CRYMLYN BURROWS MATERIALS RECOVERY AND ENERGY CENTRE

Environmental Permit Variation and Partial Surrender Application

Working Plan

Prepared for: Neath Port Talbot County Borough Council

Environmental Permit Ref: EPR/BJ5775IF

SLR Ref: 402.02718.00005
Version No: 1
November 2023

BASIS OF REPORT

This document has been prepared by SLR Consulting Limited (SLR) with reasonable skill, care and diligence, and taking account of the timescales and resources devoted to it by agreement with Neath Port Talbot County Borough Council (the Client) as part or all of the services it has been appointed by the Client to carry out. It is subject to the terms and conditions of that appointment.

SLR shall not be liable for the use of or reliance on any information, advice, recommendations and opinions in this document for any purpose by any person other than the Client. Reliance may be granted to a third party only in the event that SLR and the third party have executed a reliance agreement or collateral warranty.

Information reported herein may be based on the interpretation of public domain data collected by SLR, and/or information supplied by the Client and/or its other advisors and associates. These data have been accepted in good faith as being accurate and valid.

The copyright and intellectual property in all drawings, reports, specifications, bills of quantities, calculations and other information set out in this report remain vested in SLR unless the terms of appointment state otherwise.

This document may contain information of a specialised and/or highly technical nature and the Client is advised to seek clarification on any elements which may be unclear to it.

Information, advice, recommendations and opinions in this document should only be relied upon in the context of the whole document and any documents referenced explicitly herein and should then only be used within the context of the appointment.

Document Revision History

Any changes to the working plan will be labelled in chronological order and the date of the change recorded. All records of the changes will be listed in the revision history in Table 1-1 below.

Table 1-1 Revision History

Version	Reason for Revision	Date of Revision	Signature of Site Manager
1.0	First Version of new Working Plan Document Finalised and Released	November 2023	

CONTENTS

1.0 INTRODUCTION 5
1.1 Environmental Permit 5
1.2 Site Location 5
1.3 Report Structure 5
2.0 WASTE ACTIVITIES 6
2.1 Overview 6
2.2 Specified Waste Management Activities 7
3.0 WASTE TYPES 8
4.0 ENGINEERING CONTROLS 9
4.1 Site Boundary 9
4.2 Waste Transfer and Materials Recovery Building 9
4.3 Surfacing 9
4.4 Drainage 9
4.4.1 Surface Water 9
4.4.2 Foul Water and Operational Run-off 10
4.5 Mechanical controls 10
4.5.1 Odour and Dust Abatement System 10
4.5.2 Fire Detection and Control 10
5.0 OPERATING TECHNIQUES 11
5.1 Waste Acceptance 11
5.2 Waste Transfer 11
5.3 Materials Recovery 12
5.4 Operating Techniques for Vehicles and Plant 13
5.5 Inspection, Cleansing and Maintenance 13
5.5.1 Engineering Controls 13
5.5.2 Maintenance of Plant and Equipment 13
5.5.3 Waste Transfer and Materials Recovery Operation 13
5.6 Storage of Consumable Materials 13
5.7 Security 14
5.8 Point Source Emissions and Monitoring 14
5.9 Specific Management Plans 14
6.0 MANAGEMENT 15

6.1 Technical Competence 15
6.1.1 Attendance 15
6.1.2 Technical Competence Scheme and Persons 15
6.1.3 Supervision 15
6.1.4 Training 15
6.2 Accidents and Incidents Procedure 15
6.3 Non-compliance Procedure 16
6.4 Complaints Procedure Including Contingency Actions 16
6.5 Information and records 17
6.5.1 Site Board 17
6.5.2 Site Daily Log 17
6.5.3 Waste Records 17
6.5.4 Waste Transfer Notes 17
6.5.5 Site Condition Report 18
6.5.6 Permit Point Source Emissions Monitoring and Reporting 18
6.6 Emergency Contact Details 18

