Permitting Decisions - Variation

We have decided to grant the variation for The Maltings Organic Treatment Facility operated by The Maltings Organic Treatment Limited

The variation number is EPR/FP3090SZ/V011.

The permit was issued on 23/12/2024.

Changes introduced by an application made by the operator

This variation is for the removal of the in-vessel composting (IVC) activity and the consolidation and modification of the mechanical biological treatment (MBT) activity to produce refuse derived fuel (RDF) for incineration or co-incineration.

Changes introduced by statutory permit review

The Industrial Emissions Directive (IED) came into force on 7 January 2014 with the requirement to implement all relevant Best Available Techniques (BAT) Conclusions as described in the Commission Implementing Decision. Article 21(3) of the 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. The BAT Conclusions for Waste Treatment (the BREF) was published on 17 August 2018 following a European Union wide review of BAT, implementing decision (EU) 2018/1147 of 10 August 2018.

The scope of the permit review also covers the assessment of:

- the bioaerosols monitoring and compliance with M9 bioaerosols monitoring requirements;
- the design and construction of secondary containment and storage lagoons;
- the available storage facilities and measures to reduce ammonia emissions from storage; and
- information on existing medium combustion plant and/or specified generators on site.

This variation has been issued to update some of the conditions following a statutory review of the permits in the industry sector for biowaste treatment. The opportunity has also been taken to correct a previous error in the permit

with respect to the liquid waste treatment and to consolidate the original permit and subsequent variations.

We consider in reaching that decision we have taken into account all relevant considerations and legal requirements and that the permit will ensure that the appropriate level of environmental protection is provided.

Purpose of this document

This decision document provides a record of the decision-making process. It

- highlights key issues in the determination
- summarises the decision making process in the decision considerations section to show how the main relevant factors have been taken into account
- explains why we have also made an Environment Agency initiated variation

Unless the decision document specifies otherwise we have accepted the applicant's proposals.

Read the permitting decisions in conjunction with the environmental permit and the variation notice.

Key issues of the decision

Existing liquid waste treatment – most apt activity

The operator submitted an application for a liquid waste treatment activity in 2011, to treat both hazardous and non-hazardous wastes such as mineral oils, interceptor sludges and gulley sweeper and separator tank type materials within existing buildings on site. The liquid waste treatment activity was considered to be a waste operation at the time and it was determined as such.

In 2014, the operator proposed to modify the liquid waste treatment activity to treat non-hazardous waste waters only, with the addition of specified waste streams which would enable the facility to process waste waters from other on-site activities as well as imported wastes from other permitted and non-permitted facilities, including Part A(1) and A(2) activities.

The operator confirmed that the site would utilise physico-chemical treatment processes to treat waste waters for the purpose of recovery and disposal (up to 50 tonnes per day). Treated water is currently authorised for discharge to surface waters, although the operator sought to authorise the discharge of treated water from the site via tanker, or use in the on-site mechanical and biological treatment operations.

The operator stated that whilst the liquid waste treatment facility would process liquid wastes from on-site activities, these activities were not considered to be the ‘principle user’. The facility would also process waste waters from other independently operated Part A(1) and A(2) activities as well as non-permitted activities. In regulatory terms, the operator stated that the modified non-hazardous treatment facility did not constitute a ‘newly prescribed’ activity under Section 5.3 Part A(1)(a)(ii) or Section 5.4 Part A(1)(a) & (b). In the operator’s view, the liquid waste treatment activity would comprise a ‘newly prescribed’ activity under Section 5.7 Part A(1)(a).

The Environment Agency authorised the liquid waste treatment activity as a listed activity under Section 5.7 Part A(1)(a) of the Environmental Permitting Regulations. The operator confirms that the liquid waste activity has not commenced operations from 2014 to date.

As part of this variation and the permit review, we considered whether Section 5.7 was the “most apt” activity for the liquid waste treatment activity. This was for the purpose of setting appropriate BAT-AELs for direct discharges to surface water for facilities under the Waste Treatment BAT Conclusions 2018. We issued an information notice on 31 October 2024 and asked the operator to provide further information regarding the liquid waste treatment activity such as treatment capacity, effluent flow, interaction with other treatment processes on site, process flow and evidence to show that the liquid waste treatment activity is a recovery activity.

In their response, the operator confirmed that the hydraulic retention time for the wastes in each individual tank will be 2-5 days and the daily treatment capacity is 102.5 tonnes.

The operator reported that leachate /liquor from the open windrow composting, historic matured compost and the proposed MBT process will be collected in blind sumps prior to being tankered offsite to a suitably permitted facility. When the liquid waste treatment facility is operational, effluent and washings that cannot be used in the anaerobic digestion feedstock preparation, effluent from the MBT process and third-party wastes including mineral oils, separator tank waters, gulley tanker waters, and road sweeper wastes will be treated, using established separation and aeration methods. The waste mix generally includes oils, contaminated waters, and organic sludge.

Contaminants like oils will be stored for off-site disposal at licensed facilities, while suitable organic solids /sludge will be directed to the MBT reception area for further processing through the MBT activity if appropriate or for off-site recycling if not deemed suitable for treatment. Any unsuitable waste will be stored in an isolation tank until it can be removed for treatment off-site. Treated clean water, once verified by batch testing, will be discharged into a local watercourse via discharge point SW1 and /or will be tankered offsite to a suitable facility for disposal. Any outputs from the liquid waste treatment activity that are still above discharge limits upon testing will be fed back through the treatment process prior to discharge or transferred offsite.

We consider that the liquid waste treatment is an effluent treatment plant (ETP) and a disposal activity under Section 5.4 A(1)(a)(ii) for the following reasons:

1. The Environment Agency permits wastewater treatment processes that typically treat process effluents from a range of industrial processes before discharge to either sewer or controlled waters. The industrial processes producing the effluent are usually A(1) installation activities themselves. The treatment process may typically be called an Effluent Treatment Plant (ETP). They are generally permitted as biological or physical /chemical treatment activities under various sub-clauses to section 5.4 A(1). Typically they are all sizable works above 50 or 75 tonnes per day thresholds. Generally, the 50 tonne threshold is relevant as process effluents are predominantly treated prior to disposal. These activity references remain the most apt references for these treatment processes.

   These permitted ETPs are typically operated by the same operator as other A(1) activities that take place at the installation, not independently operated – a multi-activity single operator installation. Occasionally, the operation of the ETP is subcontracted to a different operator who is

independent of the operator of the main Part A(1) process producing the effluent. With ETPs above threshold, these are permitted as multi-operator installations where that 'independent' operator has a permit solely to operate the ETP.

The above considerations are where an ETP is associated to another A(1) installation activity. Where an ETP is not associated to other A(1) activities, the activity description for Section 5.7 would not be relevant because it requires the "treatment of waste water to be discharged by an installation carrying out any other Part A(1)".

Our decision to classify the liquid waste treatment facility as a Section 5.7 Part A(1)(a) in 2014 was incorrect.

2. The operator has described the effluent flow into the liquid waste treatment activity as water that cannot be used in the on-site treatment processes and wastes from off-site sources which are intended for disposal. The operator has not provided any evidence to support their claims of recovery. We have not received any evidence of the destination of the output from the liquid waste treatment activity or that the output serves a useful purpose by replacing other materials or can be reused in the plant or in the wider economy.

