

Lower Melville Wood Landfill Site

Permit Variation

PPC/E/20085

Draft for Consultation

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Permit (Application) Number:

Applicant:

OFFICIAL – BUSINESS

1 NON TECHNICAL SUMMARY OF DETERMINATION

Lower Melville Wood Landfill site is operated by Fife Resource Solutions LLP under an existing PPC permit (PPC/E/20085). The permit was granted in August 2005 and has been varied on ten previous occasions.

Currently the site can accept a range of inert non-hazardous and stabilised non-reactive hazardous wastes for disposal. This application is to vary the current PPC permit to include the storage and treatment of IBA within the boundary of the Permitted Installation.

The application also requested the addition of specific EWC waste codes to allow mixed food/garden wastes to be accepted for a proposed food waste bulking shed, However, after further discussion with the Operator they have requested by email that this proposed variation be removed from the variation application.

IBA is one of the waste outputs from waste incineration or energy from waste (EfW) plants.

A designated, lined storage area will be constructed at Lower Melville Wood Landfill which will be used to store and treat the IBA. The construction is similar in design and characteristics to a landfill cell and is designed to collect and contain waste and rainwater runoff for collection and treatment at the site's permitted leachate treatment facility.

The IBA will be technically appraised by the producer prior to delivery to the site and validation testing will be undertaken at Lower Melville Wood Landfill using the ESA protocol (Environmental Services Association (ESA) "A Sampling and Testing Protocol to Assess the Status of Incinerator Bottom Ash). Testing will be undertaken twice per week for the initial 6 weeks of operation and thereafter on an agreed rolling programme.

The IBA will be treated using mobile plant to separate ferrous and non-ferrous metals out and typically produce 5 different grades of IBA aggregate (IBAA). The Operator proposes to sell the IBAA into local markets subject to SEPA requirements and guidelines.

The quantity of IBA accepted at the Permitted Installation will be a maximum of 45,000 tonnes per annum.

After considering the application SEPA is satisfied that the activity can be adequately controlled through the addition of a number of permit conditions to control the main risks that have been identified i.e. dust and noise during the mobile plant operation and suitably constructed storage and treatment area.

Glossary of terms

BAT - Best Available Techniques
CO - Coordinating Officer
ELV - Emission Limit Value

2 EXTERNAL CONSULTATION AND SEPA'S RESPONSE

Is Public Consultation Required - Yes

Advertisements Check:

Date

Compliance with advertising requirements

Edinburgh Gazette	7 August 2020	Yes
The Courier (Fife)	8 August 2020	Yes
Officer checking advert:		
No. of responses received: None		
Summary of responses and how they were taken into account during the determination: N/A		
Summary of responses withheld from the public register on request and how they were taken into account during the determination: N/A		
Is PPC Statutory Consultation Required – Yes		
Food Standards Agency: N/A		
Fife Health Board: No response		
Fife Local Auth: No comment to make. Currently assessing full planning permission application for proposal at time of SEPA consultation.		
Scottish Water: N/A		
Health and Safety Executive: No response		
Scottish Natural Heritage (PPC Regs consultation): N/A - no designated sites within screening distance.		
Discretionary Consultation - N/A		
Enhanced SEPA public consultation - No		
'Off-site' Consultation - No		
Transboundary Consultation - No		
Public Participation Consultation - Yes		
<p>STATEMENT ON THE PUBLIC PARTICIPATION PROCESS</p> <p>The Pollution Prevention and Control (Public participation)(Scotland) Regulations 2005 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.</p>		

Date SEPA notified applicant of draft determination	
Date draft determination placed on SEPA's Website	30/08/2021
Details of any other 'appropriate means' used to advertise the draft	
Date public consultation on draft permit opened	30/08/2021
Date public consultation on draft permit consultation closed	
Number of representations received to the consultation	
Date final determination placed on the SEPA's Website	
Summary of responses and how they were taken into account during the determination:	
Summary of responses withheld from the public register on request and how they were taken into account during the determination:	
Officer:	

