Timely and Cost-Saving Repairs Made in Bag House Sealing Breaches

Chemical Industry
ARC 858, CFW-CR, and CS2
ARC Case Study

Challenge

Issue

A potential leak of chlorine-based dust in a bag house was detected less than one week into a two-week maintenance shutdown at a chemical plant. Conventional cut/weld repair required 10 days and involved scaffolding and hot work permits. Estimated costs for repair was $180,000.

Goals

Repair the corroded bag house walls in a more cost-efficient manner within the two-week maintenance shutdown time.

Root Cause

Corroded walls in a bag house structure were potentially releasing chlorine-based dust.

Solution

Preparation

The surface was power tool cleaned to SP 10 finish. **Chesterton® ARC 858 Abrasion Control Compound** was used as faring compound to smooth heavily pitted steel surfaces prior to applying carbon fiber layers.

Application

Five layers of **Chesterton ARC CFW-CR** were used to repair the breaches after the cleaning. Once the breaches were sealed and set, a protective top coat of **Chesterton ARC CS2 Coating** was applied and cured to help ensure maximum chemical resistance.

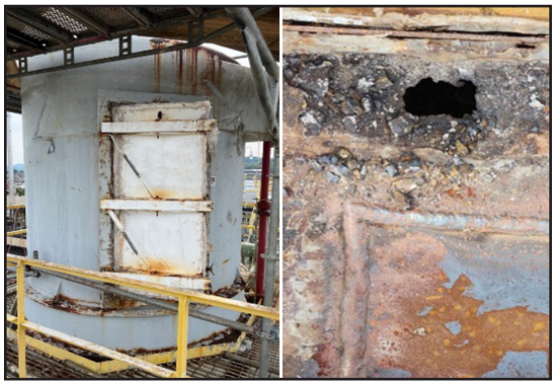
Results

Increased Reliability

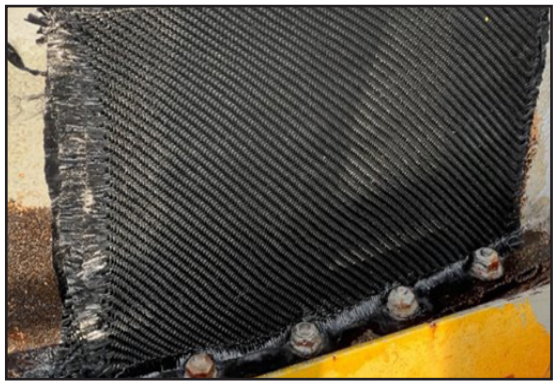
The plant was able to meet startup requirements with no lost time. There were no signs of leaks at startup and the customer saved over$150K in traditional repair costs.

The **ARC CFW-CR** repairs cost $35K for materials and labor and allowed for in situ structural repairs without costly and time-consuming scaffolding and labor-intensive cutting welding.

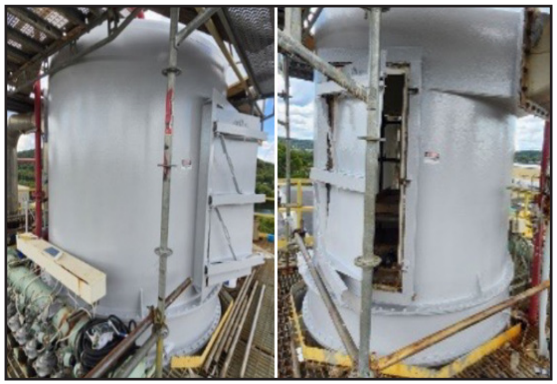
$ = USD



Bag house structure with corroded breach.



ARC CFW-CR applied to breach after preparation.



ARC CS2 applied as top coat over CFW-CR repairs.

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