

Permitting Decisions- Bespoke Permit

We have decided to grant the permit for Wellingborough Aggregate Recycling Facility operated by Day Group Limited.

The permit number is EPR/KP3902MB.

The application is for a new incinerator bottom ash (IBA) treatment installation. The main activity undertaken at the site is a S5.4 Part A(1) (b) (iii) activity - recovery or a mix of recovery and disposal of non-hazardous waste with a capacity exceeding 75 tonnes per day.

The primary purpose of the site is to process raw incinerator bottom ash (IBA) to produce a recycled secondary aggregate - incinerator bottom ash aggregate (IBAA).

Unprocessed IBA is delivered by HGV and tipped into a covered storage building in the northwest corner of the site. The IBA is stored inside the building in windrows that are up to 8m high, for maturation, before being transferred to the processing plant. The matured IBA is fed by covered conveyors into a series of sorting and separation stations consisting of magnets, eddy current separators, picking areas, crushing and size separation by screening, that separate the ferrous and non-ferrous metals from the IBAA. The IBAA is processed into different size fractions as finished products while the metals are taken off site for recycling.

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:

- summarises the decision making process in the [decision considerations](#) section to show how the main relevant factors have been taken into account.
- highlights [key issues](#) in the determination.
- shows how we have considered the [consultation responses](#).

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

Read the permitting decisions in conjunction with the environmental permit.

Key issues of the decision

Operator compliance with BAT 12 b) Adequate waste storage capacity

The operator advised that the maximum storage capacity of the site is defined by the building.

However, Waste Incineration BAT Conclusions BAT 12 b) requires the maximum waste storage capacity is clearly established and not exceeded.

The maximum waste storage capacity and the quantity of waste stored will be regularly monitored against the maximum allowed.

It has been agreed through correspondence with the operator that the maximum volume of IBA waste that can be stored in the maturation building is 25,000 tonnes and that the storage should not compromise any pollution control measures. This supersedes the initial 15,500 tonnes of raw IBA detailed in section 2.13 of the Environmental Management System (EMS).

As stated in the EMS, the windrows of raw IBA in storage building will be approximately 8m high; material in external bays is stored with 0.5m of freeboard to contain stockpiles within the bay walls.

The maximum volume of finished product will remain at 20,000 tonnes.

Moisture content

Emissions to air from bottom ash treatment plants are mainly dust and metals coming from bottom ash handling, shredding, sieving, and air separation.

The Waste Incineration Bref states in section 4.7.7 provides details of the techniques that can be used to reduce emissions to air from the treatment of incineration slags and bottom ashes. These techniques are required to keep the bottom ashes' water content around 20 % reduces the diffuse emissions of dust. This involves maintaining an optimal moisture content, which on the one hand allows the efficient recovery of metals and mineral materials and on the other hand keeps the dust releases low.

BAT 24. e) of the Waste Incineration BAT Conclusions states: Optimise the moisture content of the slags/bottom ashes to the level required for efficient recovery of metals and mineral materials while minimising the dust release. The operator proposed a moisture range of 16-20% and indicated that they are relying on their professional judgement for moisture content control. The reliance on professional judgment based on experience proposed by the operator was not accepted.

Therefore, a pre-operational condition PO1 was included in the permit which requires that operator submits a revised Dust Management Plan (DMP) to the Environment Agency for assessment and written approval and to include in the DMP a proposal for optimal moisture ranges, a justification for specified moisture ranges, information on the monitoring method and frequency and details of the actions to be taken if moisture is outside optimum range.

The process monitoring requirement to monitor the moisture content of the IBA and IBAA waste stockpiles is recommended to be daily using a moisture meter/probe or another suitable method. No limits will be set but it is expected that the optimal moisture content should be kept within the agreed limits justified in PO1 (see section on preoperational conditions below).

We have also included improvement condition IC2 which requires the operator to submit a report detailing the results of the IBA and IBAA stockpiles moisture monitoring undertaken at the site over a period of twelve months and the conclusion and justifications of the optimum moisture content. Submission of an updated Dust Management Plan (DMP) if required including information on the optimum moisture contents as well as details of any measures or procedures on how the optimum moisture content is controlled and maintained. This process will ensure the dust emissions are minimised.

Abatement

The extracted air from the building is directed to a wet scrubber system.

The wet scrubber filtration system has been accepted as a suitable abatement system given the damp nature of the IBA.

Waste incineration BAT Conclusions BAT 26 requires the use of a bag filter on “channelled dust emissions to air from the enclosed treatment of slags and bottom ashes with extraction of air” and sets a dust BAT-AEL. This is relevant to dry IBA processing plants.

We have considered that the proposed treatment operation is not a dry IBA process and that process monitoring of the moisture content of the IBA is sufficient for dust minimisation.

Therefore, there is no requirement for the enclosed processing areas to be under negative pressure, with associated extraction of air and so BAT 26 does not apply.

