

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 4th January 2018 (THIS REPORT ALSO INCLUDES FIGURES FROM 28/12/2017- NO INSPECTION HAD TAKEN PLACE DUE TO CHRISTMAS CLOSURE)					
Attendees: Mr Zaheer Kadri (L B Hounslow) & Mr D Kalamantis (Thames Water).					
LB Hounslow Observation		Thames Water Action / Response			
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>All storm tanks from 1A to tank 8B were 80% full of effluent, the amajets on all tanks were observed to be in operation. No odours were present in this part of the works.</p> <p>Tanks 4A, 4B, 5A & 5B are covered and odour controlled.</p> <p><u>Storm Water Channel</u></p> <p>The storm feed channel serving STW's 1A-8B was 60% full of effluent along its entire length.</p>					
<p><u>Odour Monitors</u></p> <p>The odour readouts (H₂S) for all of the monitors, which were providing data at the time of inspection (approx. 13:22).</p> <table border="1"><tr><td>Monitor 1</td><td>0.005</td><td>ppm</td></tr></table>		Monitor 1	0.005	ppm	
Monitor 1	0.005	ppm			

Monitor 2	0.007	ppm
Monitor 3	0.000	ppm
Monitor 4	0.007	ppm
Monitor 5	0.007	ppm
Monitor 6	0.007	ppm
Monitor 7	0.008	ppm
Monitor 8	0.009	ppm
Monitor 9	0.007	ppm
Monitor 10	0.009	ppm
Monitor 11	0.009	ppm
Monitor 12	0.005	ppm
Monitor 13	0.009	ppm

Complaints

The Council received no complaints in the preceding week.

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

Thursday 28th December 2017

AM

OM5 spiked to 0.025 @ 13:52 (less than 15 minute duration)

PM

No Odours or spikes

Friday 29th December 2017

AM

No Odours or spikes

PM

OM5 spiked to 0.021 @ 20:40-21:40 – No odours detected

Saturday 30th December 2017

AM

OM10 spiked to 0.019 @ 10:06-11:05 – No odours detected

OM10 spiked to 0.017 @ 14:07 - 14:20

OM10 spiked to 0.019 @ 14:51 – 14:51-15:05

OM8 spiked to 0.016 @ 16:05 – 16:21

No odours detected

PM

OM13 spiked to 0.015 @ 00:55 – 01:52

Unable to identify source of odours- OCU11 operating as usual

Sunday 31st December 2017

AM

No odours detected

PM

No odours detected

Monday 1st January 2018

AM

OM13 spiked to 0.018 @ 13:05 lasted for 55 minutes

No odours found

PM

OM7 one spike peaked to 0.016ppm 21:10-22:10 .

OM8 three spikes peaked to 0.018ppm 22:25-22:40

OM8 spiked to 0.040ppm 23:25 - 23:40

OM8 spiked to 0.016ppm 02:29- 03:26

Tuesday 2nd January 2018

AM

OM5 spiked to 0.030 @ 15:26 (less than 15 minute duration)

PM

OM4 one spike peaked to 0.020ppm at 02:37-03:33

Wednesday 3rd January 2018

AM

OM2 one spike peaked to 0.018ppm at 15:30 – 16:25 (55 Minute duration) – Tanker operations being undertaken

OM7 spiked intermittently at end of shift max peaked to 0.016ppm – Storm tanks full.

PM

OM10 one spike peaked to 0.019ppm at 09:55-10:52- Digesters area being cleansed at this time

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					
29/12/17	1233	679	450	2362	2759	5121
01/01/18	0	1903	1158	3061	4088	7149
03/01/18	0	946	389	1335	2265	3600
22/12/17	1038	844	450	2332	2409	4741
25/12/17	259	1027	328	1614	2754	4368
27/12/17	1243	676	470	2389	2930	5319

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 and which has been complied with in this instance

Thames Water have informed LBH that West PSTs 1 are normally above the trigger due to the current sampling technique which is leading to higher levels of sludge being reported in the PSTs. Verification has confirmed the genuine sludge stocks are below the trigger level by using a sludge judge and checking the flow rate from the base of the tanks. Sludge judging will be used daily now to ensure accurate reporting.

