Beckton, Not Duly Made Request for Further Information, 15th March

Date:	27 March 2024
Project name:	STC IED
Project no:	B22849AZ
Attention:	Sarah Raymond
Company:	Thames Water
Prepared by:	Tamsin Potter
Document no:	C.240328-9

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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:

1. **Dewatering activity**

Following dewatering at Beckton we have identified that there are three routes for sludge treatment which include:

- To Anaerobic Digestion (AD) (as a DAA to the main 5.4 activity)
- Transfer offsite via a rising sludge main to Riverside STC another AD site
- Via Beckton Sludge Powered Generator under EPR/ZP3833BK (which accepts 90,500(t)pa))

To confirm how this will be treated within your permit application we require the following information. For each type of service provided confirm which outlet is the "principal user. The "principal user" term does not imply that among the users of the service in question the listed activity must use >50% of the activity in question. The principal user would be either;

- the most dependent user or, where this is not clear,
- the largest single user in terms of taking output, providing input, etc.

a. **Provide the expected tonnage input and output for each of the activities above.**
b. **Based on the above information explain which outlet would be classed as the 'principal user' and why.**

Answer 1a

An assessment of the throughput has been undertaken by Thames Water. Due to the variability of arisings over time, tonnages may vary from year to year, but the percentage split remains constant. This is normally Sludge Powered Generator (SPG) 40%; Anaerobic Digestion (AD) 60%.

Answer 1b

The split between the SPG and both AD options is 40:60. Typically, the AD options is split 50:50 between the two sites, Beckton and Riverside.

Therefore, in accordance with the guidance in RGN2 *'Understanding the meaning of regulated facility'*, as to deciding which is the principal user, this is the activity which utilises the majority of the plant output. As the majority of the output of thickening plant is treated by the two AD options, making this a R rated activity and not a listed activity, as it is principally undertaken for the purposes of recovery.

2. **Application Charge (note this may change following your response to the above question)**

Unfortunately, the application payment you sent is incorrect. The correct application charge is £21,215**. This leaves a balance of £621 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 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.
- £3,965 application fee for the physical treatment of non-hazardous waste relating to Table C3-1b(ii) Waste accepted at the head of the works import point.

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 2

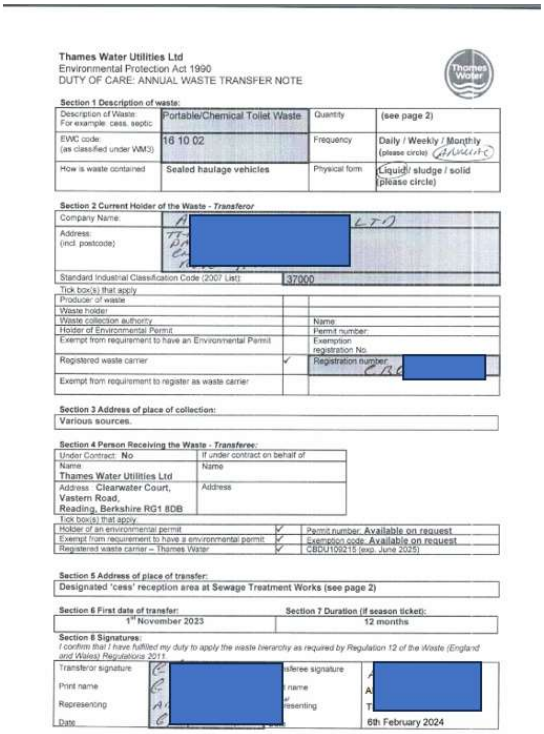
We have reviewed the application payment and note the balance of £621 to be paid. We request the EA can take the balance of £621 out of the TW remittance number PSCAPPTHAMES103.

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

   a) **Provide transfer notes to demonstrate that the wastes requested are 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 3

Please find below an example Portable Toilet Waste, Annual Waste Transfer Note and on page 2 confirmation Beckton 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: cess, septic	Portable/Chemical Toilet Waste	Quantity	(see page 2)
EWC code: (as classified under WM3)	16 10 02	Frequency	Daily / Weekly / Monthly (please circle)
How is waste contained	Sealed haulage vehicles	Physical form	Liquid/ sludge / solid (please circle)

Section 2 Current Holder of the Waste - *Transferor*

Company Name	[redacted]
Address (incl. postcode)	[redacted]
Standard Industrial Classification Code (2007 List)	37000

Tick box(s) that apply

Producer of waste			
Waste holder			
Waste collection authority		Name	
Holder of Environmental Permit		Permit number	
Exempt from requirement to have an Environmental Permit		Exemption registration No.	
Registered waste carrier	✓	Registration number	[redacted]
Exempt from requirement to register as waste carrier			

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	Name
Address: Clearwater Court, Vastern Road, Reading, Berkshire RG1 8DB	Address

Tick box(s) that apply

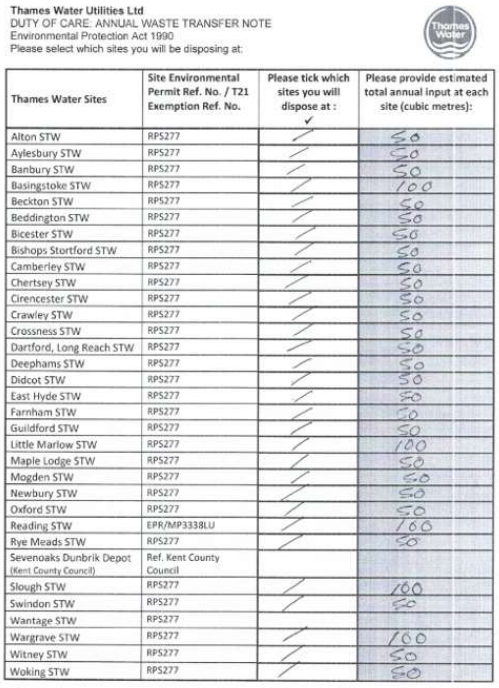
Holder of an environmental permit	✓	Permit number: Available on request	
Exempt from requirement to have a environmental permit	✓	Exemption code: Available on request	
Registered waste carrier – Thames Water	✓	CBDU109215 (exp. June 2025)	

