



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Tuesday 19 th January 2021 (12:30pm)	
Attendees: Mr I Inman (London Borough of Hounslow) and Mr D Grady (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A was full and returning. All Amajets were in operation.</p> <p>Tank 1B was full and returning. All Amajets were in operation.</p> <p>Tank 2A was full and returning. All Amajets were in operation.</p> <p>Tank 2B was full and returning. All Amajets were in operation.</p> <p>Tank 3A was full and returning. Amajets 1 and 2 were in operation.</p> <p>Tank 3B was full and returning. All Amajets were in operation.</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 full.
No Amajets were in operation.

Tank 6B was full.
No Amajets were in operation.

Tank 7A was full and returning.
All Amajets were in operation.

Tank 7B was full and returning.
Amajets 2 and 3 were in operation.

Tank 8A was full and returning.
All Amajets were in operation.

Tank 8B was full and returning.
All Amajets were in operation.

Storm Feed Channel - The level of effluent in both feed channels was high, approx. 85% along its entire length.

Complaints

The Council received 2 complaints via the on-line web system in the preceding week.

On 12/01/2021 a complaint was received via the Councils on-line web system from a resident of South Western Road, Twickenham, logged under our reference A09617. However, this resident does not reside within the London Borough of Hounslow and does therefore not receive our on-call service.

On 14/01/2021 a complaint was received via the Councils on-line web system from a resident of Whitton Dene, Isleworth, logged under our reference A09774. However, only limited information was provided by the complainant.

The historic odour monitor trends for the time before, during and after receipt of the complaints showed no abnormalities or excessive H₂S

readings.

Odour Monitors

The odour readouts (H₂S) for all monitors that were providing data on 19/01/2021 at the time of the inspection are below.

Monitor 1	0.000	ppm	13:01pm
Monitor 2	0.004	ppm	13:01pm
Monitor 3	0.000	ppm	13:01pm
Monitor 4	0.006	ppm	13:01pm
Monitor 5	0.005	ppm	13:01pm
Monitor 6	0.003	ppm	13:01pm
Monitor 7	0.000	ppm	13:01pm
Monitor 8	0.007	ppm	13:01pm
Monitor 9	0.003	ppm	13:01pm
Monitor 10	0.000	ppm	13:01pm
Monitor 11	0.000	ppm	13:01pm
Monitor 12	0.000	ppm	13:01pm
Monitor 13	0.00	ppm	13:01pm
Wind Speed	5.431	mph	13:01pm
Wind Direction	231.094		13:01pm

Odour Log (Thames)

Wednesday 13th January 2021

DAY SHIFT

Temp. Cool.

Weather. Cloudy.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

NIGHT SHIFT

Temp. Cold.
Weather. Rain.
Odour Readings. All OMU's in operation.
Time: 05:30.
Observations / Customer Complaint. No odour issues.
Operational issues / causes observed. Blank

Thursday 14th January 2021

DAY SHIFT

Temp. Cold.
Weather. Rain.
Odour Readings. All OMU's in operation.
Time: 17:30.
Observations / Customer Complaint. No odour issues.
Operational issues / causes observed. Blank.

NIGHT SHIFT

Temp. Cold.
Weather. Rain.
Odour Readings. All OMU's in operation.
Time: 05:30.
Observations / Customer Complaint. No odour issues.
Operational issues / causes observed. Blank.

Friday 15th January 2021

DAY SHIFT

Temp. Cool.
Weather. Cloudy.
Odour Readings. All OMU's in operation.
Time: 17:30.
Observations / Customer Complaint. No odour issues found or reported.
Operational issues / causes observed. Blank.

NIGHT SHIFT

Temp. Cold.
Weather. Clear night.
Odour Readings. All OMU's in operation.
Time: 05:30.
Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank

Saturday 16th January 2021

DAY SHIFT

Temp. Cold.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM5 spiked at 12:55-13:09 <15 mins duration max 0.016ppm.

Operational issues / causes observed. Pasteurisation sludge odour on main drive but unable to ascertain source before it had gone.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Sunday 17th January 2021

DAY SHIFT

Temp. Cool.

Weather. Sunny w/patchy clouds.

Odour Readings. All OMU's in operation.

