Roof Systems—2019*. Specific assembly configurations for which NRCA recommends torch-applied products are described in Chapter 1-Roof Assembly Configurations. These include torch-applied roof systems over non-nailable



(concrete) and insulated roof decks except combustible (wood) roof decks.

NRCA is particularly concerned about the potential for fire during the installation of torch-applied membrane sheets over combustible substrates, such as wood roof decks, wood panel sheathing, wood planks and boards, and wood blocking. As a result, in the 2019 volume, NRCA no longer recommends designers specify torch-applied polymer-modified bitumen sheet products over combustible roof decks even if a thermal-barrier insulation layer is installed over a combustible roof deck.

NRCA considers the potential fire risks associated with torch-applied applications over combustible roof decks to outweigh the advantages torch application provides. Also, alternative application methods for polymer-modified bitumen sheet products have proved to be successful. Designers should consider alternative application methods, such as cold adhesive application, when polymer-modified bitumen sheet products are specified over combustible roof decks.

NRCA's recommended guidelines for construction details using torch-applied polymer-modified bitumen sheet products are provided in the 2019 volume's Chapter 10-Construction Details. These are unchanged from the previous edition. Separate recommendations and construction details are provided for noncombustible substrates and combustible substrates.

Because compliance with The NRCA Roofing Manual is a specific provision of the CERTA program's best safety practices, NRCA's new recommended exclusion and the 2019 volume's Chapter 10 recommendations and construction details also apply to the CERTA program.

OIRCA bulletin

In December 2018, the Ontario Industrial Roofing Contractors Association (OIRCA) issued a bulletin, "OIRCA Submits Ontario Fire Code Changes to the Ontario Fire Marshal," detailing changes the group has proposed to Ontario's fire code.

Specifically, OIRCA has proposed open flame torches no longer be used to apply roofing materials at roof flashings and penetrations. OIRCA indicates most torch fires originate at roof flashings and penetrations; fewer start in the fields of roofs.

OIRCA also has proposed a hand-held thermal imaging camera be employed as a part of Ontario's code-required, two-hour fire watch.

OIRCA's bulletin indicates its board of directors strongly believes an aggressive position must be taken to reduce the potential for future fires when using torch-applied roofing products. Awareness of torching-related fires is spreading as municipal fire departments, provincial fire marshals and the insurance

industry take notice. Rather than having these groups dictate the roofing industry's future, OIRCA is seeking a better solution and believes its proposed changes to Ontario's fire code will do the job.

Closing thoughts

If you are involved in the manufacture, design or installation of torch-applied, polymer-modified bitumen sheet products, you should be aware of NRCA's new recommended exclusion of torching over wood roof decks and its applicability to the CERTA program.

Although NRCA and the CERTA program have not adopted OIRCA's proposed fire code changes, NRCA applauds OIRCA's efforts. Furthermore, NRCA agrees the roofing industry, not outside entities, should control its future.

NRCA's recommendations regarding the use of polymer-modified bitumen sheet products are provided in *The NRCA Roofing Manual: Membrane Roof Systems—2019* (for more information about the 2019 volume, see "Maintain the membrane," page 62).

Additional information about the CERTA program is accessible at www.certa.org. 🌐🔗

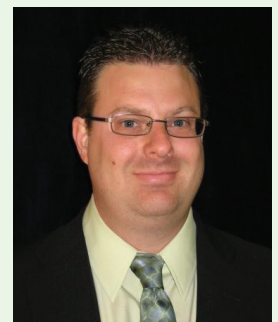
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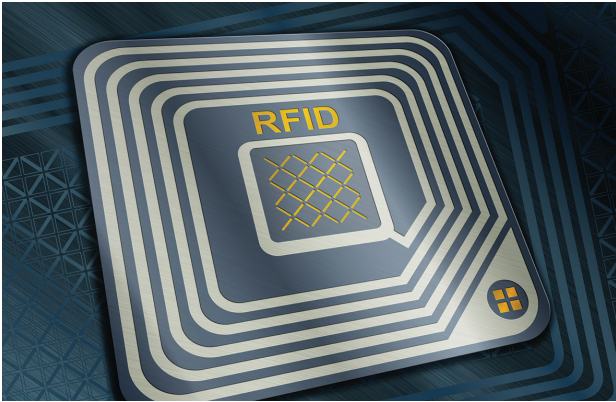
ICC welcomes new vice president

The International Code Council (ICC) has named Ryan Colker vice president of innovation.

In his new position, Colker will identify emerging issues in the building industry, including how new technologies can be leveraged by codes and standards, methods to modernize the application of building regulations, and the development of new business strategies that support ICC members and building safety professionals. He also will serve as executive director of the Alliance for National and Community Resilience. Colker previously was vice president of the National Institute of Building Sciences, where he led efforts to improve the built environment through collaboration of public and private sectors.



Colker



Contractors' use of construction technologies expected to grow

More than half of the construction general contractors and trade contractors who responded to the fourth quarter USG + U.S. Chamber of Commerce Commercial Construction Index survey indicated they currently use an "advanced construction technology" on job sites, according to www.constructiondive.com.

Fifty-four percent of contractors reported they use at least one advanced construction technology, including drones, equipment tagging, wearable devices, RFID tagging, augmented or virtual reality, reality capture, automated equipment/robotics, and 3-D printing technology. Drones are the most popular advanced construction technology with 54 percent of contractors reporting drone use.

The survey also revealed contractors' use of advanced construction technologies is expected to increase during the next three years. Seventy-four percent of respondents said they expect to adopt one or more advanced construction technology within three years. The survey found drones, equipment tagging, wearable devices and RFID tagging likely will be the most widely adopted technologies.

Increased labor productivity was the most common reason contractors invested in technology. In addition, 78 percent of contractors reported they believe advanced construction technologies like wearable devices and automated equipment will improve safety. Seventy-seven percent of contractors believe the use of technologies can improve budget management, and 76 percent believe the use of technologies can improve schedule management.



To learn more about technology trends that could shape the construction industry during 2019, go to www.professionalroofing.net.

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