

# Structural Tank Restoration Nets Savings of \$600K

#### Hydrocarbon ARC 858 Case Study 160

## Challenge

#### Issue

Tank roof had holes due to corrosion. Structural repairs were needed to maintain integrity of tank roof.

#### Goals

Repair existing holes and reinforce worn areas without the need to take the tank out of service. Safely repair hydrocarbon containing tank without welding.

#### **Root Cause**

High sulfur level in oil resulted in corrosive  $SO_2$  gas which reacted with humidity in tank and formed  $H_2SO_4$ , which corroded tank.

### Solution

#### Preparation

- Roughen up decontaminated surfaces areas to be coated.
- Blast metal plates to a NACE 2.

### Application

- 1. Metal plates were cold-welded onto the roof using ARC 858.
- 2. Expanded metal mesh embedded within the ARC 858 coating for additional structural support.

### Results

#### **Client Reported**

Client was extremely satisfied as they were able to conduct the repairs without having to take the tank down completely.

#### **Return on Investment**

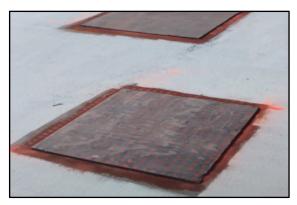
Cost of taking tank out of service and	
conducting structural repairs	\$969,000
ARC repair and labor	\$325,000

#### **Net Savings:**

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$644,000
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Before: Damaged tank roof.



In progress: Metal plates cold welded with ARC 858.





After: Finished repairs and top coated external of tank roof.

Technical data reflects results of laboratory tests and is intended to indicate general characteristics only.

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