

Response to Oxford RFI – 6th November 2023

Date:	17 November 2023	One Glass Wharf, The West Wing,
Project name:	Thames Water STC IED	Temple Quay,
Project no:	B22849AZ	Bristol,
Attention:	Jemma Blood-Halvorsen	BS2 0ZX
Company:	Thames Water	United Kingdom
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Document no:	C231106-1	F +
		[Website]

Application reference: EPR/MP3038LQ/V006

Operator: Thames Water Utilities Limited

Facility: Oxford Sludge Treatment Centre

Please note that the application payment you sent is incorrect. The correct application charge is £23,402. An application fee of £26,578.40 was received. Therefore, I will arrange for a refund of £3,176.40 to be paid through our Permitting Support Centre. I have broken down the application charges below for your information.

Application Fee

- £13,984 – 100% application fee for S5.4 A(1) (b) (i) Recovery or a mix of recovery and disposal of non-hazardous waste with a capacity exceeding 75 tonnes per day (or 100 tonnes per day if the only waste treatment activity is anaerobic digestion) involving biological treatment relating to anaerobic digestion
- £1,394 – 10% application fee for S5.4 A(1) (b) (i) Recovery or a mix of recovery and disposal of non-hazardous waste with a capacity exceeding 75 tonnes per day (or 100 tonnes per day if the only waste treatment activity is anaerobic digestion) involving biological treatment relating to the liquor treatment plant
- £3,965 – 50% application fee for the physical treatment of non-hazardous waste relating to the waste import to the head of the works (subject to confirmation that you are requesting this activity as part of your permit application)
- £793 – 10% application fee for the physical treatment of non-hazardous waste relating to the import and storage of sludge cake (subject to confirmation that you are requesting this activity as part of your permit application)

Additional Assessments (see below for further details)

- Odour management plan – a fixed charge of £1,246
- Habitats assessment – a fixed charge of £779
- Emission Management Plan – a fixed charge of £1,241

Answer

With regards to the overpayment of the application fee, we would prefer that it was not refunded at this time. We are preparing a summary table of what has been paid to the EA for all IED permit applications and would like to reconcile it with yourselves for what each application fee should be and from which payment(s) to take each IED permit application fee. We would however like to question the overpayment amount provided above - which we believe should be £3,172 not £3,176.40, because the 10% fee of S5.4A(1)(b)(I) should be £1,398.4 and not £1,394.

Note: Please note we will not process activities without the correct forms being completed or the correct information being provided.

1. **Waste activities for the acceptance of waste to the head of works, and temporary storage of digestate.**
 - a. Submit application form B4 for the waste activities relating to the import of waste to the head of works and import of sludge cake and temporary storage. [Application for an environmental permit: part B4 new bespoke waste operation - GOV.UK \(www.gov.uk\)](http://www.gov.uk)
 - b. Provide a non-technical summary detailing how you will meet the requirements of the [Non-hazardous and inert waste: appropriate measures for permitted facilities.](http://www.gov.uk)
 - c. Revise and submit form F to reflect the charges and activities being applied for, including import to head of works. [Application for an environmental permit \(charges and declarations\): part F1 - GOV.UK \(www.gov.uk\)](http://www.gov.uk)
 - d. Provide an alternative declaration signed by a company director or secretary listed on companies house. The letter of authorisation provided is signed by a retired employee and is not valid.

Answer 1a.

Oxford STC currently has a standard rules Environmental Permit, EPR/BB3500MP/A0001, for the import of liquid sludge, sludge cake and cess tank waste. We therefore understand this permit would require to be varied to become a DAA to the installation and therefore believe a form C4 is required. Please see TW_STC_EPR_25a_OXF_FC4 attached.

Answer 1b.

Please see TW_STC_EPR_25a_OXF_ASD, August 2023 Chapter 1 for non-technical summary. This version was re-submitted – please ensure the document header states 'Environmental Permit Variation Application – Oxford Sludge Treatment Centre Resubmission'. The information is based across pages v – vii.

For cake imports, for clarity this states:

Thames Water imports treated sludge cake from other works, for temporary storage on the cake pad, pending offsite recovery. All such imports will be subject to appropriate waste pre-acceptance and acceptance checks, prior to import, including checking whether the incoming cake complies with the requirements of SuiAR and BAS.

