



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Tuesday 27th October 2020 (12:00am)

Attendees: Mr Z.Kadri (London Borough of Hounslow) & Dan Grady (Thames Water)

LB Hounslow Observation

Thames Water Action / Response

Storm Water Storage Tanks (SWST)

Tank 1A was empty and clean. Hoppers 1 and 3 needed draining down. Hopper 2 was empty. All Amajets are in good working condition.

Tank 1B was empty and clean. Hoppers 1 and 3 were all drained down however Hopper 2 contained effluent.

Tank 2A was empty and clean. Hoppers 1, 2 and 3 were all drained down in the morning and clear.

Tank 2B was empty however had in areas large deposits of grit and sludge. TW advised that cleaning manually would cause odour but they would be flushing the tank out later. Hoppers 1, 2 and 3 were all empty and drained down. Amajets had recently been repaired and in good working condition.

Tank 3A was empty and clean however slight grit across the surface at hopper end. Hopper 1 was full and needed draining down, Hoppers 2 and 3 were all clear of effluent.

Tank 3B was empty and clean however slight sludgy grit at Hopper end. Hoppers 1, 2 and 3 were all full and required draining down.

Tanks 4A, 4B, 5A & 5B All tanks are covered and odour controlled. Unable to gauge condition as lighting system still not working.

Tank 6A was empty and clean. Hoppers 1, 2 and 3 were all drained down.

Tank 6B was empty and clean. Hoppers 1, 2 and 3 were all drained down.

Tank 7A surface had a substantial amount of sludgy grit across the surface near the Hopper end. TW advised that the Tank would be cleaned. Hoppers 1, 2 and 3 were all full and required draining down. (shallow hoppers).

Tank 7B surface had a substantial amount of sludgy grit across the surface near the Hopper end. TW advised that the Tank would be cleaned. Hoppers 1, 2 and 3 were all full and required draining down. (shallow hoppers).

Tank 8A was empty and clean. Hoppers 1, 2 and 3 were all full and required draining down.

Tank 8B was empty and clean. Hoppers 1, 2 and 3 were all full and required draining down.

Feed Channel - The level of effluent in both feed channels was low and bottomed out in some places. The effluent was murky along its entire length. Some deposits of fat across the surface. No odours witnessed.

Complaints

The Council received NO complaints by telephone / Email in the preceding week.

Odour Monitors

The odour readouts (H₂S) for all monitors that were providing data at the time of the inspection are below:

Monitor 1	0.005	ppm	13:19pm
Monitor 2	0.005	ppm	13:19pm
Monitor 3	0.000	ppm	13:19pm
Monitor 4	0.004	ppm	13:19pm
Monitor 5	0.004	ppm	13:19pm
Monitor 6	0.000	ppm	13:19pm
Monitor 7	0.004	ppm	13:19pm
Monitor 8	0.006	ppm	13:19pm
Monitor 9	0.003	ppm	13:19pm
Monitor 10	0.004	ppm	13:19pm
Monitor 11	0.000	ppm	13:19pm
Monitor 12	0.000	ppm	13:19pm
Monitor 13	0.004	ppm	13:19pm
Wind Direction	288.234	Deg	13:19pm
Wind Speed	3.291	mph	13:19pm

Odour Log (Thames)

Wednesday 23rd September 2020

DAY SHIFT

Temp. Rainy.

Weather. Sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint.

OM3 spiked at 0:021ppm at 07:19-07:35.

Operational issues / causes observed.

No12 Rag skip changed around this time.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Blank.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint.

No odour issues found or reported.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Thursday 24th September 2020

DAY SHIFT

Temp. Blank.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint.

OM2 0.019ppm at 13:11-13:24.

Operational issues / causes observed.

East Inlet being washed down after combi washer spill.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Overcast Night.

Weather. Blank.

Odour Readings. All OMU's in use.

Time: 05:30.

Observations / Customer Complaint.

No issues found or reported.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Friday 25th September 2020

DAY SHIFT

Temp. Blank.

Weather. Sunny.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint.

No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Clear Night.

Weather. Blank.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint.

OM3 spiked at 19:50-20:05 maximum Peak 0.038ppm.

Operational issues / causes observed.

Smell of PAS sludge.

Actions taken. Blank.

Saturday 26th September 2020

DAY SHIFT

Temp. Blank.

Weather. Sunny w/patchy clouds.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint.

No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Blank.
Weather. Clear Night.
Odour Readings. All OMU's in operation.
Time: 07:12.
Observations / Customer Complaint.
No odour issues found or reported.
Operational issues / causes observed. Blank.
Actions Taken. Blank.

Sunday 27th September 2020

DAY SHIFT

Temp. Blank.
Weather. Cloudy.
Odour Readings. All OMU's in operation.
Time: 17:30.
Observations / Customer Complaint. No dour issues.
Operational issues / causes observed. Blank.
Actions Taken. Blank.

