



MCAS Miramar

HVAC Restoration and Optimization Project Building 7515





MCAS Miramar

Phase 1:

Rooftop AHU & Ductwork Optimization

Phase 2:

Cooling Tower Restoration



MCAS Miramar Phase 2: Cooling Tower Restoration



Goals & Benefit Analysis of Restoration

- *Arrests and prevents corrosion*
- *Provides protective coating of metal, keeping out of contact with water*
- *Extends useful life of tower*
- *Prevents excessive calcium and other build up on surfaces exposed to treated water*
- *Reduces maintenance costs*
- *Increases efficiency of system*
- *~40% of the cost to replace, releasing capital money for other facility needs*





MCAS Miramar Phase 2: **Cooling Tower Restoration**



- **Protecall contracted to restore aging and failing cooling towers**
- **Cost of replacement was out of budget reach**
- **Towers were unable to perform at designed efficiency due to condition**
- **Corrosion was worsening resulting in additional leaks**





MCAS Miramar Phase 2: **Cooling Tower Restoration**



- Due to condition, a temporary rental system was brought in during restoration
- Initial preparation included removal of fill media
- Basin and all surfaces were thoroughly cleaned





MCAS Miramar Phase 2: **Cooling Tower Restoration**



- **Accessible corroded panels were removed**
- **All areas showing signs of corrosion protected with Rust Grip**





MCAS Miramar Phase 2: **Cooling Tower Restoration**



- **Major repairs of the metal structure were performed where extensive corrosion had deteriorated galvanized sidewalls**





MCAS Miramar Phase 2: **Cooling Tower Restoration**



- Exterior surfaces were cleaned and prepared
- Surrounding areas were contained from overspray
- All exterior surfaces were primed to provide exceptionally strong adhesion
- Top coat was spray applied to provide corrosion resistant finish





MCAS Miramar Phase 2: **Cooling Tower Restoration**



- **100% solids epoxy coating applied to provide superior protection and elimination of future corrosion or leaks**
- **Monolithic coating has flexibility to avoid cracks due to shock and vibration**
- **Coating provides strong, smooth cleanable surface for efficient performance of tower**

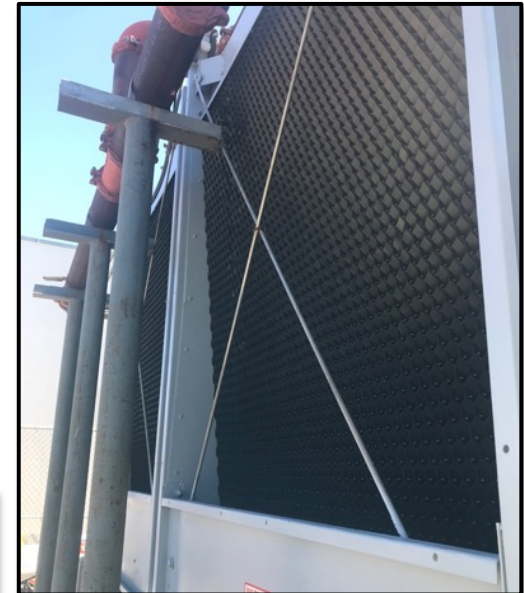




MCAS Miramar Phase 2: **Cooling Tower Restoration**



- **Full restoration included installation of new OEM fill media to extend useful life**
- **Hot deck restoration option can include same coating system and replacement of spiral nozzles**





MCAS Miramar Phase 2: **Cooling Tower Restoration**



- **Fully restored cooling towers turned back over to base for full system operation**
- **Towers expected to have an additional 10 years or more of useful life**



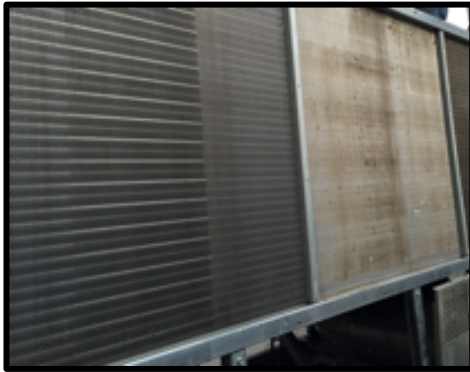


MCAS Miramar Phase 2: **Cooling Tower Restoration**





How Can We Serve You?



HVAC Coil Coatings
New & Restoration



Thermal Barrier for
HVAC & Duct Work



Cooling Tower
Restoration



Boiler and Pipe
Insulation



Roof Restoration



Steel Restoration



Pans, Tanks
Structures