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Application Report EPR/AP3199FE/V013

Bryn Pica Waste Operations Environmental Permit Variation

Cynon Valley Waste Disposal Limited

Report No. CRM.0121.001.PE.R.003

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Application Report CRM.0121.001.PE.R.003

Project:	Bryn Pica Waste Operations Environmental Permit Variation
For:	Cynon Valley Waste Disposal Limited
Status:	FINAL
Date:	July 2019
Author:	Jane Hall, Principal Consultant
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1.0 Introduction

1.1 Overview

1.1.1 This document provides information to support Environmental Permit Variation application referenced **EPR/AP3199FE/V013**. It describes the proposed changes, the operational techniques that will be used to minimise and control emissions from the changes proposed to the Bryn Pica Waste Operations and the residual risk to the environment arising from these changes.

1.2 Proposed Changes to Permitted Activities

1.2.1 The Operator currently carries out the following activities at the facility:

- Materials Recycling Facility which sorts, screens, separates, bails and compacts household, commercial and industrial wastes.
- Waste Transfer Station (WTS) which sorts, separates, shreds or compacts household, commercial and industrial wastes.
- Inert Material Recycling Facility which sorts, separates, crushes, blends and screens inert wastes such as soil and stones and wastes arising from construction and demolition activities.
- Physical Treatment Facility which de-waters gully suckings.
- Mattress Recycling Facility which sorts, separates and shreds mattresses for recovery.

1.2.2 The operator proposes a series of improvements to the existing facility comprising:

- investment to upgrade, renew and update waste processing in the Materials Recycling Facility (MRF) increasing the normal operational throughput from 35,000 Tonnes per annum to a maximum of 110,000 tonnes per annum;
- increase in the permitted annual waste throughput of the facility from 74,999 Tonnes to 150,000 tonnes;
- extension to the Mattress Recycling Facility;
- improvements to the dewatering facility which handles gully suckings; and
- addition of new waste codes, similar to those already in the Permit.

These changes will require a variation to the Permit which are described in this Application. There are no changes to the location of the site, or the facility boundary.

1.2.3 The MRF operating efficiency will be improved through the installation of new high efficiency, high speed waste processing plant and equipment. This means that whilst the throughput will increase, waste storage times and storage quantities will be reduced resulting in overall improvements to the operation of the facility and subsequently reduced odour generation potential and fire risk.

1.2.4 The Facility will continue to be operated by Cynon Valley Waste Disposal Limited.

1.2.5 There are no proposed changes to the operation of the WTS (other than acceptance of one new waste type) or the Inert Material Recycling Facility operations.

1.2.6 Pre-application discussions took place with Richard Taylor, NRW's site inspector for Bryn Pica. The Pre-application Report and subsequent correspondence is included in Appendix H.

1.2.7 Table 1.2.1 below summarises the activities carried out on-site, the current permitted limits applied to the different waste activities and the proposed increases in throughput. There is an anomaly in relation to the treatment capacity which the Operator seeks to address. The following limits to activities apply to the WTS and MRF in Table S1.1 of the Permit:

The maximum quantity of non-hazardous waste treated at the site for disposal shall not exceed 50 tonnes per day in total, ***by means of a D9 activity****. The maximum quantity of non- hazardous waste treated on site for recovery or mix of recovery and disposal shall not exceed 75 tonnes per day.*

1.2.8 The waste treatment capacity in the MRF and the WTS are limited in the current Permit to 50 tonnes per day (disposal) and 75 tonnes per day (disposal or recovery). It is likely that these restrictions are in place to prevent certain activities being carried out which would result in the need for an upgrade of the current 'waste operation' Permit, to an 'installation' Permit. The current or proposed activities do not trigger any requirements to upgrade the Permit to an 'installation' Permit.

