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Evaluating SRPO Product and Comparing to Similar Cortec Products

Background: Red Man Pipe and Supply Company currently use SRPO 300 liquid as a rust preventative spray for the inside of 6" and 12" steel gas pipes. The corrosion inhibiting properties of this product will be evaluated and compared to VpCI-368D and VpCI-369 premix for aerosol. The effectiveness of Cortec additive M-168 will also be analyzed.

Purpose: Evaluate the corrosion inhibiting properties of SRPO 300 liquid, and compare to similar Cortec products. Also, evaluate the use of M-168 as an additive.

Method: ASTM D-1748 Humidity Cabinet

Materials: 1010 Carbon Steel Panels
SRPO 300, Provided by Red Man Pipe and Supply
VpCI-368D
VpCI-369 Premix for Aerosol
M-168

Procedure: The following procedure was followed:

1) Five 1010 carbon steel panels were cleaned with methanol in preparation for testing.
2) The five panels were then coated with the following solutions
    a. A1 – SRPO 300
    b. B1 – SRPO 300 with 5% M-168
    c. C1 – VpCI-368D
    d. D1 – VpCI-369
    e. E1 – A fifth panel was untreated and used as a control.
3) After coating, panels were hung to dry overnight.
4) All panels were then hung in ASTM D-1748 humidity cabinet.
5) Panels were visually inspected periodically.
6) After 1000 hours, all panels were removed from ASTM D-1748 humidity cabinet.
7) Panels were visually inspected and photographed.

Results: The following results were found:

Panel	Time to Failure (Hours)
A1	192
B1	DNF*
C1	DNF*
D1	DNF*
E1	<24

DNF – Did not fail during 1000 hours of testing.

Conclusion: The two VpCI products greatly outperformed the SRPO product currently being used by Red Man Pipe. Both of these products provided excellent corrosion protection for the 1000 hour test period. Although the corrosion on the SRPO panel was light (~5%), corrosion first appeared after only 192. The addition of Cortec M-168 lead to greatly increased protection, with no corrosion present during the 1000 hour test period.

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