Imported Sludge

There have been 70 imports of sludge over the last week (10 deliveries daily), each import containing 30m³ of sludge.

Sludge Screening House

The large roller shutter doors of the Raw Sludge Screening building was closed at the time of the inspection.

Digesters

Digesters 1-4 are permanently out of use.

Digester 5 was in use and had a thick crusty seal. No evidence of spillages.

Digester 6 was in use and had a thick crusty seal. No evidence of spillages.

Digesters 7 had evidence of a previous spillage to one side of the digester which needed immediate attention. The coping stone was completely covered and effluent covering the walkway. This digester was gassy and had a weak seal.

Digester 8 was in use and had a thick crusty seal (evidence of pellets being used).

Digester 9 was in use and had a thick crusty seal (evidence of pellets being used).

<p>Digester 10 was in use and had a thick crusty seal (evidence of pellets being used).</p> <p>Digester 11 was in use and had a thick crusty seal.</p> <p>Digester 12 was in use but had wet sloppy seal.</p> <p>Digester 13 is currently out of use.</p> <p>Digester 14 was in use but had a wet sloppy seal.</p> <p>Digester 15 was in use but had a wet sloppy seal.</p> <p>Digester 16 is currently out of use.</p> <p>Automatic dosing of anti-foaming agent is now in use and TW advised that this is also applied manually at least twice a day to all operational digesters.</p>	
<p><u>Return Activated Sludge Channel</u></p> <p>The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was relatively free flowing- no build-up of scum or rag along the run.</p> <p><u>West side primary settlement tanks (PST)</u></p> <p>Rectangular PSTs are now covered and odour controlled.</p> <p>Circular PSTs 9, 10, 11 & 12 were all in operation at the time of the inspection, all had clean fat free surfaces.</p>	

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). At the time of the inspection all tanks were in operation apart from 71 which was not in operation.

East Side Screen House

The screen house doors were closed at the time of the inspection. Thames confirmed all screens are in operation.

Skips

On the East side there was one low level open bulk carrier on site, this contained general waste and no odour was present (Not covered).

On the West side there were two empty large Bulk carriers which were empty and uncovered.

Pasteurisation Plant

The pasteurisation plant was in service at the time of the inspection. The TW officer confirmed all 12 streams were running.

Section 106 agreement

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

West Side Aeration Lanes (Old)

No issues appeared evident.

New Works (West Side)

The mixed liquor feed channel serving aeration lanes 24 & 25 (E Battery) was clogged with rag and other floating debris. The sprinkler system for the aeration lanes should be in permanent use but a number of sprinklers were still not working properly at the time of the inspection, again being clogged with pondweed.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring – 28/12/2017

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station outlet	0.00(av)	0.2	Yes
East OCU	0.00(av)	0.05	Yes
West inlet	0.00(av)	0.05	Yes
Sludge reception outlet	0.00(av)	0.8	Yes
Thickening plant outlet	0.00(av)	0.6	Yes

Pasteurization plant outlet (OCU 12)	0.000(av)	0.5	Yes
Transfer PS outlet	0.000(av)	0.6	Yes
New West OCU 11 outlet	0.000(av)	0.6	Yes
# Jerome reading			
Odour Control Unit (OCU) performance monitoring – 04/01/2018			
Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station outlet	0.00(av)	0.2	Yes
East OCU	0.00(av)	0.05	Yes
West inlet	0.00(av)	0.05	Yes
Sludge reception outlet	0.01(av)	0.8	Yes
Thickening plant outlet	0.00(av)	0.6	Yes
Pasteurization plant outlet (OCU 12)	0.000(av)	0.5	Yes
Transfer PS outlet	0.000(av)	0.6	Yes
New West OCU 11 outlet	0.000(av)	0.6	Yes
# Jerome reading			