NIGHT SHIFT

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

Monday 28th September 2020

DAY SHIFT

Temp. Blank.
Weather. Sunny w/patchy.
Odour Readings. All OMU's in operation.
Time: 17:30.
Observations / Customer Complaint.
OM3 0.019ppm 14:35-14:51
Operational issues / causes observed. No odours detected.
OCU11 discharging odour.

Actions Taken. Blank

NIGHT SHIFT

Temp. Blank.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint.

OM2 spiked at 01:11-01:40 22:54 max 0.021ppm.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Tuesday 29th September 2020

DAY SHIFT

Temp. Blank.

Weather. Sunny with patchy clouds.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint.

No issues found or reported.

Operational issues / causes observed. Blank.

Action Taken. Blank.

NIGHT SHIFT

Temp. Blank.

Weather. Clear Night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint.

OM2 spiked at 19:25- all night max 0.063ppm.

Operational issues / causes observed. No operational issues.

Actions Taken.

East Inlet hosed down , Site checked odours coming from PAS area but nothing adverse.

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					
23/09/2020	0	534	244	778	1121	1899
25/09/2020	0	412	305	717	1425	2142
28/09/2020	0	389	305	694	608	1302

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 has been an average of 7 imports of sludge daily. 3 over the last week made on the 23/09/2020, 25/09/2020 and 28/09/2020 .

Raw 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).

Thames advised of a long term project currently initiated to bring these units back into service that will require significant investment.

Digester 5 was in service and had a high wet sloppy seal. Signs of previous spillage around coping stones.

Digester 6 was in service and had a high wet sloppy seal. Signs of previous spillage around coping stones.

Digester 7 is currently out of service.

Digester 8 was in service and had a high wet sloppy seal. Signs of previous spillage around coping stones.

Digester 9 was in service and had a good wet sloppy seal. There was evidence of previous spillage and TW reminded to sweep up the crust around Digester 5, 6, 7, 8, 9 and their respective walkways/channels.

Digesters 10, 11 & 12 were all in service and had High thick sludgy seals.

Digester 13 was in service and had a low wet seal gassing in places. Signs of previous spillage around coping stones.

Digester 14 was in service and had a low wet thick seal. No evidence of previous sludge spillage – clean coping stones. Overall good seal

Digester 15 is currently out of service.

Digester 16 was in service and spilling over / gassing at time of inspection. There was a broken seal in one side of the digester which was allowing a substantial amount of effluent to escape.

Digester 17 was in service and had a had a low thick sludgy seal. No evidence of previous sludge spillage – clean coping stones. Overall good low seal.

Digester 18 is currently out of service.

Digester 19 is currently out of service.

Digester 20 was in service and had a had a low thick sludgy seal. No evidence of previous sludge spillage – clean coping stones. Overall good low seal.

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.

The area around all digesters was much improved with no evidence of recent or historical sludge spills. Thames advised they have been actively undertaking regular clean-ups of this area of the works.

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 the tanks were operating as normal and had a relatively fat free and clear surface. The hoses were in operation.

Skips

There was one 16yard skip which was empty and uncovered at the Screening House – No odours were detected.

There were NO skips at the East Side Grit House

There were NO skips at the West Side Grit House

East Side Screen House

A set of doors at the screening house building were open due to maintenance taking place. The doors were open to allow ventilation whilst contactors were working. No odours detected at the time of inspection.

Return Activated Sludge Channel

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

The far side channel was partly clogged throughout much of its length, the surface was visibly crusty in areas and had weeds growing out of it. This was due to be manually unclogged by contractors

West side primary settlement tanks (PST)

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

Circular PST's 9, 10 and 12 were all in service except PST 11 this was out of service. All PST's had relatively fat free surfaces however some algae growth across the surface. No odours detected

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 9 streams out of twelve are currently operational.

Section 106 agreement

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

West Side Aeration Lanes (New)

All lanes are now much improved and appeared to be free flowing, with the internal dividing walls being visible again.

The sprinkler systems were in operation and floating debris had been removed.

The mixed liquor feed channel serving aeration lanes 22 to 25 of E-Battery was partially clogged with thick dark sludge. TW will be unclogging this channel.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring: 24/09/2020

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	Blank	Unknown	Unknown
Main pumping station outlet	Blank	0.2	Unknown
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	Blank	Unknown	Unknown
Sludge reception outlet	Blank	0.8	Unknown
Thickening plant inlet	Blank	Unknown	Unknown
Thickening plant outlet	0.00 0.00 0.00	0.6	Yes
New West inlet (OCU 11)	0.00 0.00 0.00	0.5	No

Pasteurisation (OCU 12)	0.00 0.00 0.00	0.5	Yes	
Transfer PS inlet	0.126 0,000 0.000 Ave: 0.024	Unknown	Unknown	
Transfer PS outlet	0.00 0.00 0.00	0.6	Yes	