



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Tuesday 15 th December 2020 (13:00pm)	
Attendees: Mr I Inman (London Borough of Hounslow) and Mr T Costin (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A was approx. 50% full. No Amajets were in operation.</p> <p>Tank 1B was approx. 50% full. No Amajets were in operation.</p> <p>Tank 2A was approx. 50% full and returning. Amajets 1, 2 and 3 were in operation.</p> <p>Tank 2B was approx. 50% full and returning. Amajets 1, 2 and 3 were in operation.</p> <p>Tank 3A was approx. 50% full and returning. Amajets 1 and 2 were in operation.</p> <p>Tank 3B was approx. 50% full and returning. Amajets 1, 2 and 3 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 approx. 30% full.

No Amajets in operation. It was noted that there were floating solids at the hopper end of the tank.

Tank 6B was approx. 30% full.

No Amajets were in operation.

Tank 7A was approx. 35% full and returning.

Amajets 1, 2 and 3 were in operation.

Tank 7B was approx. 35% full and returning.

Amajets 1, 2 and 3 were in operation.

Tank 8A was approx. 35% full.

No Amajets were in operation.

Tank 8B was approx. 35% full.

No Amajets were in operation.

Storm Feed Channel - The level of effluent in both feed channels was approx. 25% along its entire length.

Complaints

The inspecting officer was unable to check for complaints in the preceding week prior to the inspection.

Odour Monitors

The odour readouts (H₂S) for all monitors that were providing data on 15/12/2020 at the time of the inspection are below.

Monitor 1	0.003	ppm	14:30pm
Monitor 2	-0.005	ppm	14:30pm
Monitor 3	0.000	ppm	14:30pm
Monitor 4	0.000	ppm	14:30pm
Monitor 5	0.005	ppm	14:30pm
Monitor 6	0.004	ppm	14:30pm
Monitor 7	0.007	ppm	14:30pm
Monitor 8	0.007	ppm	14:30pm
Monitor 9	0.005	ppm	14:30pm
Monitor 10	0.000	ppm	14:30pm
Monitor 11	0.004	ppm	14:30pm
Monitor 12	0.004	ppm	14:30pm
Monitor 13	0.007	ppm	14:30pm
Wind Speed	10.319	mph	14:30pm
Wind Direction	178.046		14:30pm

Odour Log (Thames)

Wednesday 9th December 2020

DAY SHIFT

Temp. Cool.

Weather. Cloudy w/sunny spells.

Odour Readings. OM2 faulty.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

NIGHT SHIFT

Temp. Cold.

Weather. Clear night.

Odour Readings. OM2 faulty.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank

Thursday 10th December 2020

DAY SHIFT

Temp. Cool.

Weather. Cloudy w/sunny spells.

Odour Readings. OM2 faulty.

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. OM2 faulty.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Friday 11th December 2020

DAY SHIFT

Temp. Cool.

Weather. Cloudy.

Odour Readings. OM2 faulty.

Time: 17:30.

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

Operational issues / causes observed. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. OM2 faulty.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank

Saturday 12th December 2020

DAY SHIFT

Temp. Cool.

Weather. Cloudy w/sunny spells.

Odour Readings. OM2 faulty.

Time: 17:30.

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

Operational issues / causes observed. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. OM2 faulty.

Time: 05:30.

Observations / Customer Complaint. OM5 0.017ppm 00:21-00:36, 0.021ppm 22:21-22:37.

Operational issues / causes observed. No odours in location.

Sunday 13th December 2020

DAY SHIFT

Temp. Cold.

Weather. Rain.

Odour Readings. OM2 faulty.

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. OM2 faulty.

Time: 05:30.

Observations / Customer Complaint. OM6 0.022ppm 23:52-00:07.

Operational issues / causes observed. No odours in area.

Monday 14th December 2020

DAY SHIFT

Temp. Blank.

Weather. Sunny w/patchy clouds.

Odour Readings. OM2 faulty.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

NIGHT SHIFT

Temp. Blank.

Weather. Overcast night.

Odour Readings. OM2 faulty.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Tuesday 15th December 2020

DAY SHIFT

Temp. Blank.

Weather. Rain w/sunny spells.

Odour Readings. OM2 faulty.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

NIGHT SHIFT

Temp. Cold.

Weather. Clear night.

Odour Readings. OM2 faulty.

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					
09/12/2020	117	473	595	1185	1240	2425
11/12/2020	117	679	595	1391	912	2303
14/12/2020	0	1012	1073	2085	304	2389

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 per day.

No.5 Pumping Station

The doors of No.5 pumping station were open at the time of the inspection due to a tanker being on site and undertaking pumping work.

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.

Digesters 5 & 6 were both in service but had very wet seals that were bubbling off minimal amounts of gas.

Digester 7 was in service and had a very wet seal that was bubbling off minimal amounts of gas.

Digester 8 was in service and had a very wet seal that was bubbling off minimal amounts of gas.
It was also noted that the sludge level was high, approx. 5" from the top of the coping stone.

Digester 9 was in service and had a very wet seal that was bubbling off minimal amounts of gas.

Digesters 10 & 11 were both in service and all had very wet seals that were bubbling off minimal amounts of gas.
It was also noted that the sludge level of both digesters was very high, approx. 2" from the top of the coping stones.

Digester 12 was in service and had a very wet seal that was bubbling off minimal amounts of gas.
It was also noted that the sludge level was high, approx. 6" from the top of the coping stone.

Digester 13 was in service and had a very wet seal that was bubbling off minimal amounts of gas.

Digester 14 was in service and sludge was spilling over the coping

stones, Thames took immediate action to draw down the sludge level.

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. Both the bell height and seal level were very high.

Digester 17 was in service and had a very wet seal that was bubbling off minimal amounts of gas.

Digesters 18 & 19 were both out of service.

Digester 20 was in service and had a very wet seal that was bubbling off minimal amounts of gas.

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.

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 open at the time of the inspection.

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. 65% 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 12 is currently out of service.
PST's 9, 10 and 11 were all in service and had relatively fat free surfaces.

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 free flowing, with the internal dividing walls being 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 floating debris had been removed.

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: 15/12/2020

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	Unknown
East OCU	0.00	0.05	Yes

	0.00 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	Unknown
Thickening plant inlet	Blank	Unknown	Unknown
Thickening plant outlet	0.075 0.071 0.058	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	0.114 0.109 0.105	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	Yes