



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Wednesday 3 rd June 2020 (12:00am)	
Attendees: Mr I Inman (London Borough of Hounslow) and Ms C Page (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 75% full of fresh final effluent and required draining down.</p> <p>Tank 1B was empty and clean. Hoppers 1, 2 and 3 were all completely full of fresh final effluent and required draining down. TW advised all 3 hoppers are currently blocked.</p> <p>Tank 2A was empty and clean. Hoppers 1 and 2 was approx 25% full, hopper 3 was completely full and all required draining down. TW advised hopper 3 was blocked</p> <p>Tank 2B was empty and clean. Hopper 1 was completely full, hopper 2 was approx 30% full and hopper 3 was approx 50% full, all required draining down. TW advised hopper 1 was blocked</p> <p>Tank 3A was empty and clean although dry surface grit was evident</p>	

across part of the tank.

Hoppers 1 and 2 were approx 30% full, hopper 3 was approx 20% full, all required draining down.

Tank 3B was empty and clean although dry surface grit was evident across part 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.

Hoppers 1, 2 and 3 were all approx 25% full, all required draining down.

Tank 6B was empty and clean although there was dry surface grit along the left side of the tank.

Hoppers 1, 2 and 3 were all 25% full, all required draining down.

Tank 7A was nearly full and being back-filled with final effluent to flush the tank.

Tank 7B was empty although there was dry surface grit across almost the entire tank surface.

Hoppers 1, 2 and 3 (shallow hoppers) were all full of green algae water 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. It was noted that odour was present.

Tank 8B was clean and empty.

Hoppers 1, 2 and 3 were all full and overflowing with green algae water, 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.

A number of the storm tank hoppers 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 no complaints by email or telephone calls to the Emergency Telephone Operator in the preceding week.

Odour Monitors

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

Monitor 1	0.00	ppm	13.50pm
Monitor 2	0.06	ppm	13.50pm
Monitor 3	0.00	ppm	13.50pm
Monitor 4	0.00	ppm	13.50pm
Monitor 5	0.03	ppm	13.50pm
Monitor 6	0.03	ppm	13.50pm
Monitor 7	0.04	ppm	13.50pm
Monitor 8	0.00	ppm	13.50pm
Monitor 9	0.09	ppm	13.50pm
Monitor 10	0.08	ppm	13.50pm
Monitor 11	0.08	ppm	13.50pm
Monitor 12	0.03	ppm	13.50pm
Monitor 13	0.03	ppm	13.50pm
Wind Speed	2.341	mph	13.50pm
Wind Direction	52.517		13.50pm

Odour Log (Thames)

Wednesday 27th May 2020

DAY SHIFT

Temp. Hot.

Weather. Sunny.

Odour Readings. All OMU's in operation.

Time: 18:00.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Warm.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM3 showing odour from 00:00 till. Max 0.041ppm on and off.

Operational issues / causes observed. Area skips hosed down / normal odours found for inlet area.

Actions Taken. Blank.

Thursday 28th May 2020

DAY SHIFT

Temp. Hot.

Weather. Sunny w/patchy.

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. Warm.

Weather. Overcast night.

Odour Readings. All OMU's in use.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Friday 29th May 2020

DAY SHIFT

Temp. Very hot.

Weather. Sunny w/patchy.

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. Warm.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank

Actions taken. Blank.

Saturday 30th May 2020

DAY SHIFT

Temp. Hot.

Weather. Sunny w/patchy.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 0.0104ppm 13:45-14:11.

Operational issues / causes observed. No source found at east inlet.

Actions Taken. Blank.

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.

Actions Taken. Blank.

Sunday 31st May 2020

DAY SHIFT

Temp. Hot.

Weather. Sunny w/patchy.

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. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Monday 1st June 2020

DAY SHIFT

Temp. Hot.

Weather. Sunny.

Odour Readings. All OMU's in operation.

Time: 17:30.

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

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. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Tuesday 2nd June 2020

DAY SHIFT

Temp. Very hot.

Weather. Sunny.

Odour Readings. All OMU's in operation.

Time: 17:30.

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

Operational issues / causes observed. Blank.

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

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM4 0.068ppm 23:23-00:58.

OM2 0.036ppm 00:11-01:11, 0.021ppm 01:47-02:11, 0.069ppm 22:59-23:26.

OM5 0.024ppm 1:03-1:35, 0.021ppm 02:19-3:04, 0.035ppm 23:03-00:44.

OM9 0.046ppm 21:43-00:14.

OM8 0.033ppm 22:54-00:10.

OM7 0.019ppm 23:30-00:15.

Operational issues / causes observed. Digester 16 gassing off.

No odour source found on site.

East inlet hosed down.

Digester 16 gassing off again, high dome bell heights, flare running.

Actions Taken. Blank.

Wednesday 3rd June 2020

DAY SHIFT

Temp. Hot.

Weather. Rain w/sunny.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM5 0.015max 05:36-06:33.

Operational issues / causes observed. No odours found.

Action Taken. Blank.

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. PS5 sludge spill hosed down, needs further cleaning.

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					
29/05/2020	0	473	534	1007	1609	2616
01/06/2020	0	183	183	366	608	974
03/06/2020	0	328	267	595	456	1051

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 10 imports of sludge daily over the last week.

No.5 Pumping Station

The doors and windows of No.5 pumping station were open at the time of the inspection and strong offensive 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.

Digesters 5 and 6 was both in service and had a good dry seals.

Digester 7 was out of service.

Digesters 8, 9 and 10 were all in service but had wet sloppy seals that were all bubbling off gas.

Digester 11 was in service and had a good dry seal.

Digester 13 was in service but had a wet sloppy seal.

Digesters 14 and 15 were both out of service.

Digester 16 was in service but had a wet sloppy seal that was bubbling off gas.

Digester 17 was in service and had a good dry seal.

Digester 18 was out of service.

Digester 19 was in service but had wet sloppy seal.

Digester 20 was in service and had a good dry seal.

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.

It was noted that tank 76 was covered in green algae but no odour was present.

Skips

There was an empty 8yds skip by the Sludge Import area.

On the East side there was one 20yds open bulk carrier that contained general inert rubbish and had been on site for a number of months. TW were requested to arrange its removal.

Also present was a 14yds open skip that contained building waste from ongoing construction work in the area.

On the service road leading to the storm tanks was a 20yds open bulk carrier that was full of soil from ongoing works at the site.

In the Sludge Import area was a part covered 8yds open skip that contained general rubbish and a very small amount of grit.

On the service road next to the raw sludge screening building was an uncovered 8yds open skip that was approx 30% full of rag.

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

East Side Screen House

The doors at both ends of the screen house building were propped open at the time of the inspection due to ongoing internal works.

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 are now much improved and appeared to be free flowing, with the internal dividing walls being visible again.

Nearly all of the sprinklers appeared to now be back in operation.

The mixed liquor feed channel serving aeration lanes 25 and part of 24 of E-Battery was clogged with thick dark scum (appearing black in places) and floating debris. Odour was 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: 02/06/2020

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.03 0.04 0.05	Unknown	Unknown
Main pumping station outlet	0.00 0.00 0.00	0.2	Yes
East OCU	0.01 0.01 0.01	0.05	Yes
West inlet OCU	0.00 0.00 0.00	0.05	Yes
Sludge reception inlet	Blank	Unknown	Unknown
Sludge reception outlet	Blank	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

