



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 14 th September 2017	
Attendees: Mr I Inman (L B Hounslow) & Mr D Kalamantis (Thames Water).	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A was empty & clean. Hoppers 1, 2 & 3 were all drained down.</p> <p>Tank 1B was empty & clean. Hoppers 1, 2 & 3 were all drained down.</p> <p>Tank 2A was empty & clean. Hoppers 1, 2 & 3 were all drained down.</p> <p>Tank 2B was empty & clean. Hoppers 1, 2 & 3 were all approx $\frac{3}{4}$ full and needed draining down.</p> <p>Tank 3A was empty & clean. Hoppers 1, 2 & 3 were all drained down.</p> <p>Tank 3B was empty & clean. Hoppers 1 & 2 were both approx $\frac{3}{4}$ full. Hopper 3 was $\frac{1}{3}$ full; all needed draining down.</p> <p>Tanks 4A, 4B, 5A & 5B are covered and odour controlled.</p> <p>Tank 6A was empty & clean. Hoppers 1, 2 & 3 were all approx $\frac{1}{4}$ full and needed draining down.</p> <p>Tank 6B was empty & clean. Hoppers 1, 2 & 3 were all approx $\frac{1}{3}$ full and needed draining down.</p>	

Tank 7A was empty & clean. Hoppers 1, 2 & 3 (shallow hoppers) were all drained down but clogged with grit.

Tank 7B was empty & clean. Hoppers 1, 2 & 3 (shallow hoppers) were all drained down but clogged with grit.

Tank 8A was empty & clean. Hoppers 1, 2 & 3 were all approx ¼ full and needed draining down.

Tank 8B was empty & clean. Hoppers 1 & 2 were both approx 2/3 full. Hopper 3 was ½ full; all needed draining down

Storm Water Channel

The storm feed channel serving STW's 1A-8B was empty of effluent and only had a shallow level of water (<5%) along its entire length.

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at the time of inspection (approx 13:10).

Monitor 1	0.004	ppm
Monitor 2	0.005	ppm
Monitor 3	0.000	ppm
Monitor 4	0.004	ppm
Monitor 5	0.003	ppm
Monitor 6	0.005	ppm
Monitor 7	0.004	ppm
Monitor 8	0.005	ppm
Monitor 9	0.006	ppm
Monitor 10	0.005	ppm
Monitor 11	0.005	ppm
Monitor 12	0.00	ppm
Monitor 13	-0.000	ppm

Complaints

The Council received 2 complaints in the preceding week.

On the 8th September 2017 at 22:44 a telephone complaint was received from a resident of Weavers Close, Isleworth (ref: 966842). The duty officer contact the complainant at 23:13 who advised the odour was very bad. The duty officer therefore visited the area at approximately 23:39 and undertook H₂S readings for 20 minutes. The average H₂S readings were 0.00ppm which is below the threshold level of 0.015ppm.

The historic odour monitoring trends around the time of the complaint showed the following:

OM's 1-8 showed no spikes or excessive readings around the time of the complaint. However, the odour monitoring trends for OM's 9-13 were down at the time of the inspection and could therefore not be checked.

On the 9th September 2017 at 0:46 a telephone complaint was received from a resident of Worple Road, Isleworth (ref: 966849). The duty officer contact the complainant at 01:17 who advised the odour had been bad earlier this evening (last night). The duty officer advised he had visited the area earlier and he was advised that no further visit was required.

The historic odour monitoring trends around the time of the complaint showed the following:

OM's 1-8 showed no spikes or excessive readings around the time of the complaint. However, the odour monitoring trends for OM's 9-13 were down at the time of the inspection and could therefore not be checked.

Odour Log (Thames) - Photocopies of log entries taken

Thursday 7th September 2017

AM OM3 one spike 0.02899m, duration 15:35-15:45. OM8 one spike 0.019ppm, duration 16:16-16:28.

Both spikes investigated, no odour detected.

PM Windy

OM3 = 0.032ppm at 23:23-23:25. OM3 = 0.026ppm at 01:08-01:20.

OM3 = 0.053ppm at 01:38-01:50. OM3 = 0.017ppm at 04:08-04:20.
OCU11 out of action – monitor 3 picking up odour from OCU11.

Friday 8th September 2017

AM OM5 - one spike 0.020ppm at 13:00-13:13.

PAS stream 4 sludge spill via overflow.

Sludge level instrument re-calibrated.

PM OM3 peeked at 0.031ppm from 18:20 to 18:50.

Area checked around PST's 21-23 and CSPS, nothing of any note found.

Saturday 9th September 2017

AM OM3 three spikes. 09:38 to 09:48 / 0.015ppm. 13:51 to 14:03 / 0.027ppm. 15:06 to 15:33 / 0.029ppm.

