



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Thursday 21st May 2020 (13:24pm)

Attendees: Mr L Phillips (London Borough of Hounslow) and Ms R Denny (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. Hoppers 1, 2 and 3 were all drained down to lowest point no odours detected.</p> <p>Tank 1B was empty and clean. Hoppers 1, 2 and 3 were all drained down to lowest point no odours detected.</p> <p>Tank 2A was empty and clean. Hoppers 1, 2 and 3 were all drained down to lowest point no odours detected.</p> <p>Tank 2B was empty and clean. Hoppers 1, 2 and 3 were all drained down to lowest point no odours detected.</p> <p>Tank 3A was empty and clean. Hoppers 1, 2 and 3 were all drained down to lowest point no odours detected.</p> <p>Tank 3B was empty and clean. Hoppers 1, 2 and 3 were all drained down to lowest point no odours detected.</p> <p>Tanks 4A, 4B, 5A & 5B All tanks are covered and odour controlled. Unable to gauge condition as lighting system still not working.</p>	

Tank 6A was empty and clean. Hoppers 1, 2 and 3 were all drained down to lowest point no odours detected.

Tank 6B was empty and clean slight grit located at the hopper end of the tank. All hoppers drained to lowest point no odours detected.

Tank 7A was empty and clean Hoppers 1, 2 and 3 (shallow hoppers) were all full and overflowing which required cleaning.

Tank 7B was empty and clean Hoppers 1, 2 and 3 (shallow hoppers) were all full and overflowing which required cleaning.

Tank 8A was clean and empty.

Hoppers 1, 2 and 3 were all full and overflowing, all required draining down.

TW advised all 3 hoppers are currently blocked.

Tank 8B was clean and empty all hoppers were all full and required draining down.

TW advised all 3 hoppers are currently blocked.

Feed Channel - The level of effluent in both feed channels was low along its entire length. However, there was thick scum and sludge on the surface along large sections of the channel.

All storm tank hoppers and the storm channel were deemed to be in a poor state no odour detected.

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.

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at time of inspection:

Monitor 1	0.00	ppm	14:13
Monitor 2	00.04	ppm	14:13
Monitor 3	00.0	ppm	14:14
Monitor 4	0.004	ppm	14:14
Monitor 5	0.00	ppm	14:15
Monitor 6	0.004	ppm	14:15
Monitor 7	0.005	ppm	14:15
Monitor 8	0.00	ppm	14:15
Monitor 9	0.006	ppm	14:15
Monitor 10	0.008	ppm	14:15
Monitor 11	0.008	ppm	14:17
Monitor 12	0.003	ppm	14:18
Monitor 13	0.006	ppm	14:18
Wind Speed	284.022	mph	
Wind Direction	7.963		

Odour Log (Thames)

Thursday 14th of May 2020:

DAY SHIFT:

Temp: Cold.

Weather: Sunny W patchy clouds.

Odour Readings: All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint: OM2 0.018 at 16:56 to end of shift OM2 0.015.

Operational issues / causes observed: Blank.

Actions Taken: Blank.

NIGHT SHIFT:**Temp:** Cold.**Weather:** Clear night.**Odour Readings:** All OMU's in operation.**Time:** 05:30.**Observations / Customer Complaint:** OM2 spiked at 05:15 – 05:40 max 0.10, OM3 spiked at 18:00 – 18:15 max 0.033ppm, OM7 spiked at 03:00 – 03:15 max 0.023ppm, OM9 spiked at 01:13 – 01:29 max 0.022ppm.**Operational issues / causes observed:** Final effluent culvert diverted to storm tanks whilst eight 20 install new penstocks in channel for LTAM project. Digester no 16 gassing off.**Actions Taken:** Blank.**Friday 15th of May 2020:****DAY SHIFT:****Temp:** Warm.**Weather:** Sunny W patchy clouds.**Odour Readings:** All OMU's in operation.**Time:** 17:30.**Observations / Customer Complaint:** OM2 spiked to max of 0.023ppm from 15:12 to 16:10.**Operational issues / causes observed:** East inlet area checked nothing of note to report and no obvious odours detected area washed down around skips and washpactors.**Actions Taken:** Blank.**NIGHT SHIFT :****Temp:** Cold.**Weather:** Clear night.**Odour Readings:** All OMU's in use.**Time:** 05:30.**Observations / Customer Complaint:** OM3 0.020 21:16 – 21:30 OM9 0.023 23:57 – 00:58 0.016 21:28 – 22:58 0.017 19:28 – 19:42.**Operational issues / causes observed:** Area checked no issues found digester 16 gassing off.**Actions Taken:** Blank.**Saturday 16th of May 2020:**

