

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Friday 11th October 2019 (12:00)

Attendees: Mr Zaheer Kadri (LBH) and Ms Charlotte Page (Thames Water)

LB Hounslow Observation

Thames Water Action / Response

Storm Water Storage Tanks (SWST)

Tank 1A was empty and clean. Hoppers 1, 2, and 3 had all been drained down.

Tank 1B was empty and clean. Hoppers 1, 2, and 3 had all been drained down.

Tank 2A was empty and clean. Hoppers 1 and 2 had been drained down, however hopper 3 was full of effluent.

Tank 2B was empty and clean. Hoppers 1, 2, and 3 had all been drained down.

Tank 3A was empty and clean. Hoppers 1, 2, and 3 were all full approx 50% of the hopper.

Tank 3B was being flushed at time of inspection – effluent was 30% high and amajets were fully operational.

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 was empty and clean. Hoppers 1 and 2 had been drained down, however hopper 3 was full of effluent.

Tank 6B was empty and clean. Hoppers 1, 2, and 3 had all been drained down.

Tank 7A and Tank 7B were both being flushed at time of inspection– effluent in tank was approx 30% high and amajets were fully operational

Tank 8A and Tank 8B were both clean and empty. Hoppers 1, 2, and 3 were all drained down to the bottom level.

Amajets- No reports of any faults with amajets. All in working order.

Feed Channel - The level of effluent in both feed channels was low and bottomed out in places - it was murky with some sludgy deposits visible. Most of the channel was free flowing and odourless. No local odours rags, fats or solids.

Complaints

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

The Council 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	0.004	ppm	12:00
Monitor 2	0.007	ppm	12:00
Monitor 3	0.000	ppm	12:00
Monitor 4	0.005	ppm	12:00
Monitor 5	0.008	ppm	12:00
Monitor 6	0.008	ppm	12:00
Monitor 7	0.006	ppm	12:00
Monitor 8	0.006	ppm	12:00
Monitor 9	0.006	ppm	12:00
Monitor 10	0.006	ppm	12:00
Monitor 11	0.000	ppm	12:00
Monitor 12	0.007	ppm	12:00
Monitor 13	0.000	ppm	12:00
Wind Speed	220.608	mph	12:00
Wind Direction	4.006	Deg	12:00

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

Thursday 3rd October 2019

AM – Cool Sunny with patchy Clouds.

All OMU's in use.

Time: 17:30.

Observations/Complaints:OM2 spiked to 0.060ppm at 10:36-13:36.

Operational Issues/Causes: East inlet checked – No odours detected.

Actions: None noted.

PM – Rain with Sunny spells.

All OMU's in use.

Time: 05:00.

Observations/Complaints. OM2 spiked to 0.035ppm at 21:36- 21:58.

Operational Issues/Causes: No odour issues.

Actions: None noted.

Friday 4th October 2019

AM – Rain with sunny spells.

All OMU's in use.

Time: 17:30.

Observations/Complaints: No odour issues reported.

Operational Issues/Causes: No odour issues reported.

Actions: None noted.

PM – Cool / Overcast night.

All OMU's in use.

Time: 05:30.

Observations/Complaints: No odour issues reported.

Operational Issues/Causes: None noted.

Actions: None noted.

Saturday 5th October 2019

AM – Cool Sunny with patchy Clouds.

All OMU's in use.

Time: 17:30.

Observations/Complaints. No odour issues reported.

Operational Issues/Causes: No odour issues.

Actions: None noted.

PM – Cool / Rain.

All OMU's in use.

Time:05:30.

Observations/Complaints. No odour issues.

Operational Issues/Causes: No odour identified.

Actions: None Noted.

Sunday 6th October 2019

AM – Cool/ Rain.

All OMU's in use.

Time: 17:30.

Observations/Complaints. No odour issues reported.

Operational Issues/Causes: No odour issues reported.

Actions: None Noted.

PM – Cool/ Rain.

All OMU's in use.

Time: 05:30.

Observations/Complaints. No odour issues reported.

Operational Issues/Causes: No odour issues reported.

Actions: None noted.

Monday 7th October 2019

AM – Cool /Cloudy.

All OMU's in use.

Time: 17:30.

Observations/Complaints. No odour issues reported.

Operational Issues/Causes: No odour issues reported.

Actions: None.

PM – Cool with Rain.

All OMU's in use.

Time: 05:30.

Observations/Complaints. No odour issues.

Operational Issues/Causes: None.

Actions: No odour issues

Tuesday 8th October 2019

AM – Cool / Cloudy.

All OMU's in use.

Time: 17:20.

Observations/Complaints: No odour issues.

Operational Issues/Causes: No odours found.

Actions: none noted.

PM – Cool / Clear night

All OMU's in use.

Time: 05:30.

