



Mogden Sewage Treatment Works

TW Site Inspection

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| Date of inspection: 20 th June 2019 (12:00) | |
| Attendees: Mr Zaheer Kadri (LBH), Mr Aneel Gurang and Mr Waleed Janjua (Thames Water) | |
| LB Hounslow Observation | Thames Water Action / Response |
| <p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A was empty and had wet residue on the surface of the Tank (Hopper end). Hoppers 1, 2, and 3 needed draining down.</p> <p>Tank 1B was empty and had wet residue on the surface of the Tank (Hopper end). Hoppers 1, 2, and 3 needed draining down.</p> <p>Tank 2A was empty and had dry gritty residue on the surface of the Tank (Hopper end). Hoppers 1, 2, and 3 needed draining down.</p> <p>Tank 2B was empty and had dry gritty residue on the surface of the Tank (Hopper end). Hoppers 1, 2, and 3 were all drained down.</p> <p>Tank 3A Tank was returning all Amajets in operation 20% full of effluent.</p> <p>Tank 3B was empty and had wet residue on the tank floor at the hopper end. Hoppers 1, 2, and 3 all needed draining down.</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 was empty and had wet residue on the tank floor at the hopper end. Hoppers 1, 2, and 3 were drained down.

Tank 6B was empty and had wet residue on the tank floor at the hopper end. Hoppers 1, 2, and 3 all needed draining down.

Tank 7A was empty and had dry residue on the tank floor at the hopper end. Hoppers 1, 2, and 3 shallow hoppers all needed draining down.

Tank 7B was empty and had wet residue on the tank floor at the hopper end. Hoppers 1, 2, and 3 all needed draining down.

Tank 8A was empty and had wet sludgy residue on the tank floor at the hopper end. Hoppers 1, 2, and 3 all needed draining down.

Tank 8B was empty and had wet sludgy residue on the tank floor at the discharge end. Hoppers 1, 2, and 3 all needed draining down.

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

Feed Channel - The level of effluent in both feed channels was low – almost bottomed out in places. Dark and murky throughout the channel–no local odours rags, fats or solids. .

Complaints

The Council received one (0) complaint 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 | 0.009 | ppm | 12:15 |
| Monitor 2 | 0.006 | ppm | 12:15 |
| Monitor 3 | 0.000 | ppm | 12:15 |
| Monitor 4 | 0.010 | ppm | 12:15 |
| Monitor 5 | 0.004 | ppm | 12:15 |
| Monitor 6 | 0.006 | ppm | 12:15 |
| Monitor 7 | 0.000 | ppm | 12:15 |
| Monitor 8 | 0.003 | ppm | 12:15 |
| Monitor 9 | 0.005 | ppm | 12:15 |
| Monitor 10 | 0.007 | ppm | 12:15 |
| Monitor 11 | 0.000 | ppm | 12:15 |
| Monitor 12 | 0.000 | ppm | 12:15 |
| Monitor 13 | 0.005 | ppm | 12:15 |
| Wind Speed | | mph | 12:15 |
| Wind Direction | | Deg | 12:15 |

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

Thursday 13th June 2019

AM – Cool / Rain with sunny spells.

All OMU's in use.

Time: 17:20.

Observations/Complaints: No issues.

Operational Issues/Causes: Storm tanks filling.

Actions: None noted.

PM – Cool / Rain.

All OMU's in use.

Time: 05:30.

Observations/Complaints: OM2 spiked at 01:15 – 01:34 <15 mins duration max 0.031ppm, OM5 spiked at 22:37-22:51 <15 mins duration max 0.031ppm.

Operational Issues/Causes: Storm Tanks Full/Storming to river.
Actions: None noted.

Friday 14th June 2019

AM – Warm / Rain with Sunny Spells .
All OMU's in use.

Time: 17:30.

Observations/Complaints: No issues.

Operational Issues/Causes: Storm Tanks returning.

Actions: None noted.

PM – Cool / Overcast night.

All OMU's in use.

Time: 05:30

Observations/Complaints: OM2- 0.017 01:20-01:28

Operational Issues/Causes: Storm Tanks returning

Actions: None noted.

Saturday 15th June 2019

AM – Warm / Cloudy with Sunny spells
All OMU's in use.

Time: 17:30.

Observations/Complaints: No odour issues

Operational Issues/Causes: storm tanks returning .

Actions: None noted.

PM – Cool clear night.

All OMU's in use.

Time: 05:30.

Observations/Complaints: OM2 Multiple spikes throughout the night –

OM10 – 0.021 05:29-06:28 under operational issues.

Operational Issues/Causes: No Sources found.

Actions: None Noted.

Sunday 16th June 2019

AM – Warm Cloudy sunny spells.

All OMU's in use.

Time: 17:30.

Observations/Complaints: None.
Operational Issues/Causes: No obvious source identified.
Actions: None noted.
PM – Cool Overcast night .
All OMU's in use.
Time: 05:30.
Observations/Complaints: OM2 0.027 02:59-03:43 No Source found
OM5 0.022 22:21- 22:35 - No Operational issues.
Operational Issues/Causes: None.
Actions: None noted.