3 ADMINISTRATIVE DETERMINATIONS
Determination of the Schedule 1 activity
No change to existing activities - additional schedule 1 activity to be added. Condition 1.1.4.3.
Determination of the stationary technical unit to be permitted:
No change to existing – additional activity added to stationary technical unit. Condition 1.1.5.3.
Determination of directly associated activities:
No change
Determination of 'site boundary'
Modification of existing delineated site boundary to fully encompass physical site boundary.
Officer: CO

4 INTRODUCTION AND BACKGROUND

4.1 Historical Background to the activity and variation

Lower Melville Woods landfill is currently permitted for landfill activities including a leachate treatment plant and leachate storage lagoon. The site is a non-hazardous landfill accepting

industrial and commercial wastes into cells with an engineered liner system. The site permit also allows the deposit of stabilised non-reactive hazardous material and asbestos.

The landfill was initially regulated under Waste Management Licence (WML/E/20063) from May 1998. The site has been under PPC since August 2005 and has been varied 10 times prior to this application.

The variation to the permit is to vary its current PPC permit to include the storage and treatment of incinerator bottom ash (IBA) at the permitted installation.

4.2 Description of activity

Storage and treatment of non-hazardous incinerator bottom ash (IBA).

Outline details of the Variation applied for

Storage and treatment of Incinerator Bottom Ash (IBA) at a dedicated storage and treatment area. Maximum of 45,000T per annum. Treatment will be undertaken using mobile plant.

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

N/A

4.4 Identification of important and sensitive receptors

Human Receptors -

The Installation has two small villages, Giffordtown (900m to the south-west) and Charlottestown (970m to the south-south/west).

Binns Farm is located approximately 90m to the north-west of the boundary of the proposed storage and treatment area.

5 KEY ENVIRONMENTAL ISSUES

5.1 Summary of significant environmental impacts

Potential for the release of contaminants to air (via dust generation), groundwater and surface water.

The existing and proposed permit conditions and management practices on site should adequately control potential environmental impacts from the activities. If the proposed process is managed in compliance with the existing and proposed conditions, then there should be no significant environmental impacts from the activities.

5.2 Implications of the Variation on - Point Sources to Air

No change. There are no point sources emissions to air.

5.3 Implications of the Variation on - Point Source Emissions to Surface Water and Sewer

No change. The storage and treatment area will be a sealed, bunded area with sealed sump. All collected water/leachate will be treated at the site leachate treatment plant under the respective permit conditions and controls.

5.4 Implications of the Variation on - Point Source Emissions to Groundwater

No changes anticipated as the storage and treatment area is contained and sealed. However, a new condition has been added requiring additional boreholes and associated monitoring to confirm/monitor the pad containment.

5.5 Implications of the Variation on - Fugitive Emissions to Air

Potential for dust generation and escape from site operations. Condition 2.15.2 added to mitigate and control any issues.

5.6 Implications of the Variation on - Fugitive Emissions to Water

No change. No fugitive emissions to water anticipated.

5.7 Implications of the Variation on - Odour

No change anticipated. SEPA's standard odour condition is present in the existing permit conditions and would be sufficient control if required.

5.8 Implications of the Variation on - Management

The Operator has submitted a document – Operating Techniques – with their application which describes the management system to be implemented to ensure that all appropriate pollution prevention and control techniques will be delivered reliably and on an integrated basis in relation to the proposed activity. Condition 3.4 has been added to require the incorporation of this document into the current Management plan for the Permitted Installation.

5.9 Implications of the Variation on - Raw Materials

There will be negligible implications on raw material as a result of the variation. The pad will be constructed primarily using existing site soils and recycled IBA.

5.10 Implications of the Variation on - Raw Materials Selection

Use of GCL and HDPE liner system. The alternative would be use of a clay liner, however there are no sources of clay on or close to the site and the import of the required tonnages would be significantly more environmentally harmful due to increased haulage requirements.

5.11 Implications of the Variation on - Waste Minimisation Requirements

Removal and recovery of ferrous and non-ferrous metals. The conversion of IBA - which would normally go for disposal - into an alternative for virgin aggregate in specified circumstances.

5.12 Implications of the Variation on - Water Use

Negligible impact on water use. If required to minimise dust during treatment activity this would only be for potentially 6-8 weeks per annum.

