Environment Agency

Review of an Environmental Permit for an Installation subject to Chapter II of the Industrial Emissions Directive under the Environmental Permitting (England & Wales) Regulations 2016

Decision document recording our decision-making process following review of a permit

The Permit number is:	EPR/KP3936ZB
The Operator is:	Tilbury Green Power Limited
The Installation is:	Tilbury Green Power
This Variation Notice number is:	EPR/KP3936ZB/V006

What this document is about

Article 21(3) of the Industrial Emissions Directive (IED) requires the Environment Agency to review conditions in permits that it has issued and to ensure that the permit delivers compliance with relevant standards, within four years of the publication of updated decisions on best available techniques (BAT) conclusions.

We have reviewed the permit for this installation against the revised BAT Conclusions for waste incineration and waste treatment. This is our decision document, which explains the reasoning for the consolidated variation notice that we are issuing. This review has been undertaken with reference to the decision made by the European Commission establishing best available techniques (BAT) conclusions ('BAT conclusions') for incineration as detailed in document reference C(2019) 7987; and BAT conclusions for waste treatment detailed in document reference C(2018) 5070. It is our record of our decision-making process and shows how we have taken into account all relevant factors in reaching our position. It also provides a justification for the inclusion of any specific conditions in the permit that are in addition to those included in our generic permit template.

It explains how we will ensure that the installation complies with the BAT conclusions by 3rd December 2023. It is our record of our decision-making process and shows how we have taken into account all relevant factors in reaching our position. It also provides a justification for the inclusion of any specific conditions in the permit that are in addition to those included in our generic permit template.

As well as ensuring that the Installation complies with the BAT conclusions the consolidated variation notice takes into account and brings together in a single document all previous variations that relate to the original permit issued. It also modernises the entire permit to reflect the conditions contained in our current generic permit template.

The introduction of new template conditions makes the Permit consistent with our current general approach and philosophy and with other permits issued to installations in this sector. Although the wording of some conditions has changed, while others have been removed because of the new regulatory approach, it does not reduce the level of environmental protection achieved by the permit in any way. In this document we therefore address mainly our determination of substantive issues relating to the new BAT Conclusions.

Throughout this document we will use a number of expressions. These are as referred to in the glossary.

We try to explain our decision as accurately, comprehensively and plainly as possible. We would welcome any feedback as to how we might improve our decision documents in future. The use of technical terms and acronyms are inevitable in a document of this nature: we provide a glossary of acronyms near the front of the document, for ease of reference.

How this document is structured

Contents

1 Glossary of acronyms used in this document

(Please note that this glossary is standard for our decision documents and therefore not all these acronyms are necessarily used in this document.)

APC	Air Pollution Control
BAT	Best Available Technique(s)
BAT-AEEL	BAT Associated Energy Efficiency Level
BAT-AEPL	BAT Associated environmental performance level
BAT-AEL	BAT Associated Emission Level
BATc	BAT conclusion
BREF	Best available techniques reference document
CEM	Continuous emissions monitor
CHP	Combined heat and power
CV	Calorific value
DAA	Directly associated activity – Additional activities necessary to be carried out to allow the principal activity to be carried out
ELV	Emission limit value derived under BAT or an emission limit value set out in IED
EMS	Environmental Management System
EPR	Environmental Permitting (England and Wales) Regulations 2016 (SI 2016 No. 1154)
EWC	European waste catalogue
FSA	Food Standards Agency
IC	Improvement Condition
IED	Industrial Emissions Directive (2010/75/EU)
NOx	Oxides of nitrogen (NO plus NO_2 expressed as NO_2)
PHE	Public Health England
SAC	Special Area of Conservation
SGN	Sector guidance note
TGN	Technical guidance note
TOC	Total Organic Carbon
WFD	Water Framework Directive (2000/60/EC)

2 Our decision

We have decided to issue the consolidated variation notice to the operator. This will allow it to continue to operate the Installation, subject to the conditions in the consolidated variation notice.

We consider that, in reaching that decision, we have taken into account all relevant considerations and legal requirements and that the varied permit will ensure that a high level of protection is provided for the environment and human health.

The consolidated variation notice contains many conditions taken from our standard Environmental Permit template including the relevant Annexes. We developed these conditions in consultation with industry, having regard to the legal requirements of the Environmental Permitting Regulations and other relevant legislation. This document does not therefore include an explanation for these standard conditions. Where they are included in the Notice, we consider that those conditions are appropriate.

3 How we reached our decision

3.1 Requesting information to demonstrate compliance with BAT Conclusions for incineration Plant

We issued a Notice under Regulation 61(1) of the Environmental Permitting (England and Wales) Regulations 2016 (a Regulation 61 Notice) on 05/04/2022 requiring the Operator to provide information to demonstrate how the operation of their installation currently meets, or will subsequently meet, the revised standards described in the incineration BAT Conclusions document. The Notice also required that where the revised standards are not currently met, the operator should provide information that:

- Describes the techniques that will be implemented before 3rd December 2023, which will then ensure that operations meet the revised standard, or
- Justifies why standards will not be met by 3rd December 2023, and confirmation of the date when the operation of those processes will cease within the installation or an explanation of why the revised BAT standard is not applicable to those processes, or
- Justifies why an alternative technique will achieve the same level of environmental protection equivalent to the revised standard described in the BAT Conclusions.

Where the Operator proposed that they were not intending to meet a BAT standard that also included a BAT Associated Emission Level (BAT AEL) described in the BAT Conclusions Document, the Regulation 61 Notice requested that the Operator make a formal request for derogation from compliance with that AEL (as provisioned by Article 15(4) of IED). In this circumstance, the Notice identified that any such request for derogation must

be supported and justified by sufficient technical and commercial information that would enable us to determine acceptability of the derogation request.

The Regulation 61 Notice response from the Operator was received on 04/07/2022

We considered that the response did not contain sufficient information for us to commence the permit review. We therefore issued a further information request to the Operator on 23/11/2022 and 10/08/2023 Suitable further information was provided by the Operator on 03/02/2023 and 22/11/2023.

3.2 Review of our own information in respect to the capability of the installation to meet revised standards included in the BAT Conclusions document

Based on our records and previous regulatory activities with the facility we have no reason to consider that the operator will not be able to comply with the conditions that we include in the permit.

4 The legal framework

The consolidated variation notice will be issued under Regulation 20 of the EPR. The Environmental Permitting regime is a legal vehicle which delivers most of the relevant legal requirements for activities falling within its scope. In particular, the regulated facility is:

- an *installation* as described by the IED;
- subject to aspects of other relevant legislation which also have to be addressed.

We consider that the consolidated variation notice will ensure that the operation of the Installation complies with all relevant legal requirements and that a high level of protection will be delivered for the environment and human health.

We explain how we have addressed specific statutory requirements more fully in the rest of this document.

5 The key issues

The key issues arising during this permit review are:

- Ensuring the Installation complies with the BAT conclusions.
- Setting emission limits (including BAT AELs) for emissions to air,
- The energy efficiency levels associated with the Best Available Techniques (BAT-AEELs)

5.1 Ensuring the Installation complies with the BAT conclusions

We have reviewed the operator's response to the regulation 61 notice and we are satisfied that the Installation will meet the requirements of the BAT conclusions by 3rd December 2023. Further detail on our assessment is in annex 1 of this decision document.

