

Part A Permit Application or Variation Dec. Doc (Pt. 2)	Form: IED-DD-02	V 1	Page no: 1 of 12
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# **Colliers Quarrying & Recycling Ltd Incinerator Bottom Ash Processing Facility**

## **Permit Application**

**PPC/A/1197753**

Draft for Consultation

**1 NON TECHNICAL SUMMARY OF DETERMINATION****Will the draft determination be subject to public consultation? Yes**

IBA is the non-hazardous fraction left over after municipal waste is incinerated and equates to between 20% to 30% of the input to the incinerator. It consists of glass, sand, grit, metal, stone, concrete, ceramics and fused clinker. Up to 10% of IBA is high value ferrous and non-ferrous metal which can be extracted for recycling with the rest processed into an aggregate suitable for concrete manufacture.

The proposed Incinerator Bottom Ash (IBA) storage and treatment facility will be located at Goathill Quarry, Cowdenbeath at Grid Reference NT 179988 88718 and comprises of the following activities:

- Unprocessed IBA accepted to an area with an impermeable surface and sealed drainage.
- IBA stored on an impermeable surface for conditioning prior to further processing.
- IBA processed via mobile plant brought to the site on 'campaign' basis once sufficient IBA stock has accumulated. It is anticipated that 2-3 treatment campaigns will be undertaken per year, each lasting approximately 6-8 weeks.
- IBA is processed through a series of mechanical sorting mechanisms, including crushing, screens, eddy current and magnetic separation recover ferrous and non-ferrous metal and produce different grades of processed IBA aggregate (IBAA).
- Storage of processed IBAA and metals on an impermeable surface prior to dispatch off-site.
- All finished IBAA is to be used as aggregate, ferrous and non-ferrous metals are sent for recycling at an appropriate facility, any unburnt material will be sent back to the facility of origin for further processing.

This activity is prescribed in Schedule 1 of the Pollution Prevention and Control (Scotland) Regulations 2012 and is subject to the EU Waste Incineration Best Available Techniques Conclusions (BATc).

*"The recovery or a mix of recovery and disposal of non-hazardous waste at an installation with a capacity exceeding 75 tonnes per day, by treatment of ashes"*

The Goathill IBA processing facility will accept up to 100,000 tonnes of IBA per year from off-site municipal waste incinerators. The facility will store a maximum of 40,000 tonnes of IBA at any one time.

There will be no biodegradable or malodorous waste accepted to the facilities.

There are no point source emissions to air from the installation. The nature of the IBA is such that the risk of dust emissions is considered low. Regardless, the site is equipped with a moveable water cannon to suppress fugitive dust emissions. The permit incorporates a dust management plan which details further measures.

The site will have an impermeable surface and a sealed drainage system. Wastewater from the IBA storage and treatment areas flow to the onsite leachate treatment plant (LTP) prior to discharge to a series of settlement ponds and ultimately to the water environment. This discharge will be routinely monitored. Sludge produced from the leachate treatment plant will be pumped straight from the LTP to a tanker for disposal as an appropriate facility.

Best Available Technique (BAT) has been considered by the Applicant and this has been sufficiently demonstrated throughout the process. Conditions which the Applicant is able to comply with have been put in the Permit to ensure that no significant pollution or harm to human health will be caused.

<b>2 EXTERNAL CONSULTATION AND SEPA'S RESPONSE</b>		
<b>Is Public Consultation Required - Yes</b>		
<b>Advertisements Check:</b>	<b>Date</b>	<b>Compliance with advertising requirements</b>
Edinburgh Gazette	16 February 2021	Yes
Dunfermline Press	18 February 2021	Yes
<b>No. of responses received:</b> None [advertising period during service disruption period]		
<b>Summary of responses and how they were taken into account during the determination:</b> N/A		
<b>Is PPC Statutory Consultation Required – Yes</b>		
<b>Food Standards Agency:</b> Consultation letter sent?		
<b>NHS Fife:</b> Consultation letter sent?		
<b>Fife Council:</b> Consultation letter sent?		
<b>Scottish Water:</b> N/A		
<b>Health and Safety Executive:</b> N/A		
<b>Scottish Natural Heritage (PPC Regs consultation):</b> Consultation letter sent		
<b>Harbour Authority:</b> N/A		
<b>Discretionary Consultation – No</b>		
<b>Enhanced SEPA public consultation – No</b>		
<b>Public Participation Consultation - Yes</b>		
<b>STATEMENT ON THE PUBLIC PARTICIPATION PROCESS</b> <i>The Pollution Prevention and Control (Scotland) Regulations 2012 (schedule 4, para 22) requires that SEPA's draft determination of this application be placed on SEPA's website and public register and be subject to 28 days' public consultation. The dates between which this consultation took place, the number of representations received and SEPA's response to these are outlined below.</i>		
<b>Date SEPA notified applicant of draft determination</b>		
<b>Date draft determination placed on SEPA's Website</b>	16 <sup>th</sup> June 2021	
<b>Details of any other 'appropriate means' used to advertise the draft</b>		
<b>Date public consultation on draft permit opened</b>	16 <sup>th</sup> June 2021	

