

# CRYMLYN BURROWS MATERIALS RECOVERY AND ENERGY CENTRE

**Environmental Permit Variation and Partial Surrender Application**

## **Site Condition Report**

Prepared for: Neath Port Talbot County Borough Council

Environmental Permit Ref: EPR/BJ5775IF

SLR Ref: 402.02718.00005  
Version No: 1  
November 2023



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## CONTENTS

<b>1.0</b>	<b>INTRODUCTION .....</b>	<b>1</b>
1.1.1	Original Site Conditions .....	1
1.1.2	Ongoing Activity.....	1
1.1.3	Surrender Application .....	1
<b>2.0</b>	<b>SITE DETAILS .....</b>	<b>2</b>
<b>3.0</b>	<b>CONDITION OF THE LAND AT PERMIT ISSUE .....</b>	<b>3</b>
3.1.1	Reference Documents.....	3
<b>4.0</b>	<b>PERMITTED ACTIVITIES .....</b>	<b>4</b>
4.1.1	Original Permitted activities.....	4
4.1.2	Reference Documents.....	4
<b>5.0</b>	<b>CHANGES TO THE ACTIVITY .....</b>	<b>5</b>
5.1.1	Dangerous Substances .....	7
<b>6.0</b>	<b>MEASURES TAKEN TO PROTECT LAND .....</b>	<b>8</b>
<b>7.0</b>	<b>POLLUTION INCIDENTS THAT MAY HAVE HAD AN IMPACT ON LAND, AND THEIR REMEDIATION .....</b>	<b>9</b>
<b>8.0</b>	<b>SOIL GAS AND WATER QUALITY MONITORING (WHERE UNDERTAKEN).....</b>	<b>10</b>
<b>9.0</b>	<b>DECOMMISSIONING AND REMOVAL OF POLLUTION RISK.....</b>	<b>11</b>
<b>10.0</b>	<b>REFERENCE DATA AND REMEDIATION (WHERE RELEVANT).....</b>	<b>11</b>
<b>11.0</b>	<b>STATEMENT OF SITE CONDITION.....</b>	<b>11</b>

## DOCUMENT REFERENCES

### APPENDICES

Appendix SCR1:	Ground Conditions and Contamination Study (Gibb 1998)
Appendix SCR2:	Table 1.1.1, Permit BJ5775 issued May 2002
Appendix SCR3.1	Quantum 2010 Planning GI recycling Building Phase I Investigation
Appendix SCR3.2	Quantum 2010 Planning GI recycling Building Phase II Investigation
Appendix SCR3.3	Jacob 2012 Site Investigation Factual Report
Appendix SCR3.4	Jacob 2012 MREC Site Investigation Interpretive Report
Appendix SCR3.5	WYG 2018 A107290 Crymlyn Burrows Interpretive Report

- Appendix SCR3.6 SLR 2023 230616\_402.V02718.00005.00007\_Crymlyn\_Burrows\_SI\_Report.v3  
Appendix SCR3.7: CAR\_NRW0042762  
Appendix SCR4: Envirocheck Report, Dated 13<sup>th</sup> August 2021  
Appendix SCR5: W1 Surface Water Monitoring Results 2019 – 2023

## DRAWINGS

- Drawing 01 Environmental Site Setting Local Receptors  
Drawing 02 Environmental Site Setting Natural and Cultural Heritage  
Drawing 03 Environmental Permit Boundary and Site Layout  
Drawing 031 Transfer Station Proposed Layout Sheet 1  
Drawing 032 Transfer Station Proposed Layout Sheet 2  
Drawing 033 Transfer Station Proposed Layout Sheet 3  
Drawing 070 Transfer Station Site Drainage Layout Sheet 1  
Drawing 071 Transfer Station Site Drainage Layout Sheet 2

## 1.0 Introduction

Neath Port Talbot County Borough Council (Council) has instructed SLR Consulting Limited (SLR) to prepare an Environmental Permit (Permit) variation and partial surrender application for the Materials Recovery and Energy Centre at Crymlyn Burrows under the Environmental Permitting (England and Wales) Regulations 2016 (as amended). Herein the facility will be referred to as 'the site'.

The Permit (Ref: EPR/BJ5775IF) was issued in May 2002 and the operation began in 2003.

The waste operation at the site is ongoing under the Permit (Ref: EPR/BJ5775IF).

The Council is applying for a permit variation and partial surrender.

The original Permit application pre-dated the requirement for an application baseline Site Condition Report (SCR).

SCR guidance relating to existing activities, require the submission of a SCR when the Permit is updated.

### 1.1.1 Original Site Conditions

Section 2 of the template refers to existing data recorded prior to the commencement of the permitted activities, and Section 3 refers to the initial permitted activities.

