Chertsey, 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.240328-7

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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:

Application fee

Unfortunately, the application payment you sent is incorrect. The correct application charge is £32,128.40. **This leaves a balance of £6,791 to pay.** 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:

1. £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.
2. £1,398.40 10% application fee for – S5.4 (a) (i) non-hazardous waste installation relating to the liquor treatment plant.
3. £3,965 application fee for the physical treatment of non-hazardous waste relating to the waste import to the head of the works.
4. £793 application fee for the physical treatment of non-hazardous waste relating to the temporary storage of digested cake.
5. £7,930 application fee for the physical treatment of non-hazardous waste relating to the mechanical screening of imported waste.

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

We have reviewed the application payment and note the balance of £6,791 to be paid. We request the EA can take the balance of £6,791 out of the TW remittance number PSCAPPTHAMES103.

1. **Network Waste**

You have identified in your process flow the activity for "an additional waste operation, relating to the import of waste materials from cleaning of TWUL wastewater network, including sewer network cleaning, to a dedicated import point for the purpose of pre-treatment screening and solid separation." The information provided is limited and does not address key issues identified in the Non-hazardous waste appropriate measures. Please note that if you do not provide sufficient information in relation to this activity we will not be able to progress this activity as part of your application.

a. **Provide a full assessment against Non-hazardous waste appropriate measures including but not limited to the control of fugitive emissions, odour, the assessment of indirect emission to water and containment.**
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 1a

A third additional waste operation at the same site is for the import of non-hazardous waste for physical treatment. TWUL sewer network cleaning waste and other similar waste streams with significant levels of inorganic materials, such as rags and grit, that are removed by physical screening prior to the aerobic treatment route of the UWWTD.

The wastes are imported by tanker and consist of liquids, sludge and solid wastes from, for example the sewer network generated as a result of sewer line and wet well cleaning. Due to its origin, this imported waste may contain a high inorganic content such as rags and plastics, which require screening out to prevent blockage and contamination of downstream process.

Access to the offloading point is controlled by the issue of a fob (or swipe card) issued by Thames Water to approved contractors who have undergone appropriate waste pre-acceptance checks on the material produced whilst undertaking Thames Water contracted works. Each delivery tanker drivers must 'unlock' the screening unit using their Thames Water issued fob to enable the discharge of waste into the screener. Each delivery is recorded and a WASP data logger records the volume of liquid waste transferred. Where necessary, for example due to high solids content, tankers are able to discharge directly into a screw hopper that conveys the waste to the coarse screen . Both data logger and hopper require use of the fob to enable use.

The Network Screening Unit is located within Chertsey STW perimeter behind security fencing and security gates that control access enabling entry only to authorised persons. The unit is located on an area of engineered concrete and is connected to site drainage that returns to the main inlet of the wider STW. Incoming tankers park in the offloading area and connect to the offloading point, using the site supplied flexible hose pipes to prevent misconnection issues. Tankers are also able to discharge waste directly into the screening units hopper.

Imported waste is screened using a coarse screen followed by a fine screen. Captured material from the coarse screen is transferred by a screw compactor and deposited into skips. The screw conveyor also

separates liquid wastes which are pumped to a hydrocyclone along with the liquid fraction from the coarse screen.

In the hydrocyclone, the liquid is screened to remove finer wastes including sands and grits, which are transferred by a screw compactor and deposited into a skip for offsite disposal. Screened liquid waste is pumped to the Liquor Return Pumping Station via site drainage, where it is returned to the works inlet for treatment.

Thames water have assessed the operation of the Network Screening Unit against the requirements of Appropriate Measures for Non-Hazardous and Inert Waste Treatment.

An assessment has been carried out against section 5 of that guidance relating to waste treatment. Due to the nature of the wates being treated, only the first part of section 5 applies to the operation, and the unit is compliant with all 3 clauses. The waste treatment is required in order to facilitate the disposal of the waste and reduce the volume of waste going to landfill. Only wastes which originate from the Thames Water UWWTD network are accepted for treatment and processing. The origin of these wastes is the Thames Water UWWTD network. Appropriate operational documents and controls are in place for the unit.

Within Section 6 of the guidance, sections 6.1, 6.2, 6.5 and 6.6 do not apply to the plant, through a combination of the design of the plant and the presence of sealed surfacing at the site. Section 6.3, clauses 1 -5 and 9 -15 may also be applicable. The wastes have been assessed prior to acceptance and assessed as being of probable low odour. The odour potential is minimised through the use of an covered skip for the solid screenings and the short period screenings remain on site. Skips are replaced when full and typically this would be within 48hrs of arrival at site. In the event that particularly odours arisings are identified, these would be removed from site as soon as practicable.

The site has an odour management plan, which includes this plant, and site staff are trained as to its requirements. Prevailing weather conditions are monitored, in accordance with the wider site permit requirements, and the plant has been located away from sensitive receptors, considering the prevailing wind is from the SW.

Answer 1b

Operations of the Network Screening Unit at Chertsey STC are covered by an existing waste exemption registration, T21, which allows an existing operation to recover wastes such as sewage grits, screenings and waste from sewage cleaning at a waste water treatment works. The wastes handled by the network screening unit have been removed from the urban waste water network, in order to ensure its correct operation. These fall within the codes within the T21 exemption.

This exemption cannot now be registered independently at Chertsey STC due to the requirement to also apply for an installation permit for biological treatment of waste.