1.2.9 There is a clause against the limits to disposal of waste which means that the restriction only applies to 'D9: Physico chemical treatment not specified elsewhere…' activities. However, this restriction is not applied to the limit of 75 tonnes per day where waste is recovered, or both recovered or disposed of. It is proposed that the text *'by means of a D9 activity'* is applied to the recovery limit of 75 tonnes per day, to allow additional flexibility in the MRF to accept a larger volume of wastes for recycling, albeit within the overall throughput limit for the facility. This was agreed during pre-application discussions (see Appendix H).

Table 1.2.1: Regulated Activities

Description of activity for waste operations	Annex IIA or IIB Codes	Current Treatment Capacity	Proposed Treatment Capacity
Bryn Pica Waste Operations	**See separate activities below**	**74,999 per annum**	**150,000 per annum for the Facility as a whole**
Materials Recycling Facility (MRF)	R13: Storage of wastes pending any of the operations numbered R01 to R12 (excluding temporary storage pending collection on the site where it is produced). R3: Recycling or reclamation of organic substances which are not used as solvents. R4: Recycling or reclamation of metals and metal compounds R5: Recycling or reclamation of other inorganic materials. D15: Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where it is produced. D14: Repackaging prior to submission to any of the operations numbered D1 to D13. D9: Physico-chemical treatment not specified elsewhere which results in final compounds or mixtures which are disposed of by any of the operations numbered D01 to D12.	The maximum quantity of hazardous waste treated at the site for recovery or disposal shall not exceed 10 tonnes per day in total, by means of a D9, D14, and R5 activity alone or in combination. The maximum quantity of non-hazardous waste treated at the site for disposal shall not exceed 50 tonnes per day in total, by means of a D9 activity. The maximum quantity of non- hazardous waste treated on site for recovery or mix of recovery and disposal shall not exceed 75 tonnes per day[1].	Capacity will be 270 tonnes per day. As described above, it is proposed that 75 tonne daily throughput limits applied to the WTS are removed in line with other similar Permits: The maximum quantity of non-hazardous waste treated on site for recovery or mix of recovery and disposal shall not exceed 75 tonnes per day ***by means of a D9 activity***. [or remove this restriction].

[1] Suggest addition of text '***by means of D9 activity'*** to the current 75 tonnes per day limit is included in the Permit.

Description of activity for waste operations	Annex IIA or IIB Codes	Current Treatment Capacity	Proposed Treatment Capacity
Waste transfer station facility (WTS)	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. 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) D15: Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where it is produced. D14: Repackaging prior to submission to any of the operations numbered D1 to D13. D9: Physico-chemical treatment not specified elsewhere which results in final compounds or mixtures which are disposed of by any of the operations numbered D01 to D12.	The maximum quantity of hazardous waste treated at the site for recovery or disposal shall not exceed 10 tonnes per day in total, by means of a D9, D14, and R5 activity alone or in combination. The maximum quantity of non-hazardous waste treated at the site for disposal shall not exceed 50 tonnes per day, by means of a D9 activity. The maximum quantity of non- hazardous waste treated on site for recovery or mix of recovery and disposal shall not exceed 75 tonnes per day[1].	Changes do not affect permitted limits. As described above, it is proposed that 75 tonne daily throughput limits applied to the WTS are removed in line with other similar Permits: The maximum quantity of non-hazardous waste treated on site for recovery or mix of recovery and disposal shall not exceed 75 tonnes per day ***by means of a D9 activity***. [or remove this restriction].
Inert material recycling facility (soil and rubble recycling)	R13: Storage of wastes pending any of the operations numbered R01 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.	None stated in Permit.	No changes.

Description of activity for waste operations	Annex IIA or IIB Codes	Current Treatment Capacity	Proposed Treatment Capacity
	R5: Recycling/reclamation of other inorganic materials		
Physical treatment facility (dewatering plant)	D9: Physico-chemical treatment not specified elsewhere which results in final compounds or mixtures which are disposed of by any of the operations numbered D01 to D12 D15: Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where it is produced.	The maximum quantity of non-hazardous waste treated at the site for disposal shall not exceed 50 tonnes per day, by means of a D9 activity	No changes (other than relocating this facility).
Mattress recycling facility	R13: Storage of wastes pending any of the operations numbered R01 to R12 (excluding temporary storage pending collection on the site where it is produced). R4: Recycling or reclamation of metals and metal compounds	None stated in Permit.	No changes.