Based on our records and previous regulatory activities with the Installation we have no reason to consider that the operator will not be able to comply with the conditions that we have included in the permit.

5.2 Emissions to air and the emission limits applied to the plant

The consolidated permit includes new emission limits for emissions to air. These limits ensure that the installation will comply with the relevant BAT-AELs, as specified in the BAT conclusions, and the relevant limits from IED Annex VI.

A number of general principles were applied during the permit review, including those set out in the UK Waste Incineration BAT Conclusions Interpretation Document . These included:

- The upper value of the BAT-AELs ranges specified were used unless use of the tighter limit was justified.
- The principle of no backsliding where if existing limits in the permit were already tighter than the upper end of the BAT-AEL ranges, the existing permit limits were retained.
- Where a limit was specified in both IED Annex VI and the BAT Conclusions for a particular reference period, the tighter limit was applied and in the majority of cases this was from the BAT Conclusions.

We have set the emissions limit values at the top end of the BAT-AEL range in line with section 4.35 of Defra's Industrial emissions Directive EPR Guidance on Part A installations which states: *Where the BAT AELs are expressed as a range, the ELV should be set on the basis of the top of the relevant BAT-AEL range – that is to say, at the highest associated emission level - unless the*

installation is demonstrably capable of compliance with a substantially lower ELV, based on the BAT proposed by the operator, or exceptional environmental considerations compel a tighter ELV.

We are satisfied that environmental considerations do not require tighter ELVs to be set, and the operator has not proposed any lower ELVs, and so we have set the ELVs at the top end of the BAT-AEL ranges.

We have set IC1 which requires the operator to assess options to reduce NO_X emissions below the top of the BAT AEL range.

5.3 Energy efficiency

The BAT conclusions specify an energy efficiency level associated with the best available techniques (BAT-AEEL). The BAT AEEL is based on gross electrical efficiency, gross energy efficiency or boiler efficiency depending on the type of plant.

The relevant BAT AEEL for this installation is gross electrical efficiency.

The Applicant stated that gross electrical efficiency is 34.68%. This within the range specified in the BAT conclusions.

5.4 Monitoring

The monitoring requirements for mercury and dioxins/furans are dependent on whether the waste has low a low and stable mercury content and whether emissions of dioxins are stable respectively. Improvement conditions IC2 and IC3 require the operator to submit information to enable us to require the correct monitoring.

6 Issues not directly relating to the BAT conclusions

6.1 Emissions to water or sewer

The operator stated that there is an emission to sewer. The discharge consists of boiler blowdown, wash down water and surface water from the waste wood storage area. Effluent is normally re-used but during periods of excess water such as during boiler blow down there is a discharge to sewer. Discharge is infrequent and volumes are low. The trade effluent discharge consent permits a maximum of 300 m^3/24 hr period, 30 l/sec. Flow is normally below 85 l/minute.

Due to the nature of the discharge, infrequent occurrence and low volumes we are satisfied that the emission is not significant and no further assessment of risk is required.

6.2 Hazardous wood waste

Hazardous waste wood from demolition activities and other sources is sometimes chipped and blended with non-hazardous waste wood, and the resulting mixture sent to Chapter-IV compliant co-incinerators. Although this mixed waste stream is pre-mixed hazardous, RPS 291 (and the previous RPS 250) means it can be moved as non-hazardous under a waste transfer note, and so co-incinerators have not been required to have hazardous waste codes in their permits.

RPS 291 expires at the end of September 2024. We have therefore included, at the request of the operator, hazardous waste codes and other relevant conditions as part of this permit review. These changes will not lead to any change to the emissions from the plant as they will simply formalise what it is already allowed to do under RPS 291, and there will be no actual changes to the types of waste types received by the plant. However, changing a non-hazardous permitted plant to a hazardous permitted plant is a substantial change under IED, and we therefore consulted on the change from 28th June 2023 until 26th July 2023. Key issues from the responses received and how we considered them are set out below.

Brief summary of issues raised:	Summary of action taken / how this has been covered
Gasification should be used rather than incineration.	The addition of hazardous waste codes to the permit does not change our assessment that the technology used at the installation is BAT
Concern over emissions to air	The addition of the hazardous waste code will not change emissions to air and does not change our view that emissions will not be significant.

Annex 1

Decision checklist regarding relevant BAT Conclusions

This annex provides a record of decisions made in relation to each relevant BAT Conclusion applicable to the installation.

BATc for Incineration Process

The overall status of compliance with the BAT conclusion is indicated in the table below as
NA - Not Applicable
CC - Currently Compliant
FC - Compliant in the future (by 3rd December 2023)
NC - Not Compliant

BAT No.	Topic	Brief Description	Operator response	Complies with BAT? (NA, CC, FC, NC)
1	EMS	Improve overall performance via use of a compliant EMS.	There is an EMS in place that complies with all the points listed in BAT 1	CC

BAT No.	Topic	Brief Description	Operator response	Complies with BAT? (NA, CC, FC, NC)
2	Energy efficiency	Determine gross electrical efficiency, gross energy efficiency or boiler efficiency (depending on plant type).	The contractual performance test with the EPC Contractor was to determine Net Electrical Effiency (i.e. Gross Electrical Efficiency less internal parasitic load). This performance test was conducted in accordance with BS EN 12952-15 losses method (commonly used for waste and biomass plants in the UK). A net electrical efficiency of 34.06% was determined which is at the upper end of the gross electrical efficiency range of 20-35%, considering internal parasitic load, the GEE is considered to be >35% and in compliance with BAT 2. Supporting Documents: - 2016.S0.Z05.001.R1.Performance Test 1 Report - EPC Performance Test Certificate	CC
3	Process Monitoring	Monitor key process parameters for emissions to air and water specified in the corresponding table.	Process monitoring is carried out in line with BAT 3 requirements for the following relevant parameters: 1 - Flue gas flow; 2 - Flue gas oxygen content; 3 - Flue gas temperature; 4 - Flue gas pressure; 5 - Flue gas water vapour content; and 5 - Combustion chamber temperature except for 6 - waste water from wet FGC flow, pH and temperature as there is no water consumed or produced; and 7 - waste water from bottom ash treatment flow, pH and conductivity as there is no bottom ash treatment on site	CC

BAT No.	Topic	Brief Description	Operator response	Complies with BAT? (NA, CC, FC, NC)
4	Air emissions monitoring	Monitor emissions to air with at least the frequency in the corresponding table and in accordance with the EN standards.	Monitoring is carried out in line with BAT 4 requirements	CC
	PBDD/F	Monitor emissions to air of brominated dioxins and furans periodically if waste streams are known to contain brominated flame retardants are burned	PBDD/F monitoring is not required as no waste containing brominated flame retardants will be burned	NA
	PCDD/F	Monitor emissions to air of dioxins and furans using a continuous sampler unless emissions are sufficiently stable.	Attempts will be made to demonstrate via the PCCD/F Monitoring Protocol that emissions to air of PCDD/F are sufficiently stable and that a continuous sampler (long-term monitoring) is not required by 03/12/23; if these are unsuccessful, continuous sampling will be installed as soon as reasonably practical.	FC

