



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 25th August 2017

Attendees: Mr Z Kadri (L B Hounslow) & Mr Manzoor Hussain (Thames Water).

LB Hounslow Observation

Thames Water Action / Response

Storm Water Storage Tanks (SWST)

Tank 1A to 3B were clear and free from effluent and grit. Hoppers 1, 2 & 3 of all tanks were drained down and had some light crust forming on the surface. The Amajets were all in working order.

Tanks 4A, 4B, 5A & 5B are covered and odour controlled.

Tank 6A and 6B were both empty & clean. Hoppers 1, 2 and 3 had been drained down and empty. There was a light grit that had formed near the hopper end that needed a sweep.

Tank 7A and 7B were both empty & clean. Hoppers 1, 2 & 3 (shallow hoppers) were all drained down.

Tank 8A was being filled from the back end of the tank however this was more of a trickle at the time of inspection in addition the tank was empty, dry and clear of any grit. Tank 8B was empty & clean. Hoppers 1, 2 and 3 were both empty.

It was reported that the general condition of Amajets were all in good working order.

Storm Water Channel

The storm feed channel serving STW's 1A to 4B had a very small amount of dark water (effluent) at the base. The feed channel serving STW's 5A-8B was empty of effluent along its entire length.

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at the time of inspection (approximately 11:15).

Monitor 1	0.003	ppm
Monitor 2	0.005	ppm
Monitor 3	0.000	ppm
Monitor 4	0.004	ppm
Monitor 5	0.004	ppm
Monitor 6	0.004	ppm
Monitor 7	0.004	ppm
Monitor 8	0.004	ppm
Monitor 9	0.004	ppm
Monitor 10	0.004	ppm
Monitor 11	0.003	ppm
Monitor 12	0.000	ppm
Monitor 13	-0.001	ppm

Complaints

The Council received 1 email complaint and no complaints were received via telephone over the last week.

E-mail

An email was received on the 23rd of August 2017 regarding odour emanating from the MSTW on the previous two days. During the inspection the trends for the period covering the complaint was investigated however there were no spikes or irregular activity. OM 8 spiked for a short period at its peak which was 0.008ppm for a short

space of time. The odour log showed that on the 23rd of August (AM) OM 3 had one spike between 17:05-17:32 which reached 0.028ppm. An investigation had been carried out which showed that the spike had occurred due to a defect with the chemical dosing process at OCU 11. Day shift operatives (PM) had observed OM3 which showed that odour was present on site between 18:19-19:19 again due to OCU 11.

Odour Log (Thames) - Photocopies of log entries taken

Thursday 17th August 2017

AM No odour issues on site.

PM No odour issues on site- storm tanks returning

Friday 18th August 2017

AM No odour issues

PM No odour issues.

Saturday 19th August 2017

AM OM 8 showing odour from 16:00-17:00 (0.024ppm)- Digester areas cleaned up after several digesters had foamed. Pasteurisation plant checked all in order. Anti foam unit was running to control the foam.

PM OM 1 spiked to 0.016ppm between 01:45-01:58

Sunday 20th August 2017

AM No odour issues on site

PM OM 1 spiked to 0.022ppm between 22:34 – 23:04 and again 0.017 between 02:04- 03:04

Monday 21st August 2017

AM No odour issues on site

PM OM 1 spiked to 0.017 between 21:19 – 21:32 and again to 0.015 between 23:34- 23:47.

Tuesday 22nd August 2017

AM OM 2 spiked to 0.017 between 07:32-07:42. No odour present on site.

PM No spikes on trends. No odour issues.

Wednesday 23rd August 2017

AM OM 3 spiked to 0.028ppm at 17:05-17:32 – investigation showed that there was a fault with OCU 11 and the chemical dosing part of the process. A defect was raised.

PM OM 3 continued to show odours due to fault with OCU 11 – reported.

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					
18/08/17	127	1097	61	1285	11145	12430
21/08/17	20	824	0	844	11627	12471
23/07/17	0	1430	206	1636	9274	10910

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.

Imported Sludge

There have been 10 imports of sludge per day over the last week (Monday to Friday), 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 and No skips in the area.

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 and was gassy and bubbling in some parts. There was some spillage on the coping stone but no significant odour.

Digester 8 was in use and was gassy and bubbling in some parts. There was some spillage on the coping stone but no significant odour.

Digester 9 was in use and had a good dry seal.

Digester 10 was in use and was gassy and bubbling in some parts. There was some spillage on the coping stone but no significant odour.

Digester 11 was in use and had a good dry seal. (Pellets used)

Digester 12 was in use and had a good dry seal.

Digester 13 was OUT OF USE

Digester 14 was OUT OF USE

Digester 15 was in use and was gassy and bubbling in some parts. There was some spillage on the coping stone but no significant odour

Digester 16 was OUT OF USE.

Digester 17 was in use and had a good dry seal (Pellets used)

Digester 18 was in use and had a good dry seal (Pellets used)

Digester 19 was OUT OF USE..

Digester 20 was in use and had a good dry seal. No sign of previous spillages

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. Thames Water advised that immediate remedial action would be taken with regard to digester 7.

Return Activated Sludge Channel

The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was clogged along the three quarters of its length with thick dry sludge at the time of the inspection. Thames advised a tanker is cleaning this out on a weekly basis.

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. 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 7 out of 8 tanks were in operation and appeared to be working fine however there was algae growth on all surfaces. Tank 77 was out of operation.

East Side Screen House

The screen house now has new doors fitted, both pairs of which were closed at the time of the inspection.

Thames confirmed all screens were in operation. No skips were on site at this location

Skips

On the East side there was 1 open low level bulk carrier on site that was empty and no odour was present.

On the West side there was one open low level bulk carrier that was uncovered and empty.

A small 6 yard skip was placed at the entrance to the Digester Plant. This was for general use and covered

Pasteurisation Plant

The pasteurisation plant was in service at the time of the inspection. TW confirmed that 3 out of 12 streams were not in operation at the time of the inspection.

Section 106 agreement

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

West Side Aeration Lanes (Old)

No issues appeared to be evident.

New Works (West Side)

The mixed liquor feed channel serving aeration lanes 21-25 (E Battery) was clogged with rag & debris along more than half its length.

The surface of the tanks appeared much improved and was visibly flowing again.

The sprinkler system for the aeration lanes should be in permanent use but a number of sprinklers were not working properly at the time of the inspection, being clogged with pondweed.

Thames confirmed that tanker crews are cleaning the mixed feed liquor channel out on a weekly basis.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring –25/08/2017
The record for the OCU – Awaiting paperwork from TW

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station outlet	0.000(av)	0.2	Yes
East OCU	0.000(av)	0.05	Yes
West inlet	0.000(av)	0.05	Yes
Sludge reception outlet	0.000(av)	0.8	Yes
Thickening plant outlet	0.006(av)	0.6	Yes
Pasteurization 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