Job Details

Client	: PT. Armada Gema Nusantara	***Material***	: PIPE SMLS A790 / A928 CLASS 1 Gr UNS S32750
Project Name	: CMP Project	***Design Temperature***	: 107
P.O. Number	: 4500215518	***Operating Temp***	: 69,8
Location	: HCML FIELD MADURA Straits, East Java	***Design Pressure***	: 16 Barg
Installation	: FPSO KAS III	***Operating Pressure***	: 10,5 Barg
Date of Inpection	: 2023-12-01	***Rep Line***	: No
Report No	: 20AGN22191410PP417	***Corrosion Loop***	: 078-OW-A
AG IRM Project No	: 20AGN2219	***Line From***	: 35-PD-3120B
Module	: M35	***Line To***	: 1''-AE200-16-OW-7062-N
Component ID	: 1-AE200-16-OW-7065-N	***P&ID***	: PID-3506
Component Type	: Piping		

Inspection Summary

Isometric Index	*Results*	*Rectification WO No.*

External Inspection Checklist for Process Piping

1-AE200-16-OW-7065-N

Section 1 - Structural

Status	Discrepancy	Photo ref
N/A	N/A	N/A
☒	No discrepancy	N/A

a) Check and enscure expansion joints are not bent out of shape.

b) Check for any dents and misalignments,overhung, inadequate support and vibration that can cause rupture.

Section 2 - Piping Supports

Status	Discrepancy	Photo ref
☒	No discrepancy	N/A

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

Section 3 - Coating

Status	Discrepancy	Photo ref
☒	Damage coating	See photo pages

a) Asess the coating condition of the piping system.

Section 4 - Leaks

Status	Discrepancy	Photo ref
☒	No discrepancy	N/A

a) Check for leaks and identify locations.

Section 5 - Corrosion

Status	Discrepancy	Photo ref
☒	Galvanic corrotion	See photo pages

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

Section 6 - Insullation and Insulation Penetrations

Status	Discrepancy	Photo ref
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

a) Ensure all cladding is sealed.

b) Seal all exposed areas.

c) Expose some insulation to check the pipe surface for corrosion.

Section 7 - Small Bore Attachments

Status	Discrepancy	Photo ref
☒	No discrepancy	See photo pages

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

Section 8 - Threaded Plugs

Status	Discrepancy	Photo ref
☒	Corroded U-bolts and flanges stud bolts and nuts	See photo pages

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

Legend

Status ☒ : Drawing as per actual condition, no anomaly

Status ☒ : Drawing as per actual condition, found anomaly

Status ☒ : Not exist at drawing and actual condition, no access for inspection

Comments

External visual inspection was conducted in accordance with API 570-2016, with the findings detailed in this report. The piping was online and at elevated temperature at the time of inspection. Comments as follow:
1. Noted rust at most surface of flanges parts along the piping line (see photo pages for details). Recommend to remove the rust surface followed by coating as
per approved painting/coating procedure to prevent from further surface deterioration.
2. Observed corroded U-bolt at most of piping part (see photo pages for details). Recommended to apply insulation kit and washer on carbon steel bolts/studs/nuts to prevent further galvanic corrosion.
3. Observed galvanic corrosion on flanges and bolt/nuts (see photo pages for details), recommend to install stud bolts/nuts with the same material with flanges.
4. It is recommended to label/tagging the piping line so that it can be easily traced and identified.
5. Recommend to perform external inspection in a regular basis or (every 5 years) as per API 570.

	Name:	Qualification	Signature
API Inspector	Ercarter E. Silalahi	API 570/API 510	☒

Photographic Support

Isometric