Consequently, we have classified the liquid waste treatment activity as described, constitutes an effluent treatment plant and a disposal activity under Section 5.4 A(1)(a)(ii):

Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day (or 100 tonnes per day if the only waste treatment activity is anaerobic digestion) involving physico-chemical treatment.

Pre-operational conditions

Commissioning of new wet scrubber and carbon filter

The new wet scrubber and carbon filter that will serve the mechanical and biological treatment (MBT) process will undergo a period of commissioning before becoming fully operational. At the commissioning stage, operators are required to demonstrate that the plant is working effectively and that appropriate measures are in place to protect the environment and human health during this period. We have included pre-operational condition 2 in the permit which requires the operator to submit a pre-commissioning report to the Environment Agency for approval.

Following commissioning of the new wet scrubber and carbon filter, we require the operator to provide evidence by way of a post-commissioning report which shows the results obtained during the stages of commissioning. The post-commissioning report shall summarise the environmental performance of the new wet scrubber and carbon filter as installed against the design parameters. The report shall also include a review of the performance of the conditions of this permit and details of procedures developed during commissioning for achieving and demonstrating compliance with permit conditions.

Commissioning of the revised infrastructure for the liquid waste treatment facility

We asked the operator via an information noticed dated 31/10/2024, to provide the number of tanks and the volume (in m^3) of each individual tank designated for the liquid waste treatment activity.

The operator confirmed that the liquid waste treatment activity is not currently operational on site. The building and a proportion of the infrastructure originally proposed to be used for the activity is currently been used for the anaerobic digestion feedstock waste operation. As a result of this, there is currently no infrastructure set up for the liquid waste treatment activity. The operator reports that when the liquid waste treatment activity is set up, all tank and infrastructure specifications (new and existing) will be provided to the Environment Agency prior to its operation.

We have therefore included pre-operational condition 4 to address this issue. The operator is required to provide a written commissioning plan of the revised infrastructure for the liquid waste treatment facility (including timescales for completion) to the Environment Agency for approval. The commissioning plan shall include final design details of the proposed building, equipment, tanks, secondary containment, abatement plant and treatment procedures. The plan shall be designed to demonstrate that permit conditions will be met under all anticipated operating conditions and shall confirm the commissioning programme and plant monitoring protocols.

Decision considerations

The regulated facility

We considered the extent and nature of the facilities at the site in accordance with RGN2 ‘Understanding the meaning of regulated facility’], [Appendix 2 of RGN2 ‘Defining the scope of the installation’], [Appendix 1 of RGN 2 ‘Interpretation of Schedule 1’]. The extent of the facilities are defined in the site plan and in the permit. The activities are defined in table S1.1 of the permit. See key issues for more details.

The site

The operator has provided a plan which we consider to be satisfactory. These show the extent of the site of the facility including the discharge points. The plan is included in the permit.

Nature conservation, landscape, heritage and protected species and habitat designations

We have checked the location of the application to assess if it is within the screening distances we consider relevant for impacts on nature conservation, landscape, heritage and protected species and habitat designations. The application is within our screening distances for these designations.

We have assessed the application and its potential to affect sites of nature conservation, landscape, heritage and protected species and habitat designations identified in the nature conservation screening report as part of the permitting process. We consider that the application will not affect any site of nature conservation, landscape and heritage, and/or protected species or habitats identified.

We have not consulted Natural England. The decision was taken in accordance with our guidance.

Environmental risk

We have reviewed the operator's assessment of the environmental risk from the facility. The operator’s risk assessment is satisfactory. The assessment shows that, applying the conservative criteria in our guidance on environmental risk assessment or similar methodology supplied by the operator and reviewed by ourselves, all emissions may be screened out as environmentally insignificant**.**

General operating techniques

We have reviewed the techniques used by the operator and compared these with the relevant guidance notes and we consider them to represent appropriate techniques for the facility. The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.

National Air Pollution Control Programme

We have considered the National Air Pollution Control Programme as required by the National Emissions Ceilings Regulations 2018. By setting emission limit values in line with technical guidance we are minimising emissions to air. This will aid the delivery of national air quality targets. We do not consider that we need to include any additional conditions in this permit.

Odour management

We have reviewed the odour management plan in accordance with our guidance on odour management. We consider that the odour management plan is satisfactory and we approve this plan.

We have approved the odour management plan as we consider it to be appropriate measures based on information available to us at the current time. The applicant should not take our approval of this plan to mean that the measures in the plan are considered to cover every circumstance throughout the life of the permit.

The applicant should keep the plans under constant review and revise them annually or if necessary sooner if there have been complaints arising from operations on site or if circumstances change. This is in accordance with our guidance ‘Control and monitor emissions for your environmental permit’.

The plan has been incorporated into the operating techniques S1.2.

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 the same level of protection as those in the previous permits.

Changes to the permit conditions due to an Environment Agency initiated variation

We have varied the permit as stated in the variation notice.

Pre-operational conditions

Based on the information in the application, we consider that we need to include pre-operational conditions. See key issues for more details.

Improvement programme

Based on the information on the application, we consider that we need to include an improvement programme. See permit review below for more details.

Emission limits

Emission Limit Values (ELVs) based on Best Available Techniques (BAT) have been added for the following substances:

Emissions to air – Table S3.1 in the permit

- Ammonia – 20 mg/m^3
- Hydrogen sulphide – no limit set
- Odour concentration – no limit set (Existing Bioscrubber)
- Odour concentration – 1,000 OU_E/m^3 (New wet scrubber and carbon filter)
- Dust – 5 mg/m^3 (New wet scrubber and carbon filter)
- Total volatile organic compounds (TVOC) – 40 mg/m^3 (New wet scrubber and carbon filter)

Emissions to surface water – Table S3.2 in the permit

We have added BAT-AELs for direct discharges to a receiving water body (BATc 20, Table 6.1) as follows:

- Chemical oxygen demand, total organic carbon, total nitrogen, total phosphorus, total suspended solids, hydrocarbon oil index, phenol index, free cyanide, adsorbable organically bound halogens, oil and grease, metals (arsenic, cadmium, chromium, hexavalent chromium, copper, lead, nickel, zinc and mercury)

We have included these limits based on the requirements of the Industrial Emissions Directive (IED) and the Waste Treatment BREF /BAT Conclusions 2018.

Monitoring

We have decided that monitoring should be added for the following parameters, using the methods detailed and to the frequencies specified:

Emissions to air – Table S3.1 in the permit

- Ammonia – Every 6 months
- Hydrogen sulphide – Every 6 months
- Odour concentration – Every 6 months

Emissions to surface water – Table S3.2 in the permit

- Oil and grease – Every week
- Other parameters – Once every month

These monitoring requirements have been included in order to ensure that emissions are in compliance with the existing BAT-AELs. We made these decisions in accordance with the requirements of the Industrial Emissions Directive (IED) and the Waste Treatment BREF /BAT Conclusions 2018.

Reporting

We have specified reporting in the permit. Reporting forms have been prepared to facilitate reporting of data in a consistent format.

These reporting requirements are deemed sufficient and proportional for the Installation. We made these decisions in accordance with the requirements of the Industrial Emissions Directive (IED) and the Waste Treatment BREF /BAT Conclusions 2018.

Management system

We are not aware of any reason to consider that the operator will not have the management system to enable it to comply with the permit conditions. The decision was taken in accordance with the guidance on operator competence and how to develop a management system for environmental permits.