The proposed scrubber is a ‘self-induced’ venturi scrubber that uses water as the solvent. It is expected the scrubber will achieve 96-98% efficiency of particulate matter removal (in the size range 10-1,000 µm). The treated air is directed to a stack prior to release into the atmosphere. The wet scrubber is equipped with a scraper conveyor system that constantly removes sediment with water. The material removed from the scrubber is added back to the IBA for re-processing.

We are satisfied that the proposed abatement will prevent significant emission to the environment.

Back-up generator

The applicant has confirmed that back-up generators will be hired from an offsite third party in the event of power lost at the site. We have not carried out an assessment against the emergency backup diesel engines on installations: best available techniques (BAT) guidance for the following reasons:

- RGN2 Note 1.1.8 highlights that the hired equipment is not included in the aggregation.
- Generators will be less than 1MWth so there are no MCP limits it needs to comply with.
- Testing of the engines should be carried out by the hire company rather than by the operator so, no testing condition is included in the permit.
- The operator is committed to ensuring any generator they hire will be the best available in terms of emissions.
- The EA will be notified if they were needing to run a generator.

Site Drainage System

The wheel bath water and the surface-run off from the IBAA stockpiles was not considered process water by the operator and was discharging to sewer.

We consider that the wheel bath water and the surface-run off from the IBAA is contaminated process water and will be collected in sumps and re-used in the process for example dust suppression.

There will be an occasional, rainfall dependent discharge to foul sewer of rainwater from the IBAA secondary aggregate storage area (Paving Zone 3) and the wheel bath water. Parameters and frequency for monitoring emissions to water from bottom ash treatment are set in Waste incineration BAT Conclusions BAT 6. However, this discharge is expected to be minimal and will only take place in the event that the water storage tanks adjacent to settlement pit 2 can no longer hold further water (see discharges to sewer section below).

Discharge to Sewer

The operator submitted H1 screening spreadsheet for surface water risk assessment for the site's discharge to sewer and into the river Nene via the Broadholme WWTW discharge point (NGR: SP9408968562).

Proxy Effluent Data

Data for effluent flow rate and release concentrations were taken from actual data were obtained from the Day Group IBAA plant at Royal Edward Dock in Avonmouth which is similar operationally.

We accepted the results of the H1 screening and have added improvement conditions IC1 to the permit which requires the operator to carry out a program of effluent testing to confirm that the surrogate data provided in the application are representative of the effluent release concentrations at the Wellingborough site.

The improvement condition IC1 also requires the operator to repeat the H1 assessment using twelve months sampling data obtained from the Wellingborough site to assess the impact of the site effluent on the river Nene.

Due to the effluent discharge not being continuous it was not considered necessary to obtain additional flow data from the operator.

Background concentrations

The operator provided 10% EQS values for the background concentrations. This was rejected and the H1 risk assessment was remodelled using the 50% EQS value for background concentrations as per the EA guidance as upstream data was not available.

Q95 Methodolgy

There are no suitable gauging stations on the River Nene upstream of Broadholme STW, so Q95 flows for the receiving water were obtained from the National River Flow Archive via the Flood Estimation Handbook (FEH) software.

The operator proposed to use flows of four tributaries upstream of the discharge resulting in a combined estimated Q95 flow for the river Nene of 0.729 m³/s. This figure did not include all tributaries and underestimated the dilution. The Q95 was cross referenced without obtainable values and an INF (influenced) Q95 of 1.4 m³/s was considered more appropriate.

INF Q95 flow of 1.4 m³/s was used as it takes into account all abstractions and discharges in the area. This is a less conservative figure than the one the operator provided. Using this Q95 1.4 m³/s and the 50% EQS data, all pollutants screened out and no further modelling is required.

HBM Plant removal

The operator requested withdrawal of Section 3.1, Part B (b) activity for the production of HBM material which was included in their permit application proposals. We accepted this given that the activity is a separate activity that is not technically linked to the IBA process as a directly associated activity (DAA).

The operator withdrew this aspect of the application. If at any time in the future the operator decides to operate the HBM plant, they will need obtain the necessary consents before doing so.

Application form B3 was updated and the site plans amended to reflect this.

Operator name on documents

Covanta was named on some of the application documents submitted. The Day Group Limited and Encyclis (formerly Covanta) were working collaboratively to secure planning and permitting for the IBA recovery facility. Covanta took responsibility for planning submissions. However, it has been confirmed that the Day Group Limited will be the operator of the facility.

We agree that it is not necessary to change the name of the company on these planning documents.

Decision considerations

Confidential information

A claim for commercial or industrial confidentiality has not been made.

The decision was taken in accordance with our guidance on confidentiality.

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.

Consultation

The consultation requirements were identified in accordance with the Environmental Permitting (England and Wales) Regulations (2016) and our public participation statement.

The application was publicised on the GOV.UK website.

We consulted the following organisations:

- Local Authority – Environmental Health
- Health and Safety Executive
- Sewerage Authorities

No responses were received from the Local Authority – Environmental Health and Health and Safety Executive.

The comments and our responses are summarised in the [consultation responses](#) section.

Operator

We are satisfied that the applicant (now the operator) is the person who will have control over the operation of the facility after the grant of the permit.