1.3 Relevant Legislation and Guidance

1.3.1 The proposed activities are subject to several National, European and International legislation and statutory and non-statutory guidance documents. Operators are required through the Environmental Permit application process, to demonstrate how they will comply with the relevant requirements of this legislation and guidance.

1.3.2 In relation to the proposed waste operations the following pieces of legislation and guidance are considered relevant:

- Waste Framework Directive;
- Environmental Permitting (England & Wales) Regulations 2016 (as amended 2019) referred to as 'EPR 2016' for the purpose of this report;
- NRW, How to comply with your environmental Permit, Version 8, October 2014, referred to as 'NRW how to comply guidance' for the purpose of this report;
- Environment Agency (EA), Risk assessments for your environmental Permit, updated January2019;
- Environmental Permitting Core Guidance, Defra; March 2013;
- Environmental Permitting Guidance: The Waste Framework Directive, Defra 2011;
- Sector Guidance Note S5.06: Guidance on the Recovery and Disposal of Hazardous and Non-Hazardous Waste, EA 2013, referred to as 'SGN 5.06' for the purposes of this report);
- NRW/EA Horizontal Guidance Series; and
- NRW/EA Regulatory Guidance Series.

1.4 Structure of Report

1.4.1 This Report considers the operating techniques in place at the proposed facility, and how they meet relevant guidance and best industry practice. The report also describes how the emissions from the facility will be minimised, controlled and monitored, how the site will be managed to mitigate the environmental impact of the operations and remain in accordance with the Environmental Permit.

1.4.2 This application supporting document describes the proposed changes and is divided into the sections shown in Table 1.5.1 below.

Table 1.5.1: Regulated Activities

Section Number	Section	Content
1.0	Introduction	General background information including the purpose of the variation application.
2.0	Non-Technical Summary	Non-technical description of the proposed changes, the application and supporting information.
3.0	Operating Techniques	Techniques proposed to minimise emissions and information on the Operator's approach to managing

Section Number	Section	Content
		the changes to permitted activities. This includes information on the Environmental Management System, as well as techniques to minimise resource use and emissions.
4.0	Environmental Risk Assessment	Reports on the identification and assessment of environmental impacts from operational changes proposed.

2.0 Non-Technical Summary

2.1 Introduction

2.1.1 This non-technical summary relates to a Permit variation application submitted to Natural Resources Wales (NRW) for a bespoke Environmental Permit (Permit) to operate a Waste Processing Facility in the Llwydcoed area of Rhondda Cynon Taff, Wales.

2.1.2 The Bryn Pica Waste Operations site is a major strategic development and the proposed changes are primarily being carried out to support local authorities in meeting ambitious recycling targets.

2.1.3 The Facility will continue to be operated by Cynon Valley Waste Disposal Limited, registration number 02660628 (Company Certificate is in Appendix G).