Imported treated sludge cake is offloaded into a cake pad, so as to be stored separately to indigenous sludge cake. The waste stream is the same as that arising from the treatment of sludge within the Oxford STC with the same characteristics, composition and eventual end use – application to land. As such, the infrastructure which is acceptable for use for site cake is appropriate for the imported material.

All imported cake is stored on an impermeable cake pad, for the shortest time practicable, the duration depending on factors such as prevailing weather and availability of the landbank.

For waste imports to the inlet for clarity this states:

There is a second offloading point at the STC for permitted imported tankered wastes toward the south-west of the installation. This waste activity is already permitted. This waste arrives at the site via tanker vehicles, is passed to the inlet where it joins the main works flow and via screens to the aerobic treatment at the works, via the UWWTD.

All imports will be assessed using the Thames Water standard waste pre-acceptance checks to ensure that they are appropriate for treatment via the UWWTD. Once pre-approved as suitable for treatment via the UWWTD route, the waste carriers are approved. Wastes will be subject to appropriate waste acceptance checks in accordance with Thames Water procedures. Incoming tanker vehicles will be directed to the inlet offloading point, which is an impermeable surfaced area, equipped with sealed drainage and kerbing to reduce the risk of spillages.

Answer 1c.

Please see TW_STC_EPR_25a_OXF_FF1 attached.

Answer 1d.

A revised delegated powers of authority was sent by email on 16th November 2023 - please contact us if you have not received a copy.

2. Provide a copy of the data input files for air dispersion modelling.

Answer 2.

Please note the model inputs were submitted via file transfer on 6th November.

3. There are many inconsistencies across the documents provided with regards to the naming convention of tanks and the volumes of each of the tanks. The names of the tanks and the volumes need to be consistent across all documents, including the containment report, the technical assessment, application forms and the wastewater residue management plan. Amend any tables relating to containment across all documents to ensure consistency.

Answer 3.

The containment report, the technical assessment, application forms and the wastewater residue management plan have been reviewed for consistency. Inconsistencies were found in the naming convention within the containment report. Amended documents are provided as follows with an updated Containment Report using the standard naming convention for tanks and a revised Accident Management Plan:

- Accident Management Plan, TW_STC_EPR_025a_OXF_APPJ (November 2023)
- Containment Report

The Tank Inventory from TW_STC_EPR_025a_OXF_ASD, August 2023 is reproduced below:

Site tank inventory

Tank Purpose	Number	Operational Volume (m ³)	Construction
Primary Picket Fence Thickener	2	400	Steel
Sludge Buffer Tank	1	170	Steel
Screened Sludge Holding Tank	1	600	Steel
Sludge Blending Tank	2	249	Steel
		214	
Pre THP Dewatering Feed Tank	1	36	Steel
THP Feed Silos	2	300	Steel
THP Reactors	6	22	Steel
THP Flash Tanks	2	30.3	Steel
Primary Digester Tanks	4	Primary Digester Tank 1&2 2,365 x 2	Concrete
		Primary Digester Tank 3&4 1,696 x 2	Steel
Digested Sludge Buffer Tank (Half Tank)	1	700	Concrete
Digested Sludge Buffer Tank (Whole)	1	1,830	Concrete
Digested Sludge Buffer Feed Tanks	2	395	Concrete
Pre-Dewatering Feed Tank	1	65	Steel
Liquor Treatment Plant Balancing Tank	1	810	Concrete
Liquor Treatment Plant (in two lanes)	1	1,480 x 2	Concrete
Liquor Treatment Plant Decant Chamber	1	515	Concrete
Pre-THP Polymer Silo	1	35 tonnes	Steel
Digested Sludge Polymer Silo	1	35 tonnes	Steel
Diesel for Generator 3 (THP)	1	35,000 litres	Steel
Diesel for Generator 4 (LTP)	1	20,000 litres	Steel

4. You have confirmed there are 5 open tanks on site: the Digested Sludge Buffer Tank (Half Tank), Digested Sludge Buffer Tank (Whole) and Digested Sludge Buffer Feed Tanks. There are statements in the application documents relating to covering tanks. However, these statements refer to risk-based decisions and monitoring to establish whether the covering of a tank is necessary. All tanks MUST be covered. Confirm your commitment to covering ALL tanks on site in line with BAT conclusion 14d.

Answer 4.

Thames Water is committed to meeting the requirements of BAT. A full BAT risk assessment is required to determine the potential need to cover open topped tanks. Thames is not able to commit to covering tanks by the stated deadline of December 2024, delivery timescales will be subject to the outcome of PR24 and subsequent price review discussions.