<b><i>Date public consultation on draft permit consultation closed</i></b>	
<b><i>Number of representations received to the consultation</i></b>	
<b>Summary of responses and how they were considered during the determination:</b>	
<b>Summary of responses withheld from the public register on request and how they were considered during the determination:</b>	

<b>3 ADMINISTRATIVE DETERMINATIONS</b>
<b><i>Determination of the Schedule 1 activity</i></b>
<p>The relevant Schedule 1 activity for this facility is as follows. No other prescribed activity is proposed.</p> <p>The recovery or a mix of recovery and disposal of non-hazardous waste at an installation with a capacity exceeding 75 tonnes per day, by treatment of ashes, being an activity falling within paragraph (b)(iii) of Part A of Schedule 5.4 of Schedule 1 of the Regulations.</p>
<b><i>Determination of the stationary technical unit to be permitted:</i></b>
As detailed in the application
<b><i>Determination of directly associated activities:</i></b>
As detailed in the application.
<b><i>Determination of 'site boundary'</i></b>
As detailed in the application.

## 4 INTRODUCTION AND BACKGROUND

### 4.1 Historical Background to the activity and application

The application is for a PPC Part A Permit to store and treat Incinerator Bottom Ash (IBA) from municipal waste incineration at Goathill Quarry, Cowdenbeath.

Collier Quarrying and Recycling Ltd (CQRL) is an established recycling construction and demolition waste working across Central Scotland. As part of their expansion program, the company opened Goathill Quarry in 2010. The quarry is intended to operate for 40 years.

CQRL, working in partnership with Rock Solid Processing Ltd, propose to expand into IBA processing, securing a new source of aggregate for their concrete products.

IBA is the non-hazardous fraction left over after municipal waste is incinerated and equates to between 20% to 30% of the input to the incinerator. It consists of glass, sand, grit, metal, stone, concrete, ceramics and fused clinker. Up to 10% of IBA is high value ferrous and non-ferrous metal which can be extracted for recycling with the rest processed into an aggregate suitable for concrete manufacture.

IBA is not the hazardous Air Pollution Control Residue or 'fly ash'. No hazardous waste will be accepted for storage or treatment at this facility.

The proposal supports Scotland's broad circular economy objectives by ensuring the metal contained in IBA is extracted for recycling and the remaining material is processed to a high standard, enabling use in construction products. This avoids landfilling IBA and displaces the use of primary quarried stone in construction products.

This activity is prescribed in the Industrial Emissions Directive and is subject to the EU Waste Incineration Best Available Techniques Conclusions (BATc) which have become 'retained law' since the UK left the European Union.

### 4.2 Description of activity

This application is for the storage and treatment of Incinerator Bottom Ash sourced from Energy from Waste facilities around Scotland.

The Goathill IBA processing facility will accept up to 100,000 tonnes of IBA per year from off-site municipal waste incinerators. The facility will store a maximum of 40,000 tonnes of IBA and processed IBAA at any one time.

#### Waste Pre-Acceptance and Acceptance

The facility will only accept Incinerator Bottom Ash. This is described using the following European Waste Catalogue code:

Waste Code	Description
19	WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION/INDUSTRIAL USE
19 12	Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 12	Other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11

Pre-acceptance and acceptance procedures are in place to ensure that only suitable IBA is accepted.

Incoming deliveries will be received via the weighbridge, and a ticket issued to the driver. On arrival, documentation will be checked, and a visual inspection of the load undertaken. Non-conforming waste will be quarantined prior to removal. Procedures for managing incomplete or erroneous Duty of Care paperwork are also in place. All records will be kept and made available to SEPA.

Incoming IBA will be classified according to joint SEPA / Environment Agency guidance WM3 and the ESA sampling and testing protocol for IBA. IBA will be kept in identifiable windrows during testing and once confirmed as non-hazardous IBA be moved into the main storage stockpile.

In the unlikely event that IBA is confirmed to be hazardous will be quarantined and removed from site for specialist disposal.

### Waste Storage and Handling

The main non-hazardous IBA stockpiles will be built up in a flattened pyramid. The planning consent places a limit of 6m on the height of IBA and IBAA stockpiles.

The IBA will undergo a 'conditioning' or 'maturation' stage for approximately 10 weeks in the open air. During this stage, a number of naturally occurring chemical reactions (oxidation, carbonation, hydration) improve the physical and chemical properties of the IBA by stabilising the material and reducing its leaching capacity.

This process also results in a 'crust' forming on the surface of the stockpile which will inhibit fugitive dust emissions.

Both IBA and treated IBAA will be stored on site, on an impermeable surface with a sealed drainage system which drains to the leachate treatment plant on site, prior to discharge to a series of settlement lagoons and finally the water environment.