BAT No.	Topic	Brief Description	Operator response	Complies with BAT? (NA, CC, FC, NC)
	Mercury	Monitor emissions to air of mercury using continuous monitoring if required.	Attempts will be made to demonstrate via the Mercury Monitoring Protocol that emissions to air of mercury are low and stable and that a continuous sampler is not required by 03/12/23; if these are unsuccessful, continuous monitoring will be installed as soon as reasonably practical.	FC
5	OTNOC monitoring	Appropriately monitor emissions during OTNOC. Monitor PCCD/F and dioxin-like PCB mass emissions during a planned start-up and shut-down following the successful commissioning of the plant; already-operational plants must carry out this monitoring every 3 years; emissions profiles of continuously monitored pollutants must also be established following successful commissioning and for existing plants; consider further monitoring for plants that use abatement-system bypasses during start-up and/or shut-down.	Plant has been successfully commissioned, or is likely to be before 03/12/23. Emissions profiles of continuously monitored pollutants have been established during start-up and shut-down or will be established by 03/12/23. Monitoring of PCCD/F and dioxin-like PCB mass emissions during a planned start-up and shut-down will be carried within 3 years of 03/12/23.	FC

BAT No.	Topic	Brief Description	Operator response	Complies with BAT? (NA, CC, FC, NC)
6	Water emissions monitoring	Monitor emissions from FGC and/or bottom ash treatment. Monitor to frequencies and standards in corresponding table.	Not applicable as no emissions to water from FGC or bottom ash treatment.	NA
		Reduced monitoring frequency permitted if emissions can be shown to be sufficiently stable.	Not applicable as no emissions to water from FGC or bottom ash treatment.	NA
7	Ash monitoring	Monitor LOI or TOI content of bottom ash to the frequencies and standards in corresponding table .	Monitoring carried out for TOC	CC
8	POP monitoring	For hazardous waste containing POPs, monitor POP content of waste streams (applicable to dedicated hazardous waste incinerators only). After commissioning and then after significant change that could affect POP content.	Not applicable - plant is not a dedicated hazardous waste incinerator	NA

BAT No.	Topic	Brief Description	Operator response	Complies with BAT? (NA, CC, FC, NC)
9	Waste input controls	Pre-acceptance / acceptance procedures. Use all techniques (a) to (c) in corresponding table, and where relevant (d), (e) and (f).	Techniques set out in BAT 9 (a)-(c) are in place. Techniques (d)-(f) are not relevant.	CC
10	Bottom ash treatment	Quality output management system part of EMS where bottom ash treatment is carried out.	Not applicable - bottom ash treatment is not carried out.	NA
11	Waste delivery, storage and handling	Monitor waste deliveries in line with corresponding table, depending on the risk posed by the waste type.	Measures in line with BAT 11 are in place	CC

BAT No.	Topic	Brief Description	Operator response	Complies with BAT? (NA, CC, FC, NC)
		Radioactivity detection	Not required - no increased risk identified	NA
12		Storage and handling. Use both techniques listed in corresponding table.	Measures in line with BAT 12 are in place	CC
13		Storage and handling of clinical waste. Combination of techniques listed in corresponding table.	Not applicable as clinical waste not received at the installation	NA
14	Overall environment performance	Reduce unburnt substances in slags / bottom ash and reduce emissions. Use a combination of techniques listed in corresponding table	The following measures listed in the table of BAT 14 are used: (a), (b)	CC

BAT No.	Topic	Brief Description	Operator response	Complies with BAT? (NA, CC, FC, NC)
		BAT-AEPL for TOC or LOI	The installation meets the BAT-AEPL for TOC as shown by historic monitoring data	CC
15		Control plant settings to reduce emissions to air. Use techniques such as an advanced control system.	An advanced control system is in place to achieve the requirements of BAT 15.	CC
16		Procedures to limit shutdown and start-up. Set up and implement procedures such as continuous rather than batch operation	Start-up and shut-down is minimised by operating as a continuous process to generate baseload electricity other than the periods of planned outages for maintenance. Fuel and consumables required for operations are procured, delivered and maintained in sufficient quantities on site to facilitate continuous operation.	CC
17	Emission to air and water	Design of FGC system and waste water treatment plant. Appropriate design, operated in design range, maintained to ensure optimal availability.	Flue gas system is designed appropriately and is operated within those design parameters.	CC

BAT No.	Topic	Brief Description	Operator response	Complies with BAT? (NA, CC, FC, NC)
18	OTNOC	Reduce frequency of OTNOC by setting up and implementing an OTNOC management plan.	An OTNOC management plan which meets the requirements of BAT 18 will be implemented by 03/12/23. A description of how critical equipment has been designed to minimise occurrence of abnormal operation (AO) and minimise impacts from AO and start-up and shut-down periods is included with this submission (see reference to supporting document in column G). Reference to supporting document describing how critical equipment has been designed to minimise occurrence of abnormal operation (AO) and minimise impacts from AO and start-up and shut-down periods.	FC
19	Energy efficiency	Increase efficiency by using a heat recovery boiler.	A heat recovery boiler is used to generate electricity	CC
20		Increase efficiency by using a combination of techniques listed in corresponding table.	The following measures listed in the table of BAT 20 are used: (b), (c) and (f). Retrofits are currently being explored to improve on-line boiler cleaning systems and capabilities under (d). Plant is prepared for heat offtake to address (g) but subject to suitable external customer.	CC

BAT No.	Topic	Brief Description	Operator response	Complies with BAT? (NA, CC, FC, NC)
		BAT-AEEL is within the BAT – AEEL range	The gross electrical efficiency is estimated to be c.36.48%	CC
21	Diffuse emissions to air	Prevent or reduce diffuse emissions (including odour) using the listed techniques.	Measures in line with BAT 21 are in place Note to EA: Should be noted that as a co-incineration plant combusting waste wood, there are minimal odour issues with the material on the basis that it is generally >98% wood with low moisture content.	CC
22		Prevent diffuse emissions of VOCs from gaseous and liquid wastes by direct feed to furnace.	Not applicable - gaseous or liquid waste are not accepted	NA
23		Prevent or reduce diffuse emissions to air from treatment of slags and bottom ashes by including listed measures in the EMS.	Not applicable - bottom ash treatment is not carried out.	NA

BAT No.	Topic	Brief Description	Operator response	Complies with BAT? (NA, CC, FC, NC)
24		Prevent or reduce diffuse emissions to air from treatment of slags and bottom ashes. Use one or a combination of techniques in corresponding table	Not applicable - bottom ash treatment is not carried out.	NA
25	Channelled emissions to air	Reduce emissions of metals and metalloids from incineration of waste. Use one or a combination of techniques in corresponding table.	The following measures listed in the table of BAT 25 are used: (a) & (c)	CC
		BAT-AELs for dust and metals	The plant is currently able to achieve an emission limit value set at the top end of the BAT-AEL range.	CC
26		Reduce emissions of dust from treatment of slags and bottom ashes. Use a bag filter if treating air from treatment of IBA under sub-atmospheric conditions.	Not applicable - bottom ash treatment is not carried out.	NA