DOCUMENT REFERENCES

TABLES

Table 1-1 Revision History 1
Table 2-1 Specified Waste Management Activities 7
Table 3-1 Waste List 8
Table 5-1 Maximum Retention Times – Waste Transfer 11
Table 5-2 Maximum Retention Times – Materials Recovery 12

APPENDICES – (ALL APPENDICES TO BE INCLUDED ONCE APPROVAL HAS BEEN GAINED FOR THE VARIATION AND PARTIAL SURRNDER)

Appendix 01: Environmental Permit (TBC)
Appendix 02: WAMITAB Certificates
Appendix 03: Emergency Contacts
Appendix 04: Fire Prevention and Mitigation Plan (TBC)
Appendix 05: Odour Management Plan (TBC)
Appendix 06: Pest Management Plan (TBC)

REFERENCED 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'.

Whereas the Environmental Risk Assessment identifies hazards associated with the operation together with pathways and potential receptors, this Working Plan describes the risk management measures developed to reduce the risk from all identified hazards, and help prevent accidents: in terms of engineering controls, operating techniques and management procedures.

A hard copy of the Permit and this Working Plan are available in the site office for all staff and visitors to view.

1.1 Environmental Permit

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

The Council is submitting a variation and partial surrender application to bring the Permit in line with ongoing operations on site recognising that the Waste to Energy Facility has not functioned since 2013, and the remodelling of the waste transfer and materials recovery operation.

1.2 Site Location

The site is situated in Crymlyn Burrows, Neath Port Talbot approximately 3.5km East of Swansea City Centre, and approximately 6km North West of Port Talbot at National Grid Reference (NGR) SS 69849 93362.

The site's location is illustrated on Drawing 01 and the Permit boundary is illustrated on drawing 03.

1.3 Report Structure

The Working Plan sets out the following:

- Waste Activities;
- Waste Types;
- Engineering Controls;
- Operating Techniques; and
- Management.

The Working Plan is the over-arching document for the operation and brings together the following documents including the ERA, together with specific management plans:

- Environmental Risk Assessment;
- Odour Management Plan;
- Pest Management Plan;
- Fire Prevention and Mitigation Plan; and
- Drawings.

2.0 Waste Activities

2.1 Overview

The site operates as a waste transfer station with some materials recovery taking place on site prior to onward transport for further treatment, recovery or disposal.

The site will continue to be limited to accept a maximum of 260,000 tonnes of waste per annum.

Separately collected waste types are tipped into separate bays in the reception areas.

The following separately collected waste types are tipped in separate designated bays in the waste reception area:

- Residual waste
- Green waste
- Bulky
- Street litter
- AHP

The following separately collected waste types are tipped in separate designated bays in the recycling reception area:

- Food waste;
- Paper;
- Glass;
- Cardboard; and
- Co-collected plastic and cans.

There are also designated areas for separately collected household batteries and small WEEE.

Plastic and cans are then separated further on the Materials Recovery Facility process line to recover metals and plastics.

All waste types are then bulked up, with certain dry recyclables baled, prior to transfer off site. All waste transfer and treatment will occur within the waste transfer and materials recovery building.

The operational layout is illustrated on Drawings 31, 32, and 33.

Ongoing waste treatment activities on site consist of the sorting, separation, screening, baling and bulking up of materials.

A detailed description of the operating techniques is set out in Section 5.0 of the Working Plan.

2.2 Specified Waste Management Activities

Table 2-1
Specified Waste Management Activities

Description of Activities	Limits of Activities
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.	Maximum throughput, not more than 260,000 tonnes per annum of waste. Treatment consisting only of: - Sorting - Separation - Screening - Baling - bulking For disposal (no more than 50 tonnes per day) or for recovery. Waste types as specified in Table S2.1.

