

Mogden Sewage Treatment Works

TW Site Inspection

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| Date of inspection: Thursday 21 st November 2019 (12:00) | |
| Attendees: Mr Zaheer Kadri (LBH), Mr Eric Samuel (LBH) and Ms Charlotte Page (Thames Water) | |
| LB Hounslow Observation | Thames Water Action / Response |
| <p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A was empty and clean (tank did not need flushing) and hoppers 1, 2 and 3 had all been drained down.</p> <p>Tank 1B was empty and clean (tank did not need flushing) and hoppers 1, 2 and 3 had all been drained down. There was some patches of wet sludge across the surface of the tank (River Outlet end).</p> <p>Tank 2A was empty and clean (tank did not need flushing) and hoppers 1, 2 and 3 had been drained down however hopper 3 was full of effluent. There were wet sludge patches near the hopper end.</p> <p>Tank 2B was empty and clean (tank did not need flushing) and hoppers 1, 2 and 3 had all been drained down.</p> | |

Tank 3A was empty and clean (tank did not need flushing), however Hoppers 1, 2 and 3 were all empty. There was some dry grit across the surface.

Tank 3B was empty and clean (tank did not need flushing), however Hoppers 1, 2 and 3 were all empty. There was some dry grit across the surface.

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 (tank did not need flushing), however hoppers 1, 2 and 3 were all empty. There was some dry grit across the surface at the hopper end and around the middle of the tank.

Tank 6B was empty and clean (tank did not need flushing), however hoppers 1, 2 and 3 were all empty. There was some dry grit across the surface at the hopper end.

Tank 7A was empty and clean (tank did not need flushing), however hoppers 1 and 2 needed draining down (Shallow hoppers) and hopper 3 was clear of effluent. There was some wet grit/sludge across the surface of the tank.

Tank 7B was empty and clean (tank did not need flushing), however hoppers 1, 2 and 3 needed draining down (Shallow hoppers). There was some wet grit/sludge across the surface of the tank.

Tank 8A and Tank 8B were both clean and empty however there was some over flow from the Hopper end which would need flushing. Hoppers 1, 2 and 3 all needed draining down in both tanks.

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 1 complaint by email in the preceding week from the Harvester Road area of Isleworth TW7. LBH were CCd in to an email chain between the complainant and Thames Water regarding the odours. Gayle Thomas from Thames Water was able to provide a substantial response to the complainant. No times or dates of the incident were given so we were unable to observe the trends overview to see if any spikes had occurred.

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 | 0.005 | ppm | 12:23 |
| Monitor 2 | 0.005 | ppm | 12:23 |
| Monitor 3 | 0.000 | ppm | 12:23 |

| | | | |
|----------------|---------|-----|-------|
| Monitor 4 | 0.004 | ppm | 12:23 |
| Monitor 5 | 0.009 | ppm | 12:23 |
| Monitor 6 | 0.008 | ppm | 12:23 |
| Monitor 7 | No data | ppm | 12:23 |
| Monitor 8 | 0.004 | ppm | 12:23 |
| Monitor 9 | 0.004 | ppm | 12:23 |
| Monitor 10 | 0.004 | ppm | 12:23 |
| Monitor 11 | 0.000 | ppm | 12:23 |
| Monitor 12 | 0.004 | ppm | 12:23 |
| Monitor 13 | 0.005 | ppm | 12:23 |
| Wind Speed | No data | mph | 12:23 |
| Wind Direction | No data | Deg | 12:23 |

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

Thursday 14th November 2019

AM – Rain and cool.

All OMU's in use.

Time: 17:30.

Observations/Complaints: No odour issue.

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Clear night and cold.

All OMU's in use.

Time: 05:30.

Observations/Complaints. No odour issues.

Operational Issues/Causes: No odour issues.

Actions: None noted.

Friday 15th November 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 – Rain and cold.

All OMU's in use.

Time: 05:30.

Observations/Complaints: No odour issues reported.

Operational Issues/Causes: None noted.

Actions: None noted.

Saturday 16th November 2019

AM – Cloudy and cool.

All OMU's in use.

Time: 17:30.

Observations/Complaints. No odour issues reported.

Operational Issues/Causes: No odour issues.

Actions: None noted.

PM – Cloudy and cool.

All OMU's in use.

Time:05:30.

Observations/Complaints. No odour issues.

Operational Issues/Causes: No odour identified.

Actions: None Noted.

Sunday 17th November 2019

AM – Cloudy and 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 – Rain and cool.

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 18th November 2019

AM – Cloudy with sunny spells.

All OMU's in use.

Time: 17:20.

Observations/Complaints. OM8 spiked to 0.025ppm between 15:09-15:26 (under 15minute duration).

Operational Issues/Causes: No odour issues reported- area checked.

Actions: None.

PM – Overcast night/ freezing.

All OMU's in use.

Time: 05:30.

Observations/Complaints. No odour issues.

Operational Issues/Causes: None.

Actions: No odour issues.

Tuesday 19th November 2019

AM – Cloudy with sunny spells.

All OMU's in use.

Time: 17:20.

Observations/Complaints: No odour issues.

Operational Issues/Causes: No odours found.

Actions: none noted.

PM – Clear night and cold.

All OMU's in use.

Time: 05:30.

Observations/Complaints: No odour issues.

Operational Issues/Causes: None odours found.

Actions: None noted.

Wednesday 20th November 2019

AM – Cloudy with sunny spells.

All OMU's in use.

Time: 17:30.

Observations/Complaints:

OM2 spiked twice: 0.020ppm @ 06:15-06:30, 0.020ppm @ 07:43-07:56.

Operational Issues/Causes: None odour source found.

Actions: None noted.

PM –clear night and cold.

All OMU's in use.

Time: 05:30.

Observations/Complaints:

Customer complaint received. Heather Close – The South West corner of the site reports of strong odour.

Operational Issues/Causes: Walkabout completed no evidence of any odours being generated from e-battery inlet, PAS area and digesters nothing of note on trends.

Actions: Confirmed all OCUs on site area operating normally.

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 | | | | | |
| 15/11/19 | 0 | 1304 | 394 | 1698 | 3074 | 4772 |
| 19/11/19 | 0 | 1261 | 740 | 2001 | 3563 | 5564 |
| | | | | | | |

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 - weak watery seal in appearance.

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 - weak watery seal in appearance.

Digester 10 - in use - seal level approx. 1ft below coping stones - weak watery seal in appearance.

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

Digester 12 - in use - seal level approx. 1ft below coping stones - good seal thick in texture.

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

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

Digester 18 - out of service.

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| <p>Digester 19 - in use - seal level approx. 1ft below coping stones - good seal thick in texture.</p> <p>Digester 20 - in use - seal level approx. 1ft below coping stones - good seal thick in texture.</p> <p>No odour in the area observed at times of inspection</p> | |
| <p><u>GENERAL</u></p> <p><u>Sludge Screening House</u></p> <p>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.</p> <p><u>Imported Sludge</u></p> <p>Estimated average of 12 imports per day (2 deliveries made due to resource). Deliveries made on Friday 15th and Tuesday 19th November 2019.</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). All jets and hoses were in operation and no excessive build-up of algae.</p> | |

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 2 streams out of twelve that were out of service.
All remaining pasteurisation streams (10) 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 - (19th November 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 | 0.05 | Yes |

| | | | |
|-------------------------------|--|---------|---------|
| | 0.00 0.00 Ave: 0.00 | | |
| 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 | 0.00 0.00 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 |