

# **Caulmert Limited**

Engineering, Environmental & Planning  
Consultancy Services

## **Brecon Waste Transfer Station**

**Potters Waste Management**

### **Supporting Document**

**Environmental Permit Variation Application**

#### **Prepared by:**

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## APPROVAL RECORD

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(t/a Potters Waste Management)

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## **1. INTRODUCTION**

### **1.1 Application context**

1.1.1 Caulmert Limited were appointed by Sundorne Products (Llanidloes) Limited, trading as Potters Waste Management, to prepare an Application for a variation to an existing permit for the Brecon Waste Transfer Station in Powys (hereinafter called 'the site').

1.1.2 The site has been permitted as a transfer station and civic amenity site since 1993 (licence number 03/93 or EAWML/30106). Sundorne Products (Llanidloes) Limited has operated the site as a transfer station on behalf of Powys County Council since 2001. The main purpose of the variation is to extend the permitted area slightly to west to allow for the construction of a new waste transfer building on land adjacent to the site.

### **1.2 Site location**

1.2.1 The site is located within a rural area near Llanwern, Brecon, Powys, Wales. A site location plan can be found in the part 3 of this application.

### **1.3 Document structure**

1.3.1 This Supporting Document has been prepared to provide additional information to support the information provided in the environmental permit variation application form parts C2 and C4. To aid cross-referencing between this Supporting Document 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 the relevant part of the application form as well as the specific question number to which the information relates.

## **2. PROPOSED CHANGES**

### **2.1 Changes to existing activities (Part C2 question 2b)**

2.1.1 The existing permit allows for the storage of general biodegradable wastes and hazardous household wastes (bonded asbestos and lead acid batteries).

2.1.2 The proposed changes to the site operations are as follows:

- a) Extension to the permitted area.
- b) A wider range of physical treatment activities for non-hazardous wastes to be permitted, including sorting, compaction, baling and dewatering and mechanical segregation of roadsweepings and gully emptyings.
- c) The waste types permitted to be identified as EWC codes.

2.1.3 Details of the changes are described in section 5.1 and 5.2.

### 3. OPERATOR ABILITY

#### 3.1 Relevant offences (Part C2 question 3a)

- 3.1.1 The company has one relevant conviction in relation to a conviction in January 2011. The Environment Agency already holds on file a copy of a post conviction plan. This post conviction plan was prepared and submitted to the Agency in connection with an application for Bryn Posteg Composting Site submitted in September 2011, application reference EPR/CB3834RQ/A001.
- 3.1.2 The relevant people of Sundorne Products (Llanidloes) Limited are detailed in the table below.

**Table 2.1: Relevant people of Sundorne Products (Llanidloes) Limited**

| Name         | Position          | Date of Birth     |
|--------------|-------------------|-------------------|
| James Potter | Director          | 29 September 1959 |
| Jean Potter  | Company Secretary | 20 July 1956      |

#### 3.2 Technical ability (Part C2 question 3b)

- 3.2.1 The technically competent manager for the site holds Certificates of Technical Competence (CoTC) certificates for transfer of hazardous waste and treatment of non-hazardous waste. Copies of the CoTC certificates for the nominated technically competent manager are supplied in Appendix 1.

#### 3.3 Management system (Part C2 question 3d)

- 3.3.1 The management system for the site will comprise of a combination of documents covering generic issues for which there are company-wide procedures and site specific issues that are addressed separately.
- 3.3.2 Sundorne Products (Llanidloes) Limited who operates as Potters Waste Management is part of the Potter Group, along with G.F. Potter who operates as Potters Recycling. There are management systems in place that cover the waste activities within both Potters Recycling and Potters Waste Management. The company-wide management system, which this Site Management System complements, cover generic issues such as:

- the company's environmental policy statement;
- environmental objectives and targets;
- legal compliance;
- plans for training, awareness and competence of staff;
- document management and control procedures;
- records management;
- internal audits; and
- management reviews.

3.3.3 In addition to these company-wide procedures, site operations are carried out in line with the Working Plan for the site as required by the current permit. This will be replaced by a new Site Management System once the operation of the redeveloped facility commences.