The decision was taken in accordance with our guidance on legal operator for environmental permits.

The regulated facility

We considered the extent and nature of the facility 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 facility is defined in the site plan and in the permit. The activities are defined in table S1.1 of the permit.

The site

The operator has provided plans which we consider to be satisfactory.

These show the extent of the site of the facility.

The plan is included in the permit.

Site condition report

The operator has provided a description of the condition of the site, which we consider is satisfactory. The decision was taken in accordance with our guidance on site condition reports and baseline reporting under the Industrial Emissions Directive.

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.

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.

The operating techniques are in line with the following guidance: Develop a management system, Control and monitor emissions for your environmental permit, Non-hazardous and Inert Waste Appropriate Measures for Permitted Facilities and Waste Incineration BAT Conclusions.

Operating techniques for emissions that screen out as insignificant

Emissions of chloride, fluoride, sulphate, arsenic, boron, cadmium, cobalt, chromium, copper, mercury, nickel, lead, vanadium, and zinc. have been screened out as insignificant, and so we agree that the applicant's proposed techniques are Best Available Techniques (BAT) for the installation.

We consider that the emission limits included in the installation permit reflect the BAT for the sector.

Noise and vibration management

We have reviewed the noise and vibration management plan in accordance with our guidance on noise assessment and control.

We consider that the noise and vibration management plan is satisfactory and we approve this plan.

We have approved the noise and vibration 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.

Dust management

The dust and emission management plan will be assessed in accordance with our guidance on emissions management plans for dust as part of pre-operational condition PO1 prior to commencing operations.

Waste types

We have specified the permitted waste types, descriptions and quantities, which can be accepted at the regulated facility.

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; and
- the environmental risk assessment is acceptable.

The operator requested for waste code 19 12 12 – (other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11) to be added to the permit.

This waste code was proposed to be included to allow acceptance of IBA which may have been mechanically treated at its point of origin. This is likely to be (but not necessarily restricted to) screening to remove any oversize material.

Also, whilst it is not the focus of this facility, it is possible that IBA which has already been treated (undergone a degree of maturation and processing) by another separate IBA site could be received at Wellingborough.

Therefore, waste code 19 12 12 has been included in the permit and has been restricted to: other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11 (pre-treated incineration bottom ash from other sites only).

We made these decisions with respect to waste types in accordance with:

- Technical Guidance WM3: Waste Classification - Guidance on the classification and assessment of waste, and
- Non-hazardous and Inert Waste Appropriate Measures for Permitted Facilities.

Pre-operational condition

Based on the information in the application, we consider that we need to include pre-operational conditions.

We have included pre-operational condition **PO1** in the permit to ensure that their dust management plan is updated to include a site-specific management procedure including monitoring and actions for maintaining optimum IBA moisture ranges. This process will ensure the dust emissions are minimised.

Improvement programme

Based on the information on the application, we consider that we need to include an improvement programme.

We have included the following improvement programmes in the permit:

IC1 - see key issues section, discharge to sewer.

IC2 - see key issues section, moisture content.

Emission Limits

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

Lead 0.06mg/l for indirect emission to water. This is required for the wheel bath effluent, external storage of IBAA and will assist in controlling emissions of lead within surface water.

It is considered that the limit described above will prevent significant deterioration of receiving waters.

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 monitoring requirements have been included in order to meet the requirements of the Waste Incineration BAT Conclusions.

We made these decisions in accordance with Non-hazardous and Inert Waste Appropriate Measures for Permitted Facilities, Waste Incineration BAT Conclusions.

Based on the information in the application we are satisfied that the operator's techniques, personnel and equipment have either MCERTS certification or MCERTS accreditation as appropriate.

Reporting

We have specified reporting in the permit.

We have added reporting in the permit for the following parameters:

Total organic carbon (TOC) No Limit set

Total suspended solids No Limit set

Lead (Pb) 0.06mg/l

Ammonium – nitrogen (NH₄-N) No Limit set

Chloride (Cl⁻) No Limit set

Sulphate (SO₄²⁻) No Limit set

Dioxins/Furans (I-TEQ) No Limit set

We made these decisions in accordance with Non-hazardous and Inert Waste Appropriate Measures for Permitted Facilities, Waste Incineration BAT Conclusions.

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.

Technical Competence

Technical competence is required for activities permitted.

The operator is a member of the CIWM/WAMITAB scheme.

We are satisfied that the operator is technically competent.

Previous performance

We have assessed operator competence. There is no known reason to consider the applicant will not comply with the permit conditions.

No relevant convictions were found. The operator satisfies the criteria in our guidance on operator competence.

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.

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.

Consultation Responses

The following summarises the responses to consultation with other organisations, and the way in which we have considered these in the determination process.

Responses from organisations listed in the consultation section:

Response received from Anglian Water.

Brief summary of issues raised: Trade effluent discharged from the site is subject to a trade effluent consent (ref: TECO-0130-2023, dated 25/05/2023) and compliance with this by the operator will ensure full protection of downstream assets, sewage treatment processes and the receiving watercourse.

Summary of actions taken: no action required.