

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Tuesday 17 th January 2023 (10:00pm)	
Attendees: Mr Z Kadri (LB Hounslow) and Ms Emma McDonald (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A was over 80% full of effluent and returning at the time of inspection. All amajets were in operation at the time of the inspection.</p> <p>Tank 1B was over 80% full of effluent at the time of inspection. All amajets were in operation at the time of the inspection.</p> <p>Tank 2A was over 80% full of effluent and returning at the time of inspection. All amajets were in operation at the time of the inspection..</p> <p>Tank 2B was over 80% full of effluent and returning at the time of inspection. All amajets were in operation at the time of the inspection.</p> <p>Tank 3A was over 80% full of effluent at the time of inspection. Amajets were not in operation at the time of the inspection..</p> <p>Tank 3B was over 80% full of effluent at the time of inspection. Amajets were not in operation at the time of the inspection.</p>	<p>The matter with Amajets being out of service was raised with Thames Water and their response was as follows:</p> <ul style="list-style-type: none">• The PCE confirmed the amajets are used when the storm tanks were returning (hence why they were working for tanks 2&7, as these were the tanks returning at the time)• There are some known maintenance issues with some of the amajets, these will be addressed by the M&E team in drier weather when the storm tanks are not in use and access is possible

Storm Feed Channel - The level of effluent in this feed channels was were high over 50% throughout the channels. The effluent looked grey and murky with some floating fatty deposits.

Tanks 4A, 4B, 5A & 5B All tanks are covered and odour controlled. I was able to gauge the conditions which demonstrated the tanks as being full and in use.

Tank 6A was over 80% full of effluent at the time of inspection. Amajets were not in operation at the time of the inspection.

Tank 6B was over 80% full of effluent at the time of inspection. Amajets were not in operation at the time of the inspection.

Tank 7A was over 80% full of effluent and returning at the time of inspection. Amajets were all in operation at the time of the inspection.

Tank 7B was over 80% full of effluent and returning at the time of inspection. Amajets were in operation at the time of the inspection.

Tank 8A was over 80% full of effluent at the time of inspection. Amajets were not in operation at the time of the inspection.

Tank 8B was over 80% full of effluent at the time of inspection. Amajets were not in operation at the time of the inspection.

Storm Feed Channel - The level of effluent in this feed channels was were high over 50% throughout the channels. The effluent looked grey and murky with some floating fatty deposits.

Complaints

The Council received no complaints in the preceding week

Odour Monitors

The odour readouts (H₂S) at 10:00 on the 17th of January 2023.

Monitor 1	0.007	ppm
Monitor 2	0.002	ppm
Monitor 3	0.010	ppm
Monitor 4	0.008	ppm
Monitor 5	0.005	ppm
Monitor 6	0.010	ppm
Monitor 7	0.006	ppm
Monitor 8	0.008	ppm
Monitor 9	0.000	ppm
Monitor 10	0.007	ppm
Monitor 11	0.004	ppm
Monitor 12	0.005	ppm
Monitor 13	0.000	ppm
Wind Speed	0.210	mph
Wind Direction	37.896	Deg

Odour Logs

Tuesday 10th January 2023

DAY SHIFT

Temp. Cool

Weather. Rain

Odour Readings. All OMU's in operation

Time: 17:30.

Observations / Customer Complaint.

No odour issues found or reported

Operational issues / causes observed. Blank

Actions Taken. Blank

NIGHT SHIFT

Temp. Cool

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.

Wednesday 11th January 2023

DAY SHIFT

Temp. Cool

Weather. Rain

Odour Readings. All OMU's in operation

Time: 17:30.

Observations / Customer Complaint.

No odour issues found or reported

Operational issues / causes observed. Blank

Actions taken. Blank

NIGHT SHIFT

Temp. Cool

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 12th January 2023

DAY SHIFT

Temp. Cool

Weather. Rain

Odour Readings. All OMU's in operation

Time: 17:30.

Observations / Customer Complaint.

No odour issues found or reported

Operational issues / causes observed. Blank

Actions taken. Blank

NIGHT SHIFT

Temp. Cool

Weather. Patchy 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

Friday 13th January 2023

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. Blank

Actions taken. Blank

NIGHT SHIFT

Temp. Cool

Weather. Patchy 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

Saturday 14th January 2023

DAY SHIFT

Temp. Cool

Weather. Rain

Odour Readings. All OMU's in operation

Time: 17:30.

Observations / Customer Complaint.

No odour issues found or reported

Operational issues / causes observed. Blank

Actions taken. Blank

NIGHT SHIFT

Temp. Cool

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. 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					
11/01/2023	20	1444	788	2252	1088	3340
13/01/2023	39	1612	412	2063	456	2519
16/01/2023	20	1213	412	1645	608	2253

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 an average of 5.09m² imports of sludge per delivery in the preceding week. This was reported on the 17th January 2023

No.5 Pumping Station (West Side)

The doors of No.5 pumping station were open at the time of inspection.

Sludge Import Area

It was noted that the condition around the sludge import area was much improved and noticeably clean. No odours witnessed.

Raw Sludge Screening Building (West Side)

The large roller shutter doors of the Raw Sludge Screening building were open at the time of the inspection. Skips were being changed.

