CAULMERT LIMITED

Engineering, Environmental & Planning Consultancy Services

Ewloe Waste Recycling Facility

Thorncliffe Building Supplies Ltd

Environmental Permit Variation Application

Activities & Operating Techniques Report

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1. INTRODUCTION

1.1 Document context

1.1.1 This Activities and Operating Techniques Report is in response to the environmental permit application form C3 for variations to bespoke installation permits and as such focuses on requirements for facilities covered by the IED Directive.

1.1.2 The C3 form requests information about the activities the variation relates to and the operating techniques that will apply to them. Information is requested on: -

a) Activities to be varied;

b) Types of waste to be accepted;

c) Emissions;

d) Operating techniques including technical standards;

e) General requirements in relation to amenity and accident risks;

f) Types and amounts of raw materials;

g) Information for specific sectors (e.g. the combustion sector and the hazardous and non-hazardous waste recovery and disposal sector);

h) Monitoring of point source emissions;

i) Resource efficiency and climate change.

1.2 Document structure

1.2.1 This 'Activities and Operating Techniques Report' has been prepared to provide responses to the environmental permit application form part C3 which relates to the issues listed above. To aid cross-referencing between this 'Activities and Operating Techniques Report' and the application form, the various issues are presented in the same order as in the application form and the headings in this document include reference to the specific question number to which the information relates.

2. ACTIVITIES

2.1 Activities to be varied (Part C3 question 1)

2.1.1 The proposed addition of Section 5.4 A (1) (a) (iii) disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day involving pre-treatment of waste for incineration or co-incineration.

2.1.2 Question 1 of Part C3 requires a table to be completed with details of all the activities listed in schedule 1 of the Environmental Permitting Regulations and all directly associated activities (DAAs) (in separate rows), which are proposed to be carried out at the installation. Table 1a from the application form have been replicated and completed as table 1 below.

2.1.3 The current permit provides references for the current waste operations carried out.

2.1.4 Only listed activities subject to this variation relate to the disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day involving pre-treatment waste for incineration or co-incineration.

2.1.5 The existing waste operations have also been included in the Table 1 below.

Table 1: Schedule 1 activities

Schedule 1 listed activities					
Installation name	Schedule 1 references	Description of the Activity (Schedule 1 wording & site specific description)	Activity capacity	Annex IIA or IIB (disposal and recovery codes) and description	Non-hazardous waste treatment capacity
Ewloe Waste Recycling Facility	Section 5.4 Part A(1)(a)(iii)	Production of RDF. Schedule 1: "disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day involving pre-treatment waste for incineration or co-incineration."	200 t/d	**D15**: Storage of waste pending *any* of the operations listed in paragraphs 1 to 14 of this Part of this Schedule, but excluding temporary storage, pending collection, on the site where the waste is produced. **R13**: Storage of waste pending *any* of the operations listed in paragraphs 1 to 12 of this Part of this Schedule, but excluding temporary storage, pending collection, on the site where it is produced. **D14**: Repackaging of waste prior to the waste being submitted to *any* of the	200 t/d

Schedule 1 listed activities					
Installation name	Schedule 1 references	Description of the Activity (Schedule 1 wording & site specific description)	Activity capacity	Annex IIA or IIB (disposal and recovery codes) and description	Non-hazardous waste treatment capacity
				operations listed in paragraphs 1 to 13 of this Part of this Schedule. **D9**: Physico-chemical treatment of waste not listed elsewhere in this Part of this Schedule which results in final compounds or mixtures which are discarded by means of any of the operations listed in paragraphs 1 to 12 of this Part of this Schedule (for example, evaporation, drying, calcination). **R3**: Recycling or reclamation of organic substances that are not used as solvents, including composting and other biological transformation processes. **R4**: Recycling or reclamation of metals and metal compounds. **R5**: Recycling or reclamation of other inorganic materials.	
Directly associated activities					
Name of DAA	Description of the DAA (including which Schedule 1 activity it serves)				
RDF Production	• Waste Storage, RDF storage • Other waste processes such as bulking up, repackaging, baling, compaction, associated with handling the wastes or residues;				
For installations that take waste					
Total storage capacity	1,000 tonnes				
Annual throughput	125,000 t (total annual throughput for site)				

