



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Tuesday 16th March 2021 (13:00pm)

Attendees: Mr L Phillips (LB Hounslow) and Mr Tom Costin (Thames Water)

LB Hounslow Observation

Thames Water Action / Response

Storm Water Storage Tanks (SWST)

Tank 1A - Tank was clean and empty - All hoppers were full and need draining down.

Tank 1B - Tank empty half of tank surface had a sludgy surface toward the river end of the tank. All three hoppers were full and need draining down.

Tank 2A - Tank was clean and empty - All hoppers were over full and need draining down.

Tank 2B - Tank was clean and empty - All hoppers were over full and need draining down.

Tank 3A - The whole of the tank was covered in a thick sludgy effluent the tank will requiring flushing. All hoppers were full and needed draining down.

Tank 3B - Tank was clean and empty - All hoppers were over full and need draining down.

Tanks 4A, 4B, 5A & 5B - All tanks are covered and odour controlled. Unable to gauge condition as lighting system still not working.

Tank 6A - Tank was clean and empty - All hoppers were over full and need draining down.

Tank 6B - Tank was clean and empty - All hoppers were over full and need draining down.

Tank 7A - Tank was clean and empty - All hoppers were over full and need draining down.

Tank 7B- The Tank was clean and empty - All hoppers were over full and need draining down.

Tank 8A - Was full of effluent at the hopper end but thinned out across the tank. The surface was clear of fatty deposits and sludge. All hoppers full and need draining down.

Tank 8B - Was full of effluent at the hopper end but thinned out across the tank. The surface was clear of fatty deposits and sludge. All hoppers full and need draining down.

Storm Feed Channel - The level of effluent in the feed channels was approx. 10% in depth along its entire length and murky and black in colour with some fatty deposits floating along the surface.

There were no observation of malodour at this locality of the works. Thames Water had been advised to take action to clean the tanks and drain down the hoppers.

Complaints

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

The Council directly received no complaint by email in the preceding week.

The Council received no complaints by email from MRAG.

Odour Monitors

The odour readouts (H₂S) for all monitors that were providing data on 23/03/2021 at the time of the inspection are below.

Monitor 1	0.000	ppm	13:08pm
Monitor 2	0.000	ppm	13:08pm
Monitor 3	0.000	ppm	13:08pm
Monitor 4	0.000	ppm	13:08pm
Monitor 5	0.004	ppm	13:09pm
Monitor 6	0.000	ppm	13:09pm
Monitor 7	0.000	ppm	13:09pm
Monitor 8	0.004	ppm	13:09pm
Monitor 9	0.005	ppm	13:09pm
Monitor 10	0.000	ppm	13:09pm
Monitor 11	0.000	ppm	13:09pm
Monitor 12	0.000	ppm	13:09pm
Monitor 13	0.000	ppm	13:09pm
Wind Speed	2.873	mph	13:09pm
Wind Direction	32.674		13:09pm

Odour Log (Thames)

Wednesday 10th March 2021:

DAY SHIFT:

Temp: Cool.

Weather: Rain.

Odour Readings: All Odour monitors are in operation / No Faults.

Time: 17:30.

Observations / Customer Complaint: No odour issues.
Operational issues / causes observed: Blank.
NIGHT SHIFT:
Temp: Cool.
Weather: Patchy rain.
Odour Readings: All Odour monitors are in operation / No Faults.
Time: 05:30.
Observations / Customer Complaint: No odour issues found or reported.
Operational issues / causes observed: Blank.

Thursday 11th March 2021

DAY SHIFT:
Temp: Cool.
Weather: Sunny W/ patchy clouds.
Odour Readings: All Odour monitors are in operation / No Faults.
Time: 17:30.
Observations / Customer Complaint: OM8 0.023ppm @ 09:30 – 14:52.
Operational issues / causes observed: Odour from main drive sewer.
NIGHT SHIFT:
Temp: Cool.
Weather: Clear Night.
Odour Readings: All Odour monitors are in operation / No Faults.
Time: 05:30.
Observations / Customer Complaint: No odour issues found or reported.
Operational issues / causes observed: Blank.

Friday 12th March 2021

DAY SHIFT:
Temp: Cool.
Weather: Cloudy W/ sunny spells .
Odour Readings: All Odour monitors are in operation / No Faults.
Time: 17:30.
Observations / Customer Complaint: No odour issues found or reported.
Operational issues / causes observed: Blank.

NIGHT SHIFT :

Temp: Cold.

Weather: Rain W/ sunny spells.

Odour Readings: All Odour monitors are in operation / No Faults.

Time: 05:30.

Observations / Customer Complaint: No odours.

Operational issues / causes observed: Blank.

Saturday 13th March 2021:

DAY SHIFT:

Temp: Cool.

Weather: Cloudy W/ sunny spells.

Odour Readings: All Odour monitors are in operation / No Faults.

Time: 17:30.

Observations / Customer Complaint: No odour issues found or reported.

Operational issues / causes observed: Blank.

NIGHT SHIFT:

Temp: Cool.

Weather: Rain.

Odour Readings: All Odour monitors are in operation / No Faults.

Time: 05:30.

Observations / Customer Complaint: No odours.

Operational issues / causes observed: Blank

Sunday 14th March 2021:

DAY SHIFT:

Temp. Cool.

Weather: Cloudy W/ sunny spells.

Odour Readings: All Odour monitors are in operation / No Faults.

Time: 17:30.

Observations / Customer Complaint: No odour issues found or reported.

Operational issues / causes observed: Blank.

NIGHT SHIFT:

Temp: Cool.