5.13 Implications of the Variation on - Waste Handling

Additional waste handling requirements due to storage and treatment of incinerator bottom ash. Procedures for waste handling operations contained in Operating Techniques document. This document to be incorporated into current site management plan by condition 3.4.

5.14 Implications of the Variation on - Waste Recovery or Disposal

Additional recovery of up to 45,000 tonnes per annum due to proposed additional Schedule 1 activity.

5.15 Implications of the Variation on - Energy

Additional fuel will be used to treat the IBA. This will only occur approximately 6-8 weeks per annum under current proposal.

5.16 Implications of the Variation for - Accidents and their Consequences

No change.

5.17 Implications of the Variation for - Noise

The Operator has had a Noise Impact Assessment carried out and this has concluded that there should be no adverse impact from the proposed activities. However, the assessment could not be undertaken under the actual operating conditions therefore it is proposed to delete the existing permit condition relating to noise and vibration (condition 2.10) and replace it with updated conditions (conditions 2.10.1, 2.10.2 and 2.10.3). These conditions will require a further noise assessment to be undertaken on the first use of the treatment plant to verify the validity of the original Noise Impact Assessment.

5.18 Implications of the Variation for - Monitoring

Increase in the overall number of monitoring points across the site. Additional ground water boreholes required within 6 months of variation being granted. Addition of aluminium to quarterly analysis requirements for the new boreholes required following consultation with hydrogeology. IBA monitoring and analysis to be undertaken as identified in the Operating Techniques document (which will form part of the Management Plan).

5.19 Implications of the Variation for - Closure

No change.

5.20 Implications of the Variation for - Site Condition Report (and where relevant the baseline report)

No change.

5.21 Implications of the Variation for - Consideration of BAT

BAT considerations covered in Operating Techniques document.

6	OTHER LEGISLATION CONSIDERED
	<i>Nature Conservation (Scotland) Act 2004 & Conservation (Natural Habitats &c.) Regulations 1994</i>
	Is there any possibility that the proposal will have any impact on site designated under the above legislation? No
	Justification: No designated sites identified within screening zone.
	Screening distance(s) used – 2km
	Officer: CO

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

Officer: CO

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? Yes

Outline of change: Insert additional activity – storage and treatment of Incinerator Bottom Ash (IBA) – and relevant conditions to apply controls to this activity. Requirement for additional groundwater boreholes and monitoring of these boreholes. Change to site plan to include full site boundary. Additional plan identifying storage and treatment pad for IBA.

Details including justification: Proposed conditions contained in attached document (LMW_variation_draft.doc). Justifications identified in section 5 above.

9 EMISSION LIMIT VALUES OR EQUIVALENT TECHNICAL PARAMETERS/ MEASURES

Are you are dealing with either a permit application, or a permit variation which would involve a review of existing ELVs or equivalent technical parameters? No

Justification: No changes to existing monitoring requirements. Additional boreholes do not affect existing ELV's or introduce additional ELV's.

10 PEER REVIEW

Has the determination and draft permit been Peer Reviewed?

Name of Peer Reviewer and comments made: EP site officer. Minor typos identified and corrected. Additional peer review carried out by Spec II W&I Permitting Team. Corrections to delineation colour of updated plan. Insertion of storage limit. Re-arrangement of borehole and monitoring conditions to clarify requirements.

11 FINAL DETERMINATION

Based on the information available at the time of the determination 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/mobile plant is operated so as to comply with the conditions of the Permit;
- The applicant is a fit and proper person (specified waste management activities only);
- Planning permission for the activity is in force (specified waste management activities only);
- That the operator is in a position to use all appropriate preventative measures against pollution, in particular through the application of best available techniques;
- That no significant pollution should be caused.

Consequently, we have determined to deem the application granted subject to the inclusion of specific permit conditions.

Officer: CO

12 REFERENCES AND GUIDANCE

SEPA's Part A Practical Guide

IED-PG-01-01 SEPA Application and Duly Made Guidance

IED-PG-01-04 SEPA Public Participation Consultation Guidance

Horizontal Guidance: Odour & Noise