We only review a summary of the management system during determination. The applicant submitted their full management system. We have therefore only reviewed the summary points.

A full review of the management system is undertaken during compliance checks.

Financial competence

There is no known reason to consider that the operator will not be financially able to comply with the permit conditions.

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 variation.

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.

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 (as amended)

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

The Permit number is: EPR/FP3090SZ
The Operator is: The Maltings Organic Treatment Limited
The Installation is: The Maltings Organic Treatment Facility
This Variation Notice number is: EPR/FP3090SZ/V011

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 by the European Commission of updated decisions on BAT Conclusions.

We have reviewed the permit for this installation against the revised BAT Conclusions for the Waste Treatment industry sector published on 10 August 2018 in the Official Journal of the European Union. In this decision document, we set out the reasoning for the consolidated variation notice that we have issued.

It explains how we have reviewed and considered the techniques used by the Operator in the operation and control of the plant and activities of the installation. This review has been undertaken with reference to the decision made by the European Commission establishing Best Available Techniques (BAT) Conclusions (BATc) for Waste Treatment as 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.

As well as considering the review of the operating techniques used by the Operator for the operation of the plant and activities of the installation, the consolidated variation notice takes into account and brings together in a single document all previous variations that relate to the original permit issue. Where this has not already been done, 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 with other permits issued to Installations in this sector. Although the wording of some conditions has changed, while others have been deleted 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 only our determination of substantive issues relating to the new BAT Conclusions.

We try to explain our decision as accurately, comprehensively and plainly as possible. Achieving all three objectives is not always easy, and we would welcome any feedback as to how we might improve our decision documents in future.

How this document is structured

1. Our decision
2. How we reached our decision
3. The legal framework
4. Annex 1 – Review of operating techniques within the Installation against BAT Conclusions.
5. Annex 2 – Review and assessment of changes that are not part of the BAT Conclusions derived permit review
6. Annex 3 – Improvement conditions
7. Annex 4 – Pre-operational conditions

1 Our decision

We have decided to issue the Variation Notice to the Operator. This will allow the Operator to continue to operate the Installation, subject to the conditions in the Consolidated Variation Notice that updates the whole permit.

We consider that, in reaching our 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 have considered the techniques identified by the operator for the operation of their installation, and have accepted that the details are sufficient and satisfactory to make those standard conditions appropriate. This document does, however, provide an explanation of our use of "tailor-made" or installation-specific conditions, or where our Permit template provides two or more options.

2 How we reached our decision

2.1 Requesting information to demonstrate compliance with BAT Conclusion techniques

We issued a Notice under Regulation 61(1) of the Environmental Permitting (England and Wales) Regulations 2016 (a Regulation 61 Notice) on 22/04/2021 requiring the Operator to provide information to demonstrate where the operation of their installation currently meets, or how it will subsequently meet, the revised standards described in the relevant BAT Conclusions document.

The Notice required that where the revised standards are not currently met, the operator should provide information that:

- describes the techniques that will be implemented before 17 August 2022 (BAT Compliance Date), which will then ensure that operations meet the revised standards, or
- justifies why standards will not be met by 17 August 2022, and confirmation of the date when the operation of those processes will cease within the Installation or an explanation of why the revised BAT standards are not applicable to those processes, or
- justifies why an alternative technique will achieve the same level of environmental protection equivalent to the revised BAT standards 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 required that the Operator make a formal request for derogation from compliance with that BAT-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 22/10/2021.

We considered it was in the correct form and contained sufficient information for us to begin our determination of the permit review.

The Operator made no claim for commercial confidentiality. We have not received any information in relation to the Regulation 61 Notice response that appears to be confidential in relation to any party.

2.2 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 experience in the regulation of the installation, we consider that the Operator will be able to comply with the techniques and standards described in the BAT Conclusions other than for those techniques and requirements described in BAT Conclusion 3, 23 and 24. In relation to these BAT Conclusions, we do not fully agree with the Operator in respect of their current stated capability as recorded in their response to the Regulation 61 Notice.

In August 2018, the revised Waste Treatment BAT Conclusions was published. These Conclusions identify techniques that can be considered BAT and specify BAT associated emission limits (BAT-AELs) for waste treatment installations. The BAT Conclusions were required to be implemented within 4 years through permit review and variations, and through securing compliance with those variations, at existing waste treatment installations. The deadline for compliance was 17th August 2022.

We wrote to all biological waste treatment operators in June 2019 notifying them about the Waste Treatment BAT Conclusions and permit review process. We wrote again in July and August 2021, to remind operators of the BAT compliance date and that they should ensure that their sites complied with BAT by 17th August 2022. We consider we provided operators with sufficient time to undertake the necessary improvements on site to comply with BAT or vary their permits to reduce waste treatment tonnages and operate as waste facilities.

During the permit review process, we provided the operator with an opportunity to respond to the Regulation 61 Notice with supporting evidence and confirm that they will be able to comply with the improvements we require to ensure BAT and BAT-AELs would be met. In addition, the operator had the opportunity to comment on the draft permit as part of the permit review process. The operator has not objected to the BAT requirements as stated in the permit or stated that these cannot be met. We consider that they can and will be met. Consequently, we expect compliance with the new requirements including the BAT-AELs. We will take enforcement action where existing permitted activities are not compliant with BAT, in accordance with our enforcement and sanctions policy.

3 The legal framework

The Consolidated Variation Notice will be issued under Regulations 18 and 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, in issuing the Consolidated Variation Notice, it 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.

Annex 1: decision checklist regarding relevant BAT Conclusions

BAT Conclusions for Waste Treatment, were published by the European Commission on 17th August 2018. There are 53 BAT Conclusions. This annex provides a record of decisions made in relation to each relevant BAT Conclusion applicable to the installation. This annex should be read in conjunction with the Consolidated Variation Notice.

The overall status of compliance with the BAT conclusion is indicated in the table as:

NA – Not Applicable
CC – Currently Compliant
NC – Not Compliant

BAT Conclusion No	Summary of BAT Conclusion requirement for Waste Treatment	Status NA/ CC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
1	In order to improve the overall environmental performance, BAT is to implement and adhere to an environmental management system (EMS) that incorporates all of the following features: I. commitment of the management, including senior management; II. definition, by the management, of an environmental policy that includes the continuous improvement of the environmental performance of the installation; III. planning and establishing the necessary procedures, objectives and targets, in conjunction with financial planning and investment. IV. implementation of procedures paying particular attention to: (a) structure and responsibility, (b) recruitment, training, awareness and competence, (c) communication, (d) employee involvement, (e) documentation, (f) effective process control, (g) maintenance programmes, (h) emergency preparedness and response, (i) safeguarding compliance with environmental legislation;	**CC**	**<u>Environment Agency assessment</u>** The operator has provided information to support compliance with BATc 1. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with this BATc.