Time: 17:30.

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

Operational issues / causes observed. Blank.

NIGHT SHIFT

Temp. Cold.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Monday 18th January 2021

DAY SHIFT

Temp. Cold.

Weather. Cloudy w/sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM5 0.016 12:55-13:09.

Operational issues / causes observed. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Tuesday 19th January 2021

DAY SHIFT

Temp. Cold.

Weather. Rain w/sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

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

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 m ³					
OMP limit	500					
13/01/2021	39	1199	885	2123	912	3035
18/01/2021	39	867	885	1791	1568	3359

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 12 imports of sludge per day.

No.5 Pumping Station

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

Sludge Import Area

It was noted that the condition around the sludge import area was much improved and noticeably cleaner than on previous visits.

TW were 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 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 service and had a very wet seal (virtually no seal), but bubbling off gas was minimal. It was also noted that the seal level was low.

Digester 6 was in service and had a very wet seal (virtually no seal), but bubbling off gas was minimal. It was also noted that the seal level was low, but there was evidence of a recent sludge spill that required cleaning.

Digesters 7, 8, 9, 10, 11, 12 and 13 were all in service and had very wet seals (virtually no seal). Again bubbling off gas was minimal on all digesters. It was also noted that the seal levels were lower than normal.

Digester 14 was in service and had a very wet seal (virtually no seal), but bubbling off gas was minimal. It was also noted that the seal level was low, but there was evidence of a recent sludge spill that required cleaning.

Digester 15 was out of service.

Digester 16 was in service and had a very wet seal that was bubbling off minimal amounts of gas. There was evidence of a recent spill and spitting around the digester.

Digester 17 was in service and had a very low seal level.

Digesters 18 and 19 were both out of service.

Digester 20 was in service and had a very wet seal (virtually no seal),

but bubbling off gas was minimal. It was also noted that the seal level was low.

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).

PST 76 is currently out of service.

All remaining tanks were in operation at the time of the inspection.

Skips

On the East side there was one empty 40yds closed bulk carrier that was empty and one open 14yds skip which contained a small amount of rag.

In the Sludge Import area there were two 8yds open skips, both of which contained rag and other debris, both were covered.

On the service road next to the raw sludge screening building was a closed 14yds skip.

On the West side there was one empty 40yds closed bulk carrier and one 20yds open bulk carrier that was empty.

East Side Screen House

The first set of screen house doors were partially open at the time of the inspection.

There is currently ongoing maintenance taking place in this area of the site with screen machinery being replaced.

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 clogged along approx. 70% of its length, there were visibly crusty areas and a number of weeds were growing out of it.

West side primary settlement tanks (PST)

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

Circular PST 9 had floating fat/scum across 25% of its surface in front of the sweeper arm.

Circular PST 10 had floating fat/scum across 10% of its surface in front of the sweeper arm.

Circular PST 11 had floating solids and fat across the entire tanks surface.

Circular PST 12 is currently out of service.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 9 streams are currently operational.

Section 106 agreement

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

D-battery Aeration Lanes (old)

4 lanes of D19 are currently out of service due to ongoing maintenance work. No issues were evident.

West Side Aeration Lanes

All lanes appeared to be having biological issues again and no surface movement was visible. Thick fluffy scum covers virtually the entire surface area of all lanes although the dividing walls were still visible.

A number of the sprinklers were out of operation and floating debris was present in a number of areas.

The surface area of the mixed liquor feed channel serving the aeration lanes of E-Battery was clogged along at least 70% of its length, and floating debris was present in places.

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: 19/01/2021

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	Unknown
East OCU	0.00 0.00 0.00	0.05	Yes
West inlet OCU	0.00 0.00	0.05	Yes

	0.00		
Sludge reception inlet	Blank	Unknown	Unknown
Sludge reception outlet	Blank	0.8	Unknown
Thickening plant inlet	Blank	Unknown	Unknown
Thickening plant outlet	1.18 1.12 1.09	0.6	Yes
New West inlet (OCU 11)	0.00 0.00 0.00	0.5	No
Pasteurisation (OCU 12)	0.00 0.00 0.00	0.5	Yes
Transfer PS inlet	26.78 24.47 21.84	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	Yes