BAT No.	Topic	Brief Description	Operator response	Complies with BAT? (NA, CC, FC, NC)
		BAT-AEL for dust from IBA treatment. Applies if using a bag filter to treat air from treatment of IBA under sub-atmospheric conditions	Not applicable - bottom ash treatment is not carried out.	NA
27		Reduce emissions of HCl, HF and SO_2 using one or a combination of techniques in corresponding table.	The following measures listed in the table of BAT 27 are used: (c).The Operator is currently exploring the technical feasibility of implementing a boiler sorbent injection system according to BAT 27 (e) to reduce emissions and overall consumption of abatement consumable within a primary, partial abatement system In addition to already utilising (c), dry sorbent injection, The Operator is in the process of commissioning a study to further optimise this technique during 2023 with initial trial undertaken in 2022 to minimise any unnecessary dosing of abatement consumable associated with reduced emission limits of SO2.	CC
28		Reduce peak emissions of HCl, HF and SO_2 and amount of residue produced, using technique (a) or both techniques in corresponding table.	The following measures listed in the table of BAT 28 are used: (a) and (b)	CC

BAT No.	Topic	Brief Description	Operator response	Complies with BAT? (NA, CC, FC, NC)
		BAT-AELs for HCl, HF and SO2	The plant will be able to achieve an emission limit value set at the top end of the BAT-AEL range by 03/12/23. An operational trial has taken place to demonstrate that the revised limit for SO2 can be achieved by changing the set-point on the system and dosing more lime. In order to ensure the system is fully optimised, a third party study and additional trial is planned to fully optimise the system to minimise consumption of lime as far as reasonably practicable	CC
29		Reduce emissions of NOx while limiting emissions of CO, N_2O and NH_3 using appropriate combination of techniques in corresponding table.	The following measures listed in the table of BAT 29 are used: (a), (b) and (c)	CC
		BAT-AELs for NOx, CO and NH_3	The plant is currently able to achieve an emission limit value set at the top end of the BAT-AEL range.	CC

BAT No.	Topic	Brief Description	Operator response	Complies with BAT? (NA, CC, FC, NC)
30		Reduce emissions of organic compounds including PCDD/F and PCBs using techniques (a), (b), (c), (d) and one or a combination of techniques (e) to (i) in corresponding table	The following measures listed in the table of BAT 30 are used: (a), (b), (c), (d) and (e)	CC
		BAT-AELs for PCDD/F	The plant is currently able to achieve an emission limit value set at the top end of the BAT-AEL range.	CC
31		Reduce mercury emissions using one or a combination of techniques in the corresponding table.	The following measures listed in the table of BAT 31 are used: (b)	CC
		BAT-AEL for mercury	The plant is currently able to achieve an emission limit value set at the top end of the BAT-AEL range.	CC

BAT No.	Topic	Brief Description	Operator response	Complies with BAT? (NA, CC, FC, NC)
32	Emissions to water	Reduce contamination of uncontaminated water, reduce emissions to water and increase resource efficiency. Segregate waste water streams and treat them separately.	The measures listed under BAT 32 are used.	CC
33	Water usage	Reduce water usage, prevent waste water generation using one or a combination of techniques in the corresponding table	The following measures listed in the table of BAT 33 are used: (a) and (c) With regards to BAT 33 technique (c) a system to reuse reject water from the demineralised water treatment plant has recently been installed to reduce raw water consumption.	CC
34	Emissions to water	Reduce emissions to water from FGC and/or from storage and treatment of slags and bottom ashes using one or a combination of techniques in the corresponding table and use secondary techniques as close to source as possible.	Not applicable - no direct or indirect emissions to water from FGC or bottom ash treatment	NA
		BAT-AELs	Not applicable - no direct or indirect emissions to water from FGC or bottom ash treatment	NA

BAT No.	Topic	Brief Description	Operator response	Complies with BAT? (NA, CC, FC, NC)
35	Resource efficiency	Resource efficiency. Handle and treat bottom ashes separately from FGC residues.	Bottom ashes are handled and treated separately from FGC residues.	CC
36		Resource efficiency for treatment of slags and bottom ashes. Use appropriate combination of techniques in corresponding table depending on hazardous properties of the slags and bottom ashes.	Not applicable - bottom ash treatment is not carried out.	NA
37	Noise	Reduce noise emissions using one or a combination of techniques in the corresponding table.	The following measures listed in the table of BAT 37 are used: a, b c, d, & e	CC

Non-hazardous and inert waste: appropriate measures for permitted facilities - Guidance - GOV.UK (www.gov.uk)

Section	**Link to Guidance Section**	**Does your site and operations currently comply with all the requirements of this section? If no summarise the improvements/actions required to comply.**	**Environment Agency comment**
Section 1.4 site design and suitability	Site design	Yes. The site has be designed to accommodate the potential impacts of climate change (e.g. flood risk, drought), whilst the aspects of possible impacts of extreme temperatures, extreme weather events will be re-assessed. The site has sufficient storage to handle incoming volumes most of the time, and TGP (Tilbury Green Power) would engage with the EA should any increase in storage volumes on site be required to manage seasonal availability of wood.	
Section 2.1 - General Management - management systems	Management system	No. The site has its own range of permit management plans and EMS, which operate under TGP's fuel suppliers overarching EQMS which has been prepared to the ISO 9001 and 14001 standards. Whilst the site has the resilience to withstand climate change impacts a Climate Change Risk Assessment will be completed to ensure risks are identified..	We have included an improvement condition (IC4) requiring the Operator to demonstrate that their techniques are in accordance with the appropriate measures.

Section 2.2 - Staff competence	Staff competence	Yes. The Site is managed by a manager holding the relevant WAMITAB qualification. There is monitoring in place to detect emergencies on a 24/7 basis and also out of hours on-call staff to respond to such emergencies. Any lone workers are also equipped with personal alarms. TGP's Fuel supplier's staff dealing with waste acceptance are suitably trained in material types and waste acceptance and rejection procedures.	
Section 2.3 - Accident management plan	Accident management plan	Yes. Each site has its own Accident Management Plan and Emergency Response Plan covering a range of realistic potential scenarios which would require immediate action at site level. These are reviewed annually.	
Section 2.4 - Contingency planning	Contingency planning	Yes. The WPF (Wood Processing Facility) operates procedures to ensure material is properly controlled during planned and unplanned shutdown, including redirection of material and approval of extended storage times, as approved by the EA, to ensure that permitted storage limits are not exceeded.	
Section 2.5 - Site decommissioning	Site decommissioning	No. The major risks associated with any future decommissioning of the site includes potential underlying remaining ground contamination, however remediation of the site was undertaken prior to TGPs occupation. The entire site currently comprises hard paved surfacing and it is envisaged that this would remain. All fuel tanks are above ground and mobile, removing the need to empty these when operations cease. All tanks would be run down to empty prior to vacating site. Drains would also be cleaned by a suitable contractor. TGP also follows an agreed ground water monitoring plan.	We have included an improvement condition (IC4) requiring the Operator to demonstrate that their techniques are in accordance with the appropriate measures.