### 1.1.2 Ongoing Activity

Sections 4-7 of the template should be maintained during the life of the permit, and as such the SCR sets out changes since the initial Permit was issued together with changes subject to the current variation and partial surrender application.

In addition, whereas a low risk surrender and as such the surrender of the activities does not require intrusive monitoring data, certain information to evidence the removal of plant and equipment associated with the surrendered activities is included in Sections 4-7.

### 1.1.3 Surrender Application

Sections 8-10 of template should be completed with the Permit surrender application. Waste activities remain ongoing and the current application includes a variation to capture ongoing activities and a partial surrender of certain activities only. Therefore the current application is not an application for the final surrender of the Permit, and there are no changes proposed to the Permit boundary. As such, Sections 8-10 of the template are not completed at this time, but, for the avoidance of doubt, in accordance with the guidance, will be completed in the future, at the time of the full Permit surrender.

## 2.0 Site Details

Name of the applicant	Neath Port Talbot County Borough Council (ref Notice of Transfer TO19 issued 08/08/2019)
Activity address	Materials Recovery and Energy Centre Baldwins Crescent Crymlyn Burrows Swansea SA1 8PZ
National grid reference	SS 69838 93372

Document reference and dates for Site Condition Report at permit application and surrender	<p>Issue of Permit EPR/BJ5775IF pre-dated the requirement for an Application baseline SCR.</p> <p>Information on the ground condition of the original site, prior to the commencement of activities is included at:</p> <p style="padding-left: 40px;">Appendix SCR1: Ground Conditions and Contamination Study (Gibb 1998)</p> <p>This document is the SCR for the site (Reference: Site Condition Report 402.02718.00005/SCR, November 2023)</p>
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Document references for site plans (including location and boundaries)	<p>Drawing 01 Environmental Site Setting Local Receptors</p> <p>Drawing 02 Environmental Site Setting Natural and Cultural Heritage</p> <p>Drawing 03 Environmental Permit Boundary and Site Layout</p> <p>Drawing 031 Transfer Station Proposed Layout Sheet 1</p> <p>Drawing 032 Transfer Station Proposed Layout Sheet 2</p> <p>Drawing 033 Transfer Station Proposed Layout Sheet 3</p> <p>Drawing 070 Transfer Station Site Drainage Layout Sheet 1</p> <p>Drawing 071 Transfer Station Site Drainage Layout Sheet 2</p>
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## 3.0 Condition of the Land at Permit Issue

The conditions for the site at Permit issue are described in: Ground Conditions and Contamination (Gibb 1998).

The Gibb 1998 report was submitted as part of the 2001/02 permit application and was accepted by NRW as describing the conditions of the land at the time the Permit was issued. The Gibb report is included as Appendix SCR1.

The ground conditions prior to the commencement of permitted activities on site, described in Gibb 1998 continue to be the site conditions for the Permit at the time of Permit issue and will be used when the Permit is surrendered to demonstrate that the land is in a 'satisfactory state', and there has been no deterioration in the condition of the land as a result of the permitted operations.

### 3.1.1 Reference Documents

Appendix SCR1: Ground Conditions and Contamination (Gibb 1998).

## 4.0 Permitted Activities

### 4.1.1 Original Permitted activities

The originally permitted activities on site are described in Table 1.1.1 of Permit EPR/BJ5775 issued May 2002.

Original permit activities included:

- The formation of refuse derived fuel (Section 5.4 A (1) (a) (ii): Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day by physico-chemical treatment).; and
- Incineration of municipal waste (Section 5.1 A (1) (b): Incineration of non-hazardous waste in an incineration plant with a capacity exceeding 3 tonnes per hour).

No non-permitted activities are undertaken on site.

### 4.1.2 Reference Documents

Appendix SCR2: Table 1.1.1 of Permit EPR/BJ5775 issued May 2002.

## 5.0 Changes to the Activity

There have been no changes to the permit boundary.

The permit has been varied several times since it was first issued in 2002. The variations are described below:

### EP Variation – 2003

The variation (ref: BU8576) was initiated by NRW and included the addition of four improvement conditions to investigate/rectify odour issues, and surface water contamination. The registered address was updated, and an additional waste reporting form was introduced.

### EP Variation – 2003

This variation (ref: BV5297) was initiated by NRW and introduced firm dates for the completion of some Improvement Conditions listed in Table 9.1.1 of PPC permit BJ5775.

### EP Variation – 2003

This variation (ref: BV7320) initiated by NRW added an improvement condition (9.25) to assess containment of firewater on site in the event of a major fire.

### EP Variation – 2004

This variation (ref: BX8220) was initiated by NRW and added improvement conditions (9.26 and 9.27) to supply details of the re-construction of composting unit and to carry out a fire risk assessment on that unit.

