



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Wednesday 26 th August 2020 (12:00am)	
Attendees: Mr I Inman (London Borough of Hounslow) and Mr T 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 clean. Hoppers 1 and 3 were both approx 50%, hopper 2 was approx 25% full, all require draining down.</p> <p>Tank 1B was empty and clean. Hopper 1 was full, hopper 2 was approx 25% full and hopper 3 was approx 50% full, 2 and 3 were all approx 50% full, all required draining down.</p> <p>Tank 2A was empty and clean. Hoppers 1, 2 and 3 were all approx 25% full and required draining down.</p> <p>Tank 2B was empty and clean except for large areas of dry grit at the top end of the tank. Hoppers 1, 2 and 3 were all full and partially overflowing into the tank, all require draining down.</p> <p>Tank 3A was empty and clean but had grit along the right hand side of the tank.</p>	

Hopper 1 was approx 50% full, hoppers 2 and 3 were both approx 30% full, all require draining down.

Tank 3B had grit and surface sludge across most of the tanks surface and was noticeably odorous.

Hoppers 1, 3 and 3 were all approx 70% full and require 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 and 3 were both approx 75% full, hopper 2 was approx 30% full, all require draining down.

Tank 6B was empty and clean.

Hopper 1 was approx 50% fill, hopper 2 was approx 30% full and hopper 3 was approx 75% full, all require draining down.

Tank 7A had odorous sludge across at least 30% of the tanks surface.

Hoppers 1, 2 and 3 (shallow hoppers) were all full of stagnant water and overflowing, all require cleaning.

Tank 7B was empty and clean except for an area of dry grit at the top end of the tank.

Hoppers 1, 2 and 3 (shallow hoppers) were all full of stagnant water and overflowing, all require cleaning.

Tank 8A was empty and clean.

Hoppers 1, 2 and 3 were all full of stagnant green algae water and require draining down.

TW advised all 3 hoppers are currently blocked.

Tank 8B was empty and clean.

Hoppers 1, 2 and 3 were all full of stagnant green algae water and require draining down.

TW advised all 3 hoppers are currently blocked.

Feed Channel - The level of effluent in both feed channels was low along its entire length.

Complaints

The Council received 3 complaints by the on-line web form in the preceding week.

All three complaints were received on 21/08/2020 between 22:00-22:12, and were from 3 individual residents at 'Dominion Court', London Road, Isleworth (logged under reference no's: A03603, A03629 and A03631).

However, due to the location of the complainants it is thought that these complaints were made in error and relate to another odour source.

The historic odour monitor trends for the time before, during and after receipt of the complaints showed no abnormalities or excessive H₂S readings.

Odour Monitors

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

Monitor 1	0.004	ppm	11.51am
Monitor 2	0.006	ppm	11.51am
Monitor 3	0.000	ppm	11.51am
Monitor 4	0.004	ppm	11.51am
Monitor 5	0.003	ppm	11.51am
Monitor 6	0.004	ppm	11.51am
Monitor 7	0.000	ppm	11.51am
Monitor 8	0.003	ppm	11.51am
Monitor 9	0.005	ppm	11.51am
Monitor 10	0.004	ppm	11.51am
Monitor 11	0.005	ppm	11.51am
Monitor 12	0.003	ppm	11.51am
Monitor 13	0.000	ppm	11.51am
Wind Speed	285.652	mph	11.51am
Wind Direction	11.759		11.51am

Odour Log (Thames)

Thursday 20th August 2020

DAY SHIFT

Temp.

Weather. Sunny w/patchy cloud.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 0.023ppm 10:38-10:54.

Operational issues / causes observed. Inlet checked, no odour detected.

Actions Taken. Blank.

NIGHT SHIFT

Temp.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM2 showing odours all shift.

Operational issues / causes observed. Some odours coming from PST11.

Actions Taken. East inlet washed down. PST11 needs cleaning up.

Friday 21st August 2020

DAY SHIFT

Temp.

Weather. Sunny w/patchy cloud.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM3 0.039ppm 8:39-8:55.

OM2 0.021ppm 17:22-17:37.

Operational issues / causes observed. PST 15-16 being pumped out. Inlet checked, no odour detected.

Actions Taken. Blank

NIGHT SHIFT

Temp.

Weather. Clear night.

Odour Readings. All OMU's in use.

Time: 05:30.

Observations / Customer Complaint. OM3 0.039ppm 00:54-01:09.
00'73ppm 01:24-01:40.

OM2 0.022ppm 01:52-02:07.

Operational issues / causes observed. PST 15 & 16 over pump running to empty tanks after back filling. OCU11 discharging 313ppb odour from stack.

Actions Taken. Inlet area washed down.

Saturday 22nd August 2020

DAY SHIFT

Temp.

Weather. Sunny w/patchy cloud.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM3 0.041ppm 15:38-15:54.
0.016ppm 12:09-12:24. 0.046ppm 10:38-10:54.

OM2 0.053ppm 09:21-09:38.

Operational issues / causes observed. PST 15-16 being pumped out.

Inlet checked, no odour detected.

Actions Taken. Inlet hosed down.

