Alkine Sour Water Corrosion Calculation for Asset ID d

Asset Name/ID
d

H2S concentration in system
It is suggested to determine NH4HS value with ionic process models. However, approximate values may be calculated from API 581 Table 2.B.7.1
1.50 wt%

NH3 concentration in system
It is suggested to determine NH4HS value with ionic process models. However, approximate values may be calculated from API 581 Table 2.B.7.1
4.00 wt%

NH3 concentration in system
Determine the concentration of the H2SO4 present in this equipment/piping. If analytical results are not readily available, it should be estimated by a knowledgeable process engineer
2.25 wt%

Stream Velocity
The vapor phase velocity should be used in a two-phase system. The liquid phase velocity should be used in a liquid full system.
12.00 ft/s

%mol H2S in the system
1.50 %

System pressure
Fill the Total system pressure psia
120.00 psia

H2S partial pressure
Fill the Total system pressure KPa
30.00 psia

Baseline CR mm/yr
0.10 mm/yr

Baseline CR mpy
3.75 mpy

Adjusted CR mm/yr
0.75 mm/yr

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Adjusted CR mpy
29.50 mpy

Corrosion Damage Morphology
General thinnig

Remaining Life and Next Inspection Date Calculation

Corrosion Rate (overwritten)
Corrosion Rate Overwritten by the user
No

Material Thickness Units
Units of the thickness
in

T Actual
Current thickness of the material
0.9

T Required
Minimum required thickness for safe operation
0.85

Selected Date
Start date of the remaining life
Tue Apr 01 2025

Remaining Life years/Retirement date
1.69 / Fri Dec 11 2026

Do you want to estimate the next inspection date?
Next inspection date
Yes

Recommended next inspection date based on t actual date
Recommended next thickness measurement date (one-half remaining life or maximum interval per piping type of circuit class, whichever is less)
Thu Apr 01 2027

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Piping Asset Class
Piping Asset Class
Class 1