



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Thursday 27 th June 2019 (12:20pm)	
Attendees: Mr I Inman (London Borough of Hounslow) and Mr W Janjua (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A was empty but had dry crust across 30% of the tanks surface. Hoppers 1, 2 & 3 were all <30% full and required draining down.</p> <p>Tank 1B was empty and clean. Hoppers 1, 2 & 3 were all less <25% full.</p> <p>Tank 2A was empty and clean. Hoppers 1, 2 & 3 were all 25% full and required further draining down.</p> <p>Tank 2B was empty and clean. Hoppers 1, 2 & 3 were all 25% full and required further draining down.</p> <p>Tank 3A was empty and clean. Hoppers 1 & 2 were both <30% full and hopper 3 was full, all required draining down.</p> <p>Tank 3B was empty and clean. Hoppers 1, 2 & 3 were all 25% full and required draining down.</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 & 3 were all <25% full, hopper 3 was being overpumped into the storm channel.

Tank 6B was empty and clean. Hoppers 1, 2 & 3 were all drained down to their lowest point.

Tank 7A was empty and clean. Hoppers 1, 2 & 3 (shallow hoppers) were all full of grit and black sludge that required cleaning.

Tank 7B was empty and clean. Hoppers 1, 2 & 3 (shallow hoppers) were all full of grit and black sludge that required cleaning.

Tank 8A was empty and clean. Hopper 1 was full and hoppers 2 & 3 were both 30% full of black liquid. At the time of the inspection hopper 1 was being over pumped into the storm channel.

Tank 8B was empty and clean. Hopper 1 was 75% full and hoppers 2 & 3 were both 50% full, all required draining down.

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.

Thames advised of planned works to replace all of the hopper valves to prevent back flow of effluent, Scheduled to begin towards the end of April and lasting approx 3 months.

Complaints

The Council has received no complaints by telephone, Email or MRAG in the preceding week.

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at time of inspection: Thursday 27th June 2019 at 12:15.

Monitor 1	0.004	ppm	12:15
Monitor 2	0.007	ppm	12:15
Monitor 3	0.000	ppm	12:15
Monitor 4	0.006	ppm	12:15
Monitor 5	0.005	ppm	12:15
Monitor 6	0.006	ppm	12:15
Monitor 7	0.000	ppm	12:15
Monitor 8	0.000	ppm	12:15
Monitor 9	0.007	ppm	12:15
Monitor 10	0.007	ppm	12:15
Monitor 11	0.000	ppm	12:15
Monitor 12	0.004	ppm	12:15
Monitor 13	0.004	ppm	12:15
Wind Speed	6.870	mph	12:15
Wind Direction	55.153	°	12:15

Odour Log (Thames)

Thursday 20th June 2019

DAY SHIFT

Temp. Warm.

Weather. Sunny w/patchy clouds.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM1 one spike 0.023ppm
09:44-10:00.

Operational issues / causes observed. Storm tanks returning. No other odour issues.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Overcast night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Friday 21st June 2019

DAY SHIFT

Temp. Warm.

Weather. Sunny w/patchy clouds.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in use.

Time: 05:30.

Observations / Customer Complaint. OM5 0.024ppm at 21:52-22:07.

OM5 0.018ppm at 23:38-23:52.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Saturday 22nd June 2019

DAY SHIFT

Temp. Warm.

Weather. Sunny.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 0.030ppm 08:01-08:18.

Operational issues / causes observed. No odour identified.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour spikes.

Operational issues / causes observed. Blank.

Actions taken. Blank.

Sunday 23rd June 2019

DAY SHIFT

Temp. Warm.

Weather. Sunny w/patchy clouds.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

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. No odour spikes.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Monday 24th June 2019

DAY SHIFT

Temp. Warm.

Weather. Sunny w/patchy clouds.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM5 0.017ppm 14:38-14:53.

OM2 0.029ppm 14:15-14:37.