2.1.6 Remaining waste management activities as detailed within the permit are detailed in Table 2 below:

Table 2 Remaining waste management operations

	Description of activities	Limits of activities
Household, commercial and industrial waste transfer station with treatment	**D15**: Storage of waste pending *any* of the operations listed in paragraphs 1 to 14 of this Part of this Schedule, but excluding temporary storage, pending collection, on the site where the waste is produced. **R13**: Storage of waste pending *any* of the operations listed in paragraphs 1 to 12 of this Part of this Schedule, but excluding temporary storage, pending collection, on the site where it is produced. **D14**: Repackaging of waste prior to the waste being submitted to *any* of the operations listed in paragraphs 1 to 13 of this Part of this Schedule. **D9:** Physico-chemical treatment not specified elsewhere in this Annex which results in final compounds or mixtures which are discarded by means of any of the operations numbered D1 to D12 (e.g. evaporation, drying, calcination, etc.) **R3**: Recycling/reclamation of organic substances which are not used as solvents **R4**: Recycling/reclamation of metals and metal compounds **R5**: Recycling/reclamation of other inorganic compounds	All waste must be stored on impermeable surface with sealed drainage. Wood and green waste may be treated either outside or within a building. All other waste must be treated within a building. The following wastes may be stored either outside or within a building : - clean segregated recyclables (consisting of glass, baled paper, plastics, plasterboard) - asbestos - WEEE - tyres - wood and green waste All other waste must be stored within a building. Treatment operations shall be limited to mechanical and/or manual: - sorting - separation - screening - baling - compaction - shredding (of wood and mixed wastes only) - metal removal (with magnets or eddy current) - baling (of card and paper) - bulking up for the purpose of disposal or recovery. There shall be no treatment of hazardous or WEEE wastes other than bulking up for onward transport. Asbestos waste shall be double bagged and stored within clearly identified segregated, secure lockable containers. The maximum quantity of tyres (coded as 16 01 03) stored at the site shall not exceed 50 tonnes at any one time. The maximum quantity of hazardous waste stored at the site shall not exceed 10 tonnes at any one time. Waste types as specified in Table S2.1 of the permit.
Soil, soil substitutes and aggregates processing facility	**R13**: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced) **R3**: Recycling/reclamation of organic substances which are not used as solvents	Inert waste, uncontaminated soils and aggregate may be stored and treated on hardstanding or on impermeable surface with sealed drainage. Treatment operations shall be limited to mechanical and or manual: - screening - crushing - blending - bulking up

	R5: Recycling/reclamation of other inorganic compounds	for the purpose of recovery only. Waste types as specified in Table S2.3 of the permit

2.1.7 Annual throughput for the whole site is 125,000 tonnes per year. The total storage capacity for the whole site is 5,500 tonnes at any one time.

2.2 Types of waste accepted (Part C3 question 1)

2.2.1 The waste list is outlined in the current permit and remains unchanged.

3. EMISSIONS (PART C3 QUESTION 2)

3.1 Point source emission to sewers, effluent treatment plants or other transfers off site

3.1.1 Any potentially contaminated water will continue to drain to the sumps to the north of the site and drain to sewer via a three stage interceptor.

3.1.2 Rainwater is harvested from the roofs and used for dust control and cleaning.

3.1.3 Further details of the site drainage system can be found in the operating techniques section of this application.

3.2 Point source emission to water (other than sewers)

3.2.1 There are no existing surface water emission points from this operation.

3.3 Point source emission to land

3.3.1 Not relevant to this application.

4. OPERATING TECHNIQUES

4.1 Technical standards (Part C3 question 3a)

4.1.1 Question 3a asks that relevant technical guidance notes for each activity at the installation should be specified. Table 3 below is a summary table of the technical guidance that will apply either fully or in part to the treatment activities. For the avoidance of doubt with regards to which of the guidance or standards that apply, the relevant technical standards which apply to this activity are detailed separately below.

Table 3: Technical standards – RDF Production

Description of Schedule 1 activity or directly associated activity	Relevant technical guidance note or Best available techniques as described in BAT conclusions under IED	Document reference
Activity ref A1: Section 5.4 Part A(1)(a)(iii) Production of RDF	Relevant parts of Sector Guidance Note IPPC S5.06: Guidance for the Treatment and Transfer of Hazardous and non-Hazardous Waste.	Process description in section 5.2 of this document & 'Operational Techniques & *BAT review*' (doc. ref. 2784-CAU-XX-XX-RP-V-302-A0-C1) in Appendix 2 of this document. Amenity and Accident Risk Assessment (document ref 2784-CAU-XX-XX-RP-V-303-A0-C1). - Environmental management system Ewloe Barn Industrial Estate Transfer Station, Working Plan Doc Ref 2875-01 -Fire Prevention and Response Plan, Ewloe Barn Industrial Estate Transfer Station Doc Ref 2875-012-J. -Dust Management Plan, Ewloe Barn Industrial Estate Transfer Station Doc Ref 2875-012-H.

4.1.2 For many installation activities, a 'sector guidance note' (SGN) have been published which sets out in detail the indicative 'best available techniques' (BAT) standards for how to carry out those activities. The sector guidance notes are based on European BAT reference document (BREFs) that are intended to ensure European consistency in the understanding of what is BAT for a certain sector.