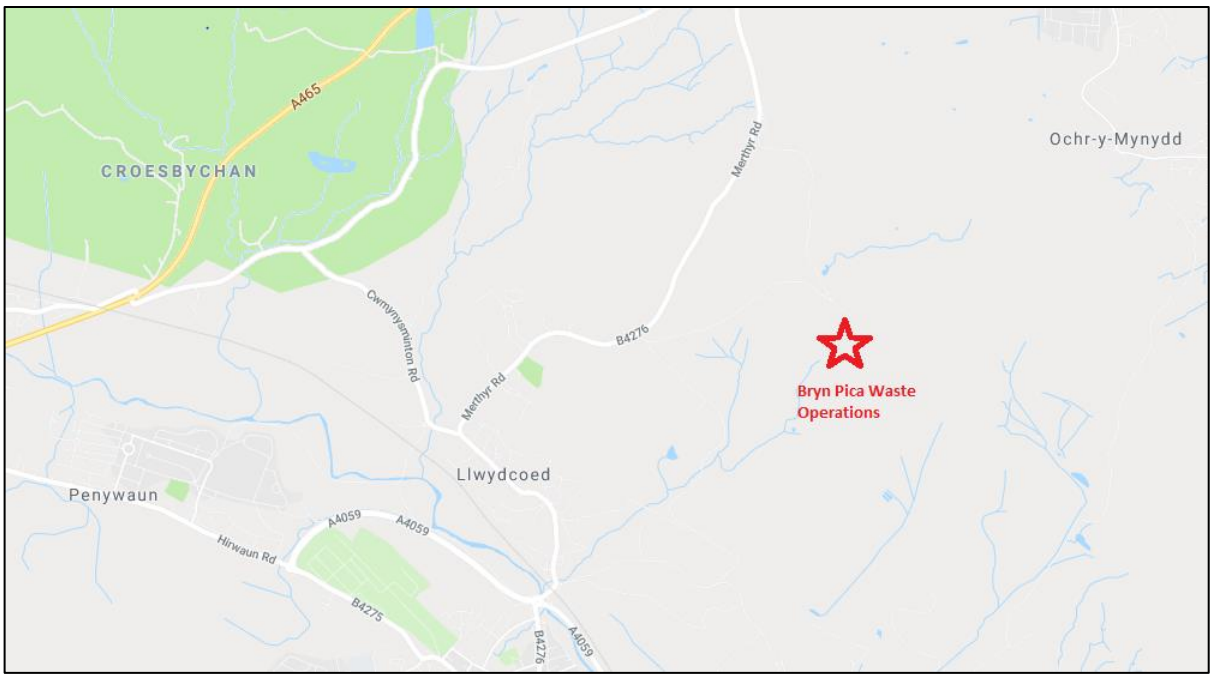
2.1.4 The primary contact for the application will be Lee Foulkes, Technical Manager for Cynon Valley Waste Disposal Limited.

2.2 Site Location

2.2.1 The facility is located at:

Bryn Pica Waste Operations
Llwydcoed
Aberdare
Rhondda Cynon Taff
CF44 0BX

Figure 2.2.1: Site Location



2.2.2 The National Grid Reference for the site is SO 00910 05323 (location of main site office).

2.3 Current and Proposed Permitted Activities

2.3.1 Cynon Valley Waste Disposal Limited is permitted to operate a bespoke waste operation Permit for the operation of a Waste Processing Facility. The Facility currently processes up to 74,999 tonnes of non-hazardous and hazardous household, commercial and industrial wastes per annum.

2.3.2 The Operator currently carries out the following activities at the facility:

- Materials Recycling Facility which sorts, screens, separates, bails and compacts household, commercial and industrial wastes.
- Waste Transfer Station Facility which sorts, separates, shreds or compacts household, commercial and industrial wastes.
- Inert Material Recycling Facility which sorts, separates, crushes, blends and screens inert wastes such as soil and stones and wastes arising from construction and demolition activities.
- Physical Treatment Facility which de-waters gully suckings.
- Mattress Recycling Facility which sorts, separates and shreds mattresses for recovery.

2.3.3 The operator proposes a series of improvements to the existing facility comprising:

- investment to upgrade, renew and update waste processing in the Materials Recycling Facility (MRF) increasing the normal operational throughput from 35,000 Tonnes per annum to 65,000 Tonnes.
- increase in the permitted annual waste throughput of the facility from 74,999 Tonnes to 150,000 Tonnes.
- extension to the Mattress Recycling Facility;
- improvements to the dewatering facility which handles gully suckings; and
- addition of new waste codes, similar to those already in the Permit.

