

Caulmert Limited

Engineering, Environmental & Planning
Consultancy Services

Bryn Posteg Landfill Site
Sundorne Products (Llanidloes) Limited

Environmental Permit Variation Application

Supporting Document

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Appendices

- Appendix 1** Expenditure Plan
- Appendix 2** List of Wastes for Restoration

1 INTRODUCTION

1.1 Application context

- 1.1.1 Bryn Posteg Landfill Site in Llanidloes, Powys is operated by Sundorne Products (Llanidloes) Ltd Trading as Potters Waste Management (Potters) under Environmental Permit EPR/BU7766IC.
- 1.1.2 Caulmert Limited were appointed by the operator to prepare an application to vary the existing permit to account for a revised landform at the site. The application also includes for wastes to be accepted as a recovery operation to enable the import of materials for the restoration of the site.

1.2 Document structure

- 1.2.1 This Supporting Document has been prepared to provide additional information to support the information provided in Parts C2 and C3 of the environmental permit application form for varying a bespoke permit. To aid cross-referencing between this 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 specific question number to which the information relates.

Part C2 – General – varying a bespoke permit

2 EXISTING PERMIT AND PRE-APPLICATION DISCUSSIONS

2.1 Part C2 – 1b: Pre-application discussions

2.1.1 Ongoing discussions have been taking place with Natural Resources Wales regarding the implications of the over-tip at the site and how to progress the site to completion.

2.2 Part C2 – 1c: Permit number

2.2.1 The permit (EPR/BU7766IC), was issued in May 2003, the status log of the permit shows a number of changes with the most recent variation determined in October 2017.

3 PROPOSED CHANGES

3.1 Part C2 – 2a: Type of variation

- 3.1.1 The Application has been prepared on the basis of a substantial variation and the appropriate fee has been submitted by BACs payment.

3.2 Part C2 – 2b: Non-technical Summary

- 3.2.1 A non-technical summary has been provided as part of this application, document reference 3428-CAU-XX-XX-RP-V-0313.

3.3 Part C2 – 2b Table 1: Details of proposed changes

- 3.3.1 The application question 2b requests that information should be given about changes to existing activities.
- 3.3.2 The permit currently relates to the installation which is Bryn Posteg Landfill along with its related activities. That is, the permit controls the landfill as a 'stationary technical unit' and 'directly associated activities' serving the landfill.
- 3.3.3 This permit variation is to amend the final restoration profile of the landfill to the latest restoration contours (Reference 3495-CAU-XX-XX-DR-S-1813) to account for previous overtipping and to enable the satisfactory completion of the site. Details and copies of plans are included within the ESID Report (3428-CAU-XX-XX-RP-V-0310-A0-C1).
- 3.3.4 In order to achieve this amendment to the final restoration profile of the landfill a further 116,657m³ of waste that is proposed to be imported into the site for disposal. This is in addition to the 333,302 m³ already overtipped.
- 3.3.5 Whilst it is the over-tip has resulted in slopes which are steeper than the criteria specified in SRA enclosed within this application, most of the external slopes to phases 3 and 9 were capped a number of years ago (from 2009 onwards) using an LLDPE geomembrane overlain by a drainage geocomposite and restoration soils, in accordance with the materials referenced in SRA Addendum 4, but on slopes steeper than the 1 in 5 detailed therein. As a result the overall FoS for these slopes will be between 1.01 and 1.3.
- 3.3.6 Currently the sections of slope which are steeper than 1 in 5 are not showing signs of distress or instability and on the basis of assessments undertaken and those assessments carried out previously in the development of the site's SRA, the weakest interface and the potential critical plane of instability in the capping design is between the drainage geocomposite and the overlying restoration soils. Failure of the slope along the critical plane would therefore result in the sliding of the restoration soils on top of the drainage geocomposite. Such a failure mechanism would not affect the integrity of the capping liner or the integrity of the containment afforded by the liner. Remediation would also be a simple matter of placing soils

back over the affected localised area. Over time the waste profile will settle and the FoS increase as a consequence.

