



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Thursday 7 th May 2020 (13:00pm)	
Attendees: Mr I Inman (London Borough of Hounslow) and Ms R Denny (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A was empty and clean. Hoppers 1, 2 and 3 were all approx 25% of stagnant fluid with a thick crust, all required draining down.</p> <p>Tank 1B was empty and clean. Hoppers 1, 2 and 3 were all full of stagnant fluid and required draining down. TW advised all 3 hoppers are currently blocked.</p> <p>Tank 2A was empty and clean. Hopper 1 was approx 25% full, hopper 2 was approx 50% full and hopper 3 was full, all required draining down. TW advised hopper 3 was blocked</p> <p>Tank 2B was empty and clean although there were areas of dry grit across the tanks surface. Hopper 1 was full, hopper 2 was approx 50% full and hopper 3 was approx 25% full, all required draining down. TW advised hopper 1 was blocked</p>	

Tank 3A was empty and clean.

Hopper 1 was approx 50% full, hoppers 2 and 3 were approx 25% full, all required draining down.

Tank 3B was empty and clean although there was dry grit at both the top and bottom end of the tank.

Hoppers 1, 2 and 3 were all approx 75% full and required 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 was empty and clean.

Hopper 1 was approx 75% full, hopper 2 was approx 25% full and hopper 3 was approx 50% full, all required draining down.

Tank 6B was empty and clean although there was dry grit at the hopper end of the tank.

Hoppers 1 and 2 were both 75% full, hopper 3 was completely full, all required draining down.

Tank 7A was empty and clean although there was dry grit in the middle section of the tank.

Hoppers 1, 2 and 3 (shallow hoppers) were all full and overflowing which required cleaning.

Tank 7B was empty although there was dry crusty debris across the entire area of the tank.

Hoppers 1, 2 and 3 (shallow hoppers) were all full and required cleaning.

Tank 8A was clean and empty.

Hoppers 1, 2 and 3 were all full and overflowing, all required draining down.

TW advised all 3 hoppers are currently blocked.

Tank 8B was clean and empty.

Hoppers 1, 2 and 3 were all full and overflowing, all required draining down.

TW advised all 3 hoppers are currently blocked.

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.

All storm tank hoppers and the storm channel were deemed to be in a poor state and offensive odour was present. Thames were advised that this area of the works needs urgent attention.

Complaints

The Council has received 2 complaints by Email (1 from MRAG) in the preceding week.

On 6th May at 16:01pm an Email complaint was received from a resident of Harvesters Close, Isleworth (ref: 997558), complaining of a disgusting smell from morning till night every day.

On 8th May at 13:16pm an Email complaint was received from MRAG, The email stated odour had been bad over the last week, stating a number of issues relating to site management and housekeeping.

Unfortunately due to the control room being closed to non-essential staff during the current Covid-19 situation the inspecting officer was unable to check the historic monitor trends at the time of the complaint.

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at time of inspection:

Unable to obtain odour monitor readouts due to the control room being closed to non-essential staff during the current Covid-19 situation.

Monitor 1		ppm	
Monitor 2		ppm	
Monitor 3		ppm	
Monitor 4		ppm	
Monitor 5		ppm	
Monitor 6		ppm	
Monitor 7		ppm	
Monitor 8		ppm	
Monitor 9		ppm	
Monitor 10		ppm	
Monitor 11		ppm	
Monitor 12		ppm	
Monitor 13		ppm	
Wind Speed		mph	
Wind Direction			

Odour Log (Thames)

Thursday 23rd April 2020

DAY SHIFT

Temp. Warm.

Weather. Sunny.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM9 small spike for less than 8 minutes of 0.05ppm.

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. OM2 0.018ppm 1:54-2:09.

OM6 0.020ppm 23:30-00:30.

OM9 0.027ppm 21:40-22:41.

Operational issues / causes observed. Odour in PAS area-no spills

found,
Digester 16 gassing off.
Actions Taken. Blank.

Friday 24th April 2020

DAY SHIFT

Temp. Warm.

Weather. Sunny.

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. Overcast night.

Odour Readings. All OMU's in use.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Saturday 25th April 2020

DAY SHIFT

Temp. Warm.