BAT Conclusion No	Summary of BAT Conclusion requirement for Waste Treatment	Status NA/ CC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
	V. checking performance and taking corrective action, paying particular attention to: (a) monitoring and measurement (see also the JRC Reference Report on Monitoring of emissions to air and water from IED installations – ROM), (b) corrective and preventive action, recruitment, training, awareness and competence, (c) maintenance of records, (d) independent (where practicable) internal or external auditing in order to determine whether or not the EMS conforms to planned arrangements and has been properly implemented and maintained VI. review, by senior management, of the EMS and its continuing suitability, adequacy and effectiveness; VII. following the development of cleaner technologies; VIII. consideration for the environmental impacts from the eventual decommissioning of the plant at the stage of designing a new plant, and throughout its operating life; IX. application of sectoral benchmarking on a regular basis; X. waste stream management (see BAT 2); XI. an inventory of waste water and waste gas streams (see BAT 3); XII. residues management plan (see description in Section 6.5);		

BAT Conclusion No	Summary of BAT Conclusion requirement for Waste Treatment	Status NA/ CC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
	XIII. accident management plan (see description in Section 6.5); XIV. odour management plan (see BAT 12) XV. noise and vibration management plan (see BAT 17).		
2	In order to improve the overall environmental performance of the plant, BAT is to use all of the techniques listed below: (a) Set up and implement waste characterisation and pre-acceptance procedures; (b) Set up and implement waste acceptance procedures; (c) Set up and implement a waste tracking system and inventory; (d) Set up and implement an output quality management system; (e) Ensure waste segregation; (f) Ensure waste compatibility prior to mixing or blending of waste; (g) Sort incoming solid waste	**CC**	**Environment Agency assessment** The operator has provided information to support compliance with BATc 2. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with this BATc.
3	In order to facilitate the reduction of emissions to water and air, BAT is to establish and to maintain an inventory of waste water and waste gas streams, as part of the environmental management system (see BAT 1), that incorporates all of the following features:	**NC**	**Environment Agency assessment** The operator stated in their Regulation 61 response that BATc 3 was not applicable as they do not discharge any waste water or gas from site.

BAT Conclusion No	Summary of BAT Conclusion requirement for Waste Treatment	Status NA/ CC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
	(i) information about the characteristics of the waste to be treated and the waste treatment processes, including: (a) simplified process flow sheets that show the origin of the emissions; (b) descriptions of process-integrated techniques and waste water/waste gas treatment at source including their performances; (ii) information about the characteristics of the waste water streams, such as: (a) average values and variability of flow, pH, temperature, and conductivity; (b) average concentration and load values of relevant substances and their variability (e.g. COD/TOC, nitrogen species, phosphorus, metals, priority substances /micropollutants); (c) data on bioeliminability (e.g. BOD, BOD to COD ratio, Zahn-Wellens test, biological inhibition potential (e.g. inhibition of activated sludge)) (see BAT 52); (iii) information about the characteristics of the waste gas streams, such as: (a) average values and variability of flow and temperature; (b) average concentration and load values of relevant substances and their variability (e.g. organic compounds, POPs such as PCBs); (c) flammability, lower and higher explosive limits, reactivity; (d) presence of other substances that may affect the waste gas treatment system or plant safety (e.g. oxygen, nitrogen, water vapour, dust).		We have assessed the information provided and reviewed the site compliance report. We are not satisfied that the operator has demonstrated compliance with this BATc as there is a waste gas discharge from the odour abatement system. The liquid waste treatment activity is not operational, consequently the composition of the waste water from the process is not available. We have set out our approach to enforcement in Chapter 2 of this document. We shall undertake BAT compliance at this installation in accordance with our enforcement and sanctions policy.

BAT Conclusion No	Summary of BAT Conclusion requirement for Waste Treatment	Status NA/ CC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
4	In order to reduce the environmental risk associated with the storage of waste, BAT is to use all of the techniques given below: (a) Optimised storage location; (b) Adequate storage capacity; (c) Safe storage operation; (d) Separate area for storage and handling of packaged hazardous waste.	**CC**	**Environment Agency assessment** The operator has provided information to support compliance with BATc 4. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with this BATc.
5	In order to reduce the environmental risk associated with the handling and transfer of waste, BAT is to set up and implement handling and transfer procedures. Handling and transfer procedures aim to ensure that wastes are safely handled and transferred to the respective storage or treatment. They include the following elements: • handling and transfer of waste are carried out by competent staff; • handling and transfer of waste are duly documented, validated prior to execution and verified after execution; • measures are taken to prevent, detect and mitigate spills;	**CC**	**Environment Agency assessment** The operator has provided information to support compliance with BATc 5. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with this BATc.

BAT Conclusion No	Summary of BAT Conclusion requirement for Waste Treatment	Status NA/ CC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
	• operation and design precautions are taken when mixing or blending wastes (e.g. vacuuming dusty/powdery wastes). Handling and transfer procedures are risk-based considering the likelihood of accidents and incidents and their environmental impact.		
6	For relevant emissions to water as identified by the inventory of waste water streams (see BAT 3), BAT is to monitor key process parameters (e.g. waste water flow, pH, temperature, conductivity, BOD) at key locations (e.g. at the inlet and/or outlet of the pre-treatment, at the inlet to the final treatment, at the point where the emission leaves the installation).	**CC**	**Environment Agency assessment** The operator has provided information to support compliance with BATc 6. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with this BATc.
7	BAT is to monitor emissions to water with at least the frequency given in BATc 7, and in accordance with EN standards. If EN standards are not available, BAT is to use ISO, national or other international standards that ensure the provision of data of an equivalent scientific quality.	**CC**	**Environment Agency assessment** The operator has provided information to support compliance with BATc 7. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with this BATc.

BAT Conclusion No	Summary of BAT Conclusion requirement for Waste Treatment	Status NA/ CC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
8	BAT is to monitor channelled emissions to air with at least the frequency given in BATc 8, and in accordance with EN standards. If EN standards are not available, BAT is to use ISO, national or other international standards that ensure the provision of data of an equivalent scientific quality.	**CC**	**Environment Agency assessment** The operator has provided information to support compliance with BATc 8. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with this BATc.
10	BAT is to periodically monitor odour emissions. Odour emissions can be monitored using: • EN standards (e.g. dynamic olfactometry according to EN 13725 in order to determine the odour concentration or EN 16841-1 or -2 in order to determine the odour exposure); • when applying alternative methods for which no EN standards are available (e.g. estimation of odour impact), ISO, national or other international standards that ensure the provision of data of an equivalent scientific quality. The monitoring frequency is determined in the odour management plan (see BAT 12).	**CC**	**Environment Agency assessment** The operator has provided information to support compliance with BATc 10. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with this BATc.

BAT Conclusion No	Summary of BAT Conclusion requirement for Waste Treatment	Status NA/ CC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
11	BAT is to monitor the annual consumption of water, energy and raw materials as well as the annual generation of residues and waste water, with a frequency of at least once per year. Monitoring includes direct measurements, calculation or recording, e.g. using suitable meters or invoices. The monitoring is broken down at the most appropriate level (e.g. at process or plant/installation level) and considers any significant changes in the plant/installation.	**CC**	**Environment Agency assessment** The operator has provided information to support compliance with BATc 11. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with this BATc.
12	In order to prevent or, where that is not practicable, to reduce odour emissions, BAT is to set up, implement and regularly review an odour management plan, as part of the environmental management system (see BAT 1), that includes all of the following elements: • a protocol containing actions and timelines; • a protocol for conducting odour monitoring as set out in BAT 10; • a protocol for response to identified odour incidents, e.g. complaints; • an odour prevention and reduction programme designed to identify the source(s); to characterise the contributions of the sources; and to implement prevention and/or reduction measures.	**CC**	**Environment Agency assessment** The operator has provided information to support compliance with BATc 12. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with this BATc.

