



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 28 th February 2023	
Attendees: Mr Steven Maunders (London Borough of Hounslow) and Miss Emma McDonald (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A – Tank empty – Approx. 10% of tank covered by grit and sludge – requires further flushing – All Hoppers full - requires draining/over-pumping.</p> <p>Tank 1B – Tank empty – Approx. 40% of tank covered by grit and sludge – requires further flushing – Hoppers 1 & 3 approx. 60% full Hopper 2 approx. 30% full - requires draining/over-pumping.</p> <p>Tank 2A – Tank empty – Approx. 75% of tank covered by grit and sludge – requires further flushing – All Hoppers approx. 40% full - requires draining/over-pumping.</p> <p>Tank 2B – Tank empty – Approx. 50% of tank covered by grit and sludge – requires further flushing – Hopper 1 full, Hoppers 2 & 3 approx. 60% full - requires draining/over-pumping.</p>	

Tank 3A – Tank empty – 100% of tank covered by grit and sludge – requires further flushing – All Hoppers approx. 75% full - requires draining/over-pumping.

Tank 3B – Tank empty – Approx. 75% of tank covered by grit and sludge – requires further flushing – All Hoppers full - requires draining/over-pumping.

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

Tank 6A – Tank empty – Approx. 10% of tank covered by grit and sludge – requires further flushing – Hopper 1 full, Hoppers 2 & 3 approx. 50% full - requires draining/over-pumping.

Tank 6B – Tank empty – Approx. 10% of tank covered by grit and sludge – requires further flushing – All Hoppers approx. 60% full - requires draining/over-pumping.

Tank 7A – Tank in use. All Amajets in operation.

Tank 7B – Tank backfilling (approx. 30%) – approx. 60% of remaining tank covered by grit and sludge – requires further flushing and draining/over-pumping.

Tank 8A – Tank backfilling (approx. 60%) – approx. 20% of remaining tank covered by grit and sludge – requires further flushing and draining/over-pumping.

Tank 8B – Tank backfilling (approx. 40%) – approx. 60% of remaining tank covered by grit and sludge – requires further flushing and draining/over-pumping.

Feed Channel - The level of effluent in both feed channels was approximately 10% capacity.

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					
22/02/23	0	2755	788	3543	1240	4783
23/02/23	20	2381	788	3169	1568	4757
24/02/23	0	1860	412	2272	1568	3840
27/02/23	0	2254	412	2666	3387	6053
28/02/23	0	1696	122	1818	4380	6198

Complaints

The Council received no complaints by email from MRAG in the preceding week.

Thames Water controller advised that they had received no direct complaints in the preceding week.

The Council directly received no complaints by email in the preceding week.

The Council received no calls to the out of hours service.

Odour Monitors

The odour readouts (H₂S) for all monitors which were providing data at time of inspection:

Monitor 1	.007	ppm	14:33
Monitor 2	.001	ppm	14:33
Monitor 3	.006	ppm	14:33
Monitor 4	.004	ppm	14:33
Monitor 5	.003	ppm	14:33
Monitor 6	.007	ppm	14:33
Monitor 7	.000	ppm	14:33
Monitor 8	.007	ppm	14:33
Monitor 9	.005	ppm	14:33
Monitor 10	.005	ppm	14:33
Monitor 11	.010	ppm	14:33
Monitor 12	-.025	ppm	14:33
Monitor 13	-.025	ppm	14:33
Wind Speed	11.23	mph	14:33
Wind Direction	20.2°		14:33

Odour Log (Thames):

Monday 20th February 2023:

PM – Cool – Clear Night.

All OMU's in use.

Observations/Complaints: "OM8 0.023 02:19-02:32. OM100.023 19:43-20:00 & 0.018 20:23-20:45."

Operational Issues/Causes: "Area checked no source found. Flare running. High Bells."

Actions: No data.

Tuesday 21st February 2023:

AM – Cool – Sunny with Patchy Clouds.

All OMU's in use.

Observations/Complaints: "OM8 0.016ppm 08:06-09:01."

Operational Issues/Causes: "Area checked no source of odour found."

Actions: No data.

PM – Cool – Patchy Rain.

All OMU's in use.

Observations/Complaints: "No odour issues found or reported."

Operational Issues/Causes No data.

Actions: No data.

Wednesday 22nd February 2023:

AM – Cool – Patchy Rain.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: No data.

Actions: No data.

PM – Cool – Clear Night.

All OMU's in use.

Observations/Complaints: "No odour issues found or reported."

Operational Issues/Causes No data.

Actions: No data.

Thursday 23rd February 2023:

AM – Cool – Sunny with Patchy Clouds.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: No data.

Actions: No data.

PM – Cool – Clear Night.

All OMU's in use.

Observations/Complaints: "OM9 max 0.019ppm 22:37-23:07. OM10 0.018ppm at 22:17 <15 minute duration."

Operational Issues/Causes: "Area around monitor checked no obvious odours detected. Digester Bell height high at 27 meters but below trigger level for waste gas burner to start."

Actions: No data.

Friday 24th February 2023:

AM – Cool – Sunny with Patchy Clouds.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: No data.

Actions: No data.

PM – Cold – Clear Night.

All OMU's in use.

Observations/Complaints: "No odour issues found or reported."

Operational Issues/Causes: No data.

Actions: No data.

Saturday 25th February 2023:

AM – Cool – Sunny with Patchy Clouds.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: No data.

Actions: No data.

PM – Cold – Clear Night.

All OMU's in use.

