



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 14 th February 2019	
Attendees: Mr Andrew Devine and Mr Manzoor Hussein (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A and 1B – Tanks approximately 50% full and returning. Amajets 1, 2 and 3 working in both tanks.</p> <p>Tank 2A – Tank empty and flushed clean – Hoppers 1, 2 & 3, approx. 10% full - requires draining/over-pumping. Some localised odour noted around tank.</p> <p>Tank 2B – Tank empty and flushed clean – Hoppers 1, 2 & 3 approximately 50% full - requires draining/over-pumping.</p> <p>Tank 3A – Tank empty and flushed clean – Hoppers 1, 2 & 3, approx. 10% full - requires draining/over-pumping.</p> <p>Tank 3B – Sludge and grit covering some of the tank. Hoppers 1, 2 & 3, approx. 10% full with sludge on the surface - requires draining/over-pumping.</p> <p>Tanks 4A, 4B, 5A & 5B which are covered and odour controlled were all empty - unable to gauge condition as lighting system still not working.</p>	

Tank 6A – Tank approximately 10% full and returning. Amajets 1, 2 and 3 working.

Tank 6B – Some sludge and grit in tank – requires further flushing. – Hoppers 1, 2 and 3 full - requires draining/over-pumping.

Tank 7A and 7B – Tanks recently returned – approx. 40% of tank covered by grit and sludge – requires further flushing – Hoppers 1, 2 & 3 full – requires draining/over-pumping.

Tank 8A and 8B – Tanks approximately 50% full and returning. Amajets 1, 2 and 3 working in both tanks.

Feed Channel - The level of effluent in both feed channels was low – almost bottomed out – no local odours.

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 Monitors

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

Monitor 1	0.006	ppm	12:26
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Monitor 2	0.008	ppm	12:26
Monitor 3	0.005	ppm	12:26
Monitor 4	0.007	ppm	12:26
Monitor 5	0.008	ppm	12:26
Monitor 6	0.000	ppm	12:26
Monitor 7	0.007	ppm	12:26
Monitor 8	0.007	ppm	12:26
Monitor 9	0.007	ppm	12:26
Monitor 10	0.007	ppm	12:26
Monitor 11	0.008	ppm	12:26
Monitor 12	0.005	ppm	12:26
Monitor 13	0.009	ppm	12:26
Wind Speed	4	mph	12:26
Wind Direction	187°		12:26

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

Thursday 7th February 2019

AM

Cold – Rain w/ Sunny Spells.

All OMU's in use.

Observations/Complaints: No odour issues.

Operational Issues/Causes: None noted.

Actions: None noted.

PM

Cool – Cloudy

All OMU's in use.

Observations/Complaints: "OM5 spiked at 19:35-20:05 max 0.016ppm, 21:05-22:05 max 0.016ppm, 23:35-23:50 max 0.027ppm."

Operational Issues/Causes: "None noted."

Actions: Area checked no obvious signs of odour found.

Friday 8th February 2019

AM

Cool - Rain.

All OMU's in use.

Observations/Complaints: No odour issues.

Operational Issues/Causes: None noted.

Actions: None noted.

PM

Cool - Rain.

All OMU's in use.

Observations/Complaints: "OM5 - 0.025ppm @ 20.07 - 21.19, OM3 - 0.022ppm @ 04.10 - 05.30."

Operational Issues/Causes: "OCU11 chemical dosing not in range.

No odour issues overnight."

Actions: Area checked no obvious signs of odour found.

Saturday 9th February 2019

AM

Cool – Cloudy w/ Sunny Spells.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: "None noted."

Actions: None noted.

PM

Cool – Rain.

All OMU's in use.

Observations/Complaints: "OM3 one spike 0.027ppm 04.09-0600."

Operational Issues/Causes: "No odour detected in area. OCU11 running ok. No odour from stack."

Actions: None noted.

Sunday 10th February 2019

AM

Cool – Rain w/ Sunny Spells.

All OMU's in use.

Observations/Complaints: "OM8 0.017ppm 15.02-15.16."

Operational Issues/Causes: "Spike less than 15 minutes."

Actions: None noted.

PM

Cool – Clear Night.

All OMU's in use.

Observations/Complaints: "OM5 0.022ppm 23.21-23.36 0.021ppm 00.51-01.06. OM3 0.020ppm 04.09-04.38."

Operational Issues/Causes: "Area checked no odour identified. Both spike 15 minutes long. No odour identified."

Actions: None noted.

Monday 11th February 2019

AM

Cool – Cloudy.

All OMU's in use.

Observations/Complaints: "om8- 0.021 @08.30-09.01."

Operational Issues/Causes: "OCU 11 not performing."

Actions: "Sludge imports and pas area."

PM

Cold – Clear Night.

All OMU's in use.

Observations/Complaints: "OM5 0.077ppm 22.35-23.06 0.041ppm 04.21-04.51. OM3 0.036ppm 20.23-23.40. OM1 0.030ppm 02.44-03.09."

Operational Issues/Causes: "No odour detected. Ocu11 and east ocu running with no odour being discharged from stack. Monitor 1 spiked when amajets on storm tanks were started in manual.."

Actions: None noted.

Tuesday 12^h February 2019

AM

Cool – Cloudy.

All OMU's in use.

Observations/Complaints: "OM5 = 0.041ppm - 06.36-06.51."

Operational Issues/Causes: "tanker imports."

Actions: "None noted."

PM

Cool – Overcast Night.

All OMU's in use.

Observations/Complaints: "OM5 18:06-18:35 @0.016ppm OM3 22:10-0:53 @0.029ppm 04:10-end of shift @max 0.029ppm".