Section 3.1 - Waste pre-acceptance	Pre-acceptance of wastes	Yes. The WPF only accepts Grades A to C Waste Wood, and provides suppliers with specifications of acceptable wood types. Importantly, the WPF's own Procurement team audit supplier sites using a detailed audit form to identify supplier operating and waste acceptance procedures. Due to recent changes in EA regulations relating to C&D wood, the WPF also provides suppliers with detailed guidance on how to assess and transfer C&D wood.	
Section 3.2 - Waste acceptance	Acceptance of wastes	Yes. TGP's fuel supplier operates waste acceptance and rejection procedures at all its sites, to ensure all incoming raw material complies with permit and quality requirements. This includes monitoring the temperatures of incoming loads (although there is reduced risk of self heating of Unprocessed loads due to relative low fines). All incoming unprocessed waste wood is also subjected to a quality scoring process, as recorded on the required form.	
Section 3.3 - Quarantine	Quarantine	Yes. The site has its own dedicated quarantine areas to receive non-permitted material or wood remove to form fire breaks in event of fire. Staff are trained in use of quarantine areas.	
Section 3.4 - Waste tracking	Waste tracking	Yes. The WPF has a automated system ('Blinx') for tracking each load, including where and how long the material is stored on site. This provides real time information to site managers and helps them comply with storage times as specified under the environmental permits and FPPs.	
Section 4 - Waste storage	Storage and segregation	Yes. TGP have been required to develop detailed on site storage arrangements to comply with FPP and permit requirements. All wood storage piles are on impermeable hard paving with integrated sealed drainage. All waste volumes on site are tracked as indicated above and rotated as required under the site's FPP. The various grades of treated material (Unprocessed, Semi-processed and Processed material plus Fines are kept separately and residual waste (metal etc) removed during processed is held in skips until collection for recycling.	

Section 5 - Waste treatment	Waste treatment process and classification of outputs, treatment prior to landfill.	Yes. As required under the site's Environmental Permit and the TGP's fuel suppliers own EQMS a range of information is kept on the following aspects: • simplified process flow sheets that show the origin of the emissions • diagrams of the main plant items where they have environmental relevance, for example, storage, tanks, treatment and abatement plant design details of physical processes for example separation and shredding. • an equipment inventory, detailing plant type and design parameters • waste types to be subjected to the process • the control system philosophy and how the control system incorporates environmental monitoring information process flow diagrams (schematics) the hourly processing capability of waste treatment equipment a summary of operating and maintenance procedures. All processing fines are disposed as permitted under the EA's RPS 249/250 to panel board manufacture or Chapter IV compliant incinerators.	
Section 6 - Emission control	Emissions to air	Yes. As part of the permit application process, TGP were required to characterise emissions form its facility and control to be used. For the WPF this includes dust, noise and drainage discharge. (See site Emissions Plan).	
Section 6.1 - Enclosure in buildings	Enclosure within buildings	No. Whilst the WPF does not operate within a partially enclosed building, the facility uses alternative measures such as mobile water misting cannons to address dust issues when weather conditions may result in dust migration towards receptors.	We are satisfied that the alternative measures are appropriate and storage of wood in a building is not required.

Section 6.2 - Point source emissions to air	Point source emissions to air	There are no point emissions to air from the WPF.	
Section 6.3 - Fugitive emissions to air	Fugitive emissions to air	No. Whilst the WPF does not employ enclosure within a building, it employs various alternative dust control methods. These include waste acceptance controls to limit dusty loads entering site, housekeeping to reduce accumulation of dust in the main waste storage area, operation of processing equipment, mobile water cannons placed at specific points where dust may be generated (e.g. at points where loading vessels or HGVs is undertaken), monitoring via staff to assess risk of dust migration, and ceasing operations where there is significant risk.	We are satisfied that the alternative measures are appropriate and storage of wood in a building is not required.
Section 6.3 - Fugitive emissions to air	Measures for dust, mud and litter	Yes. TGP's WPF site is a fully paved site, eliminating the risk of mud being tracked off. The hard paving also eliminates the risk of surface material drying out and being blown off site. Litter is generally controlled via picking of incoming loads and regular sweeping/clearance of site storage areas to remove any windblown litter which may accumulate at site boundaries.	
Section 6.3 - Fugitive emissions to air	Specific measures for odour	The incoming waste wood does not result in odour issues.	.
Section 6.3 - Fugitive emissions to air	Specific measures for noise and vibration	Yes, as part of the planning and environmental permit applications, the facility commissioned an independent noise assessment to ensure its activities would not result in unacceptable off site impacts. The main methods of noise control includes operation of processing equipment in accordance with operating hours limited under the planning permission, operating and maintaining all equipment and noise mitigation measures as per manufacturers' recommendations. These measures can be detailed in a separate Noise and Vibration Plan if required by the EA.	

Section 6.4 - Point source emissions to water (inc sewer)	Point source emissions to water (inc sewer).	No, TGP takes regular samples of its discharge from storage areas. This discharge is via a fire pond and then to foul sewer compliant with the site's trade discharge consent. Rainwater from clean drain systems goes through the required treatment and is discharged to the Botney channel. Sewage from the facility goes through treatment and is discharge to public sewer via the Port's system.	It is unclear whether the techniques are in accordance with the appropriate measures. We have therefore included an improvement condition (IC4) requiring the Operator to demonstrate that their techniques are in accordance with the appropriate measures.
Section 6.5 - Fugitive emissions to land and water	Fugitive emissions to land and water	The fugitive emissions to land and water, comprise potential dust from the facility migrating to the site boundaries. The same controls in place to protect neighbour amenity would also mitigate against this impact. Spillages as well as vehicle washing would occur within the sealed drainage system which includes a shut-off valve to ensure oil, firewater run off etc does not each the river. Tanks are double skimmed (internal bunded) and drums are stored on drip trays.	It is unclear whether the techniques are in accordance with the appropriate measures. We have therefore included an improvement condition (IC4) requiring the Operator to demonstrate that their

			techniques are in accordance with the appropriate measures.
Section 6.6 - Pests	pests	TGP does not handle readily-putrescible wastes such as food or other organic waste which would attract pests on site. Should any pests be seen in site, a suitable contractor would be engaged to control these. Wood wastes are rotated regularly in accordance with the permit, thus ensuring wood piles do not become a habitat for rodents etc.	
Section 7.1 - Emission limits - air	Emissions to air	Yes, TGP;s fuel supplier undertakes monitoring of its particulate emissions to air, via passive air quality sampling equipment at its boundaries. Emission reports are prepared for the facility including comparison with Defra and EA guidelines for particulates.	
Section 7.3 - Emission limits - water and sewer	Emissions to water and sewer	Yes. The discharge data collected above forms an inventory of emissions from site. Any additional data required will be collected to comply with EA requirements.	
Section 8.1 - Process Efficiency - energy	Energy efficiency	No. TGP's fuel supplier has collected much of the base data, and will produce an Energy Efficiency Plan to comply with EA requirements	We have included an improvement condition (IC4) requiring the Operator to demonstrate that their techniques are in accordance with the appropriate measures.