#### 4. GENERAL SUPPORTING INFORMATION

##### 4.1 Site plans (Part C2 question 5a)

- 4.1.1 Site plans showing the site and its surroundings are presented in Part 3 (Plans) of this application. A description of the relevant plans submitted as part of this application is presented below in table 3.1 below.

**Table 3.1: List of submitted site plans**

| Drawing No. & Title | Content                      |
|---------------------|------------------------------|
| <b>Site plans</b>   |                              |
| Drawing 1514.EP.01  | Site Location Plan           |
| Drawing 1514.EP.02  | Proposed New Permit Boundary |
| Drawing 1514.EP.03  | Sensitive Receptors          |
| Drawing 1514.EP.04  | Proposed Site Layout Plan    |

- 4.1.2 An electronic copy of drawing 1514.EP.02 is available on the submitted CD for inclusion in the permit.
- 4.1.3 In addition, plans showing more detail in relation to the site setting are included in the GroundSure reports within the site condition report within this application.

##### 4.2 Site condition report (Part C2 question 5b)

- 4.2.1 A site report must be presented for any additional land to be permitted.
- 4.2.2 At the time of obtaining permits for the already permitted areas of the site, there was no requirement to prepare site condition reports or similar baseline contamination reports. As no such reports were prepared as part of the original permit applications for the site, the whole of the site is considered in a site condition report prepared for this application.
- 4.2.3 The site condition report was prepared on the basis of the Environment Agency's template. It is presented separately within this application in Part 6 (Site Condition Report).



**4.3 Non-technical summary (Part C2 question 5c)**

- 4.3.1 The site has been permitted as a transfer station and civic amenity site since 1993 (licence number 03/93). Sundorne Products (Llanidloes) Limited has operated the site as a transfer station on behalf of Powys County Council since 2001. The main purpose of the variation is to extend the permitted area slightly to west to allow for the construction of a new waste transfer building on land adjacent to the site.
- 4.3.2 The existing permit allows for the storage of general biodegradable wastes and hazardous household wastes (bonded asbestos and lead acid batteries).
- 4.3.3 The proposed changes to the site operations are as follows:
- a) Extension to the permitted area.
  - b) A wider range of physical treatment activities for non-hazardous wastes to be permitted, including sorting, compaction, baling and dewatering and mechanical segregation of roadsweepings and gully emptyings.
  - c) The waste types permitted to be identified as EWC codes.
- 4.3.4 The setting of the site is in a rural area with a few domestic dwellings within 500 metres. There is a Special Area of Conservation (SAC), Drostre Bank, which at its closest point is within 500 metres of the site.
- 4.3.5 An environmental risk assessment has been carried out in line with the Environment Agency's H1 guidance. The risk assessment identifies the necessary control measures for the proposed operations on site. The identified control measures constitute the technical standards that will be in place.
- 4.3.6 The control measures that will be in place include:
- The majority of waste handling operations to be located within buildings.
  - All waste, with the possible exception of baled recyclables and the proposed road sweeping waste processing plant, will be stored and handled only on areas provided with impermeable pavements not connected to the surface water drainage system for the site. Baled recyclables may be stored on external impermeable pavements

with surface water draining to an interceptor and off-site biological leachate treatment plant.

- Road sweeping waste and gully emptying to be dewatered and screened in specialised equipment providing containment and with segregated fractions being deposited straight into skips. Dewatering liquor is treated via the interceptor and an off-site leachate treatment plant.

#### **4.4 Environmental risk assessment (Part C2 question 6)**

- 4.4.1 An environmental risk assessment conducted in line with the Environment Agency's H1 guidance is presented separately within this application.

## 5. ACTIVITIES

### 5.1 Description of the operation (Part C4 question 1a)

5.1.1 Question 1a of application form Part C4 requires a table to be completed with details of each waste operation which will be carried out. This is to include the full Annex IIA or Annex IIB (disposal or recovery) descriptions from the Waste Framework Directive.

