

SHAMS POWER COMPANY
ENGINEERING DIVISION
INSPECTION & CORROSION SECTION
SHAMS 1

LOCATION : R1MAG01BB001
KKS : R1MAG01BB001

CERTIFICATE OF INSPECTION

The equipment detailed below was examined in accordance with the SHAMS code of practice for plant inspection,

ITEM : Flash tank

Location : SHAMS Plant

Type of Inspection : Major

Date of Inspection : Jan, 2020

Place of Inspection : IN-SITU

Date of Last Inspection : Jan, 2019

REPORT :

1.0. Summary

The above pressure vessel was taken off line, isolated, opened, vented & cleaned for major external & internal inspections.

2.0. Subject

2.1. This is a vertical, cylindrical, ASTM A-516 Gr.70 tank.

Size	
Design pressure	0.49 barg
Design temperature	460 c
Operation pressure	0.3bara
Operation temperature	100c
Fluid characteristics @ 141 c	Steam- condensate
Flanges	ASTM A-516 Gr.70
Piping	ASTM A-516 Gr.70

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The above equipment is/ ~~is not~~ considered suitable for further service under the present operating conditions

Next Major Inspection Due : January 202

Inspected: Osman Ismail

Endorsement: 48 Months

3.0 History

This tank was commissioned in 2013. Periodical inspection records since Oct.'2014 are available.

4.0. Scope of Inspection

- 4.1 Visual inspection.
- 4.2 Ultrasonic thickness measurement.

5.0. Conditions Found

5.1. External –

- 5.1.1 All insulation found intact without any evidence of damage for insulation or insulation cover aluminum sheet.
- 5.1.3 All ladders, stairways and handrails found in satisfactory condition.
- 5.1.4 All concrete support found in satisfactory condition without evidence of cracking or spalling.
- 5.1.5 Manhole found in satisfactory condition without evidence of any corrosion.
- 5.1.6 All external piping insulation found in satisfactory condition.
- 5.1.7 All earthing lugs found in satisfactory condition.

5.2. Internal –

- 5.2.1 All internals found in satisfactory condition without evidence of fallen down, damage or corrosion.
- 5.2.2 All internal surfaces of shell and heads found in satisfactory condition, apart from normal carbon steel very thin hydroxide layer.
- 5.2.3 All welds of shell and heads found in satisfactory condition without evidence of heavy corrosion
- 5.2.4 All internal surfaces of connected nozzles and manway found in satisfactory condition without evidence of sever corrosion.
- 5.2.5 All thermos wells found in satisfactory condition.
- 5.2.6 All spray nozzles found satisfactory

5.8.1. Ultrasonic Testing

Ultrasonic thickness measurement was carried out on the internal shell courses and heads found satisfactory. See attached thickness measurement report.

6.0. Recommendations







It is recommended to open flash tank after 4 years as per SHAMS Code of Practice.

10. Inspection Grade and Interval

In accordance with the latest revision of SHAMS Code of Practice, this **flash tank** was endorsed for 48 months for next Major Inspection.

Frequency : 48 Months.
Endorsement : 48 Months
Next Major Insp. due : January 2024

Photos

	
Flash tank general view	Ladder, stairways and handrail
	
supports	Many way , cover and devoid
	
Internal surfaces and welds are in good conditions	Internals found in place



Bottom dished end internal surface in satisfactory condition



Bottom and shell weld in satisfactory condition

Form No.: IN-QSF-36 Rev. 05E Dtd.: 20-10-2018

ULTRASONIC THICKNESS GAUGING REPORT

Client:	SHAMS POWER COMPANY		
Date:	03.03.2020	Report No.:	AD / 452
Project:	SHAMS OUTAGE MARCH 2020	Job No.:	N/A
Location:	MADINAT ZAYED	Drawing No.:	N/A
Item ID:	FLASH TANK - R1MAG01 BB001	Material:	CS
Ref/ Procedure No:	INSPEC/UTG/001 Rev.10	Ref. Standard:	ASME SEC V
UTG Equipment Model/ Manufacturer:	USM 35 X DAC / GE	Serial No.:	7292a
Calibration Block No.:	STEP WEDGE, IIW V2 BLOCK	EQPT Calibration Certificate & Due Date:	INS/UT/CAL-043/19/AUH
Probe Type/ Size/Frequency:	WK TR 0° PROBE/ 10mm DIA / 5 MHz	Couplant Brand Name & Type:	POLYCELL + WATER
Connecting Cable Type & Length:	LEMO TO MICRODOT & 2 MTR	Special Attachment/ Equipment/ Block:	STEP WEDGE BLOCK (SL NO : AZB270)
Test Temperature:	AMBIENT	Surface Condition:	AS CLEANED
Inspection Date:	03.03.2020	Page:	1 of 2

Description:

ULTRASONIC THICKNESS GAUGING WAS CARRIED OUT ON THE FOLLOWING ITEM

LOCATION	ORIENTATION	MEASURED THICKNESS (mm)
1	12 O'CLOCK	19.34
1	3 O'CLOCK	19.70
1	6 O'CLOCK	19.60
1	9 O'CLOCK	19.70
2	12 O'CLOCK	16.90
2	3 O'CLOCK	16.80
2	6 O'CLOCK	17.21
2	9 O'CLOCK	16.60
3	12 O'CLOCK	16.90
3	3 O'CLOCK	17.20
3	6 O'CLOCK	16.90
3	9 O'CLOCK	16.60

REPORT FORMAT APPLICABLE ONLY FOR AUH & FUJ FACILITY

LEVEL II TECHNICIAN		CLIENT REPRESENTATIVE		AI / TPI
Name :	SHYMAL PAUL	Name :		
Sign :		Sign :		
Date :	03.03.2020	Date :		

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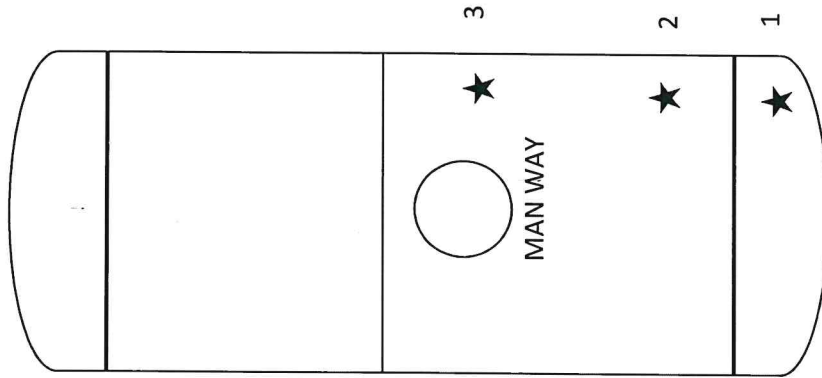
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Please see terms & conditions. This report is valid only if signed and stamped (Numbered Stamp) by Level II / Level III.

ULTRASONIC THICKNESS SCANNING DRAWING SHEET

FLASH TANK



BOTTOM

★ UTG LOCATION

LEVEL II TECHNICIAN

Name :- SHYMAI PAU

Sign

Date :- 03.03.2020