

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 19th April 2018

Attendees: Mr Zaheer Kadri (London Borough of Hounslow) and Mr David Chowings (Thames Water)

LB Hounslow Observation

Thames Water Action / Response

Storm Water Storage Tanks

Tank 1A - Tank empty and flushed. Hoppers 1, 2 & 3 drained down and clear of effluent. Tank needed sweeping at Top end near Hoppers.

Tank 1B - Tank empty and flushed. Hoppers 1, 2 & 3 drained down and clear of effluent.

Tank 2A - Tank empty and flushed. Hoppers 1, 2 & 3 drained down and clear of effluent.

Tank 2B - Tank empty and flushed. Hoppers 1, 2 & 3 drained down and clear of effluent. Tank needed sweeping at Top end near Hoppers.

Tank 3A - Tank empty and flushed. Hoppers 1, 2 & 3 drained down and clear of effluent. Tank empty and flushed clean.

Tank 3B - Tank empty and flushed - approximately 10% of tank covered by grit - requires further flushing. Hoppers 1, 2 & 3 drained down to bottom level.

Tanks 4A, 4B, 5A & 5B which are covered and odour controlled were all empty - unable to gauge condition as lighting system still not working.

Tank 6A - Tank was empty and flushed - approximately 5% of tank covered by grit - requires further flushing/ sweeping at top end. Hoppers 1, 2 & 3 need draining down.

Tank 6B - Tank empty and flushed - approximately 5% of tank covered by grit - requires a sweep. Hoppers 1, 2 & 3 drained down to bottom level.

Tank 7A - Tank empty and flushed - approximately 10% of tank covered by grit - requires further flushing. Hoppers 1, 2 & 3 need further draining down to bottom level.

Tank 7B - Tank empty and flushed - approximately 10% of tank covered by grit - requires further flushing. Hoppers 1, 2 & 3 need further draining down to bottom level.

Tank 8A - Tank empty and flushed - approximately 10% of tank covered by grit - requires further flushing. Hoppers 1, 2 & 3 drained down to 50% from bottom level.

Tank 8B - Tank empty and flushed - approximately 10% of tank covered by grit - requires further flushing. Hoppers 1, 2 & 3 drained down to 50% from bottom level.

Feed Channel - The level of effluent in both feed channels was low-approximately 5-10% - almost bottomed out in places - some grit and sludge - no local odour.

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	0.000	ppm	13:30
Monitor 2	0.006	ppm	13:30
Monitor 3	0.000	ppm	13:30
Monitor 4	0.000	ppm	13:30
Monitor 5	0.000	ppm	13:30
Monitor 6	0.003	ppm	13:30
Monitor 7	0.005	ppm	13:30
Monitor 8	0.004	ppm	13:30
Monitor 9	0.005	ppm	13:30

Monitor 10	0.000	ppm	13:30		
Monitor 11	0.000	ppm	13:30		
Monitor 12	0.003	ppm	13:30		
Monitor 13	0.000	ppm	13:30		
Wind Speed	0.000	mph	13:30		
Wind Direction	237.000	Deg	13:30		
<p><u>Odour Log (Thames) - Photocopies of log entries taken:</u></p> <p><u>Thursday 12th April 2018</u></p> <p>AM – Cold and Cloudy. Observations: OM 3 spiked at 14:22 (0.022ppm) under 15 minute duration. Actions: No action.</p> <p>PM – Cold and Cloudy. All OMU's in use. Observations: OM 5 spiked at 22:49 (0.016ppm). Actions: Areas checked no odours detected.</p> <p><u>Friday 13th April 2018</u></p> <p>AM – Cool with partial cloud. All OMU's in use. Observations: No odour problems. Actions: None noted.</p> <p>PM - Cool and Cloudy. Observations: Sludge spill in PAS Screen house - Day Team to clear up No odours spikes. Actions: None noted.</p>					

Saturday 14th April 2018

AM – Warm and Sunny

All OMU's in use.

Observations: Sludge spillage in PFT area – No further actions noted.

No odour spikes.

Actions: None noted.

PM - Cold with Partial cloud and rain.

All OMU's in use.

Observations:

Actions: None noted.

Sunday 15th April 2018

AM - Cool and partial cloud with some rain.

All OMU's in use.

Observations: No odour or spikes.

Actions: No other issues.

PM - None noted.

All OMU's in use.

Observations: No odour or spikes.