NIGHT SHIFT

Temp.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM2 one spike 0.016ppm <15 minutes.

OM3 0.025ppm 03:40-05:10.

Operational issues / causes observed. OCU11 discharging 0.425ppm from stack.

Actions taken. West inlet checked. Nothing out of the ordinary found.

Sunday 23rd August 2020

DAY SHIFT

Temp.

Weather. Sunny w/patchy cloud.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM3 0.025ppm 06:38-06:55.
0.016ppm 08:40-08:54. 0.017ppm 09:10-09:24. 0.021ppm 09:38-09:54.
0.034ppm 10:08-10:40.

Operational issues / causes observed. Area checked, no source found.

Actions Taken. Blank.

NIGHT SHIFT

Temp.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM3 0.052ppm 18:39-18:55.
0.021ppm 19:56-20:10. 0.029ppm 21:25-21:40. 0.035ppm 22:38-22:55.

Operational issues / causes observed. E-battery inlet skips wet therefore area washed down. OCU11 discharging 0.470ppm from stack.

Actions Taken. Blank.

Monday 24th August 2020

DAY SHIFT

Temp.

Weather. Sunny w/patchy cloud.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM3 spiked at 09:20-09:39
max 0.021ppm. 10:10-10:38 max 0.023ppm. 11:23-11:40 max
0.027ppm.12:38-12:57 max 0.024ppm.

OM3 17:07-17:20 max 0.037ppm.

OM6 16:36-16:52 max 0.020ppm.

Operational issues / causes observed. No obvious odour sources found.

Actions Taken. Area clean.

NIGHT SHIFT

Temp.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM2 0.049ppm 18:23-19:07.

Operational issues / causes observed. Blank.

Actions Taken. Inlets checked, heavy rain.

Tuesday 25th August 2020

DAY SHIFT

Temp.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. Heavy rain AM.

Operational issues / causes observed. No odour issues found or reported.

Actions Taken. Blank.

NIGHT SHIFT

Temp.

Weather. Overcast night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM3 0.016ppm 17:54-18:08.

0.036ppm 19:23-19:39. 0.040ppm 20:23-20:39. 0.044ppm 21:08-21:24.

0.086ppm 2:23-2:39. 0.033PPM 2:53-3:09. 0.049ppm 3:23-3:39.

0.025ppm 5:08-5:23. 0.079ppm 5:38-5:54.

Operational issues / causes observed. Area checked no source of odour found. OCU11 high ppb output 530.

Actions Taken. Blank.

Wednesday 26th August 2020

DAY SHIFT

Temp.

Weather. Cloudy w/sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM3 spiked at 07:40-08:08

max 0.019ppm. 09:09-09:45 max 0.024ppm. 10:38-10:54 max

0.029ppm. 13:25-13:40 max 0.030ppm.

Operational issues / causes observed. Area checked no source of odour detected.

Action Taken. Site wide calibration of odour monitors carried out today by Able.

NIGHT SHIFT

Temp.

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.

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					
21/08/2020	0	244	122	366	1449 1159*	1815
24/08/2020	817	824	244	1885	1929	3814
26/08/2020	0	244	0	244	2570	2814

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.

*** Incorrect total entered on Thames Water paperwork.**

Imported Sludge

There has been an average of 15 imports of sludge daily over the last week.

No.5 Pumping Station

The doors of No.5 pumping station were open at the time of the inspection, some odour was present.

Sludge Import Area

It was noted that the sludge import area was still in a very poor condition.

Although the tank leak has been resolved the area surrounding the

skips is in a poor state and requires cleaning.
TW were advised they are frequently hosing this area down.

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 but had a wet sloppy seal and was bubbling off gas.

Digester 6 was in service but had a wet sloppy seal and was bubbling off gas.

Digester 7 is currently out of service.

Digesters 8, 9, 10, 11, 12, 13 and 14 were all in service but had wet sloppy seals and were all bubbling off gas.

Digester 15 was out of service.

Digesters 16 and 17 were both in service and had very wet seals (virtually no seal at all) and were bubbling of gas.

Digesters 18 and 19 were both out of service.

Digester 20 was in service and had a very wet seal (virtually no seal at all) that was bubbling of gas.

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 tanks were operational at the time of the inspection.

Skips

On the East side there was one 12yds open skip that was empty and one 40yds closed bulk carrier that was also empty

In the Sludge Import area there were two 8yds open skips, both of which contained rag and other debris, both were only part covered.

On the service road next to the raw sludge screening building was an 8yds open skip that was approx 50% full of rag and only partially covered.

On the West side there was one 20yds open bulk carrier that was empty.

East Side Screen House

The doors at both ends of the screen house building were 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 partially clogged along approx 30% of its length, was visibly crusty in areas and had weeds growing out of it.

West side primary settlement tanks (PST)

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

Circular PST 12 is currently out of service.
PST's 9, 10 and 11 were all in service and had relatively fat free surfaces.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 7 streams 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.
Most of the sprinklers were back in operation and floating debris had been removed.

The mixed liquor feed channel serving aeration lane 25 of E-Battery was partly clogged in one area.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring: 25/08/2020

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	3.80 3.04 2.85	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	Yes