Weather. Sunny.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 0.015ppm at 16:57-17:23.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Overcast night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM2 spiked at 19:30-19:50
max 0.031ppm & at 00:40-01:20 0.018ppm.

OM7 spiked at 20:40-20:57 max 0.020ppm.
Operational issues / causes observed. No obvious causes of odour found.
Actions taken. East inlet area hosed down.

Sunday 26th April 2020

DAY SHIFT

Temp. Warm.

Weather. Sunny with 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. Multiple spikes from OM2 and OM6, mainly short duration and max 0.034ppm.

Operational issues / causes observed. PAS area checked.

Actions Taken. PAS stream water traps checked and topped up as required.

East inlet area hosed down.

Monday 27th April 2020

DAY SHIFT

Temp. Warm.

Weather. Cloudy with sunny spells.

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. Overcast night.

Odour Readings. All OMU's in operation.
Time: 05:30.
Observations / Customer Complaint. No odour issues found or reported.
Operational issues / causes observed. Blank.
Actions Taken. Blank.

Tuesday 28th April 2020

DAY SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM4 0.021ppm 12:52-13:07.

OM8 0.018ppm 12:53-13:09.

Operational issues / causes observed. No source of odour found.

Actions Taken. 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.

Actions Taken. Blank.

Wednesday 29th April 2020

DAY SHIFT

Temp. Warm.

Weather. Rain with sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 peaked to 0.055ppm at 10:00, spiking from 08:30-10:10.

Operational issues / causes observed. Blank.

Action Taken. Area around skips washed down, Borger sump needs cleaning.

NIGHT SHIFT

Temp. Blank.

Weather. Rain with sunny spells.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM2 peaked 0.048ppm at 21:06-21:23.

OM2 peaked at 0.034ppm at 22:15-22:54.

Operational issues / causes observed. No source of odour found.

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					
27/04/2020	0	581	534	1115	3900 7800*	5015 8915*
29/04/2020	205	412	1223	1840	5770	7610

*** incorrect totals entered on Thames Water paperwork.**

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 daily over the last week.

No.5 Pumping Station

The doors and windows of No.5 pumping station were closed at the time of the inspection but no odour was present.

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 use and had a good dry seal.

Digester 6 was in use but had a wet sloppy seal that was bubbling off gas.

Digester 7 was out of service.

Digesters 8, 9, 10, 11, 12 and 13 were all in use but had wet sloppy seals that were all bubbling off gas.

Digesters 14 and 15 were both out of service.

Digesters 16 and 17 were both in use but had wet sloppy seals that were bubbling off gas.

Digester 18 was out of service.

Digesters 19 & 20 were both in use but had wet sloppy seals that were 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.

Skips

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

On the service road next to the raw sludge screening building was a 10yds open skip that was approx 30% full, which contained rag and general rubbish. The skip was uncovered and its tarpauling was on the floor next to it.

On the West side there was one 20yds open bulk carrier that was full of grit. The carrier was very odourous and uncovered, a tarpaulin was on the floor next to it.

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 free flowing and clear.

The far side channel was partially clogged along approx 30% of its length and visibly crusty in areas.

West side primary settlement tanks (PST)

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

Circular PST 10 was out of service. PST's 9, 11 and 12 were all in use and had relatively fat free surfaces but with some floating debris.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 10 streams are currently operational.

Section 106 agreement

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

West Side Aeration Lanes (New)

All lanes were in a very poor condition and very thick scum has developed across all of the aeration lane surfaces that was thick enough to obscure nearly all of the internal dividing walls. Nearly all of the sprinklers appeared to be out of operation and floating debris was clogging these areas of the lanes.

The mixed liquor feed channel serving aeration lanes 25 and part of 24 of E-Battery was clogged with thick scum and floating debris. Unusually odour was very noticeable in this area of the works.

TW were advised that they should consider using a tanker crew to undertake a clearance of all clogged areas.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring: 28/04/2020

Plant	Reading (ppm)	Action Level (ppm)	Compliant
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Main pumping station inlet	Blank	Unknown	Unknown
Main pumping station outlet	0.00 0.00 0.00	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	0.00 0.00 0.00	Unknown	Unknown
Sludge reception outlet	0.00 0.00 0.00	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)	0.00 0.00 0.00	0.5	Yes
Pasteurisation (OCU 12)	0.00 0.00 0.00	0.5	Yes