Roofing, Metal, & Heating Associates, Inc.
P.O. Box24511
Phila., Pa. 19120
215-927-5262

To All Members of the Roofing Metal Heating Associates (RMHA), Area Roofing Contractors, Roofing Material Distributors, or Manufacturer Representatives of Roofing Materials:

The RMHA is starting a program to forward electronic pictures of custom and local roofing system installations via email.

The RMHA hopes the Picture Reports will provide visual information to help all roofing industry professionals learn about unique projects and how other roofing professionals approach roofing system installations. Furthermore, we invite you to share these photos with others in the roofing industry who may find them informative.

There are no charges to receive the pictures, and you don't have to be a member; however, whether you are a roofing contractor, material distributor, or a manufacturer's representative, we hope you may consider membership in the future.

We also hope that area Roofing Contractors, Distributors, or Company Representatives will submit photos of roofing system installations to share with others within the local roofing industry.

If you are interested in receiving the Picture Reports, contact me via email or call my cell phone

Regards,
Charlie McGarvey, RMHA Director/Contributing Editor
Roof Surveys and Informational Services
Cell – 610-587-1384
Email – rsis5353@aol.com

As a roofing contractor, there are situations when you will get a phone call about an unknown water problem in a building, and it is somehow being caused by the roofing system you recently installed. While you know it's not a problem with your roofing system, you may not be able to explain the cause to the customer.

The first time I had to deal with such a memorable problem was during the construction of a new two-story masonry building. The construction consisted of poured-concrete floors and interior cement-block walls that divided the building's hallways, offices, and warehouse areas.

Suddenly, and without warning, overnight, the surfaces of the interior cement block walls became so water-saturated that it looked as if a hose had been used to wet them. Of course, the building owner and general contractor knew it was somehow related to the installation of the new roofing system, and I received frantic phone calls from both.

I knew whatever the problem was, it was not related to the roofing system, but I ended up cutting open large sections of the new roofing membrane to prove there was no water in or under the roofing assembly, and the roofing system was not the source of the wet masonry walls. I left and never heard anything further, but I also wondered what had occurred so suddenly.

Several years later, when the same problem occurred again, I had the answer. Not because I knew someone who supplied me with answers after the first sudden appearance of widespread wet interior masonry walls, but because I had read a general construction magazine article discussing interior moisture problems in new buildings under construction during cold weather.

To start, the two buildings described above were all new masonry-constructed commercial/industrial buildings, with poured-concrete floors and interior and exterior cement-block walls. The building constructions started in early fall, and the new roofing systems were installed in late fall or early winter.

When the first problem was reported, I did not understand that there was a large amount of excess water in the new concrete floors or in the mortar used to build the cement block walls, which would be released as they cured. I now know that during new building construction, most of the moisture in concrete or the mortar initially evaporates into the interior, and if you have ever walked into a new masonry building under construction, you can feel the high humidity as it evaporates from the concrete and mortar.

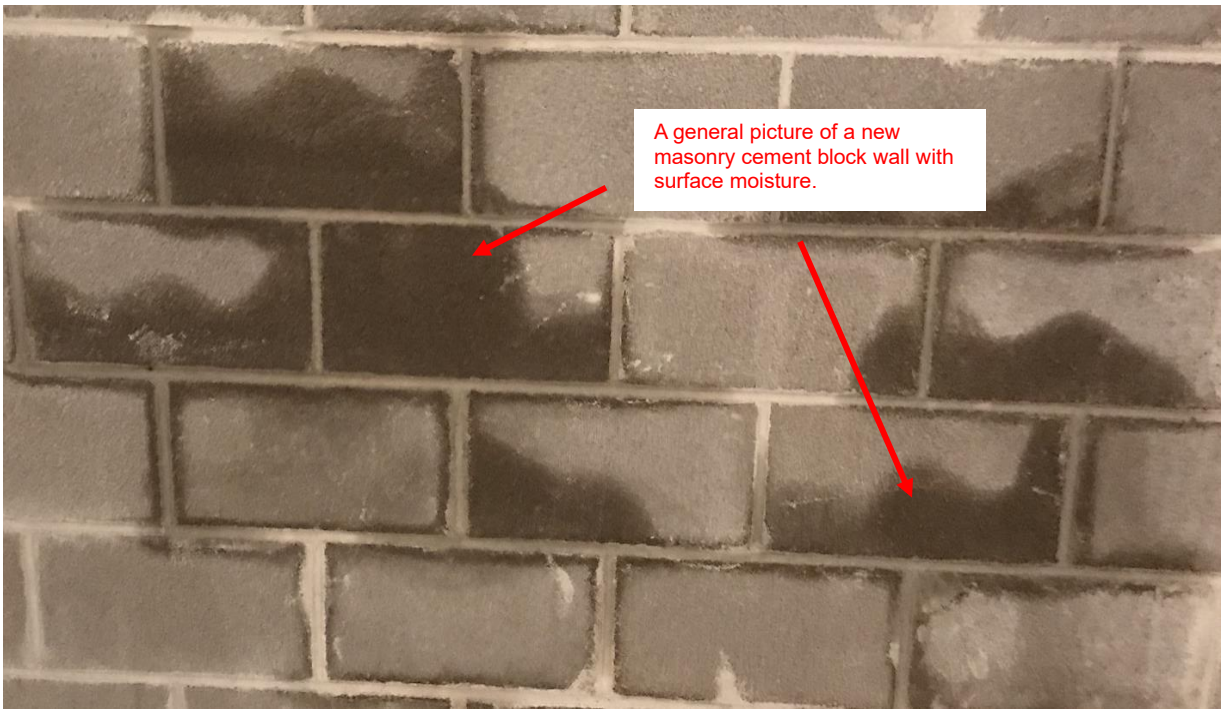
So, what happened to cause two different new buildings constructed many years apart to suddenly have water-saturated interior masonry walls?

1) Much of the masonry, including the concrete floors and cement block walls, was installed in the fall. Thus, there were not several months of a previous spring and summer masonry drying (curing), which would have helped to release excess curing moisture before cold weather arrived.
2) To keep the interior of the building warmer than the outside temperature, so that interior construction work could continue as temperatures started to drop, doors, windows, or plastic sheeting was installed over all openings in the exterior walls.
3) Overnight, the outside temperature suddenly dropped below freezing.
4) None of the buildings were yet heated, and with all of the exterior openings sealed, there was no ventilation with air exchanges between the dry outside air and the inside moisture-laden air.

With the sudden drop in overnight temperatures below freezing, the cement block walls fell below the dew point temperature, and with no heat or ventilation in the building, moisture from the curing masonry condensed on their surfaces.

The solution:

1) Ventilate the building with mechanical equipment or unseal all of the rough openings in the outside walls so natural inside and outside air ventilation occurs.
2) Heat the building above the dew point temperature.
3) Do nothing, but do not install moisture-sensitive materials such as drywall, flooring, etc., until the excess masonry curing moisture has been naturally or mechanically removed from the building.



But regardless, the problem is not related to the roofing system.

Respectfully Submitted,

Charlie McGarvey (RSIS)