



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 22 th March 2018	
Attendees: Mr L Phillips (London Borough of Hounslow) and Manzor (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks</u></p> <p>Tank 1A – Tank empty and clean slight grit build up in tank hoppers 1 and 3 drained to lowest point. However hopper 2 required draining.</p> <p>Tank 1B – Tank empty and clean. Hoppers 1 and 2 drained down. Hopper 3 required draining.</p> <p>Tank 2A – Tank empty and clean. Hoppers 1, 2 & 3 all required over pumping.</p> <p>Tank 2B – Tank empty and clean with a slight amount of grit in the tank near the hoppers - All hoppers required over pumping.</p> <p>Tank 3A – Tank empty clean all hoppers required over pumping.</p> <p>Tank 3B – required 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> <p>Tank 6A – Tank empty clean- Hoppers 1, & 2 drained to lowest point however hopper 3 requires over pumping.</p>	

Tank 6B – Tank empty clean. Hoppers 1, & 2 drained to lowest point, hopper 3 requires over pumping.

Tank 7A – tank empty clean. Hoppers all drained to lowest point.

Tank 7B – Tank empty and clean – All hoppers full.

Tank 8A – Tank empty and flushed clean – Hoppers 1, 2 & 3 full – issue with faulty subterranean non-return valve allowing back-filling of hoppers – requires repair/replacement.

Tank 8B – Tank empty and flushed clean – Hoppers 1, 2 & 3 full – issue with faulty subterranean non-return valve allowing back-filling of hoppers – requires repair/replacement.

Feed Channel - The level of effluent in both feed channels was high – approximately 70% full and flowing.

Complaints

The Council directly received one complaint by telephone in the preceding week.

On the 22th March 2018 at 11:59 a telephone complaint was received by the call centre from a resident of Mogden Lane , Isleworth, located to the east side of the works. The call was passed to the duty officer at approximately 12:30. The duty officer contacted the complainant at 13:12 the complaint stated that the odour had been bad all morning. The duty officer asked if the odour was still present and affecting them at their property. The complainant advised that they had left their property and was unable to advise if the odour was still present. . As the duty officer was in the area due to conduct the weekly inspection the officer undertook H₂S readings for 10 minutes from 13:23. The average H₂S readings were 0.000ppm which is below the threshold level of 0.015ppm. The historic odour monitoring trends were inspected and no levels above the threshold were noted on odour monitors 1 to 13 at the time of the complaint. Therefore it is not possible on this occasion to identify the potential source of odour complained of by the resident.

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	0.009	ppm	10:07
Monitor 2	0.009	ppm	10:07
Monitor 3	0.000	ppm	10:07
Monitor 4	0.007	ppm	10:07
Monitor 5	0.006	ppm	10:07
Monitor 6	0.011	ppm	10:07
Monitor 7	0.009	ppm	10:07
Monitor 8	0.010	ppm	10:07
Monitor 9	0.009	ppm	10:07
Monitor 10	0.008	ppm	10:07
Monitor 11	0.007	ppm	10:07
Monitor 12	0.009	ppm	10:07
Monitor 13	0.009	ppm	10:07

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

Thursday 15th March 2018:

AM: No odour issues.

PM: No issues.

Actions: None noted.

Friday 16th March 2018:

AM: Odour monitor 8 spiked for less than 15 minutes. No action taken.

PM: Odour monitor 5 - 0.022 at 20:06- 21:03. Odour monitor 5 – 0.030 at 21:36 – 21:48. Odour monitor 6 – 13 no spikes.

Actions: None noted.

Saturday 17th March 2018:

AM: Odour monitor 9 showing high at 11:16 – 11:43 (0.021 ppm). Area checked around power house and no odours found spiked again at 14:43 for less than 15 minutes no other odour problems.

Actions: Odour suppressant unit running by river gates.

PM: Odour monitor 1- 5 no spikes. Odour monitor 6 0.016 at 17:45 – 18:43 – No SWT. Odour monitor 9 0.017 at 00:10 – 00:23 – down to digester 7 blowing its seal.

Actions: None noted.

Sunday 18th March 2018:

AM: No odour spikes. No odour issues.

Actions: None noted

PM: Odour monitors 1-5 no spikes. Odour monitor 6-13. OM13 0.015 at 01:41 – 02:38. OM9 – 0.0018 at 04:31 – 04:43.

Actions: None noted.

