Maintaining metal roof assemblies

by **Mark S. Graham**

In November 2003, NRCA published the *Manual for Inspection and Maintenance of Steep-slope Architectural Metal Panel Roof Assemblies: A Guide for Building Owners*. This new manual complements NRCA's *Manual for Inspection and Maintenance of Low-slope Structural Metal Panel Roof Assemblies: A Guide for Building Owners*, which was published in 2002. The manuals provide owners of metal roof assemblies with recognized guidelines for inspecting and maintaining their roof assemblies.

Owners' duties

As with any type of roof assembly, it is important building owners of metal roof assemblies recognize that once a roof assembly installation is complete, owners play an important role in optimizing the long-term performances of roof assemblies by providing for periodic inspections and necessary maintenance.

Although metal roof assemblies often are covered by installer or manufacturer warranties, such warranties are not a substitute for proper periodic inspections and maintenance. In many instances, inspections and routine maintenance are requirements for warranties to remain in effect.

Proper inspections and maintenance can be carried out by a building's maintenance personnel provided the personnel have a basic understanding of roofing technology and rooftop safety or, if a building owner prefers, by a professional roofing contractor. The original installing contractor is a logical choice to perform metal roof assembly inspections and maintenance.

Building owners also have the responsibility of controlling rooftop access. Experience has shown that rooftop damage by other trades and vandals with access to roofs greatly can affect roof assemblies' long-term performances. NRCA's manuals provide some guidelines for building owners to take proactive roles in controlling rooftop access.

The inspection

Whether inspections are carried out by a building owner's personnel or professional roofing contractor, NRCA recommends rooftop inspections be conducted semiannually, preferably in spring and fall. Also, additional inspections are recommended after construction or repairs are made on or adjacent to the rooftop or extraordinary circumstances, such as severe weather, fires, vandalism or other known damage occurs.

Rooftop inspection procedures should include a thorough visual inspection of gutters and downspouts, edge/rake metal, hips and ridges, valleys, roof-to-wall flashings, rooftop penetrations and equipment, and metal roof panels and seams. NRCA's manuals provide detailed guidelines for inspecting these conditions, as well as a maintenance inspection checklist form for documenting conditions.

The primary purpose of a rooftop inspection is to determine whether conditions affecting roof assembly performance exist that warrant maintenance or repairs.

Routine maintenance items, such as clearing debris from a rooftop, gutters and downspouts, can be conducted at the time of rooftop inspections.

In the interest of good roofing practice and safety, more extensive maintenance and any necessary repairs only should be performed when weather conditions are appropriate. Also, for steep-slope metal panel roof assemblies, specific safety precautions may be required based on a roof's slope and height above grade.

The NRCA manuals provide guidelines for temporary and emergency repairs, leak repairs, wind damage repairs and permanent repairs. In many instances, the proper repair procedure is specific to the metal panel type and configuration used.

NRCA recommends any permanent repairs to metal panel roof assemblies be performed by professional roofing contractors. In the event a roof assembly is covered by a warranty, the party that issued the warranty (installer and/or manufacturer) should be consulted before undertaking any permanent repairs.

Closing thoughts

Proper periodic rooftop inspections and necessary maintenance and repairs are critical components in the long-term performance of metal panel roof assemblies. It is a building owner's responsibility to see to it that such inspections, maintenance and repairs are carried out by the building owner's maintenance personnel or a professional roofing contractor.

I encourage manufacturers, designers and installers of metal roof assemblies to make their building owner clients aware of their rooftop inspection and maintenance responsibilities. NRCA's manuals can assist roofing professionals in explaining these responsibilities to building owners.

The manuals can be ordered from NRCA InfoExpress by calling (866) ASK-NRCA (275-6722) or on NRCA's Web site, www.nrca.net.

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