Section 8.2 - Process Efficiency - raw materials	Raw materials	No. TGP has collected much of the base data, and will produce a Raw Materials Inventory to comply with EA requirements. As part of its sustainability initiative, SEL is looking to use environmentally friendly materials in the processing of wood to fuel.	We have included an improvement condition (IC4) requiring the Operator to demonstrate that their techniques are in accordance with the appropriate measures.
Section 8.3 - Process Efficiency - water use	Water use	No. TPG's fuel supplier has collected much of the base data, and will produce a Water Efficiency Plan to comply with EA requirements. As part of its sustainability initiative, the WPF is always looking for more environmentally friendly materials used in processing wood to fuel..	We have included an improvement condition (IC4) requiring the Operator to demonstrate that their techniques are in accordance with the appropriate measures.
Section 9 - Waste minimisation	Waste Minimisation	No. TPG's fuel supplier wood processing operations involve a relatively limited range of waste materials, and monitors the recycling/ disposal of these as part of its Scope 3 emissions. The WPF will produce a Residues Management Plan to comply with EA requirements	We have included an improvement condition (IC4) requiring the Operator to demonstrate that their techniques are

			in accordance with the appropriate measures.

BATc for Waste Handling

The overall status of compliance with the BAT conclusion is indicated in the table below as
NA - Not Applicable
CC - Currently Compliant
FC - Compliant in the future (by 3rd December 2023)
NC - Not Compliant

(For convenience only the BAT Conclusions not applicable to this waste treatment process have been deleted)

BAT No.	Topic	Brief Description	Operator response	Complies with BAT? (NA, CC, FC, NC)
1. General BAT Conclusions				
1.1 – Overall environmental performance				

1	EMS	Improve overall performance via use of a compliant EMS.	The site operates under the control of three separate EMSs, with one apiece for TGP, Esken Renewables and WBOC. The TGP EMS can be seen as the overarching or umbrella EMS which sets out key strategic policies and objectives for the TGP Plant, including the environmental policy, environmental objectives and environmental key performance indicators (KPIs). TGP also audits the Esken Renewables EMS and WBOC EMS to confirm satisfactory management of regulatory compliance and environmental aspects across the TGP Plant. This is in addition to Esken Renewables and WBOC's own individual audit schedules. The scope of the TGP EMS incorporates all activities that are undertaken directly by TGP staff which have a potential for significant environmental impact, including auditing, procurement (including waste management), administration and financial management. Areas of the site that are currently excluded from the scope of the TGP EMS include the 132 kV Electricity Substation managed by UK Power Networks. The Waste Treatment activities as undertaken at the Wood Processing Facility or WPF already benefits from TGP's fuel supplier overarching company EMS which incorporates most of the requirements as laid out in BAT 1 items I to XV as this applies to the waste treatment activities. (Esken Renewables are the sole operator of the WPF). The exceptions requiring addition or further improvement include (BAT 1 - VIII) review of life cycle aspects of equipment used by Esken and (BAT 1 - IX) independent sectoral benchmarking. This EMS review and variation process may extend beyond Dec 2023.	CC
2	Environmental performance	Techniques for improvement of the overall performance of the plant.	All requirements of BAT 2 relating to the safe storage and containment of waste are currently in place at the WPF, specifically: BAT 2 (a) 'Set up and implement waste characterisation and pre-acceptance procedures. The techniques listed in BAT regarding waste characterisation,	CC

			pre acceptance, tracking ,segregation and sorting are all currently in place as they apply to Esken's activities at the TGP site. Esken operates documented waste pre-acceptance procedures and audits at wood suppliers for incoming waste, BAT 2 (b) 'Set up and implement waste acceptance procedures waste acceptance procedures on site and output quality testing of fuel produced'. All incoming waste is subject to visual inspection and sorted to remove contrary items such as metals etc which are stored separately. Non-conforming materials are also removed as part of the wood processing activities. All waste stored at the WPF is segregated and stored in accordance with type. BAT 2 (c) 'Set up and implement a waste tracking system and inventory' All waste handled at the WPF are tracked and record via TGP's Fuel Supplier's tracking system. BAT 2 (d) 'Set up and implement an output quality management system'. All fuel is managed by consistent and daily testing. This is a visual and mechanical testing process. The fuel is subject to daily tests, including checking the moisture and size quality against the requirements, with results and this is subsequently shared across relevant TGP's fuel supplier and client staff. The visual check stage ensures contaminates are identified and removed. The fuel is tested for chemical analysis in line with each contract on a regularly scheduled basis internal and 3rd party fuels to ensure consistency. BAT 2 (e) 'Ensure waste segregation'. All waste stored at the WPF is segregated and stored in accordance with type. (See ER's company procedures, Procedure 113 – Inbound Material Inspection and Temperature Monitoring, 132 – Acceptance and Rejection of Unprocessed Waste Wood, TGP's Waste Acceptance Procedure (Document Reference 27-01-17-R-243). and ER company forms 108 Recycled Wood Specification, 137 – Supplier Audit Report – Waste Wood.	

BAT No.	Topic	Brief Description	Operator response	Complies with BAT? (NA, CC, FC, NC)
			BAT 2 (f) – Not applicable – All inbound material broadly satisfies the same criteria (grade C waste wood) – there is no blending of material in the bowling alley. BAT 2 (g) 'Sort incoming solid waste'. All incoming waste is inspected and where necessary contraries such as metals and plastics removed.	

BAT No.	Topic	Brief Description	Operator response	Complies with BAT? (NA, CC, FC, NC)
3	Process Monitoring	Monitor key process parameters for emissions to air and water specified in the corresponding table.	Measures to comply with BAT 3 (i) (a) are in place, specifically, Information about the characteristics of the waste to be treated and the waste treatment processes is already in place as detailed above and also within the site permit management plans. However, regarding BAT 3 (i) (b) this will require review of Process flow drawings and also compliance with BAT 3 (ii) (a to c) will require a review of sampling of water emissions will need to be undertaken in terms of suitable location of sample points. Trade effluent discharge – contaminated surface water from wood treatment storage area following by a sedimentation tank balancing and pH dosing for effluents and treatment and attenuation of effluent and finally separator treatment for all effluents. The trade effluent passes through a monitoring point situated after the separator, prior to connection to domestic effluent before discharging to the foul sewer. pH and temperature control on the trade effluent and sampling by Anglian Water, this information is maintained on site. Anglian Water monitoring information is saved on file. There is no waste gas treatment at the Wood Processing Facility	CC