BAT Conclusion No	Summary of BAT Conclusion requirement for Waste Treatment	Status NA/ CC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
13	In order to prevent or, where that is not practicable, to reduce odour emissions, BAT is to use one or a combination of the techniques given below: (a) Minimising residence times; (b) Using chemical treatment; (c) Optimising aerobic treatment	**CC**	**Environment Agency assessment** The operator has provided information to support compliance with BATc 13. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with this BATc.
14	In order to prevent or, where that is not practicable, to reduce diffuse emissions to air, in particular of dust, organic compounds and odour, BAT is to use an appropriate combination of the techniques given below: (a) Minimising the number of potential diffuse emission sources; (b) Selection and use of high-integrity equipment; (c) Corrosion prevention; (d) Containment, collection and treatment of diffuse emissions; (e) Dampening; (f) Maintenance; (g) Cleaning of waste treatment and storage areas; (h) Leak detection and repair (LDAR) programme	**CC**	**Environment Agency assessment** The operator has provided information to support compliance with BATc 14. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with this BATc.

BAT Conclusion No	Summary of BAT Conclusion requirement for Waste Treatment	Status NA/ CC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
15	BAT is to use flaring only for safety reasons or for non-routine operating conditions (e.g. start-ups, shutdowns) by using both of the techniques given below: (a) Correct plant design; (b) Plant management	**NA**	**Environment Agency assessment** We are satisfied that BATc 15 is not applicable to the installation. There is no flare on site.
16	In order to reduce emissions to air from flares when flaring is unavoidable, BAT is to use both of the techniques given below: (a) Correct design of flaring devices; (b) Monitoring and recording as part of flare management	**NA**	**Environment Agency assessment** We are satisfied that BATc 16 is not applicable to the installation. There are no flares on site.
17	In order to prevent or, where that is not practicable, to reduce noise and vibration emissions, BAT is to set up, implement and regularly review a noise and vibration management plan, as part of the environmental management system (see BAT 1), that includes all of the following elements: I. a protocol containing appropriate actions and timelines; II. a protocol for conducting noise and vibration monitoring;	**CC**	**Environment Agency assessment** The operator has provided information to support compliance with BATc 17. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with this BATc.

BAT Conclusion No	Summary of BAT Conclusion requirement for Waste Treatment	Status NA/ CC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
	III. a protocol for response to identified noise and vibration events, e.g. complaints; IV. a noise and vibration reduction programme designed to identify the source(s), to measure /estimate noise and vibration exposure, to characterise the contributions of the sources and to implement prevention and /or reduction measures.		
18	In order to prevent or, where that is not practicable, to reduce noise and vibration emissions, BAT is to use one or a combination of the techniques given below: (a) Appropriate location of equipment and buildings; (b) Operational measures; (c) Low noise-equipment; (d) Noise and vibration equipment; (e) Noise attenuation	**CC**	**<u>Environment Agency assessment</u>** The operator has provided information to support compliance with BATc 18. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with this BATc.
19	In order to optimise water consumption, to reduce the volume of waste water generated and to prevent or, where that is not practicable, to reduce emissions to soil and water, BAT is to use an appropriate combination of the techniques given below:	**CC**	**<u>Environment Agency assessment</u>** The operator has provided information to support compliance with BATc 19. We have assessed the information provided and we are

BAT Conclusion No	Summary of BAT Conclusion requirement for Waste Treatment	Status NA/ CC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
	(a) Water management; (b) Water recirculation; (c) Impermeable surface; (d) Techniques to reduce the likelihood and impact of overflows and failures from tanks and vessels; (e) Roofing of waste storage and treatment areas; (f) Segregation of water streams (g) Adequate drainage infrastructure; (h) Design and maintenance provisions to allow detection and repair of leaks (i) Appropriate buffer storage capacity		satisfied that the operator has demonstrated compliance with this BATc.
20	In order to reduce emissions to water, BAT is to treat waste water using an appropriate combination of the techniques given below: ***Preliminary and primary treatment, e.g.*** (a) Equalisation (b) Neutralisation (c) Physical separation, e.g. screens, sieves, grit separators, grease separators, oil-water separation or primary settlement tanks ***Physico-chemical treatment, e.g.***	**CC**	**<u>Environment Agency assessment</u>** The operator has provided information to support compliance with BATc 20. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with this BATc.

BAT Conclusion No	Summary of BAT Conclusion requirement for Waste Treatment	Status NA/ CC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
	(d) Adsorption (e) Distillation /rectification (f) Precipitation (g) Chemical oxidation (h) Chemical reduction (i) Evaporation (j) Ion exchange (k) Stripping ***Biological treatment, e.g.*** (l) Activated sludge process (m) Membrane bioreactor (n) Nitrification / denitrification when the treatment includes a biological treatment ***Solids removal, e.g.*** (o) Coagulation and flocculation (p) Sedimentation (q) Filtration (e.g. sand filtration, microfiltration, ultrafiltration) (r) Flotation See also:		

BAT Conclusion No	Summary of BAT Conclusion requirement for Waste Treatment	Status NA/ CC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
	Table 6.1: BAT-associated emission levels (BAT-AELs) for direct discharges to a receiving water body See also: Table 6.2: BAT-associated emission levels (BAT-AELs) for indirect discharges to a receiving water body		
21	In order to prevent or limit the environmental consequences of accidents and incidents, BAT is to use all of the techniques given below, as part of the accident management plan (see BAT 1): (a) Protection measures; (b) Management of incidental /accidental emissions; (c) Incident /accident registration and assessment system	**CC**	**Environment Agency assessment** The operator has provided information to support compliance with BATc 21. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with this BATc.
22	In order to use materials efficiently, BAT is to substitute materials with waste. Waste is used instead of other materials for the treatment of wastes (e.g. waste alkalis or waste acids are used for pH adjustment, fly ashes are used as binders).	**CC**	**Environment Agency assessment** The operator has provided information to support compliance with BATc 22. We have assessed the information provided and we are

BAT Conclusion No	Summary of BAT Conclusion requirement for Waste Treatment	Status NA/ CC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
			satisfied that the operator has demonstrated compliance with this BATc.
23	In order to use energy efficiently, BAT is to use both of the techniques given below: (a) Energy efficiency plan; (b) Energy balance record	**NC**	**<u>Environment Agency assessment</u>** The operator has provided information in their Regulation 61 response to explain they are not currently compliant but plan to provide the information required by BATc 23. We therefore are not satisfied that the operator has demonstrated compliance. We have set out our approach to enforcement in Chapter 2 of this document. We shall undertake BAT compliance at this installation in accordance with our enforcement and sanctions policy.