Weather: Rain.

Odour Readings: All Odour monitors are in operation / No Faults.

Time: 05:30.

Observations / Customer Complaint: No odours.

Operational issues / causes observed: Blank.

Monday 15th March 2021:

DAY SHIFT:

Temp: Cool.

Weather: Sunny W/ patchy clouds.

Odour Readings: All Odour monitors are in operation / No Faults.

Time: 17:30.

Observations / Customer Complaint: No odour issues.

Operational issues / causes observed: Blank.

NIGHT SHIFT:

Temp: Cool.

Weather: Rain.

Odour Readings: All Odour monitors are in operation / No Faults.

Time: 05:30.

Observations / Customer Complaint: OM9 – 0.015 19:18 – 19:33.

Operational issues / causes observed: Blank.

Tuesday 16th March 2021:

DAY SHIFT:

Temp: Cool.

Weather: Cloudy W/ sunny spells.

Odour Readings: All Odour monitors are in operation / No Faults.

Time: 17:30.

Observations / Customer Complaint: No odour issues.

Operational issues / causes observed: Blank.

NIGHT SHIFT:

Temp: Cool.

Weather: Clear Night.

Odour Readings: All Odour monitors are in operation / No Faults.

Time: 05:30.

Observations / Customer Complaint: OM9 0.017ppm @ 01:04 – 01:17.

Operational issues / causes observed: Blank.

Sludge Dip Records

Date	West PSTs 1	West PSTs 2	West PSTs 3	West Total	East PSTs	Grand Total
	All units in m³					
OMP limit	500					
10/03/2021	0	1405	1030	2435	3867	6302
12/03/2021	0	1781	824	2605	4380	6985
15/03/2021	0	1405	1218	2623	3387	6010

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

An average of 0 import of sludge per day. No imports made this week.

No.5 Pumping Station

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

Sludge Import Area

The sludge import area was clean & tidy. No odours detected at time of inspection. TW advised they are frequently hosing this area down.

Raw Sludge Screening House

The large roller shutter door of the Raw Sludge Screening building was closed at the time of 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 service - weak sloppy seal - No evidence of previous spillages.

Digester 6 - was out of service.

Digester 7 - was in service - weak sloppy seal that was bubbling off minimal amounts of gas - There was signs of previous spillage.

Digester 8 - was in service - Weak sloppy seal - No signs of previous spillages.

Digester 9 - was in service - Weak sloppy seal - No signs of previous spillages.

Digester 10 - was in service - Weak sloppy seal - No signs of previous spillages.

Digester 11 - was in service - Weak sloppy seal - No signs of previous spillages.

Digester 12 - was in service - Weak sloppy seal - No signs of previous spillages.

Digester 13 - was in service - Weak sloppy seal - No signs of previous spillages.

Digester 14 - was in service - Weak sloppy seal - No signs of previous spillages.

Digester 15 - was out of service.

Digester 16 - was in service - Weak sloppy seal - No signs of previous spillages.

Digester 17 - was in service and had a wet seal that was approx. 4ft below coping stones.

Digester 18 - was out of service.

Digester 19 - was out of service.

Digester 20 - was in service - Weak sloppy seal - No signs of previous spillages.

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.

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/sprinklers were in operation at the time of the inspection. Surfaces were mostly clear and free of any build-up of fatty/mossy deposits. The arms with hoses connected were rotating and clearing the fatty deposits.

Skips

On the East side (Grit house) there were 2 x 16yard skips. One of the skips contained inert material unlikely to rot or cause an odour (No cover). The second skip was empty. There was also 1 large red BIFFA 20yard skip for rag which was empty at the time of visit.

No other skips on site.

East Side Screen House

All the doors and roller shutter were closed at time of visit.

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 nearest the road was clogged along approx. 80% of its length, there were visibly crusty areas and a number of weeds were growing out of it. No change along the length of this channel.

West side primary settlement tanks (PST)

Rectangular PSTs are now covered and odour controlled.
TW advised no concerns or issues. No noticeable odours at time of inspection.

PST's 9, 10 and 11 were all in service and had relatively fat free surfaces.

Circular PST 12 has been drained down and is currently out of service.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 7 streams are currently operational.

Section 106 agreement

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

West Side Aeration Lanes

All lanes appeared to be free flowing with the internal dividing walls being slightly visible again. However it was noted that a thick fluffy foam is again starting to build up across the entire tanks surface area.

Most of the sprinklers were back in operation and a lot of floating of debris was noticeable (rag and a number of floating discarded face masks and sanitary towels).

The mixed liquor feed channel serving the aeration lanes of E-Battery was free flowing along its entire length, although thick foam appeared to be starting to build up by lane 22.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works and everything appeared to be in a good tidy order.

Odour Control Unit (OCU) performance monitoring: 16/03/2021

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	No Data	Unknown	Unknown
Main pumping station outlet	1.051 0.515 0.476	0.2	Unknown
East OCU	75.48 79.57 77.88	0.05	YES
West inlet OCU	0.06 0.04 0.05	0.05	YES
Sludge reception inlet	No Data	Unknown	Unknown
Thickening plant outlet	7.81 7.92	0.8	Unknown

	5.71		
Thickening plant inlet	No Data	Unknown	Unknown
Thickening plant outlet	1.016 1.011 1.018	0.6	NO
New West inlet (OCU 11)	22.32 24.01 22.02	0.5	Yes
Pasteurisation (OCU 12)	0.021 0.036 0.032	0.5	YES
Transfer PS inlet	0.112 0.110 0.116	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	YES