Operational Issues/Causes: "None noted."

Actions: None noted.

Wednesday 13th January 2019

AM

Cool – Sunny w/ Patchy Clouds.

All OMU's in use.

Observations/Complaints: "OM3 - 0.026ppm at 6am to 08.39."

Operational Issues/Causes: "investigated no odours found."

Actions: None noted.

PM

Cold – Clear Night.

All OMU's in use.

Observations/Complaints: "OM3 max @0.028ppm from 03:40 till end of shift."

Operational Issues/Causes: "No obvious odours found."

Actions: None noted.

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					
09/02/19	0	722	0	722	632	1354
12/02/19	39	2029	0	2068	2266	4334
13/02/19	0	1842	183	2025	2418	4443

The sludge stock levels for the West side circular primary settlement tank 1 were **compliant** with the OMP trigger level (500m³) for all of the dates for 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.

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. Long term project currently initiated to bring these units back into service – will require significant investment.

Digester 5 - in use – seal level approx. 2t below coping stones – weak seal – evidence of recent spill – requires anti-foam and clean-up.

Digester 6 - in use – seal level approx. 2t below coping stones – weak seal – evidence of recent spill – requires anti-foam and clean-up.

Digester 7 - in use – seal level approx. 2ft below coping stones – seal weak and bubbling - Ongoing spitting/spill – requires anti-foam and clean-up.

Digester 8 – in use – seal level approx. 2t below coping stones – weak seal – evidence of recent spill – requires anti-foam and clean-up.

Digester 9 - in use – seal level approx. 2t below coping stones – weak seal – evidence of recent spill – requires anti-foam and clean-up.

Digester 10 – in use – seal level approx. 2t below coping stones – weak seal – evidence of recent spill – requires anti-foam and clean-up.

Digester 11 - in use – seal level approx. 2t below coping stones – weak seal – evidence of recent spill – requires anti-foam and clean-up.

Digester 12 - in use – seal level approx. 2t below coping stones – weak seal – evidence of recent spill – requires anti-foam and clean-up.

Digester 13 - out of use – empty and clean. Evidence of a historic large spill in this area.

Digester 14 - out of use – empty and clean. Evidence of a historic large spill in this area

Digester 15 - out of use – empty and clean. Evidence of a historic large spill in this area

Digester 16 - out of use – empty and clean. Evidence of a historic large spill in this area

Digester 17 - in use – seal level approx. 2t below coping stones – weak seal – evidence of recent spill – requires anti-foam and clean-up.

Digester 18 - in use – seal level approx. 2t below coping stones – weak seal – evidence of recent spill – requires anti-foam and clean-up.

Digester 19 - in use – seal level approx. 2ft below coping stones – good seal.

Digester 20 - in use – seal level approx. 2ft below coping stones – good seal.

Thames Water advised that the anti-foam dosing machined failed last night but that it has now been fixed. Thames Water advised that this failure lead to several spills from a number of the digesters. Thames Water had begun clearing up. While on site Thames Water stated that any remaining spills would be cleared that day.

GENERAL

Sludge Screening House

All doors open at time of inspection – TW advised that this is a Management decision to improve internal working environment for staff – odour monitors deployed in vicinity to determine whether local odours increase as a consequence.

Imported Sludge

There have been no imports for preceding seven days.

Final Settlement Tanks East Side of Works

The 8 circular tanks previously used as PSTs are now being used as final tanks (71-78).

Skips

1x 16 yd open uncovered skip used for general waste and 2 x 6yd open uncovered general waste skips.

2x large enclosed skip containing waste metals and 2x large open general waste skip located in Service Road by Storm Water Tanks.

East Side Raw Sludge Screen House

Doors closed at time of inspection.

West side primary settlement tanks (PST)

Rectangular PSTs – no issues

Circular PST's 9, 10, 11 & 12 all in use. Currently installing trial of odour control "mistors" on Tank 10 – pipe installed around tank top tail with nozzle sprays at regular intervals which can be utilised to create a plume of deodoriser (same as current mobile units on site) – intention to roll this out to all "odorous areas" on site if proves effective during trial period – initial testing has proven successful to date – trial ongoing. At the time of the inspection the "mistors" were not working. Thames Water advised that they had identified the issue and were in the process of fixing it.

Pasteurisation Plant

Pasteurisation plant 4/7/9 currently out of service - All remaining pasteurisation plant in service and fully operational.

West Side Aeration Lanes (Old)

Battery C aeration feed channel approximately 25% obstructed in one channel – requires jetting.

New Works (West Side)

Feed Channel for Aeration Lanes 21-24 partly obstructed. Tanker on site during inspection cleaning out the feed channel.

"Fluffy" coverage across surface returned across 100% of tank – thickened up so as to obscure internal dividing walls within tank.

Odour Control Unit (OCU) performance monitoring – (12/02/19)

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	No Data	Unknown	Unknown
Main pumping station outlet	0.00 0.00 0.00	0.2	Yes
East OCU	0.00 0.00 0.00	0.05	Yes
West inlet OCU	0.00 0.00 0.00	0.05	Yes
Sludge reception inlet	No data	Unknown	Unknown
Sludge reception outlet	No data	0.8	Yes
Thickening plant inlet	No data		Unknown
Thickening plant outlet	0.00 0.00 0.00	0.6	Yes
Transfer PS inlet	No Data	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	Yes
New West inlet (OCU 11)	0.00 0.00 0.00	0.5	Yes
OCU 12 (Pasteurisation Plant)	0.00 0.00 0.00	0.5	Yes