

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 30th November 2017

Attendees: Mr Zaheer Kadri (L B Hounslow) & Mr D Kalamantis (Thames Water).

LB Hounslow Observation

Thames Water Action / Response

Storm Water Storage Tanks (SWST)

Tank 1A and 1B were both empty & clean. Hoppers 1, 2 & 3 of both Tanks were all empty. No odours,

Tanks 2A and 2B were both empty & clean. Hopper 1,2 and 3 were empty in Tank 2A however Tank 2B hoppers 1,2 and 3 needed draining down..

Tank 3A and 3B were empty & clean. Hoppers 1, 2 & 3 of both Tanks were all clear of effluent.

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

Tank 6A and 6B was empty & clean. Both sets of Hoppers 1, 2 & 3 were all empty and clear of effluent.

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

Tank 8A and 8B were empty & clean. Hoppers 1, 2 and 3 of Tank 2B 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. 14:17).

Monitor 1	0.005	ppm
Monitor 2	0.009	ppm
Monitor 3	0.000	ppm
Monitor 4	0.008	ppm
Monitor 5	0.008	ppm
Monitor 6	0.008	ppm
Monitor 7	0.006	ppm
Monitor 8	0.009	ppm
Monitor 9	0.008	ppm
Monitor 10	0.008	ppm
Monitor 11	0.009	ppm
Monitor 12	0.008	ppm
Monitor 13	0.008	ppm

Complaints

The Council received no complaints in the preceding week.

Odour Log (Thames) - Photocopies of log entries taken

Thursday 23RD November 2017

AM

No odour spikes.

PM

No odour spikes.

Friday the 24th November 2017

AM

OM5 spiked to 0.017ppm @ 08:38-08:50.

OM5 spiked to 0.046ppm @ 16:53 - 17:39.

OM4 spiked to 0.017 @ 17:08 -18:00.

OM9 spiked to 0.016 @ 15:25 -15:55.

PM

Saturday 25th November 2017

AM

OM3 spiked to 0.035 @ 15:43 – 15:55.

OM3 spiked to 0.034 @ 16:43-16:55.

PM

OM3 spiking intermittently throughout the shift under 15 minute duration each occurrence max 0.038ppm.

Sunday 26th November 2017

AM

OM3 spiked to 0.02ppm @ 10:44-10:57 under 15 minute duration.
OM4 spiked to 0.023ppm @ 14:22-14:34 under 15 minute duration.
OM5 spiked to 0.023ppm @ 17:24-17:35 under 15 minute duration.
OM8 spiked to 0.021ppm @ 12:07-12:50 under 15 minute duration.
OM8 spiked to 0.021ppm @ 14:22-14:35 under 15 minute duration.

PM

OM2 spiked to 0.023ppm @ 18:41-19:41
OM5 spiked to 0.017ppm throughout shift but under 15 minute durations.
Sludge spill at imported sludge in early hours but no spikes in relation to this spillage.
All areas checked , no signs of odours producing defects.

Monday 27th November 2017

AM

OM8 = one spike peaked at 0.016ppm @ 11:35-11:44 (less than 15 minute).
OM3- one spike peaked at 0.026ppm @ 13:41 (less than 15 minute).

PM

OM2 spiked at 00:26- until 01:09 peaked to 0.026ppm.
OM8 peaked to 0.017ppm between 03:26 to 03:39 (less than 15 minute).
Area checked no odours found- No1 Screen is being cleaned/ screen house shutter door open.

Tuesday 28th November 2017

AM

OM8 one spike peaked to 0.025ppm less than 15minutes.
OM5 one spike peaked to 0.022ppm less than 15minutes.

PM

OM4 one spike peaked to 0.017ppm less than 15minutes.
OM8 one spike peaked to 0.038ppm less than 15minutes.

Wednesday 29th November 2017

AM

OM2 one spike peaked to 0.023ppm at 12:30 (less than 15minute).

PM

OM8 one spike peaked to 0.021ppm at 02:37 (less than 15minute).

Sludge Dip Records

Date	West PSTs	West PSTs	West PSTs	West Total	East PSTs	Grand Total
	1	2	3			
	All units in m ³					
OMP limit	500					
24/11/17	*4427	923	0	5350	1449	6799
27/11/17	*1939	1358	0	3297	2242	5539
29/11/17	*1630	1401	244	3275	1896	5171

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

*Thames Water have informed LBH that West PSTs 1 are normally above the trigger due to the current sampling technique which is leading to higher levels of sludge being reported in the PSTs. Verification has confirmed the genuine sludge stocks are below the trigger level by using a sludge judge and checking the flowrate from the base of the tanks. Sludge judging will be used daily now to ensure accurate reporting.

Imported Sludge

There have been 105 imports of sludge over the last week (15 deliveries daily), each import containing 30m³ of sludge.

Sludge Screening House

The large roller shutter doors 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 thick crusty seal.

Digester 6 was in use and had a thick crusty seal.

Digesters 7 had a severe spillage to one side of the digester which needed immediate attention. The coping stone was completely covered and effluent covering the walkway.

Digester 8 was in use and had a thick crusty seal (evidence of pellets being used).

Digester 9 was in use and had a thick crusty seal (evidence of pellets being used).

Digester 10 was in use and had a thick crusty seal (evidence of pellets being used).

Digester 11 was in use and had a thick crusty seal.

Digester 12 was in use but had wet sloppy seal.

Digester 13 is currently out of use.

Digester 14 was in use but had a wet sloppy seal.

Digester 15 was in use but had a wet sloppy seal.

Digester 16 is currently out of use.

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 relatively free flowing- no build-up of scum or rag along the run.

West side primary settlement tanks (PST)

Rectangular PSTs are now covered and odour controlled.

Circular PSTs 9, 10, 11 & 12 were all in operation at the time of the inspection, all had clean fat free surfaces.

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 were in operation.

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, this contained general waste and no odour was present (Not covered).
On the West side there were two empty large Bulk carriers which were empty and uncovered. There was also a 6 yard skip which was empty.

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.

<u>West Side Aeration Lanes (Old)</u>			
No issues appeared evident.			
<u>New Works (West Side)</u>			
The mixed liquor feed channel serving aeration lanes 24 & 25 (E Battery) was clogged with rag and other floating debris. It was noted that a strong offensive odour was present in the area. 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.			
<u>New Inlet Works (West Side)</u>			
No issues appeared evident at the new inlet works.			
<u>Odour Control Unit (OCU) performance monitoring – 30/11/2017</u>			
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
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	0.002(av)	0.6	Yes	
# Jerome reading				