BAT Conclusion No	Summary of BAT Conclusion requirement for Waste Treatment	Status NA/ CC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
24	In order to reduce the quantity of waste sent for disposal, BAT is to maximise the reuse of packaging, as part of the residues management plan (see BAT 1). Packaging (drums, containers, IBCs, pallets, etc.) is reused for containing waste, when it is in good condition and sufficiently clean, depending on a compatibility check between the substances contained (in consecutive uses). If necessary, packaging is sent for appropriate treatment prior to reuse (e.g. reconditioning, cleaning).	**NC**	**Environment Agency assessment** The operator has provided information in their Regulation 61 response to explain they are not currently compliant but plan to provide the information required by BATc 24. We therefore are not satisfied that the operator has demonstrated compliance. We have set out our approach to enforcement in Chapter 2 of this document. We shall undertake BAT compliance at this installation in accordance with our enforcement and sanctions policy.
33	In order to reduce odour emissions and to improve the overall environmental performance, BAT is to select the waste input. The technique consists of carrying out the pre-acceptance, acceptance and sorting of the waste input (see BAT 2) so as to ensure the suitability of the waste	**CC**	**Environment Agency assessment** The operator has provided information to support compliance with BATc 33. We have assessed the information provided and we are

BAT Conclusion No	Summary of BAT Conclusion requirement for Waste Treatment	Status NA/ CC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
	input for the waste treatment, e.g. in terms of nutrient balance, moisture or toxic compounds which may reduce the biological activity.		satisfied that the operator has demonstrated compliance with this BATc.
34	In order to reduce channelled emissions to air of dust, organic compounds and odorous compounds, including H_2S and NH_3, BAT is to use one or a combination of the techniques given below: (a) Adsorption; (b) Biofilter; (c) Fabric filter; (d) Thermal oxidation; (e) Wet scrubbing See also: Table 6.7: BAT-associated emission levels (BAT-AELs) for channelled NH_3, odour, dust and TVOC emissions to air from the biological treatment of waste.	**CC** **BATc 34, Table 6.7** **FC**	**<u>Environment Agency assessment</u>** The operator provided information to support compliance with BATc 34. A Bioscrubber is installed at the facility. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 34. We have set a BAT-AEL for ammonia as specified in the Waste Treatment BREF and BAT Conclusions. In addition to the BAT-AEL, we have inserted the requirement to monitor odour concentration, hydrogen sulphide and

BAT Conclusion No	Summary of BAT Conclusion requirement for Waste Treatment	Status NA/ CC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
			ammonia on a 6-monthly frequency in Table S3.3 (process monitoring). As part of the Environment Agency approach to reduce emissions in the biowaste treatment sector, we have included Improvement condition 7 which requires the operator to review abatement plant on site, in order to determine whether existing measures have been effective and adequate to prevent and /or minimise emissions released to air. Where further improvements are identified, the operator is required to implement these measures.
35	In order to reduce the generation of waste water and to reduce water usage, BAT is to use all of the techniques given below: (a) Segregation of water streams; (b) Water recirculation; (c) Minimisation of the generation of leachate	**CC**	**<u>Environment Agency assessment</u>** The operator has provided information to support compliance with BATc 35. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with this BATc.

BAT Conclusion No	Summary of BAT Conclusion requirement for Waste Treatment	Status NA/ CC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
36	In order to reduce emissions to air and to improve the overall environmental performance, BAT is to monitor and/or control the key waste and process parameters. Monitoring and/or control of key waste and process parameters, including: • waste input characteristics (e.g. C to N ratio, particle size); • temperature and moisture content at different points in the windrow; • aeration of the windrow (e.g. via the windrow turning frequency, O_2 and/or CO_2 concentration in the windrow, temperature of air streams in the case of forced aeration); • windrow porosity, height and width.	**CC**	**<u>Environment Agency assessment</u>** The operator has provided information to support compliance with BATc 36. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with this BATc. We have also included process monitoring requirements in the permit to reflect BATc 36.
37	In order to reduce diffuse emissions to air of dust, odour and bioaerosols from open-air treatment steps, BAT is to use one or both of the techniques given below: (a) Use of semi permeable membrane covers; (b) Adaptation of operations to the meteorological conditions	**CC**	**<u>Environment Agency assessment</u>** The operator has provided information to support compliance with BATc 37. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with this BATc.

BAT Conclusion No	Summary of BAT Conclusion requirement for Waste Treatment	Status NA/ CC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
38	In order to reduce emissions to air and to improve the overall environmental performance, BAT is to monitor and/or control the key waste and process parameters. This includes monitoring and/or control of key waste and process parameters: • pH and alkalinity of the digester feed; • digester operating temperature; • hydraulic and organic loading rates of the digester feed; • concentration of volatile fatty acids (VFA) and ammonia within the digester and digestate; • biogas quantity, composition (e.g. H_2S) and pressure; • liquid and foam levels in the digester.	**NA**	**<u>Environment Agency assessment</u>** We are satisfied that BATc 38 is not applicable to the installation. It does not operate an anaerobic digester.
39	In order to reduce emissions to air, BAT is to use both of the techniques given below: (a) Segregation of the waste gas streams; (b) Recirculation of waste gas	**NA**	**<u>Environment Agency assessment</u>** We are satisfied that BATc 39 is not applicable to the installation (BATc 39 is only applicable to existing plants within the constraints associated with the layout of air circuits).

Annex 2: Review and assessment of changes that are not part of the BAT Conclusions derived permit review

Existing Medium Combustion Plant

We asked the Operator to provide information on all combustion plant on site in the Regulation 61 Notice as follows:

- Number of combustion plant (CHP engines, back-up generators, boilers);
- Size of combustion plant – rated thermal input (MWth)
- Date each combustion plant came into operation
- Confirmation as to whether or not the combustion plant is subject to a capacity market agreement (2014 or 2015 auction) or whether or not a Feed-in Tariff preliminary accreditation application was received prior to 1 December 2016

There are no combustion plant on site.

Bioaerosols monitoring requirements

We asked the Operator to confirm the following aspects regarding the site operations in the Regulation 61 Notice:

- Whether or not the operational processes of biodegradable waste are in open processes within 250 metres of human receptors.
- Whether or not there is a channelled or point source release within 250 metres that are open sources e.g. biofilters within 250 metres of human receptors; and
- The existing permit contains bioaerosols monitoring requirements, the microbiological markers, associated bioaerosols limits and the monitoring standards

The Operator provided information regarding bioaerosols monitoring in their response to the Regulation 61 Notice. We carried out an assessment of the site location and the distance of site processes from sensitive receptors as part of this determination.

There are external site operational processes within 250 metres of a sensitive receptor.

We consider it appropriate to insert the bioaerosols monitoring requirements in the permit in accordance with our guidance TGN M9 Environmental monitoring of bioaerosols at regulated facilities (version 2, July 2018). The Operator is required to comply with the new monitoring requirements from the date of permit issue.

Soil & groundwater risk assessment (baseline report)

The IED requires that the operator of any IED installation using, producing or releasing “relevant hazardous substances” (RHS) shall, having regarded the possibility that they might cause pollution of soil and groundwater, submit a “baseline report” with its permit

application. The baseline report is an important reference document in the assessment of contamination that might arise during the operational lifetime of the regulated facility and at cessation of activities. It must enable a quantified comparison to be made between the baseline and the state of the site at surrender.

At the definitive cessation of activities, the Operator has to satisfy us that the necessary measures have been taken so that the site ceases to pose a risk to soil or groundwater, taking into account both the baseline conditions and the site's current or approved future use. To do this, the Operator has to submit a surrender application to us, which we will not grant unless and until we are satisfied that these requirements have been met.

The Operator submitted a site condition report [Site Condition Report, Sept 2009] during the original application received on 20/11/2009. The site condition report included a report on the baseline conditions as required by Article 22. We reviewed that report and considered that it adequately described the condition of the soil and groundwater at that time. [Note – the operator also surrendered a portion of the site 05/04/2017, variation EPR/FP3090SZ/S008].

