Specification for Refinishing Metal Roof with Wide-Spread Peeling

Suggestions for Properly Addressing the Existing Problem at Job Site

The following specification is for repainting a ribbed metal roof that was constructed from sheet metal factory-painted with a silicone polyester-based "coil coating" paint. The roof was subsequently field-painted with a traditional water-based acrylic system without using a suitable bonding primer, which led to widespread peeling. A subsequent attempt at repairing and repainting was made, but peeling continues to occur.

This scope of work outlines several steps to mitigate the peeling; however, the only sure way of completely addressing the issue is the removal of all paint applied over the factory-applied SMP coil coating.

- Remove all existing loose and peeling paint via high-pressure water blasting using a 0-degree oscillating tip, with a minimum of 3000 psi and 3 gallons per minute water delivery from a power washer. A larger machine will work faster.
- After removing all loose and peeling paint, thoroughly sand and/or wire brush the entire roof to smooth and feather the edges of the paint that could not be removed during the power washing process. This will also create a surface profile for better adhesion to the original SMP coil coating that is exposed after the peeling paint is removed. It is extremely important that all curling and lifting edges of the failing paint are removed and sanded smooth.
- Spot prime all areas where raw ferrous metal is exposed with a corrosion-inhibiting metal primer.
- Apply a bonding metal primer to the entire roof.
- After applying one coat of primer, all lifting or curling edges of the old paint that are exposed during the priming process need to be sanded smooth. An additional coat of the bonding metal primer should be brush-applied to those areas to seal the edges.
- Apply an acrylic elastomeric roof coating to the entire roof. After application, inspect the entire roof, and repair any additional areas exhibiting peeling paint or curled edges. Apply additional primer and elastomeric roof coating to those areas to seal the edges.
- At the conclusion of the project, there should be no visible remnants of the old peeling paint. The applied elastomeric coating should form a monolithic, uniform layer with no breaks, gaps, curling edges, or areas where water can seep underneath the coating.

Curled or lifting edges need to be removed.

All edges should be sealed and adhered tightly to prevent water from getting under.