Section 5 Address of place of transfer:
Designated 'cess' reception area at Sewage Treatment Works (see page 2)

Section 6 First date of transfer:	Section 7 Duration (if season ticket):
1st November 2023	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		Print name	
Representing		Representing	
Date		Date	6th 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	✓	50
Aylesbury STW	RPS277	✓	50
Banbury STW	RPS277	✓	50
Basingstoke STW	RPS277	✓	100
Beckton STW	RPS277	✓	50
Beddington STW	RPS277	✓	50
Bicester STW	RPS277	✓	50
Bishops Stortford STW	RPS277	✓	50
Camberley STW	RPS277	✓	50
Chertsey STW	RPS277	✓	50
Cirencester STW	RPS277	✓	50
Crawley STW	RPS277	✓	50
Crossness STW	RPS277	✓	50
Dartford, Long Reach STW	RPS277	✓	50
Deephams STW	RPS277	✓	50
Didcot STW	RPS277	✓	50
East Hyde STW	RPS277	✓	50
Farnham STW	RPS277	✓	50
Guildford STW	RPS277	✓	50
Little Marlow STW	RPS277	✓	100
Maple Lodge STW	RPS277	✓	50
Mogden STW	RPS277	✓	50
Newbury STW	RPS277	✓	50
Oxford STW	RPS277	✓	50
Reading STW	EPR/MP3338LU	✓	100
Rye Meads STW	RPS277	✓	50
Sevenoaks Dunbrik Depot (Kent County Council)	Ref. Kent County Council		
Slough STW	RPS277	✓	100
Swindon STW	RPS277	✓	50
Wantage STW	RPS277		
Wargrave STW	RPS277	✓	100
Witney STW	RPS277	✓	50
Woking STW	RPS277	✓	50

Answer 3b

Not applicable

4. Emissions to air

You have identified an emergency standby generator (A33) which is not included in your current permit. Guidance Medium combustion plant: when you need a permit - GOV.UK (www.gov.uk) sets out the dates for new and existing Medium Combustion Plant (MCP) and applicable compliance dates.

If you are applying to add this generator as part of your application, complete and submit form C2.5 and provide the required supporting information specified in the form: Application for an environmental permit: part C2.5 vary to add a new MCP/SG or change an existing MCP or SG permit - GOV.UK (www.gov.uk).

Answer 4

Please refer to EPR/PB3238RK/V003, issued 30/11/2023 which includes this emergency standby generator (A33) as a permitted asset.

5. Open tanks

You have advised in your application that "All tanks used for sludge digestion at Beckton STC are enclosed. Biogas will principally be generated in Primary Digester Tanks and captured for storage within the roof-mounted Biogas Storage holders. Of the tanks used under normal operating conditions, only the SAS tank is uncovered." It is unclear if this tank will form part of your permitting process. If it does form part of your permit boundary provide a response to the below:

Your activity includes prior to the 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 BREF goes 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 waste water 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 consolidation tank in line with BAT 53 and14d.**
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.**
e. **Confirm that there are any further open tanks or processes on site that will form part of the permitted activities.**

Answer 5

Reference to this SAS tank on page 45, Table C3-3b(ii) was included in error.

As per page 3, Technical Summary the SAS Buffer Tank is not part of the scope of this Environmental Permit "Surplus Activated Sludge (SAS) from elsewhere in the aerobic process is pumped via an underground sludge pipeline and fed into the top of the SAS Buffer Tank, which is outside of the scope of this permit, and pumped via an underground sludge line into the SAS Thickening Plant and is thickened via one of the nine belt thickeners."

Please also see Appendix A.2 Installation Boundary and Air Emission Points Plan which indicates 'Tanks excluded from permit scope' and Appendix A.5 Process Flow diagram where the 'SAS Buffer tanks' are shown outside the 'installation boundary'.

Given the above we understand that questions 5a - 5e are not applicable.

6. Stack dispersion

Under guidance 'Risk assessments for your environmental permit - GOV.UK (www.gov.uk)' you must identify risks, explain what the environmental impact could be and explain what measures you will take to reduce risks. You have identified in your application that "The Cake Barn is a fully enclosed and is subject to air abstraction and discharge to atmosphere without abatement via a 45 m tall stack."

You must provide information on the measures you will use to control emissions from your processes and demonstrate how you will meet the relevant BAT conclusions in the Waste Treatment BREF (and technical guidance). BAT 14d requires that in order to prevent, or where that is not practicable reduce diffuse emissions to air you must adopt techniques such as storing, treating and handling waste and material that may generate diffuse emissions in enclosed buildings and/or enclosed equipment, collection and directing emissions to an appropriate abatement systems which are identified in BAT 34.

Explain how you will meet BAT requirements (in particular BAT 14d and 34) for the Cake Barn air abstraction and discharge to atmosphere stack.

Answer 6

The building was built in accordance with Thames Water Asset Standards current at time of building and was subject to an assessment of the odour impact from the stack as part of the planning process. This was based upon a maximum odour concentration at the site boundary, rather than through consideration of a point source emission value.

We expect to receive the standard improvement condition to review the effectiveness of abatement systems, during which we will undertake an impact assessment. This impact assessment will determine if the ventilation system is causing an impact at receptors and determine actions required for appropriate abatement if necessary.