Area investigated around west inlet. No odour detected. OCU11 chemical dosing out of service.

PM OM8 spiked between 02:48-03:01 at 0.016ppm.

Area checked around monitor, nothing of note found.

Sunday 10th September 2017

AM No odour issues on site. No spikes on trends.

PM Nothing on trends to report. Sludge spillage in PAS area at 03:00.

Sludger spillage being cleared by Tech 1.

Monday 11th September 2017

AM OM3 spiking. OCU11 showing high discharge reading.

PM OM3 spike to 0.022ppm between 01:22-01:35.

Tuesday 12th September 2017

AM OM3 spiking. OCU11 still not working properly.

PM OM3 one spike of 0.036ppm between 04:37-05:05. OM2 one spike of 0.021ppm between 00:33-00:45.

OCU11 still not working. Roy investigated spike from OM2, East inlet area checked. No odour detected.

Wednesday 13th September 2017

AM OM3, OCU 11?

PM OM3 two spikes, peaked at 0.084ppm (18:53-19:21 & 23:03-23:21).

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					
08/09/17	20	849	0	869	2746	3615
11/09/17	0	473	122	595	2898	3493
13/09/17	0	970	122	1092	2898	3990

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 within three days and which has been complied with in this instance

Imported Sludge

There have been 70 imports of sludge over the last week, each import containing 30m³ of sludge.

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 are permanently out of use.

Digester 5 was in use and had a good dry seal.

Digester 6 was in use and had a good dry seal.

Digester 7 was in use but had a very wet seal. It was also noted that the bell height was very high.

Digesters 8, 9, 10, 11 & 12 were all in use but all had a very wet seals that were bubbling off gas.

Digester 13 is currently out of use.

Digester 14 was in use and had a good dry seal.

Digester 15 was in use and had a good dry seal.

Digester 16 is currently out of use.

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

Digester 18 was in use and had a good dry seal.

Digester 19 is currently out of service.

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

Automatic dosing of anti-foaming agent is now in use and TW advised that this is also applied manually at least twice a day to all operational digesters.

Return Activated Sludge Channel

The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was still clogged along the three quarters of its length with thick dry sludge at the time of the inspection. It was also noted that

hundreds of tiny flies/insects were crawling over the sludge. Thames were advised that this issue has to be resolved as no action had been taken since last week's inspection, despite Thames stating that this matter would be addressed.

West side primary settlement tanks (PST)

Rectangular PSTs are now covered and odour controlled.

Circular PSTs 9, 11 & 12 were all in operation at the time of the inspection and all three had clean fat free surfaces. PST 10 is currently out of service and drained down.

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).

At the time of the inspection all tanks except 77 were in operation.

It was noted that the surface of tank 71 was completely covered in green algae/pond weed and the sweeper bridge was not in operation. The surface of tank 75 was also almost completely covered in a brown sludge type scum with green algae on top of it.

Although no odour was present Thames were unable to explain what had happened.

East Side Screen House

The screen house doors were closed at the time of the inspection. Thames confirmed all screens are in operation.

Skips

On the East side there was one low level open bulk carrier on site that was empty, no odour was present.

On the West side there were no skips present.

Pasteurisation Plant

The pasteurisation plant was in service at the time of the inspection. The TW officer confirmed all 12 streams were running.

It was again noted that during the inspection a very strong and offensive ammonia (H₂S) type smell was present around the area of the PAS plant and Pumping Station No:5.

Section 106 agreement

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

West Side Aeration Lanes (Old)

No issues appeared evident.

New Works (West Side)

The mixed liquor feed channel serving aeration lanes 21-25 (E Battery) was still clogged along more than three quarters of its length with the same rag and floating debris seen during last week's inspection.

It was also noted that again a strong ammonia (H₂S) type smell was present in the area (Thames advised this is potentially coming from PSTs 21-25 and is currently being investigated).

The surface of the aeration are much improved and are now free flowing again.

The sprinkler system for the aeration lanes should be in permanent use but a number of sprinklers were still not working properly at the time of the inspection, again being clogged with pondweed (as per last week's inspection).

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring – 12/09/2017

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station outlet	0.00(av)	0.2	Yes
East OCU	0.00(av)	0.05	Yes
West inlet	0.00(av)	0.05	Yes
Sludge reception outlet	0.00(av)	0.8	Yes
Thickening plant outlet	0.00(av)	0.6	Yes
Pasteurisation plant outlet (OCU 12)	0.000(av)	0.5	Yes
Transfer PS outlet	0.000(av)	0.6	Yes
New West OCU 11 outlet	0.000(av)	0.6	Yes

Jerome reading