



**Site: Wincombe lane,
Shaftesbury,
SP7 8QD.**

Visual Tank Inspection Report

Digester Tank

Client Contact: Paula Boulton

Date of Test: 23rd January 2023

Report Number: 23-004

API 653 Inspector: Ian Hooley

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Summary

The Digester tank should have been internally cleaned and inspected, this could prevent leakage and reduce the risk of repair. This action has not been carried out and it is now advisable for the integrity of the tank that this program is implemented in the soonest possible timeframe.

The catch-pot is free to move and requires its feet winding down to re-engage with the floor.

Lightening conductors to the tank roof require recalibration.

Results Summary

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Base			
	Pass	Fail	Not Applicable
Visual	☐	☐	☒
Vacuum Box	☐	☐	☒
Hydrostatic Testing	☐	☐	☒
Shell Results			
Visual	☒	☐	☐
Hydrostatic Testing	☐	☐	☒
Roof			
Visual	☒	☐	☐
Nozzles			
Visual	☐	☐	☒
Hydrostatic Testing	☐	☐	☒
Foundation			
Settlement	☒	☐	☐
Planer Tilt	☒	☐	☐
Accessories			
Access Structures	☒	☐	☐
Mixers/Agitators	☒	☐	☐
Safety Critical			
Venting Capabilities	☐	☐	☒
Alarms	☒	☐	☐
Pipework			
Tank Piping	☒	☐	☐
Fire Deluge	☐	☐	☒

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Actions & Conclusions

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Mandatory actions

No Mandatory Actions.

Recommendations

Feature	Action	Time Frame	Page Reference
Catch pot			
Loose/movement	Re-Engauge the legs to be fully in contact with the ground.	3 months	12
Lightening Conductor			
Calibration	Re-calibrate the lightening conductors	ASAP	13
Internal Surfaces			
Internal Inspection	Clean out and inspect internal surfaces.	ASAP	2

Report Conclusion

Based on the inspection results, the tank is fit for operation.

Next Recommended Scheduled Inspections taken from Table B-1 Inspection frequencies: -

- Group 9
- Unknown corrosion rates
- Climate Code B

External Inspection (Visual)
Internal Inspection (Detailed)

**January 2024
ASAP**

WSG Inspection Tank Assessor

Name: Ian Hooley

Signature:



Client Storage Tank Engineer

Name:

Signature:

Date: 30 January 2023

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Introduction

WSG Eagle Eye Ltd conducted an in-service Visual inspection to the Digester Tank.

Scope:

The inspection Methods: -

- A Close Visual inspection for surface defects.

Areas Inspected (where accessible): - ☐

- Delamination due to corrosion of the reinforcing.
- Visual signs of joints leaking.
- General condition of permanent fixtures eg ladders & platforms.
- The condition of the Joints.
- Impact damage to shell. ☐
- Any movement or displacement of the shell
- Any rips or tears to Biodome roof.
- Freeze-Thaw damage.
- Cracks and fissures.

The inspection assumes that the tank has been designed and constructed in accordance with - Specifications for design and construction of Concrete sectional tanks.

The inspection report should be referenced alongside the Fabrication Monitoring and Installation reports produced when the tank was first constructed.

The inspection is based around BS 8110 & BS 8007

The purpose of the report is to ensure that the tank is suitable for the intended use, is maintained in an efficient state, efficient working order and in good repair for continued safe use.

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Tank Details

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Tank Details

General	
Tank Identification	Digester Tank
Tank Type	Concrete.
Design Standard	BS 8110 & BS 8007
Manufacturer	Kirk Environmental Ltd
Drawing Number	K31703-200
Year of Build	2010
Tank Diameter	17.5m.
Tank Height	5.5m. Above ground concrete shell
Tank Volume (m ³)	Unknown
Construction Material Grade	Unknown
Design Pressure (mBar)	Unknown
Design Vacuum (mBar)	Unknown
Design Gravity	1.05
Design Wind Speed	45m/s.
Max Pump-In Rate	Unknown
Max Pump-out Rate	Unknown
Tank Shell	
Maximum Fill Height	5.6m
Insulation External	No
Lining Internal	Yes
Number of Nozzles	12
Tank Base	
Design Type	Concrete Base
Number of Sumps/Nozzles	None
Tank Roof	
Roof Type	Biodome
Number of Nozzles	5
Tank Appendage & Area Details	
Foundation Type	Type D/E Concrete Raft/Raft Piled.
Bund Type	Earthen bund wall
Roof Vent PRV Details	150mm NB free vent
Roof Access Details	Access ladder