- 3.3.7 Consequently the completion of the site to the profile proposed within this application is considered to be the environmentally acceptable option, compared with reprofiling the site with the potential impact on public health and safety and the potentially significant risks to the environment.
- 3.3.8 Additional technical assessment and modelling has been undertaken to assess potential impact of the revised restoration profile. These reports have already been submitted to NRW and are attached within this application together with an updated Environmental Setting and Installation Design (ESID) report.
- 3.3.9 The risk assessments submitted as part of the variation considers the environmental implications of the proposed scheme.
- 3.3.10 Relevant Management Plans have been updated and are also included within this application.
- 3.3.11 In addition it is proposed to accept the following waste list for recovery to enable the restoration of the site:

Table 1. Additional Waste Types Proposed

01	WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING, AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS
01 04	wastes from physical and chemical processing of non-metalliferous minerals
01 04 08	waste gravel and crushed rocks other than those mentioned in 01 04 07
01 04 09	waste sand and clays
02	WASTES FROM THE PREPARATION AND PROCESSING OF MEAT, FISH AND OTHER FOODS OF ANIMAL ORIGIN
02 04	wastes from sugar processing
02 04 01	soil from cleaning and washing beet
03	WASTES FROM WOOD PROCESSING AND THE PRODUCTION OF PANELS AND FURNITURE, PULP, PAPER AND CARDBOARD
03 03	wastes from pulp, paper and cardboard production and processing
03 03 05	de-inking sludges from paper recycling
03 03 09	lime mud waste
17	CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)
17 05	soil (including excavated soil from contaminated sites), stones and dredging spoil
17 05 04	soil and stones other than those mentioned in 17 05 03
17 05 06	dredging spoil other than those mentioned in 17 05 05

19	WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE
19 05	wastes from aerobic treatment of solid wastes
19 05 03	off-specification compost
19 08	wastes from waste water treatment plants not otherwise specified
19 08 05	sludges from treatment of urban waste water
19 09	wastes from the preparation of water intended for human consumption or water for industrial use
19 09 02	sludges from water clarification
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletizing) not otherwise specified
19 12 09	minerals (for example sand, stones)
19 13	wastes from soil and groundwater remediation
19 13 02	solid wastes from soil remediation other than those mentioned in 19 13 01
19 13 04	sludges from soil remediation other than those mentioned in 19 13 03
20	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS
20 02	garden and park wastes (including cemetery waste)
20 02 02	soil and stones

3.3.12 It is anticipated that the total volume of soils required to complete the restoration of the site is 50,788m³ which equates to a total of 91,418 tonnes at an average of 1.8 tonnes per m³

3.3.13 Further details are contained within the Environmental Setting & Installation Design Report.

4 OPERATOR ABILITY

4.1 Part C2 – 3a: Relevant offences

4.1.1 The application form specifies that details of any relevant offences only need to be provided when applying to add waste installations or waste operations to a permit that has not previously had them. No waste installations or waste operations are being added as part of the variation application.

4.2 Part C2 – 3b: Technical ability

4.2.1 The Operator already provides technically competent managers with relevant qualifications under the CIWM/WAMITAB scheme for technical competence to manage the landfill operations on site. Their requirement are not affected by this Application

4.3 Part C2- 3c: Finances

4.3.1 An updated Expenditure Plan has been produced in support of this application and is provided within Appendix 1 of this document.

4.4 Part C2 – 3d: Management system

4.4.1 Bryn Posteg Landfill and the associated activities on site are managed by the operator in accordance with a management system.

4.4.2 The Operator will implement a number of site specific procedures and documents to control the operations at the site.

4.4.3 The operator has implemented an environmental management system across the company to control the operations at their sites.

Identifying and minimising risks of pollution

4.4.4 Environmental risk assessments have been carried out for the purpose of this application which assesses the environmental risks from all the relevant activities affected by this application.

4.4.5 The risk assessment was also used as a tool for identifying the risk management measures that are important in minimising the risks of pollution. The identified risk management measures are considered to be the minimum technical standards which the site should operate to.

Operations and maintenance

4.4.6 With regards to the proposed activities, the control measures identified within the '*H1 Amenity and Accident Risk Assessment*' will form part of the technical standards for the site.

4.4.7 Maintenance is managed through maintenance schedules for all equipment on site.

Incidents and non-conformances

4.4.8 Any incidents or non-conformances will be recorded in the daily site records. A daily site inspection is carried out by a technically competent manager. Staff are also encouraged to report any issues to a technically competent manager.

Complaints

4.4.9 The company has a Complaints Procedure, which forms part of the management system for the site.

Staff training and competence

- 4.4.10 Training is provided so that all workers have a satisfactory understanding of their duties in relation to environmental and health & safety issues on site.
- 4.4.11 For machine and equipment operators, the company ensures that training and certification in relation to the particular machine is undertaken by all machine operators prior to their use of that machine.
- 4.4.12 As outlined in section 3.2 above, technically competent managers are WAMITAB trained and undergo continuing competence assessments as required under the CIWM/WAMITAB competency scheme.

