



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 15th November 2018

Attendees: Mr Zaheer Kadri (London Borough of Hounslow) and Mr W Janjua (Thames Water)

LB Hounslow Observation

Thames Water Action / Response

Storm Water Storage Tanks (SWST)

Tank 1A was empty and clean. Hoppers 1 2 & 3 were full of effluent and needed draining down.

Tank 1B was empty and clean. Hoppers 1 2 & 3 were full of effluent and needed draining down.

Tank 2A and 2B were over 50% full of effluent and being flushed. All Amajets were in operations.

Tank 3A and 3B tanks were empty and clean however hoppers 1, 2 & 3 of both tanks needed draining down. The tank needed a sweep at the hopper end (grit).

Tanks 4A, 4B, 5A & 5B which are covered and odour controlled were all empty. Unable to gauge condition as lighting system still not working.

Tank 6A and 6B were both being flushed at time of inspection and were over 50% full of effluent. All Amajets were in operations.

Tank 7A and 7B were both empty and relatively clean, but had dry grit on the surface of the tank at the hopper end. Hoppers 1, 2 & 3 (shallow hoppers) of both tanks all needed draining down.

Tank 8A and 8B were both empty and relatively clean, but had dry grit on the surface of the tank at the hopper end. Hoppers 1, 2 & 3 of both tanks all needed draining down.

All AMAJETS WERE IN ORDER – NO FAULTS

Feed Channel - The level of effluent in both feed channels was very murky in colour however at a low level along its entire length and bottomed out in places where grit was present.

Complaints

The Council received one complaint via email from Maltings Way area of Isleworth on the 13th November 2018 at approximately 01:06 regarding foul odours in the air.

On the day of the inspection the Trends were observed for the time and date the complaint was received by LBH. OM1 measured at 0.006PPM and OM2 at 0.008 at approx. 01:06. The odour logs showed that the cool over cast night and TW had logged the shift as having no odour issues on site. The odour may have generated from the storm tank area of the works exacerbated by wind direction.

The complainant was advised that future complaints should be directed at the on call 24hour service in order for Officers to visit the area in an attempt to witness and action the odour at the time of the incident.

The Council received NO complaints via telephone or emails from MRAG in the preceding week.

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at time of inspection: Thursday 15th November 2018 at 12:05.

Monitor 1	0.004	ppm	12.05
Monitor 2	0.005	ppm	12.05
Monitor 3	0.004	ppm	12.05
Monitor 4	0.003	ppm	12.05
Monitor 5	0.005	ppm	12.05
Monitor 6	0.005	ppm	12.05
Monitor 7	0.004	ppm	12.05
Monitor 8	0.004	ppm	12.05
Monitor 9	0.004	ppm	12.05
Monitor 10	0.005	ppm	12.05
Monitor 11	0.004	ppm	12.05
Monitor 12	0.000	ppm	12.05
Monitor 13	0.005	ppm	12.05
Wind Speed	-	mph	12.05
Wind Direction	-	°	12.05

Odour Log (Thames)

Thursday 8th November 2018

AM

Temp. Warm.

Weather. Sunny with patchy clouds .

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaints Blank

Operational issues / causes observed No odours issues

Actions Taken. Blank.

PM

Temp. Cool.

Weather. Overcast night.

Odour Readings. All OMU's in operation.

Time: Blank

Observations / Customer Complaint. OM3 spiked twice. 03:24 to OM3 spiked to 0.021 (less than 15 minute duration) and again at 04:23 OM3 spiked to 0.026ppm (less than 15 mins) .

Operational issues / causes observed. Area investigated, no odours identified. OCU11 discharging 745ppb via stack according to instrumentation. Chemical dosing out of range

Actions Taken. Blank

Friday 9th November 2018

AM

Temp. Cool

Weather. Cloudy w/ sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 spiked at 10:58 to 0,036ppm (less than 15 minute duration).OM3 spiked at 07:48 maximum 0.024ppm (less than 15 minute duration).

Operational issues / causes observed. Blank.

Actions Taken. No odours found or detected while checking areas

PM

Temp. Cool.

Weather. Rain

Odour Readings. All OMU's in use.

Time: 05:00.

Observations / Customer Complaint. OM5 spiked to 0.023ppm at 03:15- 04:15 (more than 15 mins duration)

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Saturday 10th November 2018

AM

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM6 spiked at 15:18 to 0.019ppm (less than 15 minute duration).

Operational issues / causes observed. Blank.

Actions Taken. Blank.

PM

Temp. Warm

Weather. Rain.

Time: 05:00.

Odour Readings. All OMU's in operation.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank

Actions taken. Blank.

Sunday 11th November 2018

AM

Temp. Cool

Weather. Rain with sunny spells.

Time: 17:30.

Odour Readings. All OMU's in operation.

Observations / Customer Complaint. Blank

Operational issues / causes observed. No odour issues.

Actions Taken. Blank.

PM

Temp. Cool.