5.1.2 Table 1a from the application form has been replicated and completed below. The hazardous waste treatment capacity column is not included as there will be no treatment of hazardous waste.

| Waste facilities             |   |  |  |
|------------------------------|---|--|--|
| Name of the waste operation  | Description of the waste operation  | Annex IIA or IIB (disposal and recovery codes) and description   | Non-hazardous waste treatment capacity |
| Transfer station             | <p>Storage and simple physical treatment consisting of manual sorting, baling, crushing or compaction of waste.</p> <p>This is predominantly a transfer and bulking up operation but may also include segregation such as sorting recyclates and removing rejects from green waste as well as further processing of recyclates by baling, compacting or crushing prior to despatch for further recycling or recovery elsewhere.</p> | <p><i>R3 Recycling/reclamation of organic substances which are not used as solvents.</i></p> <p><i>R4 Recycling/reclamation of metals and metal compounds.</i></p> <p><i>R5 Recycling/reclamation of other inorganic materials.</i></p> <p><i>R13 Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced).</i></p> <p><i>D15 Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where it is produced).</i></p> <p><i>D14 Repackaging prior to submission to any of the operations numbered D1 to D13.</i></p> | 200 t/d                                |
| Roadsweeping waste treatment | Storage and physical treatment consisting of dewatering and mechanical separation such as screening of roadsweeping waste and non-hazardous gully emptying to recover sand and gravel (grit) and the fine   | <p><i>R13 Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced).</i></p> <p><i>R3 Recycling/reclamation of organic substances which are</i></p>   | 25 t/d                                 |

|                                 |  |  |     |
|---------------------------------|--|--|-----|
|                                 | organic matter fractions from the waste.         | <i>not used as solvents (including composting and other biological transformation processes).</i><br><i>R5 Recycling/reclamation of other inorganic materials.</i> |     |
| Food waste transfer             | Storage and bulking up of segregated food waste. | <i>R13 Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced).</i> | N/A |
| <b>For all waste operations</b> |  |  |     |
| Total storage capacity          | 500 t  |  |     |
| Annual throughput               | <25,000 t/yr                                     |  |     |

## 5.2 Types of waste accepted (Part C4 question 1b)

5.2.1 A new waste list has been included separately within the application in which wastes are identified in accordance with the List of Wastes (LoW) classification scheme. The waste list can be found in Part 4 of the application.

5.2.2 The currently permitted waste types are shown in Figure 1 below.

| Table B2.1 Permitted quantities of waste  |  |
|---|--|
| Permitted Waste Categories (equivalent UK Waste Classification Scheme categories given in brackets)   | Maximum Permitted Quantities for each waste category (tonnes/day)  |
| Inert wastes (Category 21).   | 200  |
| General and biodegradable wastes (Category 22; includes degradable household wastes, and degradable commercial and industrial wastes not covered by Categories 23 to 32). |  |
| Contaminated general wastes (Category 24).  |  |
| Metals and discarded (scrap) composite equipment (Category 23).   | Not permitted, except as items included in household, commercial and industrial wastes under 'General and biodegradable wastes' (Category 22). |
| Special wastes (in Categories 22 to 32).<br>26.02.00 Bonded asbestos  | Limited by maximum storage quantities.   |
| Other wastes:   |  |
| Bonded asbestos delivered by householders   |  |
| Lead acid batteries delivered by householders   |  |

**Figure 1: Current waste types (extract from Notice of Modification issued 10/12/01).**

- 5.2.3 As can be seen, the permitted wastes are not identified in accordance with the List of Wastes (LoW) classification system, and therefore a new LoW code waste list has been prepared and presented in Part 4 of the application. As part of the variation, the list of permitted wastes has been restricted to wastes that are more in line with the current operation proposals and so the site will no longer be able to accept wastes such as asbestos, lead acid batteries or metal containing equipment (e.g. WEEE).

## 6. EMISSIONS

### 6.1 Point-source emissions (Part C4 question 2)

- 6.1.1 There are no point source emissions that relate to the waste activities. All waste will be handled in buildings with no air emission points and sealed concrete floors with no runoff. However, other emissions from the site are described below for completeness.

#### ***Point source emissions to water (other than sewers)***

- 6.1.2 There is no direct runoff from the site to any surface water as all surface runoff is directed to an on-site interceptor which in turn is connected to a leachate treatment plant at the adjoining closed landfill.

