



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Tuesday 24 th November 2020 (10:30am)	
Attendees: Mr Z.Kadri (London Borough of Hounslow) & Tom Costin (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A was empty and had a clean surface. Hoppers 1 and 3 needed draining down- some fatty deposits on the surface of the hoppers.</p> <p>Tank 1B was empty however there was effluent at the hopper end of the tank with fatty deposits across the surface. Hoppers 1, 2 and 3 needed draining down.</p> <p>Tank 2A was empty and had a clean surface. Hoppers 1, 2 and 3 had all been drained down.</p> <p>Tank 2B was clean and empty. Hoppers 1, 2 and 3 had all drained down earlier.</p> <p>Tank 3A was clean and empty- Hoppers 1, 2 and 3 had low levels of effluent under 25%.</p> <p>Tank 3B was empty however there were areas of the tank which had sludgy gritty surface. Hoppers 1, 2 and 3 needed draining down.</p>	

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 and 2 needed draining down and Hopper 3 was clear of effluent and had been drawn down.

Tank 6B – was empty however the Hopper end was submerged with effluent which had a thick fatty surface. Hopper 1, 2 and 3 needed draining down.

Tank 7A and Tank 7B both Tanks needed to be flushed – there was grit in some places across the surface. Hoppers 1, 2 and 3 (Shallow hoppers) in both tanks needed draining down.

Tank 8A was clean however the hopper end was submerged with effluent. Hoppers 1, 2 and 3 all needed draining down.

Tank 8B had a layer of thick sludge across the Tank which needed flushing down. Hoppers 1, 2 and 3 needed draining down (effluent in hoppers black and murky).

All the Amajets are in operational condition.

Feed Channel - The effluent in both feed channels was murky and black in colour along its entire length (bottomed out in places). Some deposits of fat across the surface but No odours witnessed.

Complaints

The Council received one telephone complaint on Sunday 22nd of November 2020 at approximately 16:25 from the Mogden Lane area. The Officer on duty responded and called the complainant back at 16:45. Subsequently a monitoring visit to the area was made at 17:30-17:45. The results of this were that average level of H₂S was 0.012ppm & 0.004ppm and the subjective assessment confirmed that the level of odour was not excessive but noticeable in the wind. The Flare reference for this complaint is A07848.

The Trends for the day were inaccessible at time of inspection.

Odour Monitors

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

Monitor 1	0.007	ppm	10:30am
Monitor 2	0.004	ppm	10:30am
Monitor 3	0.000	ppm	10:30am
Monitor 4	0.005	ppm	10:30am
Monitor 5	0.004	ppm	10:30am
Monitor 6	0.004	ppm	10:30am
Monitor 7	0.006	ppm	10:30am
Monitor 8	0.006	ppm	10:30am
Monitor 9	0.006	ppm	10:30am
Monitor 10	0.003	ppm	10:30am
Monitor 11	0.005	ppm	10:30am
Monitor 12	0.007	ppm	10:30am
Monitor 13	0.006	ppm	10:30am
Wind Direction	176.421	Deg	10:30am
Wind Speed	4.844	mph	10:30am

Odour Log (Thames)

Wednesday 18th November 2020

DAY SHIFT

Temp. Cool.

Weather. Rain with sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint.

No odour issues.

Operational issues / causes observed.

Storm Tanks returning.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cold.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint.

No odour issues found or reported.

Operational issues / causes observed.

Storm Tanks Dregs returning.

Actions Taken. Blank.

Thursday 19th November 2020

DAY SHIFT

Temp. Cool.

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. Cold.

Weather. Clear Night.

Odour Readings. All OMU's in use.

Time: 05:30.

Observations / Customer Complaint.

OM7 spiked to 0.016ppm at 20:07-21:07.

Operational issues / causes observed.

No odours identified.

Actions Taken. Blank.

Friday 20th November 2020

DAY SHIFT

Temp. Cold.

Weather. Sunny spells.

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. Cool.

Weather. Overcast Night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint.

OM5 spiked to 0.019ppm Max at 18:49-19:05 but under 15 minute duration.

Operational issues / causes observed. Blank.

Actions taken. Blank.