The storage area is outside and will be sprayed using a water canon to minimise dust release as necessary.

In addition to the incoming and processed material there will be ferrous and non-ferrous metal storage bays.

### Waste Treatment

The treatment will take place on a campaign basis when sufficient material has been received (around 30,000 to 40,000 tonnes). Processing will take place outdoors at the same location as the storage area. It is anticipated there will be 2-3 campaigns per year, each lasting 6-8 weeks.

IBA will be treated through crushing, screening, eddy currents and magnets to remove ferrous and non-ferrous metals for recycling and grated the remaining IBA. This material, which is known as IBA aggregate (IBAA) is stored prior to use as an aggregate in concrete products, replacing the use of virgin materials.

There are no point source emissions to air from the installation. The site is equipped with a moveable water cannon to suppress fugitive dust emissions. The permit incorporates a dust management plan which details further measures in place for the control of dust.

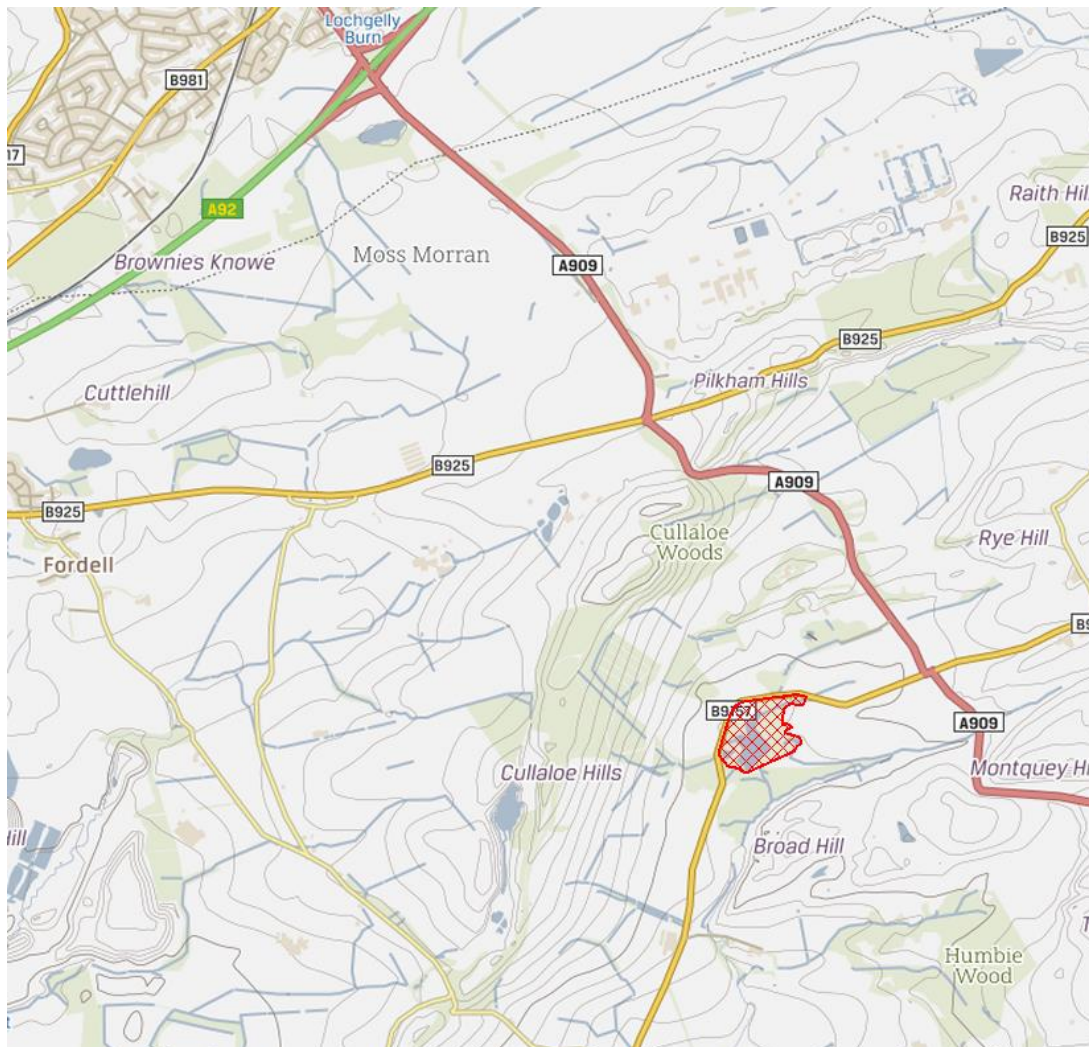
The site will have an impermeable surface and a sealed drainage system. All wastewater flows to the onsite leachate treatment plant (LTP) prior to discharge. Sludge produced from the leachate treatment plant will be pumped straight from the LTP to a tanker for disposal as an appropriate facility.

