Heat Exchanger

Chemical Processing — Cooling Systems
ARC 855, 858 and S2 Coatings
Case Study 029

Challenge

Issue
Waterbox end covers and divider plates were corroding and leaking requiring unscheduled unit shut-downs to weld plates.

Goals
- Protect heat exchangers from corrosion and reduce maintenance
- Extend the life and maintain efficiency of the heat exchangers

Root Cause
Premature failure of the coal tar epoxy coating led to extensive galvanic corrosion and pitting.

Solution

Preparation
- Mechanically remove old coating
- Decontaminate substrate
- Grit blast to Sa 2.5 with 3 mil (>75 µm) angular profile

Application
1. Apply ARC 858 to replace lost metal
2. Apply 2 coats of ARC 855 and ARC S2

Results

Client Reports
- 6+ years in service with coating in excellent condition
- Increased efficiency of heat exchanger
- ARC solution ordered for additional heat exchangers

Damaged heat exchanger

Removal of coal tar epoxy costing

After coating with ARC 855 and ARC S2

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