3.0 Waste Types

Table 3-1
Waste List

Waste Code	Description	Notes
20	**MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS**	
20 01	**Separately collected fractions (except 15 01)**	
20 01 01	paper and cardboard	
20 01 02	glass	
20 01 08	biodegradable kitchen and canteen waste	
20 01 11	textiles	
20 01 33*	Batteries and accumulators included in 16 06 01, 16 06 02 or 16 06 03 and unsorted batteries and accumulators containing these batteries	No treatment of batteries will occur – only acceptance and sorting before bulking up for onward transfer
20 01 34	batteries and accumulators other than those mentioned in 20 01 33	
20 01 36	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35	
20 01 39	plastics	
20 01 40	metals	
20 01 99	separately collected fractions of municipal waste (AHPs comprising nappies and AHPs)	
20 02	**Garden and park wastes (including cemetery waste)**	
20 02 01	biodegradable waste	
20 03	**Other municipal wastes**	
20 03 01	mixed municipal waste	
20 03 03	street-cleansing residues	
20 03 07	bulky waste	

4.0 Engineering Controls

4.1 Site Boundary

The site is enclosed by a perimeter fence and a screen of trees. These features will:

- Limit windblown litter;
- Limit noise and vibration; and
- Provide security against unauthorised access and vandalism.

4.2 Waste Transfer and Materials Recovery Building

The waste transfer and materials recovery building is a large, mostly single storey, steel framed, metal clad building with a pitched roof. The floor throughout is an impermeable concrete hardstanding.

The waste transfer and materials recovery building will:

- Limit the contamination of rainwater, and assist in preventing contaminated run-off;
- Limit windblown litter;
- Limit noise and vibration;
- Assist in the control of odour; and
- Assist in the control of dust.

Tipping bays are constructed of reinforced concrete push walls with demountable alpha-block dividing walls. The food waste tipping bay is constructed of reinforced concrete enclosed on three sides, with the floor laid to fall away from the open side and towards the drain at the rear.

The building also offers additional security against unauthorised access and vandalism.

Fire detection and control and other physical and mechanical features within the building are described elsewhere.

4.3 Surfacing

The floor of the waste transfer and materials recovery building is constructed of concrete and is hardstanding and impermeable.

All site roads are constructed of concrete and are hardstanding and impermeable.

The hardstanding and impermeable floor and road surfaces will:

- Prevent the contamination of groundwater and ground.

4.4 Drainage

4.4.1 Surface Water

All surface water from site buildings and roads is collected in the site surface water drainage system. Discharge form site is controlled by an interceptor and filter, with the additional security of an automatic slam-shut valve.

The site surface water drainage system will:

- Prevent contaminated run-off; and

- Prevent the contamination of groundwater and ground.

Discharge is regulated by a fixed throttle and onsite attenuation to prevent overloading the local system and help prevent flooding.

4.4.2 Foul Water and Operational Run-off

Foul water and operational run-off is collected by drains and mechanical sweepers within the waste transfer and materials recovery building and drains either direct, pumped or via holding tanks and discharge via existing consent to the public sewer.

The site foul water and operational run-off drainage system will:

- Prevent contaminated run-off; and
- Prevent the contamination of groundwater and ground.

4.5 Mechanical controls

4.5.1 Odour and Dust Abatement System

A mechanical odour and dust abatement system is installed in the waste transfer and materials recovery building. The system draws in air from residual waste, garden waste, AHP waste and food waste tipping bays.

The systems is fitted with bag and carbon filters and will:

- Assist in the control of odour; and
- Assist in the control of dust.

The Odour Management Plan is included at Appendix 05 to this Working Plan.

4.5.2 Fire Detection and Control

All waste tipping bays and temporary bale storage areas within the waste transfer and materials recovery building are protected by automatic and manual fire detection and an automatic sprinkler system. The extent of the fire prevention and mitigation measures are set out in the Fire Prevention and Mitigation plan included as Appendix 04 to this Working Plan.

5.0 Operating Techniques

5.1 Waste Acceptance

All vehicles delivering waste enter and exit via the site weighbridge system.