Odour, noise and emissions management

- 4.4.13 The management system includes measures that will be taken to manage odour, noise and emissions.
- 4.4.14 In addition, the technical standards proposed for the management of odour, noise and other emissions, which were identified through the amenity and accident risk assessment for this application, will form part of the management system for the site.
- 4.4.15 The management measures are supported by the daily checks which are carried out by the technically competent managers who will consider the most appropriate action to take.

Documentation of legislative and other requirements

- 4.4.16 Copies of planning permissions, environmental permits and other relevant permissions are kept either as paper records or electronically.
- 4.4.17 The technically competent managers keep up-to-date with other legal requirements and changes to relevant environmental legislation through trade magazines and the NRW and EA websites.

Management reviews

- 4.4.18 Management periodically review the environmental performance of the company through their review of environmental audit reports and the daily site records.
- 4.4.19 The environmental policy statement is also reviewed periodically to ensure it reflects the company's operations and its environmental objectives.

5 SUPPORTING INFORMATION**5.1 Part C2 – 5a: Plans for the site**

5.1.1 This question requires that where an operator is seeking to add land as part of the variation application, a revised site plan that identifies all of the land on which the activities will take place must be submitted.

5.1.2 No land will be added to the permitted areas as a result of this variation.

5.2 Part C2 – 5b: Site report for any additional land or installation

5.2.1 As no additional land, or installations will be added, it is not necessary to submit a new site condition report.

5.3 Environmental Risk Assessments

5.3.1 A number of environmental risk assessments have been produced and are attached as part of the permit variation application.

APPLICATION FORM PART C3: Variation to a bespoke installation permit

6 WHAT ACTIVITIES ARE YOU APPLYING TO VARY

6.1 Part C3 – Table 1a: Types of activities

6.1.1 It is proposed to add Recovery Code R10 to the Environmental Permit for land deposit as a recovery operation. A new list of wastes for restoration has been produced and is provided within Appendix 2 of this document

6.2 Part C3 – Table 1b: Types of waste

6.2.1 This application seeks to amend the permitted waste types for the landfill to include a list of waste for restoration in addition to the existing waste accepted for landfilling.

6.2.2 The list of waste proposed is summarised in Appendix 2.

7 EMISSIONS TO AIR, WATER AND LAND

7.1 Part C3 – Table 2: Point Source Emissions to air, water and land

7.1.1 No new point source emissions to air, water or land are proposed as part of this permit variation.

8 OPERATING TECHNIQUES

8.1 Part C3 – Table 3a: Technical standards

8.1.1 Additional technical assessment and modelling has been undertaken to assess potential impact of the revised restoration profile. These reports have already been submitted to NRW and are attached within this application together with an updated Environmental Setting and Installation Design (ESID) report.

8.1.2 The risk assessments submitted as part of the variation considers the environmental implications of the proposed activity.

8.1.3 Relevant Management Plans have been updated and are also included within this application

8.2 Part C3 – Table 3b: General requirements

8.2.1 The proposed changes to the landfill activities carried have been assessed as part of this application.

8.3 Part C3 – Table 3c: Types and amounts of raw materials

8.3.1 The use of raw materials is unchanged.

8.4 Part C3 –3d Information for specific sectors - Appendix 7 Landfill Sector

8.4.1 The following documents have been provided in support of the Application:

- Updated ESID Report
- Revised Hydrogeological Risk Assessment
- Revised Stability Risk Assessment
- Revised Landfill Gas Risk Assessment

9 MONITORING

9.1 Part C3 –4a: Monitoring measures for point source emissions

9.1.1 Monitoring will continue as per the permit, no changes to the monitoring scheme are proposed as part of the variation.

9.2 Part C3 –4b: Point source emissions to air only

9.2.1 There are no predicted point source emissions to air resulting from this application.

10 RESOURCE EFFICIENCY AND CLIMATE CHANGE

10.1 Part C3 – 6a: Basic measures for improving how energy efficient your activities are

10.1.1 There are no proposed changes to the landfill activities carried out and so the required energy efficiency measures will remain unchanged.

10.2 Part C3 – 6b: Breakdown of any changes to the energy your activities use and create

10.2.1 There are no proposed changes to the landfill activities carried out so there are no changes to energy usage or production at the site.

10.3 Part C3 – 6c: Climate levy agreement

10.3.1 There are no proposed changes to the landfill activities carried out so there are no proposed changes to current energy efficiency measures.

