



# London Borough of Hounslow

## Mogden Sewage Treatment Works

### TW Site Inspection

**Date of inspection: Friday the 6<sup>th</sup> October 2017**

**Attendees:** Mr Z Kadri (L B Hounslow), Mr D Kalamantis (Thames Water)

**Documentation Check List :** Mogden sludge digestion plant recordings (AM) missing due to miscommunication on behalf of operator

#### LB Hounslow Observation

#### Thames Water Action / Response

#### **Storm Water Storage Tanks (SWST)**

Tank 1A was empty. Hoppers 1, 2 and 3 were empty and Amajets were said to be in good working order (not in operation at time of visit).

Tank 1B was empty. Hoppers 1, 2 and 3 were empty and Amajets were said to be in good working order (not in operation at time of visit).

Tank 2A was empty. Hoppers 1, 2 and 3 were empty and Amajets were said to be in good working order (not in operation at time of visit).

Tank 2B was empty. Hoppers 1, 2 and 3 were empty and Amajets were said to be in good working order (not in operation at time of visit).

Tank 3A was empty. Hoppers 1, 2 and 3 were empty and Amajets were said to be in good working order (not in operation at time of visit).

Tank 3B was empty. Hoppers 1, 2 and 3 were empty and Amajets were said to be in good working order (not in operation at time of visit).

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

Tank 6A was empty. Hoppers 1, 2 and 3 were empty and Amajets were said to be in good working order (not in operation at time of visit).

Tank 6B was empty. Hoppers 1, 2 and 3 were empty and Amajets were said to be in good working order (not in operation at time of visit).

Tank 7A was empty. Hoppers 1, 2 and 3 were empty and Amajets were said to be in good working order (not in operation at time of visit).

Tank 7B was empty. Hoppers 1, 2 and 3 were empty and Amajets were said to be in good working order (not in operation at time of visit).

Tank 8A was empty. Hoppers 1, 2 and 3 were empty and Amajets were said to be in good working order (not in operation at time of visit).

Tank 8B was empty. Hoppers 1, 2 and 3 were empty and Amajets were said to be in good working order (not in operation at time of visit). full, none of the Amajets were in operation.

### **Storm Water Channel**

The storm feed channel serving STW's 1A-8B were being filled with effluent along its entire length. This was clear and looked fresh.

### **Odour Monitors**

The odour readouts (H<sub>2</sub>S) for all of the monitors, which were providing data at the time of inspection (approx 11:15).

Monitor 1	0.003	ppm
Monitor 2	0.000	ppm
Monitor 3	-0.000	ppm
Monitor 4	0.004	ppm
Monitor 5	0.000	ppm
Monitor 6	0.006	ppm
Monitor 7	0.005	ppm
Monitor 8	0.004	ppm

Monitor 9	0.009	ppm
Monitor 10	0.004	ppm
Monitor 11	0.006	ppm
Monitor 12	0.003	ppm
Monitor 13	0.004	ppm

**Complaints**

The Council received no complaints in the preceding week.

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

**Thursday 28<sup>th</sup> September 2017**

**AM** No spikes on trends or odours- nothing to report.

**PM** No odour issues.

**Friday 29<sup>th</sup> September 2017**

**AM** No odour issues, nothing to report on trends.

**PM** No odour issues, nothing to report on trends.

**Saturday 30<sup>th</sup> September 2017**

**AM** No odour issues, nothing to report on trends.

**PM** OM2 spiked between 3.22 – 3.35 (0.049ppm)

**Sunday 1<sup>st</sup> October 2017**

**AM** No odour issues, nothing to report on trends.

**PM** No odour issues, nothing to report on trends.

**Monday 2<sup>nd</sup> October 2017**

**AM** OM3 multiple spikes throughout shift peaked at 0.035ppm

OCU11 discharging chemicals (dosing issues on plant)

Monitor 2 – one spike peaked @ 0.052ppm between 13:06-13:15

Monitor 9 - one spike peaked 0.020ppm 13:21 – 13:31.

**PM** OM3 spiked four times during shift:

0.041ppm- 18:25 - 18:38  
 0.025ppm- 20:10 - 20:23  
 0.025ppm- 01:10 - 01:23  
 0.026ppm- 01:55 - 02:08

**Tuesday 3<sup>rd</sup> October 2017**

**AM** OM3 – Three spikes peaked at 0.032ppm all under 15 minutes.

**PM** No odour issues, nothing to report on trends.

**Wednesday 4<sup>th</sup> October 2017**

**AM** OM3 had four spikes peaked at 0.039ppm

OCU11 work ongoing with chemical dosing

OM12 – one spike peaked at 0.021ppm- under 15 minutes.

**PM** OM3 spiked four times- highest peak 0.063ppm but all under 15 minutes

OCU11 being worked on. Area checked for odours – No odours

**Sludge Dip Records**

Date	West PSTs 1	West PSTs 2	West PSTs 3	West Total	East PSTs	Grand Total
All units in m <sup>3</sup>						
OMP limit	<b>500</b>					
28/09/17	<b>*2116</b>	0	0	2116	4565	6681
2/10/17	<b>*523</b>	0	0	523	7243	7766
4/10/17	<b>*1473</b>	0	0	1473	2418	3891

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 70 imports of sludge over the last week, each import containing 30m<sup>3</sup> 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.

Digesters 5, 6, 7, 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.

Digesters 17 & 18 were in use but had very wet seals that were bubbling off gas.

Digester 19 is currently out of service.

Digester 20 was in use and had a good dry seal (evidence of pellets being used ).

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. Thames stated 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 were in operation apart from tank number 78. It was noted that the surface of tanks were covered in green algae/pond weed.

#### **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 large bulk carrier low level full of loose inert waste material. The skip was also partly filled with rain water and part covered with a loose fitting tarpaulin.

On the West side there were no skips present, only one empty bulk container.

### **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 evident.

### **New Works (West Side)**

The mixed liquor feed channel serving aeration lanes 21-25 (E Battery) were free flowing and there were no signs of rag or floating debris seen. The Thames Water officer explained that normally a four man tanker crew clear the channel on a weekly basis.

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

**New Inlet Works (West Side)**

No issues appeared evident at the new inlet works.

**Odour Control Unit (OCU) performance monitoring – 04/09/2017**

<b>Plant</b>	<b>Reading (ppm)</b>	<b>Action Level (ppm)</b>	<b>Compliant</b>
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