A description of the waste is entered onto the weighbridge system.

If the waste delivery is a permitted waste type, then the vehicle is directed to the corresponding tipping bay.

Only waste which the site is permitted to take is allowed to tip off. All other waste deliveries will be denied access.

All waste is subject to visual inspection at the tipping bay. Unauthorised waste will either be loaded back onto the delivery vehicle, or isolated and sent to a suitably licenced facility.

5.2 Waste Transfer

Waste deliveries are off-loaded into tipping bays on the hardstanding impermeable floor within the waste transfer and materials recovery building. Separate tipping bays are designated for specific materials, and the banksman will direct the delivery vehicles to the correct tipping bay.

After tipping, the waste is visually inspected to ensure the waste is permitted waste, and tipped in the correct bay. Any unauthorised waste is isolated in accordance with the waste acceptance procedure.

Waste materials are pushed up by mechanical shovel, to ensure waste materials are within the tipping bays and no materials are beyond the bay.

Table 5-1 shows the maximum retention times for waste transfer under normal operations. However, the following parameter will also apply:

- Tipping bays will not be filled beyond a maximum allowing 1m freeboard to the top and front of the bay walls;
- Materials are taken off site so as to avoid nuisance;
- Materials are removed on a first in first out basis; and
- Materials are removed to maximise efficient transport of waste.

Retention times may be reduced as part of contingency actions.

Retention times are determined in consideration of risk management measures.

Table 5-1
Maximum Retention Times – Waste Transfer

Waste Type	Containment	Maximum Retention Times
Food waste	Tipping bay – within building	7 days
Green waste	Tipping bay – within building	7 days
Residual waste	Tipping bay – within building	7 days
Street litter	Tipping bay – within building	14 days
AHP	Sealed container	1 month

Bulky household waste	Tipping bay – within building	1 month
Paper	Tipping bay – within building	1 month
Glass	Tipping bay – within building	1 month
Cardboard	Tipping bay – within building	1 month
Co-collected plastic and cans	Tipping bay – within building	1 month

Waste materials will be loaded by mechanical shovel from the tipping bays into off-take vehicles within the waste transfer and materials recovery building. Waste compartments of off-take vehicles are covered before exiting the building.

All vehicles leaving operational areas are checked to ensure that they are clear of loose waste.

Before leaving the site, vehicles are checked to ensure their load is secure and any waste on the outside of vehicles removed.

5.3 Materials Recovery

Co-collected dry recyclables are separated by the Materials Recovery Facility (MRF) within the waste transfer and materials recovery building. The facility is loaded by mechanical shovel from the tipping bay.

Separated materials are discharged into bays standing on the floor, beneath the MRF.

Separated materials are loaded by mechanical shovel into the baler hoper and automatically formed into secured bales. With the exception of the fines (non-recyclable rejects) which are removed to the residual waste tipping bay.

The bales are temporarily bulked-up pending off-take in separated, designated bays on the hardstanding, impermeable floor within the waste transfer and materials recovery building.

Table 5-2 shows the maximum retention times for materials recovery under normal operations. However the following parameter will also apply:

- Bale storage bays will not be filled beyond a maximum allowing 1m freeboard to the top and front of the bay walls;
- Materials are taken off site so as to avoid nuisance;
- Materials are removed on a first in first out basis; and
- Materials are removed to maximise efficient transport of waste.

Retention times may be reduced as part of contingency actions.

Retention times are determined in consideration of risk management measures.

Table 5-2
Maximum Retention Times – Materials Recovery

Waste Type	Containment	Maximum Retention Times
Ferrous bales	Bale storage bay – within building	2 months
Non-ferrous bales	Bale storage bay – within building	2 months
Plastic bales	Bale storage bay – within building	1 month
Plastic film bales	Bale storage bay – within building	1 month

Fines	Tipping bay – within building	14 days

Baled materials will be loaded by forklift from the bays into off-take vehicles within the waste transfer and materials recovery building. Waste compartments of off-take vehicles are covered before exiting the building.