10.4 Part C3 – 6d: Raw materials

10.4.1 There are no proposed changes to the landfill activities carried out so there are no proposed changes to raw material usage.

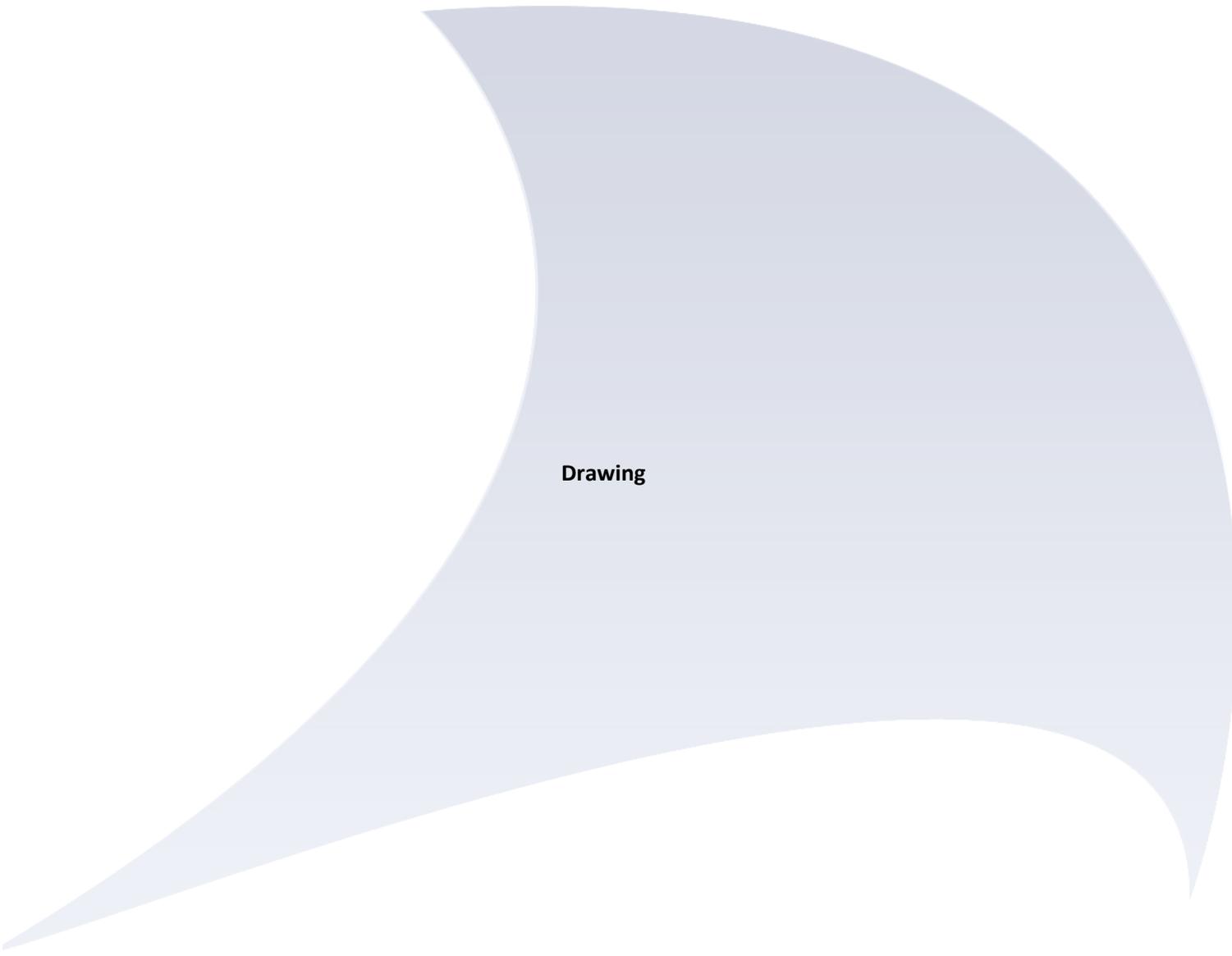
10.5 Part C3 – 6e: Waste minimisation

10.5.1 There are no proposed changes to landfill activities, there are no proposed changes to waste minimisation methods.

11 REFERENCES

Natural Resources Wales (2016): Application for an environmental permit – Part C2 – General – varying a bespoke permit. Version 1, July 2016.

Natural Resources Wales (2016): Application for an environmental permit – Part C3 – variation to a bespoke installation permit. Version 1, July 2016.



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