### EP Variation – 2004

This variation (ref: ZP3333BJ) was initiated by NRW and added 10 improvement conditions (9.28 to 9.36) to re-assess the operation as a result of re-commissioning after major fire. A change of response date for improvement condition 9.22 was also included.

### EP Variation – 2004

This variation (ref: BP3539BN) was initiated by NRW and added two improvement conditions (9.37 and 9.38) – air modelling of emissions from composting unit stack (A4) and odour survey. IC 9.22 was deleted and incorporate into 9.38.

### EP Variation – 2005

Three improvement conditions (IC9.37, IC9.18 and IC9.28) were modified as a result of this variation (ref: UP3838SX), which was initiated by NRW and the operator. IC9.27 was modified to assess the environmental impact of emissions from stacks A3 and A4 as well as A1. IC9.18 was modified to assess feasibility and the response date for IC9.28 was modified.

### EP Variation – 2005

This variation (ref: TP3437SR) was initiated by NRW and required all incoming and out-going waste to be sprayed. An improvement condition (9.38) was modified and two improvement conditions (9.39 and 9.40) were added to improve odour control on site.

### EP Variation Application - 2005

WID variation (ref: UP3432SH) was determined in 2005.

### EP Variation Application – 2006

An application for a variation (ref: JP3632LD) was received on 18<sup>th</sup> May 2006 and issued on 7<sup>th</sup> August 2006.

### EP Variation – 2007

A Permit variation (ref: JP3736MG) was requested by the operator to extend the deadline for improvement condition 9.42.

### **EP Variation – 2008**

NRW issued a variation to amend and remove odour conditions. An improvement item was added to produce an odour management plan.

### **EP Variation – 2010**

NRW initiated Permit variation (ref: EPR/BJ5775IF/V015) to add improvement conditions regarding odour management.

### **EP Variation Application – 2010**

NRW initiated Permit variation (ref: EPR/BJ5775IF/V016) to add improvement conditions regarding comparative air dispersion modelling and dioxin uptake assessment.

The first improvement condition required comparative air dispersion modelling of measured emissions against emission limit values.

The second of these improvement conditions required an assessment relating to predicted dioxin uptake into the human body and was imposed as part of a response to recent monitoring results.

Various changes to some of the existing operations carried out at the facility were authorised. The most significant changes were the addition of bio-drying (for the manufacture of solid recovered fuel, or SRF) and mechanical biological treatment (MBT) plant. The range of wastes to be accepted on site was also increased as a result of these activities.

The on-site composting tunnels were primarily used for bio-drying and therefore there was provision in the permit for storage of separately collected food waste prior to transfer for off-site composting.

Other changes were made to the waste storage locations and quantities associated with the above waste recovery operations and also for ash arising from on-site incinerations. The waste incineration activities themselves remained unchanged.

The output from the bio-drying activity is a solid recovered fuel, manufactured to a specification for off-site energy use, (e.g. cement kilns). The MBT activities result in a treated feedstock suitable for bio-drying and subsequent SRF manufacture in addition to sorted and separated recyclable fractions for off-site recycling.

The permit was issued as a consolidated variation with new template conditions as a regulator initiated variation. The existing conditions were updated into a modern condition format.

### **EP Variation – 2013**

Agency variation (ref: EPR/BJ5775IF/V017) to implement the changes introduced by the IED.

### **EP Variation Application – 2015**

NRW led variation (ref: BJ5775IF/V017) to correct an error introduced through variation of EPR/BJ5775IF/V017).

### **EP Variation Application – 2015**

NRW initiated variation (ref: EPR/BJ5775IF/V018) to correct an error introduced through variation of BJ5775IF/V017) with regards to Table S1.1 Activities. This included varying activity reference AR1 from Section 5.1 A (1) (c): Incineration of non-hazardous waste in an incineration plant with a capacity of 1 tonne or more/hour to Section 5.1 A(1)(b): The incineration of non-hazardous waste in an incineration or co-incineration plant with a capacity exceeding 3 tonnes per hour. Activity reference AR2 was varied from Section 5.3 A (1) (c) (ii): Formation of refuse derived fuel pellets (A specified waste management activity) to 5.4 A(1)a) (ii): Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day by physico-chemical treatment.

### **EP Variation and Partial Surrender Application – 2023**

This SCR is contemporary with the Permit Variation and Partial Surrender Application 2023.

The application includes a variation to capture the continuing operations which are currently permitted as activities and DAAs and a partial surrender to remove listed activities only.

No new activities will take place as a result of this application.

The following scheduled activities will continue:

- **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 materials; and
- **R13** – storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where is produced).
- **D9** – physico-chemical treatment;
- **D14** – repackaging prior to submission to any of the operations numbered D1 to 13; and
- **D15** – storage pending any of the operations numbered D1 to D14.