DAY SHIFT:**Temp:** Blank.**Weather:** Blank.**Odour Readings:** All OMU's in operation.**Time:** Blank.**Observations / Customer Complaint:** Blank.**Operational issues / causes observed:** Blank.**Actions Taken:** Blank.**NIGHT SHIFT:****Temp:** Cool.**Weather:** Clear night.**Odour Readings:** All OMU's in operation.**Time:** 05:30.**Observations / Customer Complaint:** OM2 0.019 22:25 - 22:40, OM8 0.018 - 22:09 - 22:23, OM4 0.016 21:54 - 22:09, 0.020 22:09 - 22:24, OM9 0.020 21:12 - 21:28 0.021 21:41 - 22:12, OM5 0.021 22::02 - 23:17 0.023 2:32 - 03:03 01027 - 04:17 - 04:33.**Operational issues / causes observed:** Digester 16 gassing off odour from PAS no spills detected.**Actions taken:** Blank.**Sunday 17th of May 2020:****DAY SHIFT:****Temp:** Warm.**Weather:** Sunny W patchy clouds.**Odour Readings:** All OMU's in operation.**Time:** 17:30.**Observations / Customer Complaint:** Blank.**Operational issues / causes observed:** No odour issues.**Actions Taken:** Blank.**NIGHT SHIFT:****Temp:** Cool.**Weather:** Clear night.**Odour Readings:** All OMU's in operation.**Time:** 05:30.**Observations / Customer Complaint:** OM7 0.015 23:14 - 00:14 OM8 0.017 19:08 - 19:23. Customer complainant 19:50 91 Mogden Lane.**Operational issues / causes observed:** No source found small spill from overflow in PAS area hosed down.

Actions Taken: Site check carried out.

Monday 18th of May 2020:

DAY SHIFT:

Temp: Warm.

Weather: Sunny.

Odour Readings: All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour spikes.

Operational issues / causes observed: Blank.

Actions Taken: Blank.

NIGHT SHIFT:

Temp: Cool.

Weather: Clear night.

Odour Readings: All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint: OM8 0.028 20:22 –N 20:41
0.016 19:24 – 19:38.

Operational issues / causes observed: No source found tankers
dropping off imported sludge overnight.

Actions Taken: Blank.

Tuesday 19th of May 2020:

DAY SHIFT:

Temp: Warm.

Weather. Sunny.

Odour Readings: All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint: One spike from OM8 for less
than 12 minutes.

Operational issues / causes observed: Blank.

Actions Taken: Blank.

NIGHT SHIFT:

Temp: Warm.

Weather: Clear night.

Odour Readings: All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint: OM9 spiked to 0.017ppm 00:40

– 01:43 OM5 spiked to 0.020ppm 01:33 – 02:03.

Operational issues / causes observed: Area checked no abnormal odours detected.

Actions Taken: Blank.

Wednesday 20th of May 2020:

DAY SHIFT:

Temp: Blank.

Weather: Blank.

Odour Readings: All OMU's in operation.

Time: Blank.

Observations / Customer Complaint: Blank.

Operational issues / causes observed: Blank.

Action Taken: Blank.

