

Challenge

Issue

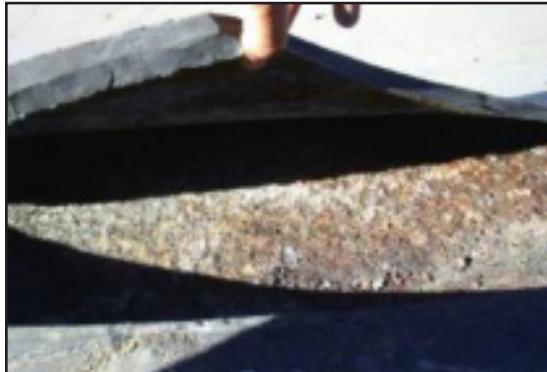
Corrosion of valve due to failed rubber lining led to leaks and environmental fines totaling >\$200K.

Goals

- Eliminate risk of future fines
- Increase protection for valve discs/bodies

Root Cause

15% H₂SO₄ vapors at 120°F (50°C), under vacuum of 1 bar (14.5 psi), attacked rubber lining.



Delaminated rubber liner with corrosion underneath

Solution

Preparation

- Remove rubber lining by UHPWB at 40 kpsi (2,600 bar)
- Grit blast to Sa 2.5 with 3 mil (75 μm) angular profile

Application

1. **ARC 858** used to rebuild corroded and pitted valve disc and body
2. Apply **ARC BX2*** for abrasion resistance of valve disc
3. Topcoat valve body with **ARC S4+** for chemical resistance

**ARC BX2 is the "Bulk" package size of ARC 897*



Disc before rubber removal

Results

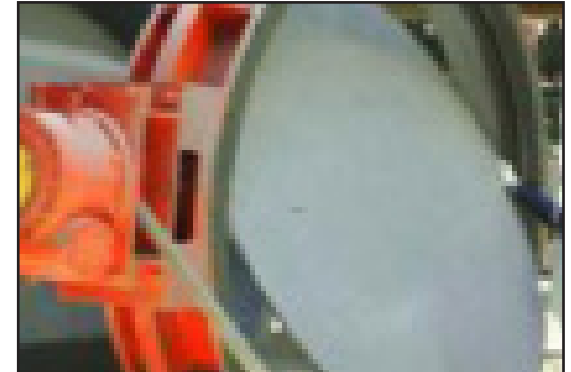
Client Inspection Results After >18 Months

- Goal to eliminate fines: *Achieved*
- Goal to provide long term protections: *Achieved*
- Goal to avoid repeated maintenance: *Achieved*

Client reported savings of: *>\$40K*
 (productivity and rubber repair avoidance)

Additionally, 17 more valves have been coated since first one was done in 2006. No reports of failure.

\$=USD



Completed valve with ARC S4+ topcoat applied