Actions: None noted.

Monday 16th April 2018

AM - Cool temperature.

OMU - All in use.

Observations: No odours or spikes.

Actions: None noted.

PM - Cool temperature

OMU - All in use.

Observations: No other issues found.

Actions: None noted.

Tuesday 17th April 2018

AM – Temperature and weather conditions not noted.

OMU- No observations.

Observations: OM12 spiked to 0.019 for less than 15 minute – Smelly over the PAS area – MTS working in the area.

Actions: None noted.

PM – Cool and cloudy.

OMU- All in use.

Observations: No spikes or odours.

Actions: None noted.

Wednesday 18th April 2018

AM – Hot and sunny partial clouds.

All OMU's = All in use.

Observations: OM 5 spiked to 0.016ppm under 15 minute- No other issues.

Actions: None noted.

PM – Cool but cloudy.

All OMU's - All in use.

Observations: OM 5 spiked to 0.017 on two incidents however both under 15 minute durations.

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					
17/04/18	0	3150	1199	4349	8594	12943
13/04/18	157	2629	642	3428	5763	9191

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 within three days.

Digesters

Digesters 1-4 - Out of use (permanent).

Digester 5 - in use - seal level approx 1ft below coping stones - seal weak watery but stable - No signs of spillages.

Digester 6 - in use - seal level approx. 1ft below coping stones - seal sludgy and stable - No signs of spillages.

Digester 7 - in use - seal level approx. 1ft below coping stones - seal weak watery and gassy in some part - No signs of spillages at time of inspection.

Digester 8 - in use - seal level approx. 1ft below coping stones - seal weak and watery but stable - No signs of spillages.

Digester 9 - in use - seal level approx. 1ft below coping stones - seal weak watery but stable - No signs of spillages.

Digester 10 - in use - seal level approx. 1ft below coping stones - seal weak watery but stable - No signs of spillages.

Digester 11 - in use - seal level approx. 1ft below coping stones - seal weak watery but stable - No signs of spillages.

Digester 12 - in use - seal level approx. 1ft below coping stones - seal weak watery but stable - No signs of spillages.

Digester 13 - out of use.

Digester 14 - out of use.

Digester 15 - in use - seal level approx. 1ft below coping stones - seal weak watery but stable - No signs of spillages.

Digester 16 - out of use.

Digester 17 - in use - seal level approx. 1ft below coping stones - seal weak watery but stable - No signs of spillages.

Digester 18 - in use - seal level approx. 1ft below coping stones - seal thick and stable - No signs of spillages.

<p>Digester 19 - in use - seal level approx. 1ft below coping stones - seal thick and stable - No signs of spillages.</p> <p>Digester 20 - in use - seal level approx. 1ft below coping stones - seal thick and stable - No signs of spillages in use.</p> <p>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.</p>	
<p><u>GENERAL</u></p> <p><u>Sludge Screening House</u></p> <p>Shutter doors closed at time of inspection - no local odours.</p> <p><u>Imported Sludge</u></p> <p>Five imports of 35m³ daily for preceding seven days.</p> <p><u>Final Settlement Tanks East Side of Works</u></p> <p>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.</p> <p><u>Skips</u></p> <p>4x empty 6yd grit skips (Grit house) - 3 of them were uncovered and empty.</p>	

1x small open skip approximately 50% full of mixture of rag and timber offcuts located by West side Inlet Works.

East Side Screen House

All doors closed.

Pasteurisation Plant

The pasteurisation plant is in service and fully operational. 10/12 in use and 2/12 out of service being repaired/maintained.

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)

Battery C aeration feed channel approximately 20% obstructed in one channel - requires jetting.

New Works (West Side)

Feed Channel for Aeration Lanes 20 & 22 - 25 clear. Aeration Lane 21 approximately 60% obstructed - requires jetting.

Approximately 90% of tanks have again developed “thick fluffy” coverage across surface - due to sprinklers being out of services (power/pressure issues). Sprinklers not in operation at time of visit.

Odour Control Unit (OCU) performance monitoring - (18/04/18)

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.00 0.00 0.00	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	0,00 0,00 0.00	0.8	Yes
Thickening plant inlet	No data	Unknown	Unknown
Thickening plant outlet	0.000 0.000 0.000	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)	0.01 0.01 0.02	0.5	Yes	
OCU 12 (Pasteurization Plant)	0.00 0.00 0.00	0.5	Yes	