**4.3 Guidance/directions issued to SEPA by the Scottish Ministers under Reg.60 or 61.**

None

**4.4 Identification of important and sensitive receptors**

For Nature Conservation Procedure purposes, a screening distance of 2km from Goat hill Quarry was used to identify nearby Designated Sites that are classified as important and sensitive receptors.



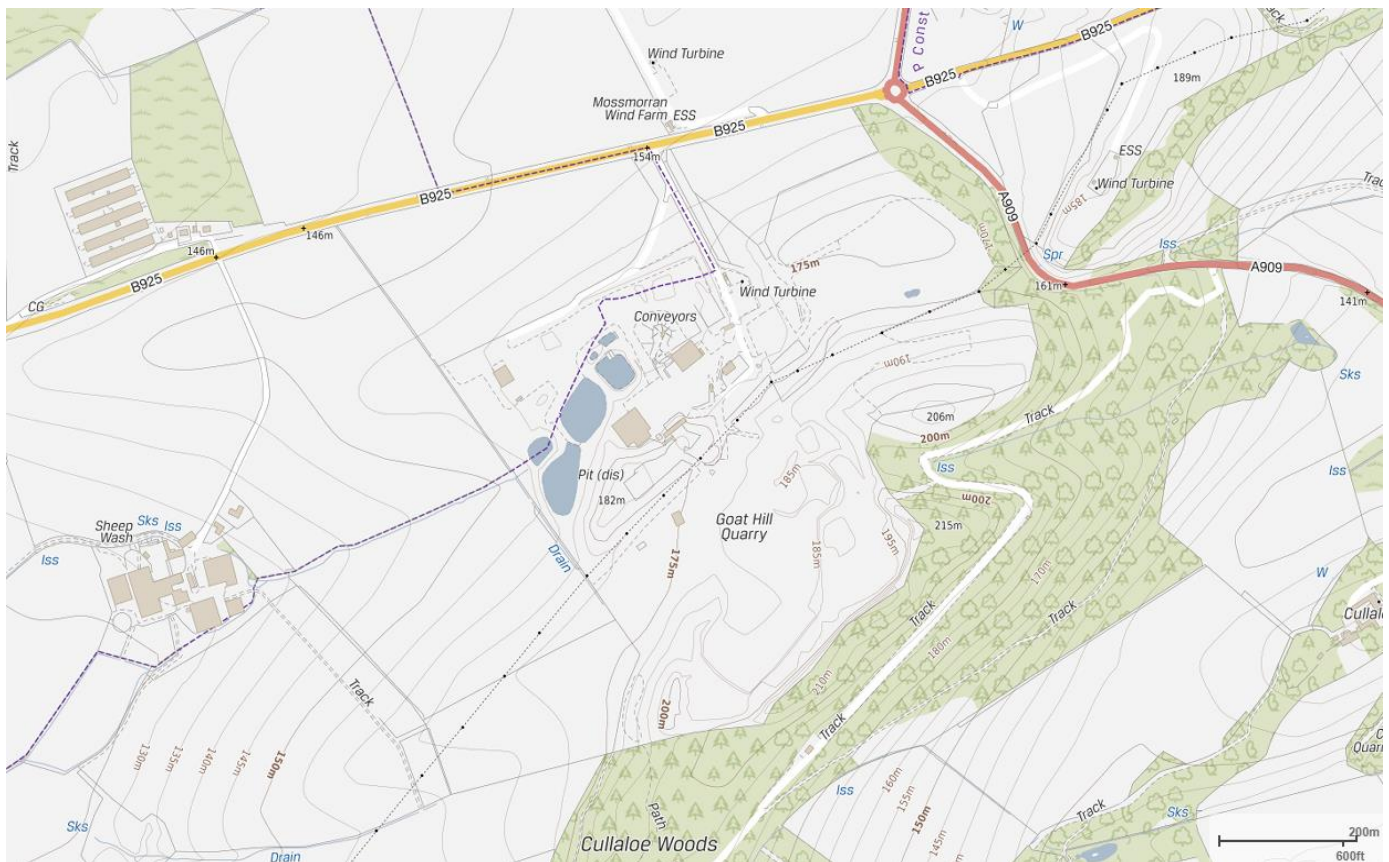
One Designated Site was found within this distance.

1. Cullaloe Reservoir

- Location: Less than 1km South East of Goat hill Quarry
- Designation: Site of Special Scientific Interest
- Features: Eutrophic Loch – diversity of wetland vegetation types
- Latest Assessed Condition (2004): Unfavorable Declining

**Response from SNH to planning application in 2020** – “The quarry’s location is around a kilometre from Cullaloe Reservoir SSSI, designated for its open water. Due to the distance between them and the assumption that pollution prevention measures will be in place, it is unlikely that the proposal would have an impact on the SSSI.”

The following map shows a closer radius around site of the IBA processing facility to allow human receptors to be identified.



No human receptors are present within 250m of the IBA processing facility.

