

Bishops Stortford, Not Duly Made Request for Further Information, 15th March

Date:	27 March 2024	2 Colmore Square, 38 Colmore
Project name:	Bishops Stortford Sewage Treatment Works	Circus Queensway, Birmingham
Project no:	B22849AZ	B4 6BN
Attention:	Sarah Raymond	United Kingdom
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Document Number	C240328-3	www.jacobs.com

Dear Sarah Raymond,

Thank you for your not duly made RFI and payment request letter on 15th March 2024. Please see below for the answers to your questions, with the numbering format used by the EA:

Application Fee

Unfortunately, the application payment you sent is incorrect. The correct application charge is £22,008. This leaves a balance of £1,414 to pay as our records show that you have only paid £20,594. Further guidance in relation to application charges can be located at: <https://www.gov.uk/government/publications/environmental-permitting-charges-guidance/environmental-permitting-charges-guidance> The application charge is made up as follows:

Application Fee

- £13,984 application fee for - S5.4 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.
- £3,965 application fee for the physical treatment of non-hazardous waste relating to Table B3-1b(ii) Waste accepted at the head of the works import point.
- £793 application fee for the physical treatment of non-hazardous waste relating to Table B3-1b(iii) Waste accepted for temporary storage and transfer off site.

Additional Assessments (see below for further details)

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

Answer

We have reviewed the application payment and note the balance of £1,414 to be paid. We request the EA can take the balance of £1,414 out of the TW remittance number PSCAPPTHAMES103.

1. Contingency Tanks at Bishop's Stortford STC

You have advised within your application and process flow that "There are also Contingency Tanks at Bishop's Stortford STC which are used in an emergency to temporarily store sludge, prior to its export for treatment offsite" and on review of your process flow it seems that these tanks would not undergo anaerobic digestion (AD). As such this activity may not be a DAA to the section 5.4 AD activity and we are unclear how this process will operate, or if this will be a separate waste activity carried out on site. Please note if you do not provide sufficient evidence/information for these tanks, we will not be able to progress the inclusion of these as part of your permit. For the contingency tanks provide:

- a) **A non-technical summary of how these tanks will be operated, including waste codes to be accepted, how waste will be accepted, storage times, if the waste will be used within the AD, or if these are just for storage before transfer off site.**
- b) **If they are just for storage and transfer off site this will be a separate waste activity and you will need to pay the relevant fee, include them in your B4 from and provide an assessment against the relevant appropriate measures.**
- c) **Alternatively remove these tanks and this activity from your permit application.**

Answer to 1a and 1b,

This application includes a third waste operation at the same site for the import of non-hazardous sludge from other Thames Water works for temporary storage pending transfer offsite for biological treatment. The Contingency Tanks at Bishop's Stortford STC are a strategic contingency asset used by TWUL in the event sludge assets are unavailable elsewhere. They are to allow sludge to be temporarily stored, pending availability of capacity at a suitable sludge treatment centre. There is no routine or regular use of these tanks.

Waste infrastructure for the Contingency Tanks consist of offloading area, located on impermeable concrete impermeable, for permitted imported wastes adjacent to the four Contingency Tanks. The area is connected to drainage which returns to the Works Inlet. Transfers are via a site-supplied transfer hose (to prevent misconnections).

Wastes are imported only from other Thames Water sites by tanker and consist of liquid sludge and partially thickened liquid sludge for example from Picket Fence Thickeners and other sludge thickening assets, upstream of digestion processes. No sludge is received from third parties. Note thickened sludges in this context have a dry solids content of 6% or less to enable pumping. No wastes are imported packaged in other ways than tankers or from any non-Thames Water sources. This area is fully within the Bishops Stortford perimeter boundary security fencing. Access is only available via the main Thames Water site security gate. All imports will be subject to appropriate waste pre-acceptance and acceptance checks, prior to import and waste transfer records are maintained.

Import of waste to the Contingency Tanks is not a regular operation but is an important contingency in the management of sludge across the Thames Water area. Imports will include liquid sludge and partially thickened sludge, as per Table B3-1b (iv) below.

Waste is stored within the Contingency Tanks for the shortest time practicable, the duration depending on factors such as the availability of sludge treatment capacity at suitable Thames Water sites to receive waste and the availability of tanker transfer vehicles. Following storage, sludge is transferred from the relevant Contingency Tank to a tanker vehicle, using a site supplied transfer hose and transferred off-site for treatment. Waste transfer records are kept for exports. When the contingency tanks are not in use

rainwater collecting in the Contingency Tanks is removed and pumped to the Works Inlet for treatment through the UWWTD route.

Table B3-1b (iv): Waste accepted for temporary storage and transfer

Waste Code	Description of Waste
19 02 06	sludges from physico/chemical treatment other than those mentioned in 19 02 05
19 08 05	sludges from treatment of urban waste water

Answer 1c

Not applicable – these tanks are required to be retained within the permit application. See answers 1a and 1b above.