5.4 Operating Techniques for Vehicles and Plant

All vehicles on site will travel at not more than the maximum speed limit: 10mph.

All vehicles and plant will be turned off when not in use.

5.5 Inspection, Cleansing and Maintenance

Inspection, cleansing and maintenance is an integral part of the operation.

5.5.1 Engineering Controls

As part of their daily function, Supervisors inspect the proper operation of the engineering controls. Defects to be made good as soon as practicable.

The following features are subject to specialist maintenance and servicing:

- Surface water filter and automatic slam shut valve;
- Foul water and operational run-off pumps;
- Odour and dust abatement system; and
- Fire detection and control systems.

5.5.2 Maintenance of Plant and Equipment

As part of their daily function, Supervisors inspect the proper operation of Plant and Equipment. Defects to be made good as soon as practicable.

The following Plant and Equipment are subject to specialist maintenance and servicing, and undertaken in accordance with manufacturers' recommendations:

- MRF; and
- Mobile plant.

5.5.3 Waste Transfer and Materials Recovery Operation

As part of the operation, Supervisors inspect both the external permitted area, and the area within the waste transfer and materials recovery building for odour, together with litter and waste outside the tipping bays, including inaccessible areas. Defects to be made good as soon as practicable.

Measures include the mechanical sweeping of all hardstanding areas both external and within the waste transfer and materials recovery building to remove litter and dust; tipping bays and internal areas cleaned down.

MRF and Baler regularly cleaned to remove waste build-up, including inaccessible areas.

5.6 Storage of Consumable Materials

All consumable materials are stored in accordance with COSHH and data sheets, in particular diesel is held in a double-bunded tank.

5.7 Security

The site is manned by security personnel 24/7. The security gatehouse is manned 24/7. The site is also covered by CCTV which is monitoring 24/7 on site.

5.8 Point Source Emissions and Monitoring

Point source emissions and monitoring requirements are set out the Permit.

There are no point source emissions to surface water, groundwater or land.

There are no process, point source emissions to air, however the odour and dust abatement system discharges to air.

The discharge to sewer is covered by a separate discharge consent issued by the water authority.

5.9 Specific Management Plans

The following specific management plans are included as appendices to this Working Plan:

- Odour Management Plan;
- Pest Management Plan; and
- Fire Prevention and Mitigation Plan.

6.0 Management

6.1 Technical Competence

6.1.1 Attendance

Attendance by Competent Persons will be greater than the minimum recommended in guidance documents for a waste operation. The guidance is applied to the waste transfer and materials recovery operation in the table below.

OPRA Attribute	Band*	Attendance Points
Complexity	A	1
Location	D	3
Emissions	A	1
Total		**5**

*Based on a provisional assessment of the waste transfer and materials recovery operation.

A technically competent person is required on site for a minimum of 20% of weekly operating hours. For example where the site operates for 60 hours in a week, then a technically competent person will attend for a minimum of 12 ours in that week.

Whereas five attendance points corresponds to 15% attendance, the minimum attendance of 20% is considered to apply.

6.1.2 Technical Competence Scheme and Persons

Technically competent persons, the relevant accepted industry scheme(s), together with continued competence are identified by the enclosed certificates at Appendix 02

6.1.3 Supervision

A member of staff, fully conversant with both the Permit and this Working Plan, will be on site when the operation is ongoing.

6.1.4 Training

Technically competent persons undertaken continuing competence training.

Managers, technically component persons and supervisors are fully conversant with both the Permit and this Working Plan.

6.2 Accidents and Incidents Procedure

Accident prevention and management is an integral part of the operation and cuts across engineering controls together with the operating techniques and management procedures.

The ERA identified accidents and external hazards which might increase the risk form identified, operational hazards.

The engineering controls together with the operation techniques and management procedures will help prevent accidents and manage the impact of accidents.