One receptor, Bucklyvie Farm is present over 500m from the IBA processing facility and does not need to be screened for human health impacts.



## 5 KEY MANAGEMENT & ENVIRONMENTAL ISSUES

### 5.1 Management

#### 5.1.1 Summary Determination

SEPA is satisfied, based on the information provided, that the applicant -

- will be the person who will have control over the operation of the installation,
- will ensure that the installation is operated so as to comply with the conditions of the Permit,
- is a fit and proper person.

#### 5.1.2 Control

The applicant is Collier Quarrying and Recycling Ltd and they will be the Permit holder and responsible for compliance with the conditions of the Permit. They own the land and the facility is designed to fit with the rest of their business activities.

Rock Solid will carry out the IBA treatment on a 'campaign' basis but CQRL remain responsible for compliance issues for all activities undertaken on the facility.

The application provides sufficient evidence that appropriate management systems and structures will be in place at the facility and sufficient resources are available to the Operator to ensure compliance with all permit conditions.

#### 5.1.3 Environmental Management System

The permit application contains sufficient information to show that the facility will be operated in accordance with BAT, the conditions of the Permit and without causing significant pollution.

However, only parts of the application are in the form of an Environmental Management System (EMS). This includes dust and noise management plans, Factory Production Control for treatment campaigns and details of management supervision and training.

The Permit will require the information in the application to be developed into a clear EMS covering management and staffing, waste acceptance, start up and shut down of treatment campaigns, infrastructure maintenance and incident management. This EMS shall be implemented within 6 months of the date the Permit is granted.

#### 5.1.4 Fit & Proper Person Assessment

Neither the applicant, nor any other relevant person, has been convicted of any relevant environmental offence.

The Technical Competent Manager (TCM) for the facility will be Colin Fotheringham who has the appropriate qualifications and experience. He is also the TCM for the adjacent Goathill Quarry Transfer Station (WML/L/1108895) also operated by the applicant. Additional management oversight will be provided by Duncan Collier.

**Financial Provision – There is no known reason to consider that the operator will not be financially able to comply with the permit**

## 5.2 Environment

### 5.2.1 Summary Determination

SEPA is satisfied, based on the information provided, that;

- the operator will use all necessary appropriate preventative measures against pollution, in particular through the application of best available techniques,
- no significant pollution should be caused.

### 5.2.2 Summary of potential environmental impacts

The most significant potential environmental impacts from the site will be:

- Surface water run-off from storage and treatment areas
- Dust from stockpiling and treatment activities
- Odour and Noise emissions

Further detail and assessment against Best Available Techniques Conclusions (BATc) is provided below.

### 5.2.3 Point Sources to Air

There will be no significant point source emissions to air.

### 5.2.4 Fugitive Emissions to Air

IBA contains metals, bricks, ceramics and other material that has not combusted. IBA has a cementitious property that means it forms a cement-like 'crust' to its surface during stockpiling. IBA is 'quenched' as it leaves the incinerator and has a relatively high moisture content (15-20%). It is not generally as dry or powdery as the term 'ash' suggests.

BATc 23 requires that dust management be incorporated into the overall environmental management system. A Dust Management Plan was submitted in Appendix E to the application. The Permit refers to the Dust Management Plan. The Plan identifies the most relevant sources of dust emissions and sets out appropriate actions and techniques to prevent or reduce fugitive dust emissions.

BAT 24 requires that a combination of techniques be employed to prevent and reduce dust emissions. The Dust Management Plan contains a range of the suggested techniques including -

- **Protect stockpiles against prevailing winds** - IBA stockpiles will be orientated to take account of the prevailing wind and will be at least 500m from any human receptor.
- **Enclose equipment and limit drop heights** - IBA will be brought to site in covered vehicles. The process uses covered conveyors rather than manual handling. Conveyor heights can be varied to minimise the fall distances to the plant or stockpile.
- **Use water spray & optimise moisture content** – Where necessary, water will be sprayed on to the stockpiled material prevent dust formation. Equipment for dust suppression will be available on site.
- **Vehicle movements** - Speed limits on site will be restricted to 15mph to minimise the potential for dust rise from the site surface.
- **Continuous assessment** - The Operator is committed to good housekeeping and will undertake regular visual inspections to ensure storage areas are clean and dampened as necessary.

Applicant:

This Dust Management Plan satisfies the requirements of BATc 23 & 24. Any dust occurrence event would likely be limited and of short duration and will be quickly mitigated by the suppression equipment available on site. Despite storage and treatment taking place outdoors, the risk of pollution from dust emissions outside the site boundary is **low**.

#### 5.2.5 Odour

IBA and IBAA are not considered to be odorous or offensive and the nearest odour receptor is over 500m away. The Applicant has waste pre-acceptance and acceptance procedures in place to ensure that only IBA is accepted for treatment at the facility.

BATc 1 requires an odour management plan where an odour nuisance is expected and/or has been substantiated.