Monday 19th March 2018:

AM: Odour monitor 9 – spikes peaked at 0.027ppm. Monitor 4 – three spikes peaked @ 0.028ppm. No odour identified on site OCU 12 carbon replacement work ongoing.

PM: Odour monitor 1-5 no spikes. Odour monitor 6-13. Odour monitor 9 0.021- at 21:03 – 21:15. Odour monitor 10 – 0.021 at 00:45- 00:58. Odour monitor 10 0.016 at 01:15 – 02:13. Odour monitor 10 – 0.017 at 02:45 – 02:58.

Actions: None noted.

Tuesday 20th March 2018:

AM: Monitor 8 – 0.016ppm spike 07.27 - 08.27. Monitor 10 0.019 ppm spike 08:26- 08:41. Monitor 5 multiple spikes 14:02 – 16:17 peaked 0.051ppm.

Actions: No action taken OCU12 carbon replacement ongoing. Thickening area quite odours lots of imports cleaning ran sludge holding tank.

PM: Monitors 9, 10, 12 spiking all shift monitor 12 from 22:44 – 23:42 at 0.017ppm. All areas checked and no adverse odours found.

Actions: None noted.

Wednesday 21st March 2018:

AM: Odour monitor 8- one spike 0.021ppm 09:56 – 10:11. Monitor 5 one spike 0.020 ppm 06:31 – 07:02. Thickening area odour detected OCU12 reinstated.

Actions: None noted

PM: Odour monitor 1 at 22:10 till 23:10 (0.022ppm) Odour from PAS blowing across site.

Actions: PAS and OCU12 checked and no problems found.

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					
16/03/18	304	2672	1284	4260	8256	12516
19/03/18	435	1425	909	2769	8923	11692
21/03/18	0	2296	1199	3495	11625	15120

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.

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 – weak seal- No signs of spillages.

Digester 6 - In use – weak seal- No signs of spillages.

Digester 7 – In use – weak seal- No signs of spillages.

Digester 8 – In use – weak seal- No signs of spillages.

Digester 9 - In use – weak seal- No signs of spillages.

Digester 10 – In use – weak seal- No signs of spillages.

Digester 11 – In use – weak seal- No signs of spillages.

Digester 12 – In use – weak seal- No signs of spillages

Digester 13 - out of use.

Digester 14 - In use – good seal - No signs of spillages.

Digester 15 – In use – weak seal - No signs of spillages.

Digester 16 - out of use.

Digester 17 - in use – good seal, pellets used - No signs of spillages.

Digester 18 - In use – weak seal - No signs of spillages.

Digester 19 – In use – weak seal - No signs of spillages.

Digester 20 - In use – weak seal - No signs of spillages.

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.

GENERAL

Sludge Screening House

Shutter doors closed at time of inspection - no local odours.

Imported Sludge

Ten imports of 35m³ daily 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). Tank 71 drained down and out of service to refurbish valve.

Skips

3 x 6 yd skips located at East side grit house. – empty, uncovered
1x small open skip – half full of general waste located on service road by Pasteurisation plant.

1x small open skip empty covered.

East Side Screen House

All doors closed.

Pasteurisation Plant

The pasteurisation plant is in service and 10 streams are fully operational.

West side primary settlement tanks (PST)

Rectangular PSTs – no issues

Circular PST's 9, 10, 11 & 12 all in use.

West Side Aeration Lanes (Old)

No issues found.

New Works (West Side)

Feed Channel for Aeration Lanes were being tankered off during the inspection. However the feed channel was noted to be obstructed during the inspection.

Approximately 90% of tanks have again developed “fluffy” coverage across surface – worsened since previous inspection. Quantity of physical detritus in tank that has bypassed screener has decreased

significantly. Sprinkler head performance has been improved (cleaned/pressure increase).

Odour Control Unit (OCU) performance monitoring – (20/03/18)

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station outlet	0.000 (av)	0.2	Yes
East OCU	0.03 (av)	0.05	Yes
West inlet OCU	0.00 (av)	0.05	Yes
Sludge reception outlet	0,002 (av)	0.8	Yes
Thickening plant outlet	0.03 (av)	0.6	Yes
Transfer PS outlet	0.00 (av)	0.6	Yes
New West outlet (OCU 11)	0.011(av)	0.5	Yes
OCU 12 (Pasteurization Plant)	0.00 (av)	0.5	Yes