Monday 17th June 2019

AM – Warm / Sunny with patchy clouds.
All OMU's in use.
Time: 17:30.
Observations/Complaints: OM2 & 5 2 spikes on these monitors No odours found.
Operational Issues/Causes: None.
Actions: None.
PM – Cool overcast night.
All OMU's in use.
Time: 05:30.
Observations/Complaints:
OM2 - 0.032ppm at 01:44 - 02:05 - No source found.
OM5 - 0.020ppm at 23:06 - 23:22 - No source found.
Operational Issues/Causes: None.
Actions: None noted.

Tuesday 18th June 2019

AM – Warm/ Rain with Sunny spells.
All OMU's in use.
Time: 17:30.
Observations/Complaints: No odour issues.
Operational Issues/Causes: No odours found.
Actions: none noted.
PM – Cool / overcast night.
All OMU's in use.

Time: 05:30.

Observations/Complaints: No odour issues.

Operational Issues/Causes: None noted.

Actions: None noted.

Wednesday 19th June 2019

AM – Warm Rain with Sunny spells.

All OMU's in use.

Time: 17:30.

Observations/Complaints: Short spike from OM9 less than 15 minute duration.

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Cool / Rain.

All OMU's in use.

Time: 05:30.

Observations/Complaints: No odours reported.

Operational Issues/Causes: None found or reported.

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 | | | | | |
| 13/06/19 | 0 | 267 | 450 | 717 | 304 | 1021 |
| 17/06/19 | 0 | 581 | 0 | 581 | 456 | 1037 |
| 18/06/19 | 0 | 909 | 122 | 1031 | 969 | 2000 |

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 - evidence of recent spill - requires anti-foam and clean-up.

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

Digester 7 - in use - seal level approx. 1ft below coping stones. Seal was weak and slightly bubbling from one side.

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| <p>Digester 8 - in use - good seal level approx. 1ft below coping stones.</p> <p>Digester 9 - in use - seal level approx. 1ft below surface of coping stones - good seal.</p> <p>Digester 10 - in use - seal level approx. 1ft below surface of coping stones.</p> <p>Digester 11 - in use - seal level approx. 1ft below surface of coping stones - seal weak and bubbling.</p> <p>Digester 12 - in use - seal level approx. 1ft below coping stones - good seal.</p> <p>Digester 13 - in use - seal level approx. 1ft below coping stones - good seal.</p> <p>Digester 14 - out of use.</p> <p>Digester 15 - out of use.</p> <p>Digester 16 - out of use.</p> <p>Digester 17 - in use - seal level approx. 1ft below coping stones - seal crusty.</p> <p>Digester 18 - in use - seal level approx. 2ft below coping stones - seal weak and slightly bubbling.</p> <p>Digester 19 - in use - seal level approx. 1ft below coping stones - good seal.</p> <p>Digester 20 - in use - seal level approx. 1ft below coping stones - good seal.</p> <p>No odour in the area observed at times of inspection.</p> | |
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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 daily for preceding seven days. (Low Sludge stocks).

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 screening House- All clear.

1 12yd Skip with general waste – Blue Tarpaulin covered
1 Large bulk loaders (open carriers) were present at the East side grit House- These was uncovered and empty (used for general waste).
There was one 6yrd skip which also had a tarpaulin cover.

No odour detected.

No Skips present at the West Side gritting house - All clear.

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, 11 & 12 all in use and all hoses were in operation. TW had introduced a trial of odour control "mistors" on Tank 10 – pipe installed around tank top tail with nozzle sprays at regular intervals which could be utilised to create a plume of deodoriser (same as current mobile units on site) – intention are 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 time of inspection these mistors were not in operation. No Odours observed.

Pasteurisation Plant

Pasteurisation plant had five streams that were out of service - All remaining pasteurisation plant in service and fully operational.

West Side Aeration Lanes (Old)

Battery C aeration feed channel approximately 90% clear of any obstruction- effluent is flowing with ease NO rags or build up noticed. Kelvac (Contractors) on site at time of inspection.

New Works (West Side)

Feed Channel for Aeration Lanes 21-24 free flowing no obstructions or odours. Kelvac on site at time of inspection.

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 – (20th June 2019)

| Plant | Reading (ppm) | Action Level (ppm) | Compliant |
|-----------------------------|--|--------------------|-----------|
| Main pumping station inlet | 0.05 0.05 0.06 Ave: 0.05 | 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 | 0.00 0.00 0.00 Ave: 0.00 | 0.6 | Yes |
| Transfer PS inlet | No Data | Unknown | Unknown |
| Transfer PS outlet | 0.01 0.01 0.02 Ave: 0.01 | 0.6 | Yes |
| New West inlet (OCU 11) | 0.03 | 0.5 | Yes |

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|-------------------------------|--|-----|-----|--|
| | 0.03 0.02 Ave: 0.02 | | | |
| OCU 12 (Pasteurisation Plant) | 0.00 0.00 0.00 Ave: 0.00 | 0.5 | Yes | |