



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 29th November 2018

Attendees: Mr A Devine (London Borough of Hounslow) and Mr M Hussain (Thames Water)

LB Hounslow Observation

Thames Water Action / Response

Storm Water Storage Tanks (SWST)

Tank 1A was empty and clean. Hoppers 1 & 3 were approximately $\frac{3}{4}$ full of effluent. Hopper 2 was approximately $\frac{1}{4}$ full of effluent and needed draining down.

Tank 1B was empty and clean. Hoppers 1 2 & 3 were full of effluent and needed draining down.

Tank 2A and 2B were empty and clean. Hoppers 1, 2 & 3 of both tanks were all over $\frac{1}{2}$ full of effluent and some scum was noted on the top. The hoppers needed draining down.

Tank 3A and 3B tanks were empty. Hoppers 1, 2 & 3 of both tanks were over 50% full needed draining down. Tank 3B had some grit and needed cleaning. There was also a slight localised odour noted around Tank 3B.

Tanks 4A, 4B, 5A & 5B which are covered, and odour controlled were all empty. Unable to gauge condition as lighting system still not working.

Tank 6A and 6B were both being returned at time of inspection and were over 25% full of effluent. In tank 6A all amajets were working. Only amajet 1 was working in tank 6B

Tank 7A and & 7B were both being returned at time of inspection and were over 25% full of effluent. In both tanks amajets 1 and 2 were working.

Tank 8A and 8B Appeared to have just been drained down. There was a very shallow amount of water covering the entire tank. A slight localised odour was noted around tank 8B.

Feed Channel - The level of effluent in both feed channels was very low and dark in colour.

Complaints

The Council received no complaints via email or telephone in the preceding week.

The Council received no complaints from 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 29th November 2018 at 10:00.

Monitor 1	0.007	ppm	10.00
Monitor 2	0.006	ppm	10.00
Monitor 3	0.000	ppm	10.00
Monitor 4	0.006	ppm	10.00
Monitor 5	0.007	ppm	10.00
Monitor 6	0.006	ppm	10.00
Monitor 7	0.006	ppm	10.00
Monitor 8	0.006	ppm	10.00
Monitor 9	0.005	ppm	10.00
Monitor 10	0.006	ppm	10.00

Monitor 11	0.006	ppm	10.00
Monitor 12	0.005	ppm	10.00
Monitor 13	0.007	ppm	10.00
Wind Speed	-	mph	10.00
Wind Direction	-	°	10.00

Odour Log (Thames)

Thursday 22nd November 2018

AM

Temp. Cold.

Weather. Clear Night.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaints OM9 – 0.016ppm between 08.40am – 9.39am

Operational issues / causes observed Digester 15 small spill – Area cleaned up.

Actions Taken. Blank.

PM

Temp. Cold.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30

Observations / Customer Complaint. Blank

Operational issues / causes observed. No odour issues

Actions Taken. Blank

Friday 23rd November 2018

AM

Temp. Cool.

Weather. Sunny with patchy clouds.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM3 – 0.0024 between 16:11 to 16:32.

Operational issues / causes observed. Area checked.

Actions Taken. No actions no odours found

PM

Temp. Cold.

Weather. Clear night

Odour Readings. All OMU's in use.

Time: 05:30.

Observations / Customer Complaint. Blank
Operational issues / causes observed. No odour issues.
Actions Taken. Blank.

Saturday 24th November 2018

AM

Temp. Cold.

Weather. Cloudy.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. Blank

Operational issues / causes observed. No odour issues.

Actions Taken. Blank.

PM

Temp. Cold

Weather. Clear night.

Time: 05:30.

Odour Readings. All OMU's in operation.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues.

Actions taken. Blank.

Sunday 25th November 2018

AM

Temp. Cool

Weather. Cloudy with sunny spells.

Time: 17:30.

Odour Readings. All OMU's in operation.

Observations / Customer Complaint. Blank

Operational issues / causes observed. No odour issues.

