



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 18th May 2017

Attendees: Mr Steven Maunders (London Borough of Hounslow) and Mr Dimitrios Kalamantis (Thames Water)

LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A – Tank full.</p> <p>Tank 1B – Tank full.</p> <p>Tank 2A – Tank full.</p> <p>Tank 2B – Tank full.</p> <p>Tank 3A – Tank full.</p> <p>Tank 3B – Tank full.</p> <p>Tanks 4A, 4B, 5A & 5B which are covered and odour controlled were all full.</p> <p>Tank 6A – Tank full.</p> <p>Tank 6B – Tank full.</p>	

Tank 7A – Tank full.

Tank 7B – Tank full.

Tank 8A – Tank full.

Tank 8B – Tank full.

Feed Channel - The level of effluent in both feed channels was high - no local odour.

Currently storming to River.

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at time of inspection:

Monitor 1	0.000	ppm	14:03
Monitor 2	0.004	ppm	11:41
Monitor 3	0.000	ppm	14:22
Monitor 4	0.000	ppm	14:22
Monitor 5	0.003	ppm	14:22
Monitor 6	0.004	ppm	14:22
Monitor 7	0.000	ppm	14:23
Monitor 8	0.003	ppm	14:23
Monitor 9	0.000	ppm	14:17
Monitor 10	0.000	ppm	14:16
Monitor 11	-0.000	ppm	14:23
Monitor 12	0.004	ppm	14:23
Monitor 13	0.004	ppm	14:23
Wind Speed	0	mph	
Wind Direction	348°		

Complaints

The Council directly received no complaints by telephone in the preceding week.

The Council directly received no complaints by email in the preceding week.

The Council received no complaints by email from MRAG.

Thames Water controller advised that they had received no direct complaints in the preceding week.

Odour Log (Thames) - Photocopies of log entries taken:

Thursday 11th May 2017:

AM – Cool/Warm with Partial Sun, cloud and light rain.

All OMU's in use.

Observations: "OM 1-5 – no spikes.

6-13 = OM7= 0.022@ 02:45 (pm?) - 02:57.

OM7= 0.033@ 03:30 (pm?) - 03:42.

Actions: None noted.

PM – Cool with Partial Sun, cloud and light rain.

All OMU's in use.

Observations: "Monitor 2 – one spike – 15 minutes long max 0.029ppm. No odour detected whilst checking area. No other odour issues on site."

Actions: None noted.

Friday 12th May 2017:

AM – Warm with Sun and partial cloud.

All OMU's in use.

Observations: “No odour issues reported/found. No spikes on Trends.”

Actions: “Day workers called in for hose installation on PST No.10 which is being pumped out for maintenance.

PM – Cool.

All OMU's in use.

Observations: “Odour Monitor 13 – one spike 0.015ppm. 19:36/20:31. Area investigated – no odour detected.”

Actions: None noted.

Saturday 13th May 2017:

AM – Warm with Sun and partial cloud.

All OMU's in use.

Observations: “11:00 phone call from OHC (Dave Stone) regarding odour complaint from MRAG although currently location and time unknown. Ian Ruffell rang about above complaint and to check on PST no.10.”

Actions: “Carried out odour patrol around PST no.10, Odour Suppression Unit topped-up.”

PM – Warm with Sun and partial cloud.

All OMU's in use.

Observations: “No odour spikes on trends. No odour problems.”

Actions: None noted.

Sunday 14th May 2017:

AM – Warm with Partial Sun, cloud and light rain.

All OMU's in use.

Observations: “No spikes on Trends. Smell of biogas at back of Storm Tanks when doing daily checks – suspect odour coming from exhaust stack and carried by wind.”

Actions: None noted.

PM – No weather observations noted.

All OMU's in use.

Observations: “Odour Monitor No.2 small spike 9:06pm till 9:20pm. All other trends OK.”

Actions: “Small sludge spill cleaned up by No.10 PAS reactor.”

Monday 15th May 2017:

AM – No weather observations noted.

OMU - All OMU's in use.

Observations: ““OM 1-5 no spikes, OM 6-13 No spikes.”

Actions: None noted.

PM – No weather observations noted.

All OMU's in use.

Observations: “No odour problems – all Trends showing no spikes.”

Actions: None noted.

Tuesday 16^h May 2017:

AM – Cool/Warm.

All OMU's in use.

Observations: "OM 1-5 no spikes. 6-13 no spikes."

Actions: None noted.

PM – Warm with heavy cloud and rain.

All OMU's in use.

Observations: "Monitor No.2 spiked intermittently between 02:10-03:22 (max 0.025)."

Actions: "Checked area. No odours detected, pouring with rain."

Wednesday 17th May 2017:

AM – Warm.

All OMU's in use.

Observations: "Odour Monitor 8 = 0.018 07:08-07:25."

Actions: None noted.

PM – No data provided.