The Operator submitted a summary report which referenced the site condition report and baseline report. We have reviewed the information and we consider that that it adequately describes the condition of the soil and groundwater. Consequently, we are satisfied that the baseline condition has not changed.

Waste types

We have specified the permitted waste types, descriptions and quantities, which can be accepted at the regulated facility. The wastes are specified in the following tables in the permit:

- Table S2.2 Activity AR1 open windrow composting
- Table S2.3 Activity AR2 mechanical, biological treatment
- Table S2.4 Activity AR3 liquid waste treatment
- Table S2.5 Activity AR10 Anaerobic digestion feedstock waste operation
- Table S2.6 Activity AR11 waste transfer station with treatment (subject to successful completion of preoperational condition PO1)

We are satisfied that the Operator can accept these wastes for the following reasons:

- they are suitable for the proposed activities
- the proposed infrastructure is appropriate
- the environmental risk assessment is acceptable.

Other wastes (non-standard waste codes)

The following wastes in the current permit are not specified in our revised biowaste treatment permit templates. We have retained these wastes in the current permit

provided the Operator undertakes a detailed characterisation of the wastes prior to acceptance for treatment at the site in accordance with BATc 2a.

Table S2.2 Activity AR1 open windrows composting	
Waste code	**Description**
02 03 01	sludges from washing, cleaning, peeling, centrifuging and separation
02 03 05	sludges from on-site effluent treatment
02 03 07	mechanically separated rejects from pulping of waste paper and cardboard
17 08 02	gypsum-based construction materials other than those mentioned in 17 08 01 (note waste code 17 08 02 is restricted to post-treatment blending with compost)
19 08 05	Sludges from treatment of urban waste water
19 12 07	Wood other than that mentioned in 19 12 06
20 01 38	wood other than that mentioned in 20 01 37

Table S2.5 Activity AR10 – AD feedstock	
Waste code	**Description**
02 03 02	wastes from preserving agents
03 03 02	green liquor sludge (from recovery of cooking liquor)
03 03 10	fibre rejects, fibre-, filler- and coating-sludges from mechanical separation
04 01 01	fleshings and lime split wastes
16 03 06	organic wastes other than those mentioned in 16 03 05 (drinks intended for human consumption)
16 03 06	organic wastes other than those mentioned in 16 03 05 (sauce in jars)
16 03 06	organic wastes other than those mentioned in 16 03 05 (starch powder from food or cardboard processing/manufacture)
16 03 06	organic wastes other than those mentioned in 16 03 05 (glycerol with a methanol by volume content of less than 3% only)
19 05 01	non-composted fraction of municipal and similar wastes
19 05 02	non-composted fraction of animal and vegetable waste
19 05 03	off-specification compost
20 01 38	untreated wood where no non biodegradable coating or preserving substance is present

We made this decision with respect to waste types in accordance with the Framework Guidance Note – *Framework for assessing suitability of wastes going to anaerobic digestion, composting and biological treatment* (July 2013).

Excluded wastes (99 waste codes)

We have excluded the following waste streams ending with “99” codes for open windrows and AD feedstock activities because more suitable waste codes are already in the European Waste Catalogue (EWC) that accommodate the wastes described:

Table S2.2 – open windrows composting (AR1)	
Waste code	**Description**
02 07 99	spent grains, hops and whisky filter sheets/ cloths, yeast and yeast like residues, sludge from production process.

Table S2.5 – AD feedstock (AR10)	
Waste code	**Description**
02 03 99	Sludge from production of edible fats and oils to include seasoning residues, molasses residues, residues from production of potato, corn or rice starch
02 04 99	Other biodegradable wastes
02 07 99	spent grains, hops and whisky filter sheets/ cloths, yeast and yeast like residues, sludge from production process.

Our technical guidance on waste classification WM3 specifically sets out clear instructions for the use of the European Waste Catalogue (EWC), particularly with regard to “99” codes.

The guidance specifies that the Operator must:

- Identify the source generating the waste in chapters 01 to 12 or 17 to 20 and identify the appropriate six-digit code of the waste (excluding codes ending with 99 of these chapters).
- If no appropriate waste code can be found in chapters 01 to 12 or 17 to 20, the chapters 13, 14 and 15 must be examined to identify the waste.
- If none of these waste codes apply, the waste must be identified according to chapter 16.
- If the waste is not in chapter 16, the 99 code (wastes not otherwise specified) must be used in the section of the list corresponding to the activity identified in step one as a last resort.

We made this decision with respect to “99” codes in accordance with the Technical Guidance WM3: Waste Classification – Guidance on the classification and assessment of waste [1st Edition v1.1, May 2018].

Primary containment infrastructure design (tanks /vessels used for storage and/or treatment activities)

We asked the Operator via the Regulation 61 Notice to provide a detailed report which describes an assessment of the suitability of any existing above ground storage or primary containment (tanks and/or vessels) used for the storage and treatment of waste in comparison to the relevant standard in the CIRIA C736 guidance or another equivalent industry standard.

The Operator did not provide a response to the Regulation 61 Notice with respect to the existing site primary containment (tanks and vessels).

We have set improvement conditions in the permit to address the deficiencies in the existing site existing primary containment (IC4). See Improvement condition in Annex 3 of this decision document.

Secondary containment and lagoon storage infrastructure design

We asked the Operator via the Regulation 61 Notice to:

- describe any secondary containment and whether it currently meets the relevant standard in the "Containment systems for the prevention of pollution (C736)" report, where there are above-ground storage or primary containment on site; or
- explain why the current site infrastructure design and construction is fit for purpose, where it is concluded that secondary containment is not required or does not need to meet the standards in the C736 report, to enable a baseline standard so as to establish a quantified comparison; and
- describe how the construction of the lagoons meets the relevant standard in CIRIA C736 report, where there are storage lagoons used for the storage of digestate on site.

The Operator did not provide a response to the Regulation 61 Notice with respect to the existing site secondary containment and lagoon storage infrastructure.

We have set improvement conditions in the permit to address the deficiencies in the existing site secondary containment (IC5). See Improvement condition in Annex 3 of this decision document.

Operational contingency storage capacity

We asked the Operator via the Regulation 61 Notice to:

- confirm if storage lagoons are covered to prevent emission loss; and
- confirm whether or not the operational storage capacity provides a minimum of two months storage

The site does not have a lagoon. The Operator did not provide any information in response to operational compost storage capacity on site. We have therefore set an Improvement Condition (IC6) in the permit to address this aspect of the permit review (see Annex 3).

Annex 3: Improvement Conditions

Based on the information in the Operator's Regulation 61 Notice response and our own records of the capability and performance of the installation at this site, we consider that we need to set improvement conditions so that the outcome of the techniques detailed in the BAT Conclusions are achieved by the installation. These improvement conditions are set out below - justifications for them is provided at the relevant section of the decision document (Annex 1 or Annex 2).

If the consolidated permit contains existing improvement conditions that are not yet complete or the opportunity has been taken to delete completed improvement conditions then the numbering in the table below will not be consecutive as these are only the improvement conditions arising from this permit variation.