2. Table C3 – 1b (ii) Waste accepted at the head of the works import point.

- a) Provide transfer notes to demonstrate that the requested already accepted on the site.; or if waste is not currently accepted.**
- b) Provide an assessment of the fate an impact of the substances emitted to water from this activity following the Environment Agencies risk assessment guidance in line with relevant guidance (<https://www.gov.uk/guidance/non-hazardous-and-inert-waste-appropriate-measures-for-permitted-facilities/6-emissions-control>)**

Answer 2a

Please find below an example Portable Toilet Waste, Annual Waste Transfer Note and on page 2 confirmation Bishops Stortford STW is a TWUL site used by the customer. Note: customer details redacted solely for the purpose of this response.

Thames Water Utilities Ltd
Environmental Protection Act 1990
DUTY OF CARE: ANNUAL WASTE TRANSFER NOTE

Section 1 Description of waste:

Description of Waste For example: cars, waste:	Portable/Chemical Toilet Waste	Quantity	(see page 2)
EWC code: (as classified under WMS)	16 10 02	Frequency	Daily / Weekly / Monthly (please circle) MONTHLY
How is waste contained	Sealed haulage vehicles	Physical form	(Liquid) / sludge / solid (Please circle)

Section 2 Current Holder of the Waste - Transferor

Company Name: **A**

Address (incl. postcode): **[Redacted]**

Standard Industrial Classification Code (2007 Ltd): **37200**

Tick box(es) that apply:

Waste holder	<input type="checkbox"/>
Waste collection authority	<input type="checkbox"/>
Holder of Environmental Permit	<input type="checkbox"/>
Exempt from requirement to have an Environmental Permit	<input type="checkbox"/>
Registered waste carrier	<input checked="" type="checkbox"/>
Exempt from requirement to register as waste carrier	<input type="checkbox"/>

Section 3 Address of place of collection:

Various sources:

Section 4 Person Receiving the Waste - Transferee:

Under Contract: **No** (if under contract on behalf of)

Name	Thames Water Utilities Ltd
Address	Cleanwater Court, Vasstem Road, Reading, Berkshire RG1 8DB

Tick box(es) that apply:

Holder of an environmental permit	<input checked="" type="checkbox"/>	Permit number: Available on request
Exempt from requirement to have an environmental permit	<input checked="" type="checkbox"/>	Exemption code: Available on request
Registered waste carrier - Thames Water	<input checked="" type="checkbox"/>	Registration No: CB01100215 (exp. June 2025)

Section 5 Address of place of transfer:

Designated 'cess' reception area at Sewage Treatment Works (see page 2)

Section 6 First date of transfer: 1st November 2023 **Section 7 Duration (if season ticket):** 12 months

Section 8 Signatures:
I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England and Wales) Regulations 2011.

Transferor signature:	[Redacted]	Transferee signature:	[Redacted]
Print name:	[Redacted]	Name:	[Redacted]
Representing:	[Redacted]	Representing:	[Redacted]
Date:	8 th February 2024		

Thames Water Utilities Ltd
DUTY OF CARE: ANNUAL WASTE TRANSFER NOTE
Environmental Protection Act 1990
Please select which sites you will be disposing at:

Thames Water Sites	Site Environmental Permit Ref. No. / T21 Exemption Ref. No.	Please tick which sites you will dispose at:	Please provide estimated total annual input at each site (cubic metres):
Alton STW	RPS277	<input checked="" type="checkbox"/>	50
Aylesbury STW	RPS277	<input type="checkbox"/>	50
Banbury STW	RPS277	<input type="checkbox"/>	50
Basingstoke STW	RPS277	<input type="checkbox"/>	100
Beckton STW	RPS277	<input type="checkbox"/>	50
Beddington STW	RPS277	<input type="checkbox"/>	50
Bicester STW	RPS277	<input type="checkbox"/>	50
Bishops Cleeve STW	RPS277	<input type="checkbox"/>	50
Camberley STW	RPS277	<input type="checkbox"/>	50
Chertsey STW	RPS277	<input type="checkbox"/>	50
Cirencester STW	RPS277	<input type="checkbox"/>	50
Crawley STW	RPS277	<input type="checkbox"/>	50
Crossness STW	RPS277	<input type="checkbox"/>	50
Dartford, Long Reach STW	RPS277	<input type="checkbox"/>	50
Deephams STW	RPS277	<input type="checkbox"/>	50
Didcot STW	RPS277	<input type="checkbox"/>	50
East Hyde STW	RPS277	<input type="checkbox"/>	50
Farnham STW	RPS277	<input type="checkbox"/>	50
Guildford STW	RPS277	<input type="checkbox"/>	50
Little Marlow STW	RPS277	<input type="checkbox"/>	100
Maple Lodge STW	RPS277	<input type="checkbox"/>	50
Mogden STW	RPS277	<input type="checkbox"/>	50
Newbury STW	RPS277	<input type="checkbox"/>	50
Oxford STW	RPS277	<input type="checkbox"/>	50
Reading STW	EP6/MP333BU	<input type="checkbox"/>	100
Rye Meads STW	RPS277	<input type="checkbox"/>	50
Severnoaks Dunbrik Depot (Kent County Council)	Ref. Kent County Council	<input type="checkbox"/>	
Slough STW	RPS277	<input type="checkbox"/>	100
Swindon STW	RPS277	<input type="checkbox"/>	50
Wantage STW	RPS277	<input type="checkbox"/>	50
Wargrave STW	RPS277	<input type="checkbox"/>	100
Wiltney STW	RPS277	<input type="checkbox"/>	50
Woking STW	RPS277	<input type="checkbox"/>	50