Observations/Complaints:

OM2 spikes:

0.027ppm @ 22:08-22:26

0.023ppm @ 01:00-01:15.

Operational Issues/Causes: None odours found.

Actions: None noted.

Wednesday 9th October 2019

AM – Cool / Cloudy.

All OMU's in use.

Time: 17:20.

Observations/Complaints:

OM2 spikes:

0.020ppm @ 08:37-09:07

0.021ppm @ 06:10-06:25

OM8 spiked to 0.019ppm @ 14:53-15:05

Operational Issues/Causes: None odour source found.

Actions: None noted.

PM – Cool / clear night.

All OMU's in use.

<p>Time: 05:30.</p> <p>Observations/Complaints: OM5 spikes: 0.016ppm @ 18:14-18:28 0.019ppm @ 19:43-19:59 0.028ppm @ 21:28-22:29</p> <p>Operational Issues/Causes: occasional odour from PAS area - No spills from heat exchange/reactor overflows. OCU12 running as normal.</p> <p>Actions: None noted.</p>	
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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					
4/10/19	0	595	244	839	912	1751
7/10/19	0	473	305	778	2072	2850
9/10/19	0	412	305	717	1568	2285

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. 1ft below coping stones - good seal thick in texture.

Digester 6 - in use - seal level approx. 1ft below coping stones - good seal thick in texture.

Digester 7 – Out of service

Digester 8 - in use - seal level approx. 1ft below coping stones - good seal thick in texture.

Digester 9 - in use - seal level approx. 1ft below coping stones - good seal thick in texture.

Digester 10 - in use - seal level approx. 1ft below coping stones - good seal thick in texture.

Digester 11 - in use - seal level approx. 1ft below coping stones - good seal thick in texture.

Digester 12 - Out of service

Digester 13 - in use - seal level approx. 1ft below coping stones - good seal thick in texture.

Digester 14 - out of service.

Digester 15 - out of service.

Digester 16 - out of service.

Digester 17 - in use - seal level approx. 1ft below coping stones - good seal thick in texture.

Digester 18 - out of service.

Digester 19 - in use - seal level approx. 1ft below coping stones - good seal thick in texture.

Digester 20 - in use - seal level approx. 1ft below coping stones - good seal thick in texture.

No odour in the area observed at times of inspection

GENERAL

Sludge Screening House

All doors closed at time of inspection however aware that on previous visits these doors have been left open to avoid condensation build up – TW advised that doors being left open to create air flow 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. No odours observed.

Imported Sludge

Estimated average of 10 imports per day (average total of 73 over the preceding week).

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 jets and hoses were in operation and no excessive build-up of algae.

Skips

No Skips present at the East side screening House- All clear.

Eastside Grit House had 2 x 12 yard skips full with general waste and partially covered
1 x Bulk carrier (OPEN) with metals and other inert material inside – this was uncovered (used for general waste).
No Skips present at the West Side gritting house. - All clear.
No odour detected.

East Side Raw Sludge Screen House

Doors closed at time of inspection.

West side primary settlement tanks (PST)

Rectangular PSTs – No issues noticed at time of inspection

Circular PST's 9, 10 and 12 were in use and all hoses were in operation.
Circular PST number 11 had been drained down and out of service. No Odours observed.

Pasteurisation Plant

Pasteurisation plant had (6) streams out of twelve that were out of service. - All remaining pasteurisation streams (7) in service fully operational.

West Side Aeration Lanes (Old)

Battery C aeration feed channel approximately 100% clear of any obstruction- effluent is flowing with ease NO rags or build up noticed..

New Works (West Side)

Feed Channel for Aeration Lanes 21-24 free flowing no obstructions or odours. The contractor Celvac now only attends intermittently or when needed.

The “Fluffy” coverage (obscured internal dividing walls within tank) that had been observed on previous visits had lightened in texture revealing the dividing walls within the tank. There were no concerning odours around this area.

Odour Control Unit (OCU) performance monitoring – (9th October 2019)

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.01 0.01 0.01 Ave: 0.01	Unknown	Unknown
Main pumping station outlet	0.00 0.00 0.00 Ave: 0.00	0.2	Yes
East OCU	0.00 0.00 0.00 Ave: 0.00	0.05	Yes
West inlet OCU	0.00 0.00 0.00 Ave: 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	Unknown
Thickening plant outlet	0.01 0.01 0.01 Ave: 0.01	0.6	Yes
Transfer PS inlet	No Data	Unknown	Unknown
Transfer PS outlet	0.01 0.01 0.00 Ave: 0.00	0.6	Yes
New West inlet (OCU 11)	0.00 0.00 0.00 Ave: 0.00	0.5	Yes
OCU 12 (Pasteurisation Plant)	0.00 0.00 0.00 Ave: 0.00	0.5	Yes