NIGHT SHIFT:

Temp: Warm.

Weather: Clear night.

Odour Readings: All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint: OM9 spiked to 0.028ppm 02:27

– 02:59 OM4 spiked to max 0.043ppm 02:37 – 03:08.

Operational issues / causes observed: No source found.

Actions Taken: Blank.

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					
15/05/2020	0	328	473	801	632	1433
18/05/2020	0	183	473	656	1112	1768
20/05/2020	0	806	412	1218	3423	4641

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.

Imported Sludge

There has been an average of 9 imports of sludge daily over the last week.

No.5 Pumping Station

The doors and windows of No.5 pumping station were closed at the time of the inspection but no odour was present.

Raw Sludge Screening House

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

Digesters

Digesters 1-4 Out of use (permanent).

Thames advised of a long term project currently initiated to bring these units back into service that will require significant investment.

Digester 5 Was in use had weak sloppy seal no evidence of sludge spill.

Digester 6 Was in use had weak sloppy seal no evidence of sludge spill.

Digester 7 was out of service.

Digester 8 Was in use had weak sloppy seal no evidence of sludge spill.

Digester 9 Was in use had weak sloppy seal no evidence of sludge spill.

Digester 10 Was in use had weak sloppy seal no evidence of sludge spill.

Digester 11 Was in use had weak sloppy seal no evidence of sludge spill.

Digester 12 Was in use had weak sloppy seal no evidence of sludge spill.

Digester 13 Was in use had weak sloppy seal no evidence of sludge spill.

Digester 14 out of service.

Digester 15 out of service.

Digesters 16 Was in use had weak sloppy seal no evidence of sludge spill.

Digester 17 Was in use good seal.

Digester 18 was out of service.

Digesters 19 Was in use had weak sloppy seal no evidence of sludge spill.

Digester 20 Was in use had weak sloppy seal no evidence of sludge spill.

The area around all digesters was much improved with no evidence of recent or historical sludge spills. Thames advised they have been actively undertaking regular clean-ups of this area of the works.

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).

All tanks were operational at the time of the inspection no issues to report on.

Skips

On the East side x1 20yd skip covered with trampoline contained general inert rubbish.

On the West side there was one 20yds bulk skip covered it was empty The carrier was very odourous and uncovered, a tarpaulin was on the floor next to it.

East Side Screen House

The doors to the screen house building were all closed at the time of the inspection. TW advised all screens were in operation.

Return Activated Sludge Channel

The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was free flowing and clear.

The far side channel was partially clogged along approx 30% of its length and visibly crusty in areas.

West side primary settlement tanks (PST)

Rectangular PSTs are now covered and odour controlled. TW advised no issues.

Circular PST 10 was out of service. PST's 9, 11 and 12 were all in use no issues to report on.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 10 streams are currently operational.

Section 106 agreement

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

West Side Aeration Lanes (New)

Noted that the general condition of all lanes were in a very poor state and all lanes had very thick scum and this had developed across all of the aeration lane surfaces that was thick enough to obscure nearly all of the internal dividing walls.

All of the sprinklers appeared to be out of operation and floating debris was clogging these areas of the lanes.

The mixed liquor feed channel serving aeration lanes 25 and part of 24

of E-Battery was clogged with thick scum and floating debris. No odour detected.

TW were advised that they should consider using a tanker crew to undertake a clearance of all clogged areas.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring: 20/05/2020

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	Blank	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	0.00 0.00 0.00	Unknown	Unknown
Sludge reception outlet	0.00 0.00 0.00	0.8	Yes
Thickening plant inlet	Blank	O/S	O/S
Thickening plant outlet	Blank	O/S	O/S
Transfer PS inlet	N/A	N/A	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	Yes

New West inlet (OCU 11)	0.00 0.00 0.00	0.5	Yes	
Pasteurisation (OCU 12)	0.00 0.00 0.00	0.5	Yes	