Answer 2b

Not applicable

3. Open Tanks post AD

Under BAT conclusion 14 you must ensure that diffuse emissions are contained. This includes techniques such as storing, treating and handling waste and material that may generate diffuse emissions in enclosed buildings and/or equipment, and collecting and directing the emissions to an appropriate abatement system. If digestate is still biologically active, and you are producing combustible biogas you must take steps to collect the biogas. Biogas should not be vented to the environment. If the source does not produce an explosive environment (i.e. less biologically active) you will need to propose plans to enclose, collect and direct the waste gas emissions to an appropriate abatement system.

For all open tanks post AD, confirm that you will undertake the following:

- a) If digestate is still biologically active and you are producing combustible biogas you will take steps to collect the biogas and direct this to your gas collection system in line with BAT 14.
- b) For open tanks that do not produce an explosive environment (i.e. less biologically active) you will enclose, collect and direct the waste gas emissions to an appropriate abatement system in line with BAT 14 and 34.

Answer to 3a and 3b

Thames Water is committed to meeting the requirements of BAT 14 and 34. 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 31st March 2025, delivery timescales will be subject to the outcome of the PR24 and subsequent price review discussions.

TWUL request the Environment Agency includes an Improvement Condition in the determined permit which addresses a and b.

4. Potential Open Tanks pre-AD (subject to above clarification in question)

You have advised that the contingency storage tanks pre- AD are open. You have advised that “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.”

Your activity includes prior to the anaerobic digestion (AD) process (the biological treatment of waste) the thickening and dewatering process which is a directly associated activity (DAA) of the AD process. The BAT AELs and techniques identified for the dewatering activity are defined under the BREF as ‘Treatment of water-based liquid waste’. The on to further provides examples of wastes that would be considered as water-based liquid wastes. These include wastes under the category ‘19 08 wastes from treatment plants not otherwise specified’.

The treatment of this waste in the dewatering and thickening stage and the subsequent emissions to air from connected abatement will be subject to the BAT AELs specified within BAT conclusion 8 and any odour control unit that serves this DAA must meet the requirements of BAT 53.

BAT 53 requires that “In order to reduce emissions of HCl, NH₃ and organic compounds to air, BAT is to apply BAT 14d (Containment, collection and treatment of diffuse emissions) and to use one or a combination of the techniques including adsorption, biofilter, thermal oxidation and/or wet scrubbing.

- a) **Provide commitment to cover all pre-anaerobic digestion tanks identified as the contingency storage tanks in line with BAT 53 and 14d.**
- b) **Provide the specification of the abatement technology that will be implemented in line with BAT 14d and BAT 53 to treat air emissions.**
- c) **Provide the proposed NGR of the OCUs air abatement plant emission points.**
- d) **Provide a written statement which explains why the abatement plant will be effective at treating point source waste gas and odour emissions.**

Answer 4a, 4b, 4c, 4d.

Please see Thames Water’s response to Question 1 confirming that the Contingency Tanks do not form part of the AD installation and are instead a separate waste activity.

Thames Water therefore understands BAT does not apply and that this question is therefore not applicable as per the Environment Agency’s statement ‘(subject to above clarification in question 2)’.

Thames Water confirm that they would continue to minimise potential for fugitive emissions from these tanks when in use.

5. Lagoon

You have included within your secondary containment proposals an existing onsite lagoon; however, it is not clear how you will repurpose the lagoon to meet the requirements of CIRIA 736.

Confirm that any detailed secondary containment solution would ensure that the lagoon would meet the requirements of CIRIA 736.

Answer 5

Thames Waters intent is to repurpose the old sludge lagoon, rather than simply “reusing as-is”. The detail design solution will ensure that the lagoon has the competency required by CIRIA. This may include modification of bund height and lining if there is any doubt about the soil impermeability.