Digesters on the 17th January 2023

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 low (below approx. 3ft) wet sludgy seal – No evidence of recent/previous sludge spillages- the coping stones were tidy.

Digester 6 was in service and had a low (below approx. 3ft) thick sludgy seal – No evidence of recent/previous sludge spillages.

Digester 7 was in service and had a low (below approx. 2ft) wet sludgy seal – No bubbling or large amounts of gas being produced.

Digester 8 was in service and had a low (below approx. 2ft) wet to thick seal– No evidence of recent/previous sludge spillages.

Digester 9 was in service and had a low (below approx. 2ft) wet to thick seal– No evidence of recent/previous sludge spillages. High bell towers observed

Digester 10 was in service and had a low (below approx. 2ft) sludgy thickish seal – No evidence of recent/previous sludge spillages. Bell towers were raised.

Digester 11 was in service and had a low (below approx. 1ft) wet seal approx. 1ft below coping stones– No evidence of recent/previous sludge spillages.

Digester 12 was in service and had a low (below approx. 1ft) thick sludgy seal – There was no evidence of previous sludge spillages.

Digester 13 was in service and had a low (below approx. 1ft) thick seal
– No evidence of recent/previous sludge spillages.

Digester 14 Out of service.

Digester 15 Out of service.

Digester 16 Out of service.

Digester 17 was in service and had a low (below approx. 1ft) thick sludgy seal– No evidence of recent/previous sludge spillages.

Digester 18 was in service and had a low (below approx. 1ft) sludgy seal
– No evidence of recent/previous sludge spillages.

Digester 19. was in service and had a low (below approx. 1ft) wet sludgy seal –observed minimal gas bubbling off. No evidence of recent/previous sludge spillages.

Digester 20 was in service and had a low (below approx. 2ft) thick sludgy seal – There was no evidence of recent spillage.

Anti-foaming agent is in use, which TW advised was also being applied manually to all operational digesters.

GENERAL

Final Settlement Tanks East Side of Works

The 8 circular tanks 71, 72, 73, 74, 75, 76, 77 and 78 were all in operation at time of the inspection and had good clear surfaces. The hoses on the arms were all rotating and clearing off any remaining deposits. No odours or offensive odours witnessed.

Skips

Skips on the East side:

There was 1x 20yds open bulk carrier (uncovered) that was designated for grit – The carrier was 50% full of grit and frozen over. There was a sign stating the skip was designated for “Grit Only” .

There was 1x 14yds skip designated for rag only. The skip had a sign reading “Rag Only” and contained minimal amount of rag at time of inspection . There was a cover (lid) which was covering the skip.

No other skips were present on the East side.

Skips on the West Side:

There was 1x 14yds skip adjacent to the pasteurisation plant (West of the works) that was designated for Metals only- At time of inspection the skip was empty.

There was 1x 14yds skip adjacent to the raw sludge screening building (West of the works) that was designated for general waste only- At time of inspection the skip was full and covered.

There was 1x 20yds open bulk carrier (uncovered) that was designated for grit – The carrier was 50% full of grit and frozen over. There was a sign stating the skip was designated for “Grit Only” .

There were no other skips observed in the West Side of the works.

East Side Screen House

The blue doors closest to the main service road were open however remaining doors and the roller metal shutters were closed at the time of the 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 nearest the service road was clogged along 80% 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 11 were all in use and had relatively fat free surfaces.

No other issues were evident with these tanks.

Circular PST 12 is still out of service.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 7/12 streams were in operation. Stream 1, 2, 6, 10 and 11 were out of service.

Section 106 agreement

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

West Side Aeration Lanes

The surface area of the mixed liquor feed channel serving the aeration lanes of E-Battery were all free-flowing between lanes 22-25- All the lanes in E Battery were distinct and dividing walls were all visible. Most sprinklers were in operation.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works and everything appeared to be in a good tidy order. No offensive odours noticed.

Odour Control Unit (OCU) performance monitoring: 17th January 2023

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	Not provided	Unknown	Unknown
Main pumping station outlet	0.00ppm 0.00ppm 0.00ppm	0.2	Unknown
East OCU	0.123ppm 0.121ppm 0.019ppm Ave: 0.08ppm	0.05	No
West inlet OCU	0.00ppm 0.00ppm 0.00ppm	0.05	Yes
Sludge reception inlet	Not provided	Unknown	Unknown
Sludge reception outlet	Not provided	0.8	Unknown
Thickening plant inlet	Not provided	Unknown	Unknown
Thickening plant outlet	0.069ppm 0.064ppm 0.061ppm Ave: 0.06ppm	0.6	Yes
New West inlet (OCU 11)	0.156ppm 0.153ppm 0.149ppm Ave: 0.152ppm	0.5	No
Pasteurization (OCU 12)	1.67ppm 1.64ppm 1.60ppm Ave: 1.63ppm	0.5	No

Transfer PS inlet	1.32ppm 1.29ppm 1.26ppm Ave: 1.29ppm	Unknown	Unknown	
Transfer PS outlet	0.00ppm 0.00ppm 0.00ppm	0.6	Yes	
GBT Plant OCU Outlet	0.00ppm 0.00ppm 0.00ppm	Unknown	Unknown	