SEPA's Odour Guidance 2010 states that installations which do not handle or generate odorous substances, pollution impact from odour can be screened out and does not need a H1 or D1 assessment.

Based upon the information in the application and experience of other IBA facilities, the risk of odour nuisance is **low**, and no further assessment or specific measures are necessary at this time.

#### 5.2.6 Point Source Emissions to Groundwater

There will be no point source discharge to groundwater.

BATc 12 & 36 requires IBA and IBAA to be stored on impermeable surfacing with appropriate drainage.

The storage and processing area will comprise an impermeable concrete surfaced pad of at least 200mm thickness with a perimeter upstand of 25mm. All rainwater and run-off will be collected for treatment via a sealed drainage system. The containment and drainage details are shown on Plan 105 in the application.

A 2m gap between stockpiles and the pad perimeter will be maintained to prevent IBA escaping onto the surrounding land.

Regular checks of the working surfaces and bunding will be carried out by CQRL. Conditions will be included to ensure drainage infrastructure, surfaces and pipework will be fully surveyed on a periodic basis.

Based on the storage pad design, the risk of soil and groundwater pollution from IBA and IBAA storage areas is **low**.

#### 5.2.7 Point Source Emissions to Surface Water

Run-off from IBA has the potential to carry a range of pollutants including heavy metals and chloride.

**The facility is not equipped with a connection to the foul sewer and therefore system of collection, treatment and monitoring prior to discharge to the water environment is proposed.**

BATc 34 requires an appropriate combination of techniques to reduce emissions to water from the treatment of bottom ashes. Secondary techniques should be as close as possible to the source to avoid dilution.

Surface run-off IBA storage and treatment areas will be collected and treated prior to discharge as follows.

- All rainwater and surface run-off from the IBA storage and processing areas will be collected and held in a sump within the bunded concreted pad. There will be no underground storage tanks.
- Collected run-off will be pumped from the sump into the Balance Tank and from there into the Leachate Treatment Plant.
- Coagulant is dosed into the first section of the Mix Tank. The dose is controlled based on the feedback signal from the flow meter.

## Applicant:

- Dosed wastewater then enters the second section of the Mix Tank where the pH is reduced using Carbon Dioxide.
- The wastewater enters the third section of the mix tank where polymer is added. Again, the polymer dose is determined by the upstream flow meter.
- The chemically conditioned wastewater enters the settlement tank where the solids will settle to the base while liquid overflows out of the unit into the Break Tank and into the lagoon.
- The treated wastewater enters a newly constructed settlement pond which provides the final treatment step prior to discharge into a series of stepped lagoons which serve the rest of the site.

These treatment steps are in line with those recommended in BATc 34 and are correctly placed directly adjacent to the IBA storage and treatment area. They are focused on Neutralisation and Flocculation / Settlement. More advanced treatments such as activated carbon or ion exchange are not proposed.

The LTP is sized to process up to 110m<sup>3</sup> per hour. In the even to a 100-year storm, around 1200m<sup>3</sup> would be generated which can be contained within the pad and sump and treated within 12 hours.

Run-off from the processed IBAA storage area will drain directly to the first settlement pond, as shown on Plan 103.

The new settlement pond, immediately downstream of the LTP and IBAA storage pad will be lined to prevent ingress into soil and groundwater. The pond outlet will be fitted with a shut off valve in case the IBA processing facility needs to be isolated from the rest of the site infrastructure in an emergency.

A surface and groundwater risk assessment is provided in the application. A number of measures were taken to ensure a representative / conservative approach –

- The source data is based on IBA leaching data from three real EfW facilities.
- The risk assessment discounts the effect of the LTP and assumes the runoff would discharge directly into the settlement ponds without treatment.
- Assumed precipitation rates are based on nearby gauging stations.
- The risk assessment assumes 100% infiltration of the IBA and IBAA stockpiles.

The risk assessment concluded that, even under these conservative assumptions, once dilution in the settlement lagoons and the receiving surface water body are taken into account, the discharge will not result in a breach of relevant Environmental Quality Standards. In practice, the run off will be treated in a Leachate Treatment Plant reducing this risk further.

The Permit will set discharge limits for direct emissions water in line with the lower limits set out in BATc 34. These limits are all less than the relevant Environmental Quality Standards for surface water protection.

Compliance will be monitored at the outlet of the settlement pond which marks the end of the treatment system and the point at which treated run-off discharges into the wider lagoon system. Discharge limits will be set according to Table 1.

Parameter	Discharge Limit (mg/l)
Total suspended solids	10
Total organic carbon	15
Lead (Pb)	0.02
Ammonium-Nitrogen (NH <sub>4</sub> -N)	10
Sulphate (SO <sub>4</sub> <sup>-2</sup> )	400

Table 1: Emission Limit Values as required by BATc 34

Data from a similar facility in Exeter, using the same LTP design shows these limits are likely to be met.