4	Waste Storage	Environmental risks associated with the storage of waste	All requirements of BAT 4 relating to the safe storage and containment of waste are currently in place at the WPF, specifically: BAT 4 (a) - The wastes are stored in the most suitable location comprising a concrete-walled, integrally sealed area separated from direct discharge to most sensitive receptors and also to avoid any double handling or unnecessary transport to point of use. BAT 4 (b) - The storage capacity and maximum residence time of waste at the WPF is also clearly established and documented within the site's Fire Prevention Plan. Waste volumes on site are continually monitored by site staff and also via the company's own waste tacking system ('Blinx'). BAT 4 (c) - Safe storage operation. All Material Handling Equipment is documented, inspected and maintained in accordance with ER's company procedures. This includes listing of all equipment of Esken's Asset Register and equipment is only operated by properly trained staff. (See company procedures 116 – Maintenance and Defect Breakdown Of Plant Machinery, 125 – Use of Plant on Site and equipment specific pre-use check forms for all static and mobile machinery.) The waste types stored on site are not especially vulnerable to ambient factors such as heat or light, and the majority of which (unprocessed waste wood) is stored externally in bulk. However, the short residence times and continual monitoring by site staff as detailed in the Fire Prevention Plan reduce risk of potential fire or degradation impacts from extreme weather conditions. Liquids are stored in a secured area in suitable tanks or drums with adequate secondary containment. No packaged hazardous waste is stored at the WPF.	CC

BAT No.	Topic	Brief Description	Operator response	Complies with BAT? (NA, CC, FC, NC)
			There is a quarantine area should some hazardous arrive on site which would be removed under a Haz Waste Consignment Note if required. The RPS 250 governed the import of certain types of demolition material which required import under a dual coded HWCN. This RPS has now been superseded by RPS 291, which allows import of same types of demolition material under a usual Waste Transfer Note. (Previous HWCN information were supplied to TGP for completion of the quarterly Haz Waste Return.	
5	Handling and transfer of waste	Environmental risks associated with the handling and transfer of waste.	All the requirements for BAT 5 are currently in place at the WPF. This includes the safe unloading, handling and transfer to storage or processing areas via material handling equipment only operated by suitably trained and qualified staff. All transfers of waste are suitably documented and tracked in accordance with the company's Duty of Care obligations (See company procedures ERP 102 and 263 Duty of Care and Form 205) including all deliveries pf waste into the WPF and removal from site either as biomass fuel to TGP or as residual wastes for off site treatment/recycling (e.g. metals, general waste etc). Site staff monitor the WPF waste handling and storage areas for spills and would act immediately to clear both waste and liquid spills. Incoming waste wood conforms with the waste wood specification. There is no blending of material in the bowling alley.	CC

BAT No.	Topic	Brief Description	Operator response	Complies with BAT? (NA, CC, FC, NC)
1.2 - Monitoring				
6	Waste water	Waste water monitoring	The water monitoring requirements of BAT 6 are not in place at the WPF but will be in place by the end of Dec 2023. TGP's fuel supplier note the requirements regarding parameters and monthly sampling monitoring and will agree suitable sampling locations with the EA Area team. pH and temperature are monitored for the trade effluent discharge are monitored at the point before discharge to the port of Tilbury sewerage system.	FC
7	Waste water	Periodic waste water monitoring	Please see above response regarding BAT 6. The water monitoring requirements of BAT 7 are not in place at the WPF but can be in place by the end of Dec 2023. TGP's fuel supplier notes the monitoring frequency requirements and will adhere to these. Water monitoring is carried out for emissions to water from the permitted facility as a whole including the discharges from the Biomass Incineration Facility. Only surface water from the site is discharged to water course – via oily water interceptor/separator. The system also includes a rainwater harvesting tank. Foul water and trade effluent (contaminated drainage) all goes to Anglian Water mains sewer.	FC
11	Annual consumption	Annual resources consumption	All waste inputs into WPF are tracked via Blinx and reported as part of TGPs quarterly waste returns. Water and electricity usage for WPF and wider site are also monitored.	CC

BAT No.	Topic	Brief Description	Operator response	Complies with BAT? (NA, CC, FC, NC)
1.3 – Emissions to air				
12	Odour	Odour management	Waste wood does not have as associated odour	CC
13	Odour	Odour reduction	Waste wood does not have as associated odour	CC

BAT No.	Topic	Brief Description	Operator response	Complies with BAT? (NA, CC, FC, NC)
14	Air emissions	Prevent or reduce diffuse emissions to air, in particular of dust, organic compounds and odour.	TGP's fuel supplier has recently discussed the requirements of BAT 14 with key EA policy staff who advise that a combination of techniques to meet site-specific requirements for control would be acceptable, in place of full enclosure of all waste storage and processing activities. TGP would therefore propose that BAT 14 is currently being met at the WPF in that the main dust generating activity of wood processing is fully enclosed within a building active dust extraction to covered HGV trailers for removal and recovery elsewhere to covered trailers , which complies with the techniques detailed in BAT 14d "Containment, collection and treatment of diffuse emissions". Although no organics are being emitted from the site, the dust extraction systems are also subject to regular maintenance including leak detection and repair. Diffuse dust emissions arising from the external pre-shredding and waste handling and storage activities can be adequately controlled via a range of measures such as limiting vehicle speeds, regular equipment cleaning and site sweeping (in accordance with BAT 14g), control of waste volume and waste inspection and use of dust suppression via water cannons and bowser to dampen site surfaces (in accordance with BAT 14e). Note: We are satisfied that the alternative measures are appropriate and storage of wood in a building is not required for this site.	CC

BAT No.	Topic	Brief Description	Operator response	Complies with BAT? (NA, CC, FC, NC)
17	Noise and vibration	Noise and vibration management plan	TGP's fuel supplier will review and update any existing Noise and Vibration emission plan including repeat site monitoring and reporting as necessary to reflect current Waste Treatment activities at the WPF. It is anticipated this review would be completed in 2024. Tilbury Green Power Limited have a Noise and Vibration Management Plan to cover the whole permitted site and the operations of both the Waste Processing and Biomass Incineration Facilities. This is due for review in 2024.	CC
18	Noise and vibration	Techniques to reduce noise and vibration	The techniques currently in place at the WPF include: BAT 18 (b) Operational measures, specifically b(i) inspection and maintenance of all processing and material handling equipment to ensure it is operation within manufacturers recommendations, which is known to reduce unnecessary noise and vibration emissions and also b(v) equipment operation only by experienced and qualified staff. BAT 18(d) enclosure of noisy equipment. The main processing line is fully enclosed, whilst the external waste handling storage and pre-shred area is enclosed on three sides by the WPF building and concrete walls, which satisfies BAT 18(e) Noise attenuation.	CC
1.5 – Emissions to water				

BAT No.	Topic	Brief Description	Operator response	Complies with BAT? (NA, CC, FC, NC)
19	Emissions to water	Water use reduction	Certain techniques detailed under BAT 19 are currently in place at the WPF, specifically: BAT 19 (c) Impermeable surface. The entire surface of the WPF is integrally paved concrete with integral drainage. BAT 19 (d) Techniques to reduce the likelihood and impact of overflows and failures from tanks and vessels. In addition to the storage of liquids in drums and tanks with secondary containment, the integral surfacing directs all runoff and potential liquid spills towards the site attenuation lagoon which benefits from shut-off valve prior to discharge. This arrangement also satisfies BAT 19 (g) Adequate drainage. The enclosure of the main processing line also satisfies BAT 19 (e) Roofing of waste storage and treatment areas. In addition, possible measures to satisfy BAT 19 (b) Water recirculation, specifically capture and use of roof water run-off could be investigated and implemented during 2024.	CC