The following listed activities will be removed from the Permit:

- **AR1**: Section 5.1 Part A (1) (b) for the incineration of non-hazardous waste in an incineration or co-incineration plant with a capacity exceeding 3 tonnes per hour; and
- **AR2**: Section 5.4 Part A (1) (a) (ii) for the disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day by physico-chemical treatment.

By association, all of the activities which are directly associated with activities AR1 and AR2 will also be removed from the Permit. As these activities remain ongoing, they will be captured in the parallel variation described above.

### 5.1.1 Dangerous Substances

Not applicable – no changes.

## 6.0 Measures taken to protect land

The Working Plan 2023 sets out measures to protect the land.

There is no requirement in the current Permit for ongoing land or groundwater quality monitoring. However, the following ground investigations have been undertaken during the ongoing waste operation and are included in the Appendices to this report.

- SCR3.1 Quantum 2010 Planning GI recycling Building Phase I Investigation
- SCR3.2 Quantum 2010 Planning GI recycling Building Phase II Investigation
- SCR3.3 Jacob 2012 Site Investigation Factual Report
- SCR3.4 Jacob 2012 MREC Site Investigation Interpretive Report
- SCR3.5 WYG 2018 A107290 Crymlyn Burrows Interpretive Report
- SCR3.6 SLR 2023 230616\_402.V02718.00005.00007\_Crymlyn\_Burrows\_SI\_Report.v3

Furthermore CAR\_NRW0042762 demonstrates the measures taken to protect land and is included in the Appendices to this report:

- SCR3.7 CAR\_NRW0042762

## 7.0 Pollution incidents that may have had an impact on land, and their remediation

The Envirocheck Report (Appendix SCR4) shows that there have been no substantiated pollution incidents on site. However, there have been two substantiated pollution incidents within 500m of the site, as described below:

- Incident Ref: 99122 – On 16<sup>th</sup> May 2012 classified as a category 2 significant incident to land, a category 3 minor incident to air and a category 4 no impact to water incident occurred approximately 130m south of the site. The pollutant was classified as ‘other’; and
- Incident Ref: 1135463 – On 18<sup>th</sup> July 2013 classified as a category 2 significant incident to air, and a category 4 no impact to land or water occurred approximately 356m south east of the site. The pollutant was described as ‘atmospheric pollutants and effects, other odour’.

The following activity is noted:

- A major oil refinery was located at Llandarcy, in land from the Site, with an associated tank farm on the seaboard and connecting pipelines running along the Site’s southern boundary. A number of pipelines were removed c. 2010, as part of the construction of Ffordd Amazon.

## 8.0 Soil gas and water quality monitoring (where undertaken)

There is no requirement in the current Permit for ongoing soil gas monitoring. However, the most recent site investigation may be referenced.

- Appendix SCR3.6 SLR 2023 230616\_402.V02718.00005.00007\_Crymlyn\_Burrows\_SI\_Report.v3

The following emissions monitoring is required in the current Permit (ref table S3.2 / EPR/BJ5775IF):

Emission point ref	Parameter	Monitoring Frequency
W1	Suspended Solids	Weekly
	pH	
	Oil (visible)	

Monitoring results are included in the following appendix:

- Appendix SCR5 EPR/BJ5775IF Surface Water Monitoring Results 2019-2023.

## 9.0 Decommissioning and removal of pollution risk

Describe how the site was decommissioned. Demonstrate that all sources of pollution risk have been removed. Describe whether the decommissioning had any impact on the land. Outline how you investigated and remedied this.

Checklist of supporting information

- Site closure plan
- List of potential sources of pollution risk
- Investigation and remediation reports (where relevant)

## 10.0 Reference data and remediation (where relevant)

Say whether you had to collect land and/or groundwater data. Or say that you didn't need to because the information from sections 3, 4, 5 and 6 of the Surrender Site Condition Report shows that the land has not deteriorated.

If you did collect land and/or groundwater reference data, summarise what this entailed, and what your data found. Say whether the data shows that the condition of the land has deteriorated, or whether the land at the site is in a "satisfactory state". If it isn't, summarise what you did to remedy this. Confirm that the land is now in a "satisfactory state" at surrender

Checklist of supporting information

- Land and/or groundwater data collected at application (if collected)
- Land and/or groundwater data collected at surrender (where needed)
- Assessment of satisfactory state
- Remediation and verification reports (where undertaken)

## 11.0 Statement of site condition

Using the information from sections 3 to 7, give a statement about the condition of the land at the site. This should confirm that:

- the permitted activities have stopped
- decommissioning is complete, and the pollution risk has been removed
- the land is in a satisfactory condition.

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