Applicant:

Samples will be taken to represent daily averages i.e. 24 hour flow-proportional composite samples. Table 2 sets out the monitoring required for compliance with BATc 3 & 6.

Parameter	Monitoring Frequency
Flow	Continuously
pH	Continuously
Conductivity	Continuously
Total Suspended Solids	Monthly
Total Organic Carbon	Monthly
Lead	Monthly
Ammonium-Nitrogen (NH <sub>4</sub> -N)	Monthly
Sulphate (SO <sub>4</sub> <sup>-2</sup> )	Monthly

Table 2: Monitoring frequency as required by BATc 6

BATc 6 allows for the monitoring frequency to be reduced to once every six months if the emissions are proved to be sufficiently stable. SEPA will review monitoring frequency after one year of operation.

The applicant has proposed to carry out further monitoring of a range of additional parameters which are also included in the Permit.

Parameter	Monitoring Frequency
Chloride	Monthly
Ca, Mg, Na, K, Alkalinity, TON, Cd, Al, Cr, Cu, Mo, Ni, Sb, Zn, Fe, Mn	Quarterly
Hg	Annually

Table 3: Monitoring frequency for additional parameters

The Permit will require the development of a written monitoring plan to be agreed in writing with SEPA within 6 months of the date of the Permit.

### 5.3 Noise

The IBA storage and treatment facility is within a larger quarrying operation.

The December 2020 planning consent placed a limit on noise from the Goathill site as a whole. Noise from the quarry and all associated activities, including the IBA facility, shall not exceed 55dB, 1 hour (free field) at any noise sensitive premises except for noise from soil stripping or landscaping operations.

A Noise Assessment, undertaken in support of the planning application, predicted noise levels to be below the above limit. This includes the proposed new Asphalt and IBA storage and treatment facilities, as well as the existing quarry, concrete batching plant, storage area and testing laboratory.

There has been no history of noise complaints from the nearest sensitive receptors in the time that blasting and extraction have been taking place. Noise monitoring will take place on a quarterly basis at Easter Buckleyvie Farm which has been identified as a representative sensitive receptor.

SEPA will not seek to duplicate this limit in the PPC Permit as it applies to the whole site or try to set a limit for the IBA facility in isolation. Instead, the PPC Permit will focus ensuring there is a robust Noise Management Plan which seeks to implement practical steps to prevent and mitigate noise from the IBA storage and treatment facility and monitor for noise emissions.

BATc 1 requires that a Noise Management Plan including, as a minimum;

- A protocol for conducting noise monitoring
- A protocol for response to identified noise incidents, e.g. complaints
- A noise reduction programme designed to identify and characterise any noise, measure / estimate exposure, and implement prevention / mitigation measures.

A Noise Management Plan meeting these criteria was submitted as part of the application.

The Permit will require a systematic noise and vibration assessment to be carried out every four years with the aim of identifying sources of noise and mitigation measures. This report must be submitted to SEPA.

BATc 37 recommends a number of techniques to reduce or mitigate noise from IBA treatment. From the start of operations, the following noise measures will be adopted in line with BAT in addition to the monitoring described in the Noise Management Plan.

- Landscaped soil mounds and rock face surrounding the processing area will be retained
- An acoustic bund will be added to the western boundary
- The stockpiles and processing equipment will be positioned to take advantage of existing screening and bunding in the quarry.
- Regular maintenance of plant will be undertaken to ensure no unusual noise develops
- Reversing alarms will be broadband 'white noise' type and vehicle horns will not be used as part of routine operation.
- Engines will be switched off during prolonged stops.

Based upon the information in the application, the risk of harm from noise emissions is **low**.

#### 5.4 Raw Materials

Due to the nature of the activities on site, the options for replacing the raw materials consumed are limited.

#### 5.5 Waste Recovery or Disposal

Processing IBA into IBAA and recovering recyclable ferrous and non-ferrous metal is considered BAT in the context of municipal waste incineration. This proposal allows more resources to be recovered from residual waste than would be available if IBA went straight to landfill.

- Up to around 9,500 tonnes per year of metal will be recovered for sale into recycling markets. A more detailed breakdown of metal types and markets is provided in the application.
- Up to around 90,000 tonnes per year of IBAA will be recovered for use in construction products.

The facility will produce little waste itself. The two main streams are unburnt waste screened from the IBA and the solids from the settlement tank in the water treatment plant.

- Up to around 500 tonnes per year of unburnt waste will be returned to the EfW facility for incineration.
- Up to around 20 tonnes of settled solids will be sent off site for appropriate disposal. SEPA and CQRL will agree a suitable disposal route as part of ongoing dialogue.

#### 5.6 Energy

Mechanical excavators and mobile treatment plant are all diesel powered. At present there is no viable alternative.

The leachate treatment plant requires electrical input of approximately 70kW. This will be sourced from the on-site wind turbine or via the grid when the turbine is not operating.