Saturday 21st November 2020

DAY SHIFT

Temp. Cool.

Weather. Patchy with 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. Cool.

Weather. Overcast Night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint.

OM13 spiked at 03:40-04:40 0.016ppm Max.

OM8 spiked at 04:20-04:40 Max 0.021ppm.

Operational issues / causes observed.

Odour present in the air around PAS streams but unable to determine source.

Actions Taken. Blank.

Sunday 22nd November 2020**DAY SHIFT**

Temp. Cool.

Weather. Sunny.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint.

OM4 spiked to 0.017ppm between 16:35-16:51.

Operational issues / causes observed.

Engine exhaust.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cold.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint.

No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Monday 23rd November 2020**DAY SHIFT**

Temp. Cool.

Weather. Sunny.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint.

No odour issues found or reported.

Operational issues / causes observed. No operational issues.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cold.

Weather. Clear Night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint.

No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Tuesday 24th November 2020

DAY SHIFT

Temp. Cool.

Weather. Sunny.

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. Cool.

Weather. Clear Night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint.

No odours found.

Operational issues / causes observed.

No odours found and reported.

Actions Taken. Blank

Sludge Dip Records

Date	West PSTs 1	West PSTs 2	West PSTs 3	West Total	East PSTs	Grand Total
	All units in m³					
OMP limit	500					
18/11/2020	117	534	595	1246	608	1854
20/11/2020	117	389	740	1246	1240	2486
23/11/2020	117	824	595	1536	1088	2624

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 8 imports of sludge daily. 3 over the last week made on the 18/11/2020 , 20/11/2020 and 23/11/2020.

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 sloppy/sludgy seal. Signs of previous spillage around coping stones.

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

Digester 7 was in service and had a low wet sloppy seal (sludgy). Thick and lumpy in areas. Good seal all round.

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 wet sloppy seal. There was evidence of previous spillage.

Digester 10 was in service and had a high wet seal. No evidence of previous spillage on coping stones but the channels and walkaways needed a sweep.

Digester 11 was in service and had a high wet seal all round. No evidence of spillages on coping stones.

Digester 12 was in service and had a low wet seal all round. No evidence of previous spillages.

Digester 13 was in service and had low wet seal all round. No evidence of previous spillages.

Digester 14 was in service and had a high wet seal which was gassing in places. 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 had a low sloppy seal. Coping stone looked clean no sign of previous spillage.

Digester 17 was in service and had a had a low thick sloppy seal which was bubbling in places. Coping stone looked clean, no sign of previous spillage.

Digester 18 is currently out of service.

Digester 19 is currently out of service.

Digester 20 was in service and had a high wet seal. No evidence of previous sludge spillage, clean coping stones.

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).

PST 76 had been drained down for maintenance. All remaining PSTs had relatively fat free and clear surfaces. The hoses were in operation at time of inspection.

Skips

There were no skips observed at the Screening House.

There were no skips observed at the East Side Grit House.
There were no skips observed at the West Side Grit House.

East Side Screen House

The doors at the Screening House were open due to contractors working on site changing the conveyor system- contractors needed ventilation. TW Advised to keep doors closed.

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.

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, PST 11 was out of service. All PST's had relatively fat free surfaces. PST 11 drained down as works taking place on the sludge pump.

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 clear and free flowing. Part of the channel was heavily blocked full of rag.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring: 24/11/2020

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	Blank	Unknown	Unknown
Main pumping station outlet	0.00ppm 0.00ppm 0.00ppm	0.2	Unknown
East OCU	0.00ppm 0.00ppm 0.00ppm	0.05	Yes
West inlet OCU	0.00ppm 0.00ppm 0.00ppm	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	1.09ppm 0.89ppm	0.6	Yes

	0.71ppm Ave: 0.89ppm		
New West inlet (OCU 11)	0.00ppm 0.00ppm 0.00ppm	0.5	No
Pasteurisation (OCU 12)	0.00ppm 0.00ppm 0.00ppm	0.5	Yes
Transfer PS inlet	45.10ppm 40.05ppm 38.95ppm Ave: 41.36ppm	Unknown	Unknown
Transfer PS outlet	0.00ppm 0.00ppm 0.00ppm	0.6	Yes