5. Provide additional information regarding waste codes requested.

Table C3-1b(ii) waste accepted at the head of works import point requests codes 19 09 02 - sludges from water clarification is in the waste, and 19 13 08 - aqueous liquid wastes and aqueous concentrates from groundwater remediation. Provide transfer notes to demonstrate that these waste types are already accepted on the site.

Answer 5

Thames Water confirms the removal of EWC code 19 09 02 and 19 13 08 from this application. An updated Table C3-1b(ii) is provided below:

Table C3-1b(ii): Waste accepted at the head of the works import point

Waste Code	Description of Waste
16 10 02	aqueous liquid wastes other than those mentioned in 16 10 01 [note 1]
Note 1 – comprising but not limited to: Thickening and dewatering liquors, centrate and filtrate derived from TWUL processes. Waste from a portable toilet Chlorinated water from TWUL potable water network	

6. The waste anaerobic digestion process produces effluent and is discharged off site to the Oxford Wastewater Treatment Works. Effluent discharged to the head of the works is a point source emission to sewer. [BAT conclusion 3](#) requires operators to have an emissions inventory for the effluent. We acknowledge that applicants may not hold this information in order to inform a quantitative risk assessment for existing discharges. For the purpose of duly making, provide the following information:

- a. Complete and submit application form Part B6
- b. Provide a summary of the sampling and analysis methodology of the effluent discharged and specify the likely pollutants in the effluent (guidance here [Monitoring discharges to water: guidance on selecting a monitoring approach - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/monitoring-discharges-to-water-guidance-on-selecting-a-monitoring-approach) and [Surface water pollution risk assessment for your environmental permit - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/surface-water-pollution-risk-assessment-for-your-environmental-permit)).
- c. Provide a revised drainage plan which identifies the effluent sampling point and emission point for the effluent discharge from the installation.

Answer 6a.

Oxford STC is currently permitted and therefore we understand a form Part C6 is required for a Environmental Permit Variation Application. See TW_STC_EPR_25a_OXF_FC6.

The supporting information and answers required for this application form start on page 92 of the ASD document (TW_STC_EPR_25a_OXF_ASD, August 2023).

Answer 6b.

Please see TW_STC_EPR_25a_OXF_ASD, August 2023 pp8-12 (Technical Summary) for details sampling and analysis methodology, which is included within the section '**Liquor Monitoring Proposal**'. This version was re-submitted – please ensure the document header states 'Environmental Permit Variation Application – Oxford Sludge Treatment Centre Resubmission'.

Answer 6c.

For drainage plans please see OXFOS1ZZ-DPL-001 and OXFOS1ZZ-DPL-002 and also B22849AM-JAC-OXF-DR-0002 for sample/transfer points.

B22849AM-JAC-OXF-DR-0002, P06, as previously submitted identifies sampling points S1, S2 and S3 along with corresponding transfer points T1, T2 (a, b & c) and T3.

7. Routine emissions to the WwTW from the installation will be controlled via monitored emission limits as an indirect discharge (as defined in the Waste Treatment BREF). However, as WwTWs periodically discharge sewage during storm conditions, it's possible that wastewater from the installation could bypass the WwTW treatment processes and be emitted as a direct discharge to water. It's not clear from the application how this abnormal situation will be prevented. Operators of environmental permits cannot emit waste waters directly to surface waters without detailed risk assessment. You must therefore have procedures to prevent the discharge of wastewater from the installation from bypassing the WwTW treatment processes directly to surface water during storm overflow conditions.
 - a. Provide written procedures which describe the site's contingency arrangements to prevent digestate and effluent being discharged off site while the WwTW are in storm conditions.
 - b. Provide a description of the buffer storage proposals to control or hold emissions to the event of storm overflow conditions at the WwTW.
 - c. Should any contingency arrangements use storage tanks to act as a buffer, provide evidence that demonstrates the waste waters or digestates can be held in this storage during the period of storm overflows.

Memorandum

Note, this information can be included as an addendum to your accident management plans as part of BAT conclusion 21, Emissions from accidents and incidents.

Answer 7a, 7b and 7c.

Please see page 12 of TW_STC_EPR_25a_OXF_ASD, August 2023 for details of the location of Liquor Returns. For convenience, this section is repeated below:

“The waste-water emissions identified in this document enter the inlet after the storm overflow and therefore these emissions cannot bypass the WwTW treatment or be emitted as a direct discharge to water.”

END OF NOTE.