Operational issues / causes observed. East inlet skip area hosed/washed down. No other odour issues on site.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM2 0.024ppm at 19:39-20:13.

OM2 0.028ppm at 00:28-00:48.

Operational issues / causes observed. No odour identified.

Actions Taken. Blank.

Tuesday 25th June 2019

DAY SHIFT

Temp. Warm.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM10 0.016ppm 15:32-15:46.

Operational issues / causes observed. Digester area checked, no odour identified.

Actions Taken: Blank

NIGHT SHIFT

Temp. Warm.

Weather. Overcast night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues found or reported.

Actions Taken: Blank.

Wednesday 26th June 2019

DAY SHIFT

Temp. Warm.

Weather. Sunny.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues on site.

Action Taken: Blank.

NIGHT SHIFT

Temp. Warm.

Weather. Sunny w/patchy clouds.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues found or

reported.

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					
24/06/2019	0	473	305	778	760	1538
26/06/2019	0	679	305	984	1920	2904
27/06/2019	0	534	122	656	1088	1744

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 have been 30 imports of sludge over the last week.
10 on Monday 24th, 10 on Tuesday 25th & 10 on Wednesday 26th June.

No.5 Pumping Station

The doors and windows of No.5 pumping station were all closed at the time of the inspection.

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.

Digesters 5, 6, 7, 8, 9, 10, 11, 12 & 13 were all in use and had wet sloppy seals. However, only minimal amounts of gas appeared to be bubbling off.

It was noted that the bell height of digester 7 was very high.

Digesters 14, 15 & 16 were all out of service.

Digesters 17, 18, 19 & 20 were all in use and had wet sloppy seals. However, only minimal amounts of gas appeared to be bubbling off.

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.

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 but green algae was evident across large areas of the tanks surfaces.

Skips

On the East side there was one 20yds open bulk carrier that contained general inert rubbish (wooden crates).

Also present was one open 8yd skip that was covered with a tarpaulin which contained rag.

In the area next to STW 1A there was a large open topped skip,

estimated to be approx 20yd, which contained old machinery and metal work.

On the West side there were no skips.

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 clogged along 75% of the nearside channel and <50% of the outside (road side) channel.

Very small insects were clearly visible on top of crusty sections of the blockage.

TW were advised this needed to be rectified to avoid potential insect problems.

West side primary settlement tanks (PST)

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

Circular PSTs 9, 10, & 11 were all in operation at the time of the inspection and it was noted that PST10 had fat across 50% of the tanks surface.

The new odour suppression system around the perimeter of PST-10 is currently out of operation due to a faulty water main.

PST 12 was in the process of being drained down before being taken out of service as part of normal summer procedure.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 5 streams were

currently out of service.

Section 106 agreement

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

West Side Aeration Lanes (New)

All of the aeration tanks were much improved. The tops of the internal dividing walls were clearly visible and liquid inside the tanks appeared free flowing.

Nearly all of the sprinklers appeared to be in operation.

The mixed liquor feed channel serving E-Battery was clear of debris and free flowing along its entire length.

TW advised a tanker crew is regularly on site undertaking clearance of any clogged areas and Celvac was on site at the time of the inspection doing so.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring: 25/06/2019

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.01 0.01 0.01	Unknown	Unknown
Main pumping station outlet	0.00 0.00 0.00	0.2	Yes
East OCU	0.00 0.00	0.05	Yes

	0.00		
West inlet OCU	0.00 0.00 0.00	0.05	Yes
Sludge reception inlet	Blank	Unknown	Unknown
Sludge reception outlet	Blank	0.8	Yes
Thickening plant inlet	Blank	O/S	O/S
Thickening plant outlet	0.00 0.00 0.00	O/S	O/S
Transfer PS inlet	Blank	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	Yes
New West inlet (OCU 11)	0.03 0.02 0.03	0.5	Yes
Pasteurisation (OCU 12)	0.00 0.00 0.00	0.5	Yes