



Hounslow Mogden Sewage Treatment Works

TW Site Inspection

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| Date of inspection: 22nd December 2011 | |
| Attendees: Gerry McCarthy, LB Hounslow Andrew Gerogiades, Thames Water | |
| LB Hounslow Observation | Thames Water Action / Response |
| <p>Storm Water Storage Tanks (SWST)</p> <p>All of the storm water tanks were full with the exception of tanks 3A and 3B which are in the process of being fitted with new Amajets.</p> <p>Effluent from tanks 8a and 8b was being returned for treatment with the amajets in operation to ensure any sludge is cleared from the bottom of the tank.</p> <p>Please ensure that any hoppers full of water are over pumped and any remaining sludge on the base of the tanks is cleared once the tanks have been returned.</p> <p>There was no noticeable odour from the effluent in the storm tanks.</p> <p>There was a covering of sludge on the storm channel serving storm tanks 1-4 and this needs to be desludged to prevent the likelihood of any odour being generated</p> | |

Odour monitors

Odour levels had been generally below the current trigger level of 0.015ppm for more than 20 minutes in the last week though the north side monitor showed a number of peaks during the week though none lasted longer than ten minutes.

On 18th December the site log showed that the storm water tanks were returning and there was a short peak on odour monitor five mid-morning. An odour patrol was undertaken around the aeration lanes and digesters at approximately 14.00 but no odours were noted during the inspection. All of the storm water tanks with the exception of tanks 3a and 3b were in use all day

On 19th December the site log showed that there were no problems either on the day or evening shifts. All of the storm water tanks with the exception of tanks 3a and 3b were in use all day. Tanks 8a and 8b were empty early in the day but were filled later in the day due to heavy rainfall in the area.

On 21st December on the day shift odour monitor one was peaking for periods of up to ten minutes at a time and storm tank usage was identified as the likely reason for the monitor peaking. On the evening shift odour monitor one was again peaking above the trigger level intermittently and an odour patrol was undertaken at approximately 21.00 and the storm water tanks were all in use. The storm water tanks were being returned from 04.00 onwards on 22nd December.

The odour readouts (H₂S) for all of the monitors, which were providing data at the time of inspection (approx 13:35) were low, and below the trigger level of 0.015ppm.

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| Monitor 1 | 0.003 ppm |
| Monitor 2 | 0.002 ppm |
| Monitor 3 | 0.001 ppm |
| Monitor 4 | 0.001 ppm |
| Monitor 5 | 0.005 ppm |
| Monitor 6 | 0.007 ppm |
| Monitor 7 | 0.006 ppm |
| Monitor 8 | 0.005 ppm |
| Monitor 9 | 0.001 ppm |
| Monitor 10 | 0.004 ppm |
| Monitor 11 | 0.004 ppm |
| Monitor 12 | 0.003 ppm |
| Monitor 13 | 0.003 ppm |

Complaints

The Council received no odour complaints in the previous week.

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| <p>Sludge Dip Records</p> <p>22/12/2011 W2828m³ and E17727m³ = 20555m³ 21/12/2011 W6206m³ and E20623m³ = 26829m³ 20/12/2011 W7708m³ and E28225m³ = 35933m³ 19/12/2011 W8064m³ and E19175m³ = 27239m³</p> <p>The levels for 22nd December are compliant with the current odour management plan (OMP) but for all of the other days are in breach of the current OMP trigger levels in respect of the west side rectangular primary settlement tanks which are 3,000m³ for these tanks. The limit set for the west side circular primary settlement tanks is 250m³ and is being complied with. There are no limits for the East Side Primary Settlement tanks as these are covered and odour controlled.</p> <p>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 within three days, which it has done.</p> | |
| <p>Digesters</p> <p>Digester 11 and 13 are out of service for maintenance and the condition of all of the other digesters was good with no evidence of any gassing or spillages taken place. The odour monitors around the digesters had showed low levels of odour for the past few days, which support this observation.</p> <p>Thames also advised that anti-foaming agent continues to be manually administered as a precautionary measure twice a day and additionally if necessary.</p> | |

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| <p>West side primary settlement tanks (PST)</p> <p>PSTs 14 and 16 on the west side of the works are still out of service. PST 16 is being covered as part of the site extension works but will be out of service until the tanks are covered. Work to PST 14 has been completed but there is a problem with a sensor, which needs to be resolved before the tank can be brought back in service.</p> <p>Thames advised that additional manual de sludging of the rectangular PSTs is being carried out to reduce the build up of scum and to prevent gassing of these tanks. There was a noticeable build up of sludge on tanks 13a, 13b and 15b with evidence of gassing from all tanks. The remaining tanks had a minor build up of scum no odour was noted in this area. Please continue with manual desludging to ensure no build up of sludge and to reduce gassing.</p> <p>Hosing down of scum on PST 10 will need to continue to be undertaken, as a rubber scraper and tension cable need to be replaced on this and the tank needs to be taken out of service and drained down to enable this to be completed. TW advised this would not be undertaken until PST 14 is back in service.</p> | |
| <p>GENERAL</p> <p>Final Settlement Tanks East Side of Works</p> <p>The 8 circular tanks previously used as PSTs are now being used as final tanks at full capacity. Measures are being undertaken 24/7 with a</p> | |

contractor to prevent the build up of scum on these tanks.

East Side Screen House

The doors were opened to facilitate maintenance. The right hand side door has a missing glass pane and TW advised that this is due to be replaced in the near future.

Skips

There were 4 covered six yard skips and one covered fifteen yard skip on the East side which Thames advised would be removed before the weekend. On the West side there was 1 empty fifteen yard skip, one washpactor skip, one covered six yard skip and one six yard empty skip.

Pasteurisation Plant

The pasteurisation plant continues to be out of service.

Imported Sludge

No imported sludge has been received into the site this week.

Section 106 agreement

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

Odour control unit (ocu) performance monitoring (21/12/11)

* Odour Management Plant version 2.0 action level outlet values

| This is the most recent set of data available. Plant | Reading (ppm) | Action Level (ppm)* | Compliant |
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| Main pumping station outlet | 0.001 Average | 0.2 | Yes |
| East Ocu | 0.005# | 0.05 | Yes |
| West Ocu | 0.01 | 0.05 | Yes |
| Sludge reception outlet | 0.10 Average | 0.8 | Yes |
| Thickening plant outlet | 0.26 Average | 0.6 | Yes |
| Pasteurisation plant outlet | Not operating | | N/A |
| Transfer PS Outlet | 0.06# | 0.6 | Yes |

Portable Jerome measurement