



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 25th May 2017

Attendees: Mr I Inman (L B Hounslow) & Mr D Kalamantis (Thames Water).

LB Hounslow Observation

Thames Water Action / Response

Storm Water Storage Tanks (SWST)

Tank 1A was empty & clean. Hoppers 1, 2 & 3 were all approx ¼ full.

Tank 1B was empty & clean. Hoppers 1, 2 & 3 were all approx <¼ full.

Tank 2A was empty & clean. Hoppers 1, 2 & 3 were all approx <¼ full.

Tank 2B was empty & clean. Hopper 1, 2 & 3 were all approx <¼ full.

Tank 3A was empty & clean. Hopper 1 was approx ¼ full. Hoppers 2 & 3 were approx <¼ full.

Tank 3B was empty & clean. Hopper 1, 2 & 3 were all approx all <¼ full.

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

Tank 6A was empty & clean. Hoppers 1 & 2 were all approx ¼ full. Hopper 3 was approx 2/3 full and needed over pumping.

Tank 6B was empty & clean. Hoppers 1, 2 & 3 were all approx ¼ full.

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

Tank 7B was empty but had large areas of dry silt/grit at the top end of the tank. Hoppers 1, 2 & 3 (shallow hoppers) were all drained down.

Tank 8A was empty & clean. Hopper 1 was approx ¾ full, hopper 2 was approx 1/3 full & hopper 3 was approx <¼ full, these hoppers were being over pumped at the time of the inspection.

Tank 8B was empty & clean. Hoppers 1, 2 & 3 were all approx <¼ full.

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 13:25).

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

Complaints

The Council received 1 complaint via e-mail in the preceding week.

On 23rd May 2017 at 1:23 an e-mail complaint was received from a resident of Beaumont Place, Isleworth located to the south east of the

site stating "odour was currently bad". The historic odour monitoring trends around the time of the complaint showed the following readings when the weekly inspection was undertaken: odour monitor 3 located on the north west of the site spiked at 0.021ppm between 00:27-00:40, then again at 0.016ppm between 01:13-01:24, again at 0.019ppm between 01:41-01:55 and again at 0.015ppm between 03:27-03:40. The odour log for the PM shift on 22nd May which covers the period in question showed that "OM3 four spikes / max 0.021ppm. All under 15 minutes. Investigated area, no odour detected". The storm water tanks are the part of the works closest to Beaumont Place and the PM storm log taken at 21.00 on 22nd May showed that none of the uncovered storm tanks were in use and none of the tanks required flushing. The log also showed that none of the hoppers to these tanks required over pumping and it has not been possible on this occasion to identify the source of odour complained of by the resident.

Odour Log (Thames) - Photocopies of log entries taken:

Thursday 18th May 2017

AM No odour issues. Nothing to report on trends.

PM No odour spikes, all storm tanks full.

Friday 19th May 2017

AM No odour issues.

PM No odour issues reported or found. No spikes on trends. Returned STW's all shift

Saturday 20th May 2017

AM No odour issues.

PM No odour issues.

Sunday 21st May 2017

AM Nothing written in log book, entry blank?

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

Monday 22nd May 2017

AM No issues.

PM OM3 four spikes / max 0.021ppm. All under 15 minutes. Investigated area, no odour detected. OCU11 running OK.

Tuesday 23rd May 2017

AM OM5 = 0.015ppm at 13:51-14:04. OM3 = 0.024ppm at 17:11-17:22.

PM No odour issues. No spikes on trends.

Wednesday 24th May 2017

AM OM's 1-5 no spikes. OM's 6-13 no spikes.

PM OM2 spiked around 23:00, max 0.044ppm but <15 mins duration.

Checked East inlet, no odours found but hosed arear to remove 'skip juice' anyway.

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					
19/05/17	0	534	122	656	632	1288
22/05/17	0	783	122	905	456	1361
24/05/17	0	450	61	511	1273	1784

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 32 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 but had a wet seal.

Digester 7 was in use but had as wet seal and was bubbling and spitting on one side. It was also noted that the bell was very high.

Digester 8 was in use but had a wet seal.

Digesters 9 & 10 were in use & both had good dry seals.

Digesters 11 & 12 were in use but both had wet seals.

Digester 13 is currently out of use.

Digester 14 was in use but had a wet seal.

Digester 15 was in use but had a wet seal and was bubbling and spitting on one side. It was also noted that the bell was very high.

Digester 16 is currently out of use.

Digesters 17 & 18 were both in use and had good dry seals.

Digester 19 is currently out of service.

Digester 20 was in use but had a wet 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 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 advised a tanker is cleaning this out on a weekly basis. However, the material in the channel appeared to show otherwise.

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 tank 11 had fatty scum across most of its surface. 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 8 tanks were in operation and appeared to be working fine.

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.

Skips

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

On the West side there was one 12yd skip that was 1/3 full of grit and although covered with a tarpaulin was noticeably odorous.

Pasteurisation Plant

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

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 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 – 24/5/2017

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station outlet	0.004(av)	0.2	Yes
East OCU	0.012(av)	0.05	Yes
West inlet	0.001(av)	0.05	Yes
Sludge reception outlet	0.000(av)	0.8	Yes
Thickening plant outlet	0.001(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