Actions Taken. Blank.

PM

Temp. Cold.

Weather. Clear night.

Time: 05:30.

Odour Readings. All OMU's in operation.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues

Actions Taken. Blank.

Monday 26th November 2018

AM

Temp. Cool.

Weather. Cloudy with sunny spells.

Time: 17:30

Odour Readings. All OMU's in operation.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues.

Actions Taken. Blank

PM

Temp. Cold.

Weather. Clear night.

Time: 05:30.

Odour Readings. All OMU's in operation.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues.

Actions Taken. Blank.

Tuesday 27th November 2018

AM

Temp. Cold.

Weather. Rain with sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues

Actions Taken: Blank.

PM

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues

Actions Taken: Blank

Wednesday 28th November 2018

AM

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: Blank.

Observations / Customer Complaint. OM3 - 0.017ppm between 13.38pm to 13.52pm and 0.021ppm between 15.53pm to 16.08pm

Operational issues / causes observed. Area investigated. No odour detected.

Actions taken: Blank.

PM

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. Blank

Operational issues / causes observed. No issues noticed.

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					
23/11/18	0	1466	328	1794	2594	4388
26/11/18	0	1860	885	2745	2594	5339
27/11/18	0	1321	61	1382	2266	3648

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 10 imports of sludge daily over the last week.

Sludge Screening House

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

Digesters

Digesters 1-4 – Out of use (permanent) – noticeable quantity of water accumulated to the brim of these tanks which is thick with algae – requires draining.

Digester 5, 6, 7, 8, 9 and 10 were in use but had a very wet weak seal.

Digester 11 was in use and had a dry seal.

Digester 12 was in use and had a wet weak seal.

Digesters 13 & 14 were both out of service.

Digester 15 was in use and had a wet seal. There was evidence of a spill on the coping stones which required cleaning. Thames Water advised that this would be done.

Digester 16 was out of service

Digester 17 and 18 were in use and had a good seal. No evidence of spillage.

Digester 19 and 20 were in use and had a weak wet seal. No evidence of spillage

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 were operational at the time of the inspection.

Skips

On the East side there was one 20yd open bulk carrier and 1 6yd skip both were empty and uncovered.

At the storm tanks there were three 6yd skips which were full with general waste and uncovered and one 20yd bulk which was full with general waste and pipework and uncovered.

There was one general waste uncovered skip at the digester/sludge screening house.

East Side Screen House

All doors were closed at the time of the inspection. TW advised all screen are in operation.

Return Activated Sludge Channel

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

West side primary settlement tanks (PST)

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

Circular PSTs 9, 10, 11 & 12 were all in operation at the time of the inspection (fat free surfaces). PST 10 had an odour control system on trial whereby an odour neutraliser generated a mist over the Primary settlement tank- only one PST was being used to trial this system. No odours were noticeable.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 3/12 streams were out of operation (4, 7 and 9).

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 appeared to be free flowing and the surface appeared much improved.

The mixed liquor feed channel serving aeration lanes 24-25 (E Battery) was free flowing along its length. There was a small amount of sludge build up serving channel 24.

Thames Water advised that a tanker crew are regularly on site undertaking clearance of the clogged areas (Celvac).

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring: 27/11/2018

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.05 0.07 0.06	Unknown	Unknown
Main pumping station outlet	0.02 0.01 0.01	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	-	Unknown	Unknown
Sludge reception outlet	-	0.8	Yes
Thickening plant inlet	-	Unknown	Unknown
Thickening plant outlet	0.00	0.6	Yes

	0.00 0.00		
Transfer PS inlet*	-	Unknown	Unknown
Transfer PS outlet*	-	0.6	Yes
New West inlet (OCU 11)	0.00 0.00 0.00	0.5	Yes
OCU 12 (Pasteurisation Plant)	0.00 0.00 0.00	0.5	Yes
*Thames Water recorded the following statement on the monitoring sheet 'Not working to dry'			