Observations/Complaints: "No odour issues found or reported."

Operational Issues/Causes: No data.

Actions: No data.

Sunday 29th January 2023:

AM – Cold – Sunny with Patchy Clouds.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: No data.

Actions: No data.

PM – Cold – Overcast Night.

All OMU's in use.

Observations/Complaints: "No odour issues found or reported."

Operational Issues/Causes: "Trends stopped logging around 02:00."

Actions: "Defect raised for Trends."

Monday 27th February 2023:

AM – Cold – Sunny with Patchy Clouds.

All OMU's in use.

Observations/Complaints: "OM10 0.017ppm 05:32-05:47."

Operational Issues/Causes: "No odour issues on site."

Actions: No data.

PM – Cold – Clear Night.

All OMU's in use.

Observations/Complaints: "OM3 spiked at 02:20-02:36 max 0.018ppm. OM10 spiked at 01:16-02:05 max 0.017ppm."

Operational Issues/Causes: "Checked area around monitors no obvious source of odour found."

Actions: No data.

Tuesday 28th February 2023:

AM – Cold – Clear Night.

All OMU's in use.

Observations/Complaints: "OM10 0.022ppm 07:55-08:16."

Operational Issues/Causes: "No odour issues on site. ABLE on site calibrating monitors."

Actions: No data.

PM – Cold – Overcast Night.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes No data.

Actions: No data.

Digesters

Digesters 1-4 – Out of use (permanent).

Digester 5 – In use – seal level approx. 18” below coping stones - Seal weak and bubbling.

Digester 6 - In use – seal level approx. 2ft below coping stones – Good Seal – Bell height high requiring draw down of Biogas.

Digester 7 - In use – seal level approx. 3ft below coping stones – Seal weak and bubbling – Bell height high requiring draw down of Biogas.

Digester 8 - In use – seal level approx. 4ft below coping stones – Good Seal – Bell height high requiring draw down of Biogas – There is a faulty/damaged fan blade on air-handling plant affixed to this Tank – has potential to be off site noise nuisance – requires repair.

Digester 9 - In use – seal level approx. 18” below coping stones – Seal weak and bubbling.

Digester 10 - In use – seal level approx. 2ft below coping stones - Seal weak and bubbling – Tank noticeably gassing off - Bell height high requiring draw down of Biogas.

Digester 11 - In use – seal level approx. 1ft below coping stones – Seal weak and bubbling. Evidence of previous spill requiring clean-up.

Digester 12 - In use – seal level approx. 18” below coping stones – Seal weak and bubbling.

Digester 13 - In use – seal level approx. 18” below coping stones - Seal weak and bubbling.

Digester 14 – Out of use.

Digester 15 – Out of use.

Digester 16 – Out of use.

Digester 17 - In use – seal level approx. 3ft below coping stones - Seal weak and bubbling.

Digester 18- In use – seal level approx. 2ft below coping stones - Seal weak and bubbling.

Digester 19 - In use – seal level approx. 3ft below coping stones - Seal weak and bubbling.

Digester 20 - In use – seal level approx. 3ft below coping stones - Seal weak and bubbling.

GENERAL

Sludge Screening House

Small doors closed at time of inspection. Roller shutter currently missing and awaiting replacement following damage – previously erected screening has been removed and opening now un-covered.

Imported Sludge

There were 46m³ imports in preceding seven days.

Final Settlement Tanks East Side of Works

The 8 circular tanks previously used as PSTs are now being used as final tanks (71-78) – no issues.

East Side Raw Sludge Screen House

Doors closed at time of inspection.

West Side Aeration Lanes (Old)

Battery C aeration feed channel 100% obstructed in one channel (left) – requires jetting (TW advise that there is continuing flow below surface).

West side primary settlement tanks (PST)

Rectangular PSTs – no issues

Circular PST's 10 & 11 in use – no issues. Number 9 drained down (temporarily following breakdown) – quantity of sludge remains – notably odorous and requires removal - Number 12 drained down (long term out of service).

New Works (West Side) Battery E

No issues.

Pasteurisation Plant

Streams 2, 6, 10 and 11 out of service.

Skips

2x small (blue) skips – rear of sludge screen house both empty – quantity of rag on ground in surrounding area that requires clean-up.

1x open container grit skip (full) uncovered and 1x 10-Yard Rag skip (covered) at rear of Sludge Screening House.

1x open 8-Yard skip (scrap metal) in Service Road by Pasteurisation Plant.

1x 10-Yard enclosed General Waste skip in Service Road at rear of East Raw Sludge Screening House.

Odour Control Unit (OCU) performance monitoring – 28/02/23

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	No data	Unknown	Unknown
Main pumping station outlet	0.00 0.00 0.00	0.2	Yes
East OCU	0.068 0.071 0.079	0.05	No
West inlet OCU	0.00 0.00 0.00	0.05	Yes
Sludge reception inlet	No data	Unknown	Unknown
Sludge reception outlet	No data	0.8	Unknown
Thickening plant inlet	No data	Unknown	Unknown
Thickening plant outlet	0.567 0.593 0.625	0.6	No
Transfer PS inlet	0.507 0.543 0.789	Unknown	Unknown
Transfer PS outlet	0.36 0.31 0.29	0.5	Yes
New West inlet (OCU11)	0.062 0.063 0.065	0.5	Yes
Pasteurisation Plant (OCU12)	2.498 2.486 2.451	0.5	No
GBT Plant OCU Outlet	0.00 0.00 0.00	Unknown	Unknown