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In-Service Visual Inspection

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Tank Shell Visual Inspection

Action Status		
Fit for Continued Use	Maintenance/Repair Required	Major Repair/Action Required

Feature	Comments	Action Status		
		1	2	3
External Condition	The external concrete shell is in good condition with no cracking, spalling or displacement observed.	√		
Internal Condition	Not Applicable			
External Joints	The concrete joints are in serviceable condition with no evidence of delamination due to the corrosion of reinforcing or freeze thaw damage.	√		
External Nozzles	Not Visible			
Internal Nozzles & Pipework Connections	Not Applicable			
Patched areas	Not Applicable			
Ripples/Buckles/Deformation	Not Visible	√		
Voids	Not Applicable			
Pipework & Pipework connections	The gas catchpot is not correctly secured and is free to move. (See photo 5)		√	
Lagging to pipework	Not Applicable			

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Tank Roof Visual Inspection

Action Status		
Fit for Continued Use	Maintenance/Repair Required	Major Repair/Action Required

Feature	Comments	Action Status		
		1	2	3
External Condition	The external Bio dome roof is in good condition with no tears or rips noted.	√		
Internal Condition	Not Applicable			
External Joints	Not Applicable			
Internal Joints	Not Applicable			
External Nozzles & Pipework Connections	The blower ducting attachment points visually look to be in good condition	√		
Internal Nozzles & Pipework Connections	Not Applicable			
Patched areas	Not Applicable	√		
Ripples/Tears	Not Applicable	√		
Voids	Not Applicable			
Pipework Hazardous to Shell Condition	None. All Ducting is secured.	√		
Lightening conductor	The calibration certification has expired.		√	

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Foundation Visual Inspection

Action Status		
Fit for Continued Use	Maintenance/Repair Required	Major Repair/Action Required

Feature	Comments	Action Status		
		1	2	3
Foundation Type	Type D/E Concrete Raft/Raft Piled.	√		
Shoulder	N/A.			
Cracking/Spalling of Concrete	None.	√		
Cavities Under Foundation	N/A			
Drainage issues	No standing water was noted to the bund floor.	√		
Tell Tail Drains	N/A			
Bit-Sand condition/Settlement	N/A			
Visible Settlement	None.	√		
Foliage/Growth	None.	√		
Evidence of Leakage	None.	√		
Anchor Points	The tank is concreted into the floor and has no anchor bolts fitted.			
Other				

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Tank Accessories Inspection

Action Status		
Fit for Continued Use	Maintenance/Repair Required	Major Repair/Action Required

Feature	Comments	Action Status		
		1	2	3
Access Stairs	Not installed			
Access Ladder	Access ladders in good condition.	√		
Access Platform	In good condition	√		
Blowers	In serviceable condition with no signs of leaks, vibration or noise	√		
Fire Deluge	Not installed			

Appendix A – Photographs

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Photo 1 Shell General View	Photo 2 Concrete Outstand No cracking to Base
	
Photo 3 Concrete Shell No cracking or spalling to concrete	Photo 4 Roof General overview of blower pipework + roof
	
Photo 5 Venting /Overflow Catch pot not secure.	Photo 6 Lightening Conductor General Overview
	

Appendix B – Qualifications

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API INDIVIDUAL CERTIFICATION PROGRAMS



verifies that

Ian William Hooley

HAS MET THE ESTABLISHED AND PUBLISHED REQUIREMENTS FOR API CERTIFICATION AS AN
API 653 ABOVEGROUND STORAGE TANK INSPECTOR

IN ACCORDANCE WITH THE KNOWLEDGE DEFINED IN THE **API Standard 653**

CERTIFICATION NUMBER **56108**

ORIGINAL CERTIFICATION DATE **January 31, 2015**
CURRENT CERTIFICATION DATE **January 31, 2021**
EXPIRATION DATE **January 31, 2024**



Manager, Individual Certification Programs



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