#### ***Point source emissions to sewers, effluent treatment plants or other transfers off site***

##### Domestic sewage

- 6.1.3 The site is not within a sewered area, and domestic sewage from the proposed new welfare facilities in the weighbridge office will be directed to the existing septic tank. The location of the drainage system can be seen on drawing no 1541.EP.05 Drainage plan.
- 6.1.4 No runoff from areas intended for waste handling will be directed to the septic tank and the emission therefore does not need regulating through the permit.

##### Runoff from waste handling areas

- 6.1.5 As mentioned above, the existing concrete hardstanding areas and site roads drain to an interceptor on-site from where the liquid is piped to an aerobic biological treatment leachate plant at the adjacent closed landfill. The leachate treatment plant is operated by Powys County Council who also owns the transfer station facility.
- 6.1.6 The discharge point from the transfer station is the discharge point from the interceptor. This has been annotated as SW1 on the drainage plan, drawing no 1541.EP.05.
- 6.1.7 Following the redevelopment of the site, the proposals is for all waste other than possibly baled recyclables to be stored within buildings with sealed floors not being connected to the drainage system. As only solid wastes will be handled within the two

transfer buildings and as they will be maintained to prevent rainwater ingress, there will be no egress of water from the buildings.

- 6.1.8 If in future, the road sweepings and gully emptying processing equipment is installed, it would be located on a concrete area draining to the interceptor. The road sweepings and gully emptyings would be dewatered and subject to mechanical separation to recover materials with the liquor draining to the interceptor. The dewatering liquor would effectively be subject to a two stage process where the interceptor will remove oils and solids and further treatment of the biological oxygen demand will occur in the leachate treatment plant.

***Point source emissions to land***

- 6.1.9 Roof runoff from the proposed new waste transfer building will be directed to a new soakaway, as can be seen on drawing no 1541.EP.05 Drainage plan.
- 6.1.10 As the soakaway will not be used for discharge of any runoff from areas intended for waste handling, the emission does not need regulating through the permit.

## 7. OPERATING TECHNIQUES

### 7.1 Technical standards (Part C4 question 3a)

- 7.1.1 Question 3a of Part C4 asks for a description of the proposed technical standards which are described below and process descriptions which are presented in section 7.2.
- 7.1.2 The waste operations will be carried out in line with the operational standards described in *EPR 1.00: How to comply with your environmental permit*.
- 7.1.3 There is no sector specific Technical Guidance Note which sets out indicative best practice standards for waste operations.
- 7.1.4 References to the relevant technical guidance and the specific technical standards documents for the waste operations at this site are summarised in the table below.

| Description of waste operation                  | Relevant technical guidance note                        | Reference to document setting out technical standards for each activity   |
|---|---|---|
| <b>Waste operation: Brecon transfer station</b> |   |   |
| Transfer and treatment of non-hazardous waste.  | EPR 1.00: How to comply with your environmental permit. | Tables 1, 2, 3 and 4 of the <i>Amenity and Accident Risk Assessment</i> . |

### 7.2 Operations description (Part C4 question 3a)

- 7.2.1 The site is currently permitted as a transfer station and civic amenity site but has for some time been used only as a transfer station, accepting a very narrow range of wastes (green waste, kerbside collected recyclables, residual/mixed household/commercial waste).
- 7.2.2 Planning permission is currently being sought for extension and improvements to the site involving the erection of a new waste transfer building and additional concrete surfacing. Drawing number 1514.EP.04 is the proposed site layout plan and shows where waste will be handled and stored after redevelopment of the site. The activities to be carried out in future will consist of the following distinct operations, which are described in more detail below:



- a) Transfer station for non-hazardous waste.
- b) Food waste transfer.
- c) Road sweeping waste treatment.

***Transfer station for non-hazardous waste***

- 7.2.3 The proposal is for the current waste transfer activities are to be relocated to a new purpose built building. All waste (with the exception of food waste and street sweepings/gully waste) will be offloaded into containers or bays within the new transfer where it will be bulked up, and reloaded for transfer to other sites for final disposal or recovery elsewhere.
- 7.2.4 Some limited physical treatment may also take place as part of the waste transfer activities. These may also include segregation such as sorting recyclates and removing rejects from green waste as well as further processing of recyclates by baling, compacting or crushing prior to despatch for further recycling or recovery elsewhere.
- 7.2.5 The building will be provided with doors which will enable aerial containment of litter and dust and it will be constructed of materials providing noise attenuation. The floor of the building will be impermeable with no drainage structures allowing escape of any runoff from the material.