Sludge Dip Records

Date	West PSTs 1	West PSTs 2	West PSTs 3	West Total	East PSTs	Grand Total
All units in m ³						
OMP limit	500					
12/05/17	50	1375	60	1485	3222	4707
15/05/17	0	1073	61	1134	2618	3752
17/05/17	0	722	183	905	1446	2351

The sludge stock levels for the West side circular primary settlement tank 1 were **compliant** with the OMP trigger level (500m³) for all dates on which data has been provided. There are no limits for the East side primary settlement tanks as these are covered and odour controlled.

Thames is required by the terms of the abatement notice agreed in 2005 to notify LBH on the next working day of any such exceedance and notify LBH within three working days of any appropriate remedial measure taken within three days.

Sludge Screening House

Shutter doors open at time of inspection – contractor on site undertaking maintenance – no local odours.

Imported Sludge

Seven tankers (35m³) daily for each of preceding seven days.

Digesters

Digesters 1-4 – Out of use (permanent) – noticeable quantity of water accumulated to the brim of these tanks which is thick with algae – requires draining.

Digester 5 - in use – seal level approx. 2ft below coping stones – seal weak and bubbling.

Digester 6 - in use – seal level approx. 6ft below coping stones – seal weak and bubbling.

Digester 7 - in use – seal level approx. 3ft below coping stones – seal weak and bubbling.

Digester 8 - in use – seal level approx. 4ft below coping stones – seal weak and bubbling – dry spill requiring clean-up. Noise nuisance issue arising from faulty motor located on top of Digester 8 – requires abatement.

Digester 9 - in use – seal level approx. 5ft below coping stones – seal weak and bubbling

Digester 10 - in use – seal level approx. 4ft below coping stones – seal weak and bubbling.

Digester 11 - in use – seal level approx. 3ft below coping stones – seal weak and bubbling.

Digester 12 - in use – seal level approx. 3ft below coping stones – seal weak and bubbling.

Digester 13 - out of use – empty and clean – contractor on site undertaking maintenance.

Digester 14 - in use – seal level approx. 6ft below coping stones – good seal – stones in use.

Digester 15 - in use – seal level approx. 2ft below coping stones – half of tank has good seal and half weak and bubbling.

Digester 16 - out of use – empty and clean – contractor on site undertaking maintenance.

Digester 17 - in use – seal level approx. 4ft below coping stones – good seal.

Digester 18 - in use – seal level approx. 3ft below coping stones – good seal.

Digester 19 - out of use – empty and clean – contractor on site undertaking maintenance.

Digester 20 - in use – seal level approx. 4ft below coping stones – good seal.

There was evidence of anti-foaming agent in use and TW advised that this is applied daily to all of the digesters that are operational.

3x full, 3x partially filled & 2 empty tanks of anti-foaming agent seen positioned throughout area. Installation of “auto-dosing” for anti-foam agent to all digesters operational – currently using 2-3 tanks weekly.

GENERAL

Final Settlement Tanks East Side of Works

The 8 circular tanks previously used as PSTs are now being used as final tanks (71-78) all are back in service following maintenance works to scrapers. Large algae blooms in Tanks 77 and 78.

East Side Screen House

All doors closed.

Other Skips

2x full small grit skip on North/East of site by grit house. Previously observed spill of rag remains on plant above – ongoing maintenance to this plant requiring over-pumping of grit by mobile unit.

1x large open skip containing small quantity of grit.

On the West side there was one large open skip - empty.

One large open skip covered with yellow tarpaulin located by Sludge Screening House.

Observed spill of sludge on ground in skip area - accumulated within depressions in tarmac – requires removal and flushing clean.

Pasteurisation Plant

The pasteurisation plant is in service and fully operational.

Section 106 agreement

There have been no breaches of the s106 agreement in the last week.

West side primary settlement tanks (PST)

Rectangular PSTs – no issues

Circular PST's 9, 11 & 12 all in use. PST 10 currently out of use and being emptied – over-pumping to PST 9.

West Side Aeration Lanes (Old)

Battery C aeration feed channel approximately 50% obstructed – requires jetting.

New Works (West Side)

Feed Channel for Aeration Lanes 20 - 25 approximately 10% obstructed – requires jetting.

Whole of tanks have thin “fluffy” coverage across 100% of tanks – improved and reduced further since last inspection – dried crust on caps of all retaining walls – Sprinklers in use. Quantity of physical detritus in tank that has bypassed screener reduced significantly since last inspection. Sprinklers breaking surface and “churn” seen throughout tanks.

Odour Control Unit (OCU) performance monitoring – (18/05/17)

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station outlet	0.000(av)	0.2	Yes
East OCU	0.009(av)	0.05	Yes
West inlet OCU	0.000(av)	0.05	Yes
Sludge reception outlet	0,000(av)	0.8	Yes
Thickening plant outlet	0.000(av)	0.6	Yes
Transfer PS outlet	0.000(av)	0.6	Yes
New West inlet (OCU 11)	0.000(av)	0.5	Yes
OCU 12 (Pasteurisation Plant)	0.000(av)	0.5	Yes