4.1.3 There is a specific SGN for treatment of non-hazardous waste, which is 'Sector Guidance Note IPPC S5.06. Guidance for the recovery and disposal hazardous and hazardous waste.'

4.2 Process description (Part C3 question 3a)

4.2.1 A process description for the activity being varied is requested by the application form.

4.2.2 A full process description is provided in Appendix 1 to this document within the '*Installation Techniques & BAT review'* document.

4.3 General requirements – amenity and accidents (Part C3 question 3b)

4.3.1 It is a general requirement for all applications to consider the risk of emissions in relation to possible accidents, fugitive emissions, odour and noise and vibration. Risk assessments were carried out using the Environment Agency's templates for amenity and accident risk assessments. The risk assessment is provided as a separate part of this application.

4.4 Types and amounts of raw materials (Part C3 question 3c)

4.4.1 Please refer to treatment process description BAT review document (Ref 2784-CAU-XX-XX-RP-V-302-A0-C1) for further detail.

4.5 Information for specific sectors (Part C3 question 3d)

4.5.1 For certain sectors, information related to how the criteria of the relevant sector guidance notes for those sectors should be provided.

4.5.2 The specific questions for the waste treatment sector are relevant to this application and is covered by the sector guidance for the recovery and disposal of hazardous and non-hazardous waste (SGN IPPC S5.06) as described under the technical standards in 5.1 above.

5. MONITORING

5.1 Measures for monitoring point source emissions (Part C3 question 4a)

Emissions to air

5.1.1 There will be no point source emission points to air so monitoring is not proposed.

Emissions to water (other than sewers)

5.1.2 There will be no point source emission points to surface water so monitoring is not proposed.

6. RESOURCE EFFICIENCY AND CLIMATE CHANGE

6.1 Basic measures for improving energy-efficiency of activities (Question 6a)

6.1.1 Please refer to treatment process description BAT review document (2784-CAU-XX-XX-RP-V-302-A0-C1) for further detail.

6.2 Breakdown of changes to the energy used and created (Question 6b)

6.2.1 The main energy requirement is the plant and equipment associated with the recycling facility e.g. Trommel, shredder, conveyor belts, separation equipment and potential baling equipment. The majority of the plant and equipment is diesel powered, fuel consumption is estimated at approximately 94,000 litres per annum.

6.2.2 Please refer to treatment process description & BAT review document (Ref 2784-CAU-XX-XX-RP-V-302-A0-C1) for further detail for plant and equipment used in the process.

6.3 Climate-change levy agreement or specific measures (Question 6c)

6.3.1 It is requested that where no Climate Change Levy Agreement has been entered into, a description of the specific measures the operator will use for improving the energy efficiency must be provided.

6.3.2 Please refer to treatment process description & BAT review document (2784-CAU-XX-XX-RP-V-302-A0-C1) for further detail for plant and equipment used in the process.

6.4 Raw and other materials, other substances and water to be used (Question 6d)

6.4.1 The types and quantities of raw materials were provided in response to question 3c.

6.4.2 Raw materials used within the plant are detailed further in the BAT Review document.

6.4.3 The operator will select the least harmful products to use in the operation wherever possible.

6.4.4 The operator will keep Material Safety Data Sheets for all products used at the facility and will monitor the quantity of materials used. This will provide data for regular reviews on the use of raw materials usage at the facility.

6.4.5 Water usage is small and currently limited to cleaning and for domestic purposes.

6.5 Compliance with the Council Directive 2006/12/EC on waste (Question 6e)

6.5.1 With respect to the Waste Framework Directive, the installation is operated to optimise efficiency with regards to the hierarchical approach required by the Directive.

6.5.2 In relation to the prevention of waste generation these activities onsite do not generate significant volumes of additional waste.

6.5.3 The wastes that will be generated will be small amounts of waste from plant maintenance. Disposal/recovery options will be considered on an ad-hoc basis in line with the waste hierarchy.

7. REFERENCES

7.1.1 Natural Resources Wales (2016): Guidance for environmental permit applications: Part C3: Varying an installation Permit. Version 1, July 2016.

7.1.2 Directive 2008/98/EC of the European and of the Council of 19 November 2008 on waste and repealing certain Directives.

7.1.3 The Environmental Permitting (England and Wales) Regulations 2010 (as amended).

7.1.4 Environment Agency (2007): Sector Guidance Note IPPC S5.06. Guidance for the Recovery and Disposal of Hazardous and Non Hazardous Waste.

7.1.5 Environment Agency (2011): Application for an Environmental Permit. Version 6, December 2012.

7.1.6 Natural Resources Wales (2014): How to comply with your environmental permit.

7.1.7 Environment Agency (2013): Understanding the meaning of regulated facility. RGN 2 version 3.0.

APPENDIX 1

Operational Techniques and BAT review

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