



VISUAL INSPECTION REPORT

Job Details

Table with 2 columns: Field Name and Value. Fields include Client, Project Name, P.O. Number, Location, Installation, Date of Inspection, Report No, AG IRM Project No, Module, Component ID, Component Type, Material, Design Temperature, Operating Temp, Design Pressure, Operating Pressure, Rep Line, Corrosion Loop, Line From, Line To, and P&ID.

Inspection Summary

Table with 3 columns: Isometric Index, Results, and Rectification WO No. Row 1: 0,5-AC220-64-DS-4803-V, Fit For Service, N/A

External Inspection Checklist for Process Piping

0,5-AC220-64-DS-4803-V

Section 1 - Structural

- a) Check and ensure expansion joints are not bent out of shape.
b) Check for any dents and misalignments, overhung, inadequate support and vibration that can cause rupture.

Table with 3 columns: Status, Discrepancy, Photo ref. Row 1: N/A, empty, empty. Row 2: N/A, empty, empty.

Section 2 - Piping Supports

- a) Check for missing supports that can cause the pipe to rupture under weight.

Table with 3 columns: Status, Discrepancy, Photo ref. Row 1: N/A, empty, empty.

Section 3 - Coating

- a) Assess the coating condition of the piping system.

Table with 3 columns: Status, Discrepancy, Photo ref. Row 1: N/A, empty, empty.

Section 4 - Leaks

- a) Check for leaks and identify locations.

Table with 3 columns: Status, Discrepancy, Photo ref. Row 1: N/A, empty, empty.

Section 5 - Corrosion

- a) Identify corroded areas and record them. Take measurements and record pit depth.

Table with 3 columns: Status, Discrepancy, Photo ref. Row 1: N/A, Surface corrosion, See photo pages

Section 6 - Insulation and Insulation Penetrations

- a) Ensure all cladding is sealed.
b) Seal all exposed areas.
c) Expose some insulation to check the pipe surface for corrosion.

Table with 3 columns: Status, Discrepancy, Photo ref. Row 1: N/A, empty, empty. Row 2: N/A, empty, empty. Row 3: N/A, empty, empty.

Section 7 - Small Bore Attachments

- a) Ensure all small bore attachments are not vibrating or cracking.

Table with 3 columns: Status, Discrepancy, Photo ref. Row 1: N/A, empty, empty.

Section 8 - Threaded Plugs

- a) Check condition of threaded plugs to ensure they are not corroded.

Table with 3 columns: Status, Discrepancy, Photo ref. Row 1: N/A, empty, empty.

Legend

- Status ✓ : Drawing as per actual condition, no anomaly
Status X : Drawing as per actual condition, found anomaly
Status N/A : Not exist at drawing and actual condition, no access for inspection

Comments

External visual was performed in accordance with API 570, with the findings detailed in this report. The piping was online, opened and at elevated temperature at the time of inspection. Comments as follow:

- 1. Generally all piping segment was visually in a good condition with no cracking, leaking, bulging, distortion, vibration or mechanical damage present.
2. Finding :
- Piping has painting as external corrosion control,
- petrolatum paste / grease use as corrosion control for treaded part
- advance corrosion flange and stud bolt with with indication of initial stage metal loss
- coating dateoriation leading to corrosion and rust propagation at suppot P6, Small Bore Connection , line pipe P5
3. Recomendation :
- Recommended recommend to remove rust/surface corrosion and to apply proper protective coating based company specification and coating (painting) manufacture application guideline to stop further external corrosion
- Recommended to replace in kind corroded bolting (stud bolt) with suitable protective coating ie: FCC (fluorocarbon coating)
- Recommend to set up inspection strategy/program to detect the concealed wall loss, advance NDT such as PAUT and SRUT will be an option.
- it is imperative to perform regular condition monitoring to ensure detection before catastrophic failure.
4. Consider to label/tagging the piping line so that it can be easily traced and identified (reff to ISO 14726:2008 or ANSI A13.1-2015)
5. Perform next external inspection in a regular basis (every 5 years) as per API 57

Table with 4 columns: API Inspector, Name, Qualification, Signature. Row 1: API Inspector, Ercarter E. Silalahi, API 570/API 510, [Signature]



Photographic Support

Surface corrosion at P1,P2,E3



Fig. 1

Surface corrosion rekomen to paint at P1,P2,E3



Fig. 2

Surface corrosion at P1,P2,E3



Fig. 3

Surface corrosion at P1,P2,E3



Fig. 4

Surface corrosion at P1,P2,E3



Fig. 5

Surface corrosion at P1,P2,E3



Fig. 6

Surface corrosion at P1,P2,E3



Fig. 7

Surface corrosion at P1,P2,E3

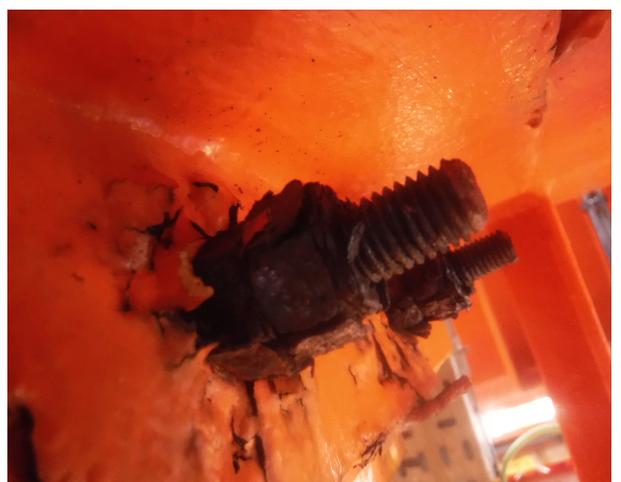


Fig. 8



Surface corrosion at P1,P2,E3



Fig. 9

Surface corrosion at P1,P2,E3



Fig. 10



PT. AG IRM SERVIS INDONESIA



ABS In-Water Specialist

Cert No. 21-4655696-A

ABS ESP Hull Gauging

Cert No. 21-4655692-A

ABS Remote Inspection Techniques

Cert No. 21-4996595-A

SKUP MIGAS NDT ★★ ★

VISUAL INSPECTION REPORT

Isometric