#### 5.7 Accidents and their Consequences

This risk of significant pollution because of incidents and accidents is considered **low**. The key risk is in relation to the Leachate Treatment Plant. However, there is buffering capacity in the collection sump to support short term issues with the plant. There is also a shut-off valve at the outlet to the first settlement pond in case of emergency. This would enable temporary storage of surface water and recirculation into the leachate treatment plant where necessary.

Applicant:

The Permit will require the EMS to contain procedures for managing foreseeable incidents, leaks or malfunctions. Further, specific conditions will be included covering incident management.

## 5.8 Closure

The current planning application is to extend the quarry operations for 40 years. The new generation of Scottish EfW are expected to operate for around 25 years and are all in the early years of their operation. It is anticipated that IBA processing will continue for the life of the EfW facilities or the quarry operation. Definite closure will occur when the Installation ceases to accept IBA.

On cessation, the following will be undertaken –

- All stockpile IBA will be processed and sent for use.
- The site will be cleared of all IBA.
- The surface water run off tank will be emptied via the treatment plant.
- The treatment plant and associated infrastructure will be dismantled and removed.

The site condition will be assessed relative to the Baseline Report submitted as part of the application. If activities have resulted in a deterioration of the land or groundwater, these areas will be remediated and returned to a satisfactory state.

## 5.8 Site Condition Report

SEPA considers that in addition to a desk top site condition report, a baseline survey in line with our guidance document TG-02 is required.

Schedule 4, Part 1, paragraph 1 (1) of the PPC Regs requires applicants to provide –

- (i) a site report,
- (ii) where the permit will authorise an activity that involves the use, production or release of a relevant hazardous substance, a baseline report, ...”

The information required in a site report and baseline report is set out in Schedule 4, Part 1, paragraphs (2) and (3) respectively.

A site report must describe the condition of the site of the installation, and in particular must –

- a) describe any soil and groundwater contamination at the site,
- b) identify any pollutants in or on the land other than as described in paragraph (a),
- c) provide information on the present use of the site, and
- d) provide any available information on past uses of the site,
- e) Permit (Application) Number

A baseline report must provide soil and groundwater measurements for the site

- a) based on previously existing information if using that information provides an accurate description of the state of the site at the time of the report, or
- b) based on new information, having regard for that purpose to the possibility of soil and groundwater contamination by any hazardous substance to be used, produced or released by the Installation concerned

The purpose of the baseline report is to establish the site condition at the start of the PPC activity. When surrendering, the company would have to demonstrate that the site condition had not worsened beyond that identified in the initial Site Condition Report.

SEPA is content that a sufficient statement of site condition has been made. Infrastructure conditions to ensure soil and groundwater protection are included in the Permit.

**6 OTHER LEGISLATION CONSIDERED*****Nature Conservation (Scotland) Act 2004 & Conservation (Natural Habitats &c.) Regulations 1994***

**Is there any possibility that the proposal will have any impact on site designated under the above legislation? No**

The table in Annex A of SEPA's Nature Conservation Procedure specifies a 2km screening distance for a Part A section 5.4 Recovery activity.

Only one SSSI within the 2km screening area. SNH were consulted and stated – “The quarry's location is around a kilometre from Cullaloe Reservoir SSSI, designated for its open water. Due to the distance between them and the assumption that pollution prevention measures will be in place, it is unlikely that the proposal would have an impact on the SSSI.”

**7 ENVIRONMENTAL IMPACT ASSESSMENT AND COMAH**

**How has any relevant information obtained or conclusion arrived at pursuant to Articles 5, 6 and 7 of Council Directive 85/337/EEC on the assessment of the effects certain public and private projects on the environment been taken into account? N/A**

**How has any information contained within a safety report within the meaning of Regulation 7 (safety report) of the Control of Major Accident Hazards Regulations 1999 been taken into account? N/A**

**8 DETAILS OF PERMIT**

**Do you propose placing any non standard conditions in the Permit – No**

**Do you propose making changes to existing text, tables or diagrams within the permit? – No**

**9 FINAL DETERMINATION**

Issue a Permit – Based on the information provided, SEPA is satisfied that:

- The applicant will be the person who will have control over the operation of the installation
- The applicant will ensure that the installation is operated so as to comply with the conditions of the Permit,
- The applicant is a fit and proper person,
- The operator is in a position to use all appropriate preventative measures against pollution, in particular through the application of best available techniques.
- No significant pollution should be caused.

**10 REFERENCES AND GUIDANCE**

SEPA's Part A Practical Guide  
 NCP-P-01 (SEPA NATURE Conservation Procedure for Environmental Licensing)  
 Horizontal Guidance: Odour & Noise  
 IPPC H2 Horizontal Guidance Note, Energy Efficiency SEPA Odour Guide 2010  
 SEPA Guidance Control of Noise at PPC Installations.  
 IED-PG-01-01 SEPA Application and Duly Made Guidance  
 IED-PG-01-04 SEPA Public Participation Consultation Guidance