BAT No.	Topic	Brief Description	Operator response	Complies with BAT? (NA, CC, FC, NC)
20	Emissions to water	Water treatment to reduce emissions to water	There is currently no active treatment of water run off from the WPF, aside from some element of settling of solids in the lagoon, BAT 20 (p) Sedimentation. Surface water is discharged via attenuation pond discharged via oil interceptor/separator to the storm basin and then the Botney Channel. Contaminated wastewater is discharged via separator following sedimentation tank pH balancing and dosing before combination with foul water and discharge to the Anglian Water system via the port of tilbury sewer network. Further opportunities for treatment will require further investigation.	CC

21	Accidents and incidents	Prevent or limit the environmental consequences of accidents and incidents	Certain techniques detailed under BAT 21 are currently in place at the WPF, specifically: BAT 21 (a) Protection Measures. The WPF benefits from a wide range of measures to protect against: - Malevolent acts via site perimeter fencing, walls, 24hr site security and CCTV monitoring. - Fire and explosion protection via a range of detection and control measures as detailed in the site's Fire Prevention Plan - Accessibility and operability of relevant control equipment in emergency situation due to location of key control equipment in main control room BAT 21 (b) Management of incidental/accidental emissions, via those measures included in the site Emergency Response Plan, Fire Prevention Plan and Emissions Management Plan. Many of which are proved by the containment offered by the site impermeable surfacing and integrated sealed drainage. The 24hr security and CCTV monitoring and shift systems allows for immediate detection of emissions and response. BAT 21 (c) Incident/accident registration and assessment system. The WPF benefits from a digital incident logging and reporting system (Airsweb) which provides automatic alerts to relevant staff depending on the type of incident recorded. The Airsweb system also holds all audits and inspection records TGP's fuel supplier employs the SharePoint system to hold company procedures, management plans and record revisions following any management review or updates following incidents.	CC
22	Materials	Substitute materials with waste	All biomass fuel inputs are waste derived wood.	CC

BAT No.	Topic	Brief Description	Operator response	Complies with BAT? (NA, CC, FC, NC)
23	Energy efficiency		An Energy Efficiency Plan and Energy Balance Record will need to be prepared for the WPF. Measures in accordance with BAT 23 (a) and (b) could be completed by end of Feb 2024.	FC
1.9 Re-use of packaging				
24	Re-use of packaging	Maximise the use of packaging	All waste inputs and outputs are bulk form hence there is no waste packaging	NA
2. BAT conclusions for the mechanical treatment of waste (apply to the mechanical treatment of waste when it is not combined with biological treatment).				
2.1 General BAT conclusions for the mechanical treatment of waste				
25	Air emissions	Reduce emissions to air of dust, and of particulate-bound metals, PCDD/F and dioxin-like PCBs	Dust is transferred to the briquetting process in the FIBC and is not expected to give rise to additional dust emissions. The briquetting machine is connected directly to the dust extraction system bag station conveyor discharge chute, so no dust release occurs. FIBC are then temporarily stored in the wood store north crane maintenance bay ready for being re-introduced for incineration.	CC

BAT No.	Topic	Brief Description	Operator response	Complies with BAT? (NA, CC, FC, NC)
		BAT AEL for channelled dust emissions to air for mechanical treatment of waste: Dust: 2 -5 mg/Nm^3 *When a fabric filter is not applicable, the upper end of the range is 10 mg/Nm^3	Therefore, it is considered that the process will comply with the requirements of BAT25. There is no channelled or point source emission of dust to atmosphere from the Wood Treatment Facility (WPF).	

7 Review and assessment of derogation requests made by the operator in relation to BAT Conclusions which include an associated emission level (AEL) value

The IED enables a competent authority to allow derogations from BAT AELs stated in BAT Conclusions under specific circumstances as detailed under Article 15(4):

By way of derogation from paragraph 3, and without prejudice to Article 18, the competent authority may, in specific cases, set less strict emission limit values. Such a derogation may apply only where an assessment shows that the achievement of emission levels associated with the best available techniques as described in BAT conclusions would lead to disproportionately higher costs compared to the environmental benefits due to:

> *(a) the geographical location or the local environmental conditions of the installation concerned; or*
>
> *(b) the technical characteristics of the installation concerned.*

As part of their Regulation 61 Note response, the operator has not requested a derogation from compliance with any AEL values.

8 Summary checklist

Aspect considered	Decision
Receipt of application	
Confidential information	A claim for commercial or industrial confidentiality has not been made.
Identifying confidential information	We have not identified information provided as part of the application that we consider to be confidential. The decision was taken in accordance with our guidance on confidentiality.
Operating techniques	
General operating techniques	We have reviewed the techniques used by the operator where they are relevant to the BAT Conclusions and compared these with the relevant guidance notes. The permit conditions ensure compliance with the relevant BREF, BAT Conclusions. The ELVs deliver compliance with the BAT-AELs.
Permit conditions	
Updating permit conditions during consolidation	We have updated permit conditions to those in the current generic permit template as part of permit consolidation. The conditions will provide at least the same level of protection as those in the previous permit and in some cases will provide a higher level of protection to those in the previous permit.
Changes to the permit conditions due to an Environment Agency initiated variation	We have varied the permit as stated in the variation notice.
Improvement programme	Based on the information on the application, we consider that we need to impose an improvement programme.
Emission limits	We have decided that emission limits should be set for the parameters listed in the permit. These are described in the relevant BAT Conclusions in Section 6 annex 1 of this document. It is considered that the ELVs/equivalent parameters or technical measures described above will ensure that significant pollution of the environment is prevented and a high level of protection for the environment is secured.

Aspect considered	Decision
Monitoring	We have decided that monitoring should be carried out for the parameters listed in the permit, using the methods detailed and to the frequencies specified. These are described in the relevant BAT Conclusions in Section 6 annex 1 of this document.
Operator competence	
Management system	There is no known reason to consider that the operator will not have the management system to enable it to comply with the permit conditions.
Growth Duty	
Section 108 Deregulation Act 2015 – Growth duty	We have considered our duty to have regard to the desirability of promoting economic growth set out in section 108(1) of the Deregulation Act 2015 and the guidance issued under section 110 of that Act in deciding whether to grant this permit. Paragraph 1.3 of the guidance says: "The primary role of regulators, in delivering regulation, is to achieve the regulatory outcomes for which they are responsible. For a number of regulators, these regulatory outcomes include an explicit reference to development or growth. The growth duty establishes economic growth as a factor that all specified regulators should have regard to, alongside the delivery of the protections set out in the relevant legislation." We have addressed the legislative requirements and environmental standards to be set for this operation in the body of the decision document above. The guidance is clear at paragraph 1.5 that the growth duty does not legitimise non-compliance and its purpose is not to achieve or pursue economic growth at the expense of necessary protections. We consider the requirements and standards we have set in this permit are reasonable and necessary to avoid a risk of an unacceptable level of pollution. This also promotes growth amongst legitimate operators because the standards applied to the operator are consistent across businesses in this sector and have been set to achieve the required legislative standards.