Weather. Overcast night.
Time: 05:30.
Odour Readings. All OMU's in operation.
Observations / Customer Complaint. Blank.
Operational issues / causes observed. No odour issues
Actions Taken. Blank.

Monday 12th November 2018

AM

Temp. Cool.

Weather. Rain with sunny spells.

Time: 17:30

Odour Readings. All OMU's in operation.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues.

Actions Taken. Breaks in trend for OM2?

PM

Temp. Cool.

Weather. Clear night.

Time: 05:30.

Odour Readings. All OMU's in operation.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues.

Actions Taken. Blank.

Tuesday 13th November 2018

AM

Temp. Cool

Weather. Sunny w/ patchy clouds.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues

Actions Taken: Blank.

PM

Temp. Cool.

Weather. Overcast night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues

Actions Taken: Blank

Wednesday 14th November 2018

AM

Temp. Warm.

Weather. Sunny with patchy clouds .

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. Blank

Operational issues / causes observed. No odour issues.

Actions taken: Blank.

PM

Temp. Cool.

Weather. Overcast night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. Blank

Operational issues / causes observed. OM3 multiple spikes throughout the shift - maximum spike reading 0.045ppm

Actions Taken: OCU No 11 not performing

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					
10/11/18	0	1485	244	1729	3226	4955
13/11/18	0	1546	122	1668	2266	3934
14/11/18	0	1673	412	2086	2594	4679

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.

Imported Sludge

There have been 10 imports of sludge daily over the last week.

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 – Out of use (permanent) – noticeable quantity of water accumulated to the brim of these tanks which is thick with algae – requires draining.

Digester 5 was in use but had a very wet seal. There was evidence of a historic spill which needs cleaning (crusty-needs sweeping).

Digester 6 was in use and had a dry seal. There was evidence of a historic spill which needs cleaning (crusty needs sweeping).

Digester 7 was in use and had a dry seal. There was evidence of a historic spill which was dry and crusty in texture- needed cleaning (crusty- needs sweeping).

Digester 8 was in use and had a good dry seal. No evidence of spillage.

Digester 9 was in use and had a good dry seal. No evidence of spillage.

Digester 10 was in use and had a good dry seal. No evidence of spillage.

Digester 11 was in use and had a good dry seal. No evidence of spillage.

Digester 12 was in use and had a good dry seal. No evidence of spillage.

Digesters 13 & 14 were both out of service.

Digester 15 was in use and had a wet seal. No evidence of spillage.

Digester 16 was out of service

Digester 17 was in use and had a wet seal. No evidence of spillage

Digester 18 was in use and had a wet seal. No evidence of spillage

Digester 19 was in use and had a dry crusty seal. No evidence of spillage

Digester 20 was in use and had a dry crusty seal. No evidence of spillage

There was evidence of anti-foaming agent in use and TW advised that this is applied daily to all of the digesters that are operational.

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). All tanks were operational at the time of the inspection.

Skips

On the East side there was one 20yd open bulk carrier that was empty.

Two 14yds skips that were empty and uncovered.

On the West side there were No skips present.

East Side Screen House

All doors were closed at the time of the inspection. TW advised all screen are in operation.

Return Activated Sludge Channel

The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was relatively free flowing along its length.

West side primary settlement tanks (PST)

Rectangular PSTs are now covered and odour controlled. TW advised no issues.

Circular PSTs 9, 10, 11 & 12 were all in operation at the time of the inspection (fat free surfaces). PST 10 had an odour control system on trial whereby an odour neutraliser generated a mist over the Primary settlement tank- only one PST was being used to trial this system. No odours were noticeable.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 3/12 streams were out of operation (2, 7 and 11).

Section 106 agreement

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

West Side Aeration Lanes (New)

All of the aeration tanks appeared to be free flowing and the surface appeared much improved.

The mixed liquor feed channel serving aeration lanes 24-25 (E Battery) was free flowing in places and thick and sludgy in places.
The channel serving aeration lanes 21, 22 & 23 were free flowing.

Odour was not noticeable along the mixed liquor feed channel and TW advised that a tanker crew are regularly on site undertaking clearance of the clogged areas (Celvac).

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring: 12/11/2018

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	- - -	Unknown	Unknown
Main pumping station outlet	0.01 0.01	0.2	Yes

	0.01		
East OCU	0.00 0.00 0.00	0.05	Yes
West inlet OCU	0.00 0.00 0.00	0.05	Yes
Sludge reception inlet	-	Unknown	Unknown
Sludge reception outlet	0.00 0.00 0.00	0.8	Yes
Thickening plant inlet	-	Unknown	Unknown
Thickening plant outlet	0.00 0.00 0.00	0.6	Yes
Transfer PS inlet	-	Unknown	Unknown
Transfer PS outlet	0.01 0.02 0.01	0.6	Yes
New West inlet (OCU 11)	0.03 0.02 0.03	0.5	Yes
OCU 12 (Pasteurisation Plant)	0.00 0.00 0.00	0.5	Yes