Accident prevention and management not stated elsewhere are set out below:

- Spill kits are maintained on site within the waste transfer and materials recovery building. Spill kits will be used for minor spills.
- In the event of a major spill entering the surface water drainage system, the slam-shut valve will be closed to prevent contaminated run-off. Contained, contaminated run-off will be tankered off-site for treatment and disposal.
- As stated in the ERA: The NRW's Flood Risk Assessment Wales Map indicates that the site is not at risk of flooding from rivers, the sea or reservoirs. A small area at risk of surface water flooding is indicated in the eastern part of the site. This area corresponds to a topographical 'low point' within the site, where rainwater would naturally collect; however drainage gullies are located here to prevent any flooding from occurring.
- Mobile plant breakdown: Operational resilience from multiple mobile plant employed across the operation. Mobile plant used are industry standard and repairs and replacement are readily available.
- MRF / Baler breakdowns: co-collected recyclable materials will taken off site loose.
- Odour and dust abatement system breakdown: initiate repair, increased inspections, review operating techniques and consider taking waste off-site in smaller less efficient loads.
- Fire: The FPMP is included as an appendix 04 to this Working Plan.

6.3 Non-compliance Procedure

Non-compliances detected on site will be reported, investigated, and rectified. Staff maintain awareness of non-compliances in the following areas:

- Actual or potential non-compliance with conditions of the environmental permit;
- System failure discovered at internal audit;
- Suppliers or subcontractors breaking the agreed operating rules;
- Incidents, accidents, and emergencies;
- Malfunction, breakdown or failure of plant;
- Other operational system failure; and
- Complaints.

The action taken in response to the non-conformance may include:

- Obtaining additional information on the nature and extent of the non-conformance;
- Discussing and testing alternative solutions;
- Modifying procedures and responsibilities;
- Seeking approval for additional resources and training; and
- Contacting suppliers and contractors (as applicable).

6.4 Complaints Procedure Including Contingency Actions

All complaints will be logged on the site Complaints Log. And the following contingency actions will be taken and recorded:

- Establish if the complaint is valid;

- Review site activates and control measures and correct defects where identify;
- Record metrological data at the time of the complaint;
- Minimise the impact of the activity causing the problem;
- Investigate the root cause of the problem;
- Take steps to ensure the problem is not repeated and if needed amend the Working Plan to reflect any changes; and
- Provide feedback to the complainant.

6.5 Information and records

6.5.1 Site Board

A Site Board with the will be fixed at the site entrance and display:

- Site name;
- Operator;
- Permit number and statement;
- Contact phone numbers; and
- NRW national telephone numbers.

6.5.2 Site Daily Log

The Supervisor's daily report will form the Site Diary, recording:

- Daily inspections;
- Defects across the site's engineering controls, together with any repairs;
- Non-conformance with operating techniques;
- Unauthorised waste in the tipping bays, together with action to isolate and remove; and
- Accidents, together with any response.

6.5.3 Waste Records

All waste delivered and removed from site is recorded on the weighbridge system, recording:

- Vehicle registration;
- Waste producer;
- Waste Description;
- Time in / Time out; and
- Weight in / weight out /net weight.

Unauthorised waste which is denied access is recorded in the control room, denied access, unauthorised waste log.

6.5.4 Waste Transfer Notes

Waste Transfer Notes will be issued and records held in accordance with duty of care legislation.

6.5.5 Site Condition Report

Whereas the original permit was issued prior to the requirement for a Baseline Site Condition Report (SCR), an SCR is prepared as part of the permit variation and partial surrender 2023.

Further additional records will be kept as required by the SCR, including:

- Maintenance of surfacing;
- Maintenance of drainage system; and
- Actions taken to clean up incidents and spillages.

6.5.6 Permit Point Source Emissions Monitoring and Reporting

The point source emissions monitoring and reporting requirements are set out in the Permit, together with requirements for Schedule 5 notification.

6.6 Emergency Contact Details

Emergency contact details are included as Appendix 03.