Improvement programme requirements		
Reference	**Requirement**	**Date**
IC1-3	Improvement conditions completed.	Completed
Improvement condition for primary containment		
IC4	The operator shall submit a written 'primary containment plan' and shall obtain the Environment Agency's written approval to it. The plan shall contain the results of an inspection and program of works undertaken by a qualified engineer, and shall assess the extent design specification and condition of primary containment systems where polluting liquids and solids are being stored, treated, and/or handled. The plan shall include: • an assessment of the physical condition of all primary containment systems (storage and treatment vessels) using a Written Scheme of Examination and their suitability for providing primary containment when subjected to the dynamic and static loads; • a program of works with timescales for the implementation of individual improvement measures necessary to demonstrate that the primary containment is fit for purpose or alternative appropriate measures to ensure all polluting materials will be contained on site; and • a preventative maintenance and inspection regime The plan shall be implemented in accordance with the Environment Agency's written approval.	23/12/2025 or other date as agreed in writing with the Environment Agency
Improvement condition for secondary containment design		
IC5	The operator shall submit a written 'secondary and tertiary containment plan' and shall obtain the Environment Agency's written approval to it. The plan shall contain the results of an inspection and program of works undertaken by a competent structural engineer, in	23/12/2025 or other date as agreed in writing with the

Improvement programme requirements		
Reference	**Requirement**	**Date**
	accordance with the risk assessment methodology detailed within CIRIA C736 (2014) guidance, of the condition and extent of secondary and tertiary containment systems where all polluting liquids and solids are being stored, treated, and/or handled. The inspection shall consider, but not be limited to, the storage vessels, bunds, loading and unloading areas, transfer pipework/pumps, temporary storage areas, and liners underlying the site. The plan shall include: • an assessment of the physical condition of all secondary and/or tertiary containment systems, using a Written Scheme of Examination and their suitability for providing containment when subjected to the dynamic and static loads; • a program of works with timescales for the implementation of individual improvement measures necessary for the secondary and/or tertiary containment systems to comply with CIRIA C736 (2014) guidance, or equivalent. • a preventative maintenance and inspection regime The plan shall be implemented in accordance with the Environment Agency's written approval.	Environment Agency
Improvement condition for operational contingency storage capacity		
IC6	The operator shall provide a written "operational contingency storage plan" and shall obtain the Environment Agency's written approval to it. The plan shall contain the results of a review of the current storage of compost produced from site operations. The review shall examine site contingency arrangements in the event of closed landspreading periods, extreme weather conditions, site closure, disease outbreak etc. The contingency storage plan shall include: • Additional storage capacity on-site (at least 2 months storage) and storage capacity off-site; • Identification of alternative outlets for compost – identify companies /permitted waste facilities that would be able to manage the compost output, taking into account their permits and capacity constraints. The plan shall be implemented in accordance with the Environment Agency's written approval.	23/12/2025 or other date as agreed in writing with the Environment Agency
Improvement condition for review of effectiveness of abatement plant		
IC7	The operator shall carry out a review of all abatement plant on site (Bioscrubber, wet scrubber and carbon filter), in order to determine whether the measures have been effective and adequate to prevent and where not	23/12/2025 or other date as agreed in writing with the Environment Agency

Improvement programme requirements		
Reference	**Requirement**	**Date**
	possible minimise emissions released to air including but not limited to odour and ammonia. The operator shall submit a written report to the Environment Agency following this review for assessment and approval. The report shall include but not limited to the following aspects: • Full investigation and characterisation of the waste gas streams. • Abatement stack monitoring results (not limited to odour and ammonia) • Abatement process monitoring results (not limited to odour and ammonia) • Details of air quality quantitative impact assessment including modelling and a proposal for site-specific “action levels” (not limited to odour concentration, hydrogen sulphide and ammonia). • Odour monitoring results at the site boundary • Records of odour complaints and odour related incidents • Recommendations for improvement including the replacement or upgrading the existing abatement plant • Timescales for implementation of improvements to the abatement plant The operator shall implement the improvements in line with the timescales as approved by the Environment Agency.	

Annex 4: Pre-operational Conditions

Based on the information in the Application, we consider that we do need to impose pre-operational conditions. These conditions are set out below and referred to, where applicable, in the text of this decision document. We are using these conditions to require the Operator to confirm that the details and measures proposed in the Application have been adopted or implemented prior to operation.

Pre-operational measures for future development		
Reference	**Operation**	**Pre-operational measures**
1	Additional tanks for the anaerobic digestion feedstock activity (AR10 in Table S1.1)	The operator shall carry out a review of any tanks which are to be brought into use as part of the anaerobic digestion feedstock activity (activity AR10 in Table S1.1) for the first time. This includes all new and re-commissioned tanks and their associated secondary containment. The review shall compare the tanks and secondary containment provisions against the requirements set out in the *Waste Treatment BREF /BAT conclusions* and *CIRIA C736 - Containment Systems for the Prevention of Pollution - secondary, tertiary and other measures for industrial and commercial premises* or other relevant industry standard. The review shall identify any additional measures necessary to meet those requirements. Any improvement works shall be completed prior to the tanks being used as part of the anaerobic digestion feedstock activity. A written report shall be submitted to the Environment Agency at least 4 weeks prior to any tank being used for this activity for the first time. The report shall detail the reviews findings and recommendations, including confirmation and evidence that any improvements have been completed. No waste shall be stored or treated in new or re-commissioned tanks without written approval from the Environment Agency under this condition. The site's Environmental Management System (EMS) must be updated to incorporate any changes at the site made in response to this pre-operational measure. The updated EMS shall be submitted to the Environment Agency.
2	Pre commissioning of new wet scrubber and	The operator shall provide a written commissioning plan for the proposed new wet scrubber and carbon filter (including

Pre-operational measures for future development		
Reference	**Operation**	**Pre-operational measures**
	carbon filter (AR9 in Table S1.1)	timescales for completion) to the Environment Agency and obtain the Environment Agency's written approval to it. The commissioning plan shall include the expected emissions to the environment during the different stages of commissioning, the expected durations of commissioning activities and the measures to be taken to protect the environment and report to the Environment Agency in the event that actual emissions exceed expected emissions. The MBT treatment process shall not be put into operation unless the Environment Agency has given prior written permission under this condition.
3	Post commissioning of new wet scrubber and carbon filter (AR9 in Table S1.1)	The operator shall submit a written report to the Environment Agency following the commissioning of new odour abatement plant for the MBT treatment process. The report shall detail the environmental performance of the new odour abatement plant as installed against the manufacturer's design parameters. The report shall also include a review of the performance of the new odour abatement plant against the conditions of this permit and details of procedures developed during commissioning for achieving and demonstrating compliance with permit conditions. and confirm that the Environmental Management System (EMS) has been updated accordingly. The MBT treatment process shall not be put into operation unless the Environment Agency has given prior written permission under this condition.
4	Commissioning of the revised infrastructure for the liquid waste treatment facility (AR3 in Table S1.1)	The operator shall provide a written commissioning plan of the revised infrastructure for the liquid waste treatment facility (including timescales for completion) to the Environment Agency and obtain the Environment Agency's written approval to it. The commissioning plan shall include final design details of the proposed building, equipment, tanks, secondary containment, abatement plant and treatment procedures. The plan shall be designed to demonstrate that permit conditions will be met under all anticipated operating conditions and shall confirm the commissioning programme and plant monitoring protocols. The liquid waste treatment process shall not be put into operation unless the

Pre-operational measures for future development		
Reference	**Operation**	**Pre-operational measures**
		Environment Agency has given prior written permission under this condition.