***Food waste transfer***

- 7.2.6 Food waste will be handled as a separate waste stream. It is proposed that the existing building on site will be used exclusively for the transfer and bulking up of kerbside collected food waste. As well as the kerbside collected food waste (EWC code 20 01 08), the facility may also in future accept other food waste from food preparation facilities (EWC codes under chapter 02). Only solid wastes will be accepted.
- 7.2.7 The food waste will be deposited directly into the building providing a covered space which is protected from birds and facilitates easier control of insects and rodents.
- 7.2.8 The building is split level and collection vehicles for the kerbside collected food waste will reverse into the building and tip the waste straight into a larger container placed at

the lower level of the building. When this container is full it will be despatched for recovery elsewhere. However, food waste will not be stored for any longer than 48 hours (or 72 hours if over bank holiday or weekends).

- 7.2.9 The construction of the building with a sealed concrete floor means that it is easy to clean and disinfect. The floor of the building is impermeable with no drainage structures allowing escape of any runoff from the material. As only solid waste will be accepted and as the building prevents ingress of rainwater, there will be no liquid runoff from the facility.

***Road sweeping waste treatment***

- 7.2.10 Road sweepings and non-hazardous gully emptying may in future be accepted into the site for dewatering and possibly mechanical segregation using process plant designed specifically for the handling of road sweepings and gully emptying to allow recovery of inert grit and the fine organic matter fractions from the waste. The area that would be used for this activity is the existing concrete bays as indicated on the proposed site layout plan.
- 7.2.11 It would be the intention to deposit the road sweepings/gully waste directly into the process plant, although in case the plant was not working material would have to be stored untreated for a short period of time. Any untreated material would be deposited into a sealed container placed in the main transfer building.
- 7.2.12 The treatment would be carried out using an 'off the shelf' processing plant for road sweepings and gully emptyings. Whereas individual processing plants for street sweepings and gully waste arisings may differ in their configuration, the processing will involve the following steps:
- Dewatering: Road sweepers use water as they sweep so the material is likely to have some water within it. Similarly, gully emptying will be wet when delivered. Dewatering will be a passive process where the material is placed over a grid and any water will run through.
  - Screening: Processing plant is likely to be fitted with a small trommel screen that will enable segregation of the material based on weight and particle size.

- Segregated fractions for despatch: All fractions segregated through the screening, will be deposited straight from the processing plant into dedicated skips. Sand and gravel can be segregated for use in construction. Fine organic matter would be despatched for recovery if a suitable end-use can be identified or otherwise despatched to landfill. Oversized material that will include debris and some mineral particles will be despatched for landfilling.

7.2.13 Once materials have been segregated and placed in skips, they may also be stored temporarily in the new transfer building until despatch.

7.2.14 Liquor from the dewatering process would be discharged to the surface water drainage system which is fitted with an oil/water interceptor before discharge to the off-site treatment plant.

### **7.3 General requirements – amenity and accidents (Part C4 question 3b)**

7.3.1 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 as set out in the H1 annex (a) guidance. The H1 risk assessment is provided in part 5 of this application.

7.3.2 The risk assessments do not indicate that any of these potential issues are significant for this operation. Management plans for accidents, fugitive emissions, odour and noise and vibration are contained within the relevant risk assessment matrices (tables 1 to 4) of the Amenity and Accident Risk Assessment.

## 8. REFERENCES

1. Environment Agency (2008): Site condition report – guidance and templates. H5 version 2.0.
2. Environment Agency (2010): How to comply with your environmental permit. EPR 1.00.
3. Environment Agency (2012): Application for an Environmental Permit. Version 5, April 2012.
4. Environment Agency Wales (2001): Notice of modification to waste management licence. Licence no. 03/93.



## **APPENDIX 1**

### **WAMITAB certificates**



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