

## Corrosion Protection of In-Service Vegetable Oil Storage Tank on Compacted Sand Foundation

### Project Specifics

#### Installation Dates

November 12-16, 2018

#### Environmental Conditions

Primarily dry with the environmental temperature between 8°-13°C.

#### Details

Vessel Diameters: 11.5-Meters (Each Tank)  
Storage Product: Various Vegetable Oils  
Vessel Construction: In-Service and Insulated  
Foundation Details: Compacted Sand

#### Inhibitor Delivery System (IDS)

Chime Ring Dry IDS with Corrosion Monitoring Coupons

#### Zerust Product(s) Used

Zerion® FVS-S15 Corrosion Inhibitor Sleeve Ass., 1 30-Sleeve Ass. per Pail



### Project Specifics

The client wanted corrosion protection for several of their in-service aboveground storage tanks that wouldn't require the tanks to be taken out-of-service and ultimately extend the life of the annular floor plates, MFL scans provided showed various significant degradation of the annular(s) and first row of sketch plates, this is now remedied by a simple non-intrusive VCI system that allowed full continued operation of the tank(s) in question.

### Zerust Solution

The engineers at Zerust® Oil & Gas developed a custom solution for this client and successfully completed the injection of the corrosion inhibiting solution on their tanks using Zerust's Chime Ring Dry Injection IDS method. Corrosion monitoring coupons were also installed and the project was completed with no issues or concerns.

### Installation Process

In order to keep the sand beneath the tank fairly level during the project operations a wooden template was created. Then the following steps were taken:

Step 1: Sand and bricks around the tanks were removed and the IDS PVC pipes were covered with mesh sleeve material.

Step 2: Sand atop the IDS PVC Pipes was replaced and 1" PVC installed for the placement of the Corrosion Monitoring Coupons.

Step 3: Corrosion Inhibitor Sleeves were installed and the sand and bricks around the tanks were replaced.

Step 4: Corrosion Monitoring Coupons were assembled and installed and the project was completed successfully.

### Recommendations

Zerust recommends for the installed corrosion inhibitor sleeves to be removed and weighed quarterly, or at minimum annually, for to determine replacement needs.