

Reinjection of Corrosion Inhibitor for an Aboveground Storage Tank using Zerust's Zerion® FVS via Underside Injection IDS

Project Specifics

Installation Dates
January 2023

Location
Gujarat, India

Environmental Conditions
Avg. Temp. 81°F, ~37% humidity, smog, sunny

Asset Details
Tank 1: 80-ft dia. tank. There exists ten (10) ports, both Leak Detection (LD) and Electrical Resistance (ER) probe ports, through the dead shell.

Inhibitor Delivery System (IDS)
Underside Injection IDS

Zerust Product(s) Used
Zerion® FVS Corrosion Inhibiting Powder

Problem

Zerust Oil & Gas, a division of NTIC, was tasked with reapplying a corrosion prevention solution for the client. Originally treated with corrosion inhibitor in September 2015, a reinjection was needed due to reduced tank space and accumulated water, resulting in a higher solution concentration.

Zerust Solution

An asset assessment revealed eleven LD ports and three ER probes for corrosion monitoring, lacking cable-end enclosures. The reinjection was done in batches over six days, using Zerion FVS corrosion inhibitor powder mixed with water, with minimal issues.

Data from ER probes was recorded using the client's partially functional data logger. Additionally, on-site crew received training on the injection process.

Conclusion

The corrosion inhibitor solution reinjection for this tank was executed smoothly with minimal volume loss. To safeguard the wire ends of the ER probes, we recommend installing enclosure boxes on relevant ports.

Zerust also advises keeping the ports used for the corrosion inhibitor injection closed for approximately two weeks or until the tank is back in service. They should only be opened as needed for routine inspections to prevent the loss of inhibitor solution and the entry of contaminants.

It's recommended to continue gathering data from the ER probes at least once a month and send it to Zerust for analysis. This collected data will be updated in our records, and a separate analysis report will be provided.