We understand this low-risk activity does not require an additional assessment of the fate of substances emitted to water as this has already been assessed by the Environment Agency, because the operations are already in compliance with the listed main conditions for a T21 exemption and comprise of UWWTD derived liquids. The other requirements of the T21 exemption are also met. These are “The waste must be stored and treated in a secure location with sealed drainage”[1]. There are no direct emissions to water from this activity.

[1] Source: https://www.gov.uk/guidance/waste-exemption-t21-recover-waste-at-a-waste-water-treatment-works

2. **Emission point S1 and T1**

On review of your sampling point location S1 this does not provide a representative sample in line with guidance https://www.gov.uk/guidance/monitoring-discharges-to-water-guidance-on-selecting-a-monitoring-approach as any emission would include the waste activity for the network waste activity and the emissions from the section 5.4 anaerobic digestion (AD) activity. A sampling point should be "truly representative of the discharge".

Update your sampling points to provide truly representative samples for the network waste activity and the AD activity.

Answer 2

Please see updated Sampling Point "S2" for Network Screenings Waste Water. The approximate NGR for this sample point is: **TQ 01547 67575**.

"S2" can be seen on "B22849AM-JAC-CHY-DR-0002" and "B22849AZ-JA-CHERS1ZZ-LSX-DR-P-0003" which show sampling points provide a representative sample of a waste water emission.

3. **Open pre AD tanks**

You have advised that the unthickened indigenous sludge tanks and thickened indigenous sludge 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 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.

Answer 3

Thames Water is committed to meeting the requirements of BAT/BREF to the extent that BAT 14 and BAT 53 apply. 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 the detail in b to d.

4. 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 4

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.

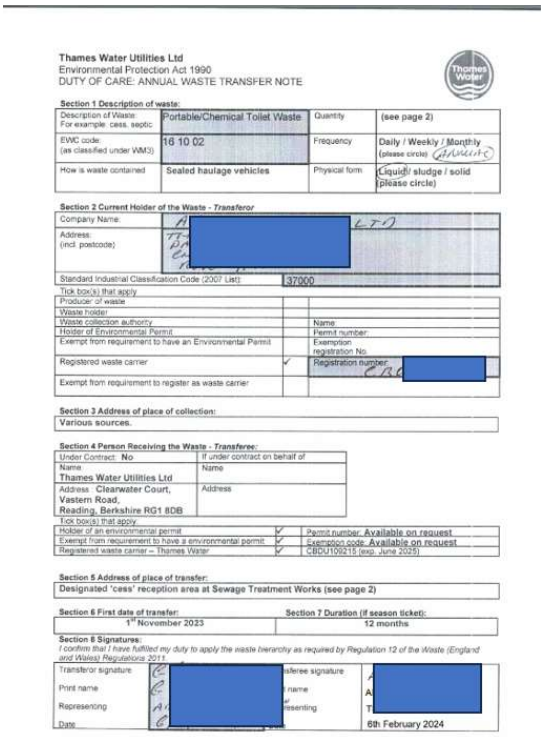
TWUL request the Environment Agency includes an Improvement Condition in the determined permit which addresses a and b.

5. **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 5a

Please find below an example Portable Toilet Waste, Annual Waste Transfer Note and on page 2 confirmation Chertsey 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) Annually
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] LTD		
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: CBD[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	[redacted]	Print name	[redacted]
Representing	[redacted]	Representing	[redacted]
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 5b

Not applicable

6. Emergency generators

You have identified the two emergency generators that are currently permitted under EPR/HP3132TV.

1 x 1.7 MWth SBR diesel generator
1 x 2.6 MWth LTP diesel generator

It is our understanding that only the 2.6 MWth diesel generator is a DAA to the section 5.4 activity, and as such the 1.7 MWth generator will need to be surrendered from the existing permit EPR/HP3132TV prior to the consolidation.

Confirm that you agree with the above and provide evidence of your submitted surrender application for the 1.7 MWth SBR diesel generator.

Answer 6

A permit surrender application for the identified generator has been submitted separately to PSC on 26th March 2024 as follows (individual names redacted):

From: [redacted]jacobs.com>
Sent on: Tuesday, March 26, 2024 2:22:00 PM
To: PSC Land <PSC@environment-agency.gov.uk>
CC: [redacted]
Subject: Partial Surrender EPR/HP3132TV/V003 Chertsey MCPD
Attachments: TW_STC_EPR_04a_CHY_FA1.pdf (794.4 KB), Chertsey Part E2.pdf (425.56 KB), Chertsey Part F1.pdf (230.21 KB)

7. OCUs

You have advised within your application that "The OCUs at Chertsey are currently not operational and subject to an odour improvement plan. Once the OCUs are replaced/refurbished this section will contain periodic and continuous performance monitoring and design specification."." BAT 53 requires that "In order to reduce emissions of HCl, NH3 and organic compounds to air, BAT is to apply BAT 14d and to use one or a combination of the techniques given below." Which are identified as adsorption, biofilter, thermal oxidation or wet scrubbing. BAT 34 requires that "In order to reduce channelled emissions to air of dust, organic compounds and odorous compounds, including H2S and NH3, BAT is to use one or a combination of the techniques given below." Which are identified as adsorption, biofilter, thermal oxidation and wet scrubbing.

Explain how you will re-instate or replace OCUs to meet the requirements of BAT 34 and 53.

Answer 7

Please see updated OIP 'AM-OIP Chertsey-OIP' and 'OCUs' entry.