These changes will require a variation to the Permit which are described in this Application. There are no changes to the location of the site, or the facility boundary.

2.3.4 The MRF operating efficiency will be improved through the installation of new high efficiency, high speed waste processing plant and equipment. This means that whilst the throughput will increase, waste storage times and storage quantities will be reduced resulting in overall improvements to the operation of the facility and subsequently reduced odour generation potential and fire risk.

2.4 Waste Types and Quantities

2.4.1 It is proposed that the Bryn Pica Waste Operations will process up to 150,000 tonnes of non-hazardous industrial, commercial and household waste per annum, increased from a maximum on 74,999 tonnes per annum. This change will also involve acceptance of new waste codes.

2.4.2 All new requested waste codes are all similar to wastes already accepted onto site and do present an increased the risk to the environment. A full list of additional waste codes requested as part of this Permit Variation Application is included in Appendix A.

2.5 Planning Permission

2.5.1 The proposed changes to operations do not require planning permission, other than changes to operational hours (see below). This represents a minor amendment and the local authority will be notified with planning permission amended as required prior to the changes taking place.

2.6 Changes to Operating Hours

2.6.1 Waste is delivered to the site during the following operational hours, which are proposed to be extended from the current operational hours to allow the larger volume of wastes to be handled and processed.

MRF and Mattress Recycling Facility

Waste will only be accepted at the MRF and Mattress Recycling Facility during the following times:

07.30 - 18.00 Monday to Friday

07.30 - 16.00 Saturday and Sunday

The MRF and Mattress Recycling Facility propose to operate over two shifts from 06:00 to 14:00 and 14:00 to 22:00 during Monday to Friday then one shift from 06:00 to 14:00 on Saturday. However, during abnormal circumstances, for example over busy periods such as Christmas, the MRF may operate continually 24 hours per day, seven days per week.

The Operator will not operate any plant or machinery associated with the delivery or placement of waste materials outside the hours stated above, unless in the case of emergency and with the approval of National Resources Wales.

WTS Inert Waste Facility and Physical Treatment Facility

The hours of operation and waste acceptance for the WTS and Physical Treatment Facility are as follows:

07.30 - 18.00 Monday to Friday

07.30 - 16.00 Saturday and Sunday

Other hours of waste acceptance for all activities are detailed below:

7.30 – 18.00 on a Saturday, where, in the previous week, there has been Local Authority Holiday.

07.30 – 18.00 hours on a Sunday, where, in the previous week, there has been a two-day Local Authority Holiday.

The Operator will not operate any plant or machinery associated with the delivery or placement of waste materials outside the hours stated above, unless in the case of emergency and with the approval of the National Resources Wales.

2.7 Nearby Permitted Activities

2.7.1 The waste treatment operations are wholly located within the Bryn Pica Landfill Site. The proposed changes do not impact operation of the landfill site. There is an Anaerobic Digestion (AD) facility close to the northern site boundary however there are no shared activities or services which affect the Permitted activities.

2.8 Sensitive Receptors

2.8.1 There are no changes to the operations which may impact sensitive receptors.

2.9 Management and Control

2.9.1 The approach to permitting and regulation relies heavily upon the use of Environmental Management Systems (EMS) as a driver for environmental compliance and improvement. In England and Wales, under the Environmental Permitting Regime, modern regulation is fundamentally driven by applying a risk-based approach to activities, where operators are encouraged to implement suitable management systems with which to operate, and to implement self-regulation and reporting. If you hold a Permit under the Environmental Permitting (England & Wales) Regulations 2016 (as amended 2019), NRW require operators to have an appropriate Environmental Management System in place.

2.9.2 Cynon Valley Waste Disposal Limited has developed and implemented an EMS which is certified to ISO14001. The management system identifies and addresses the relevant legal requirements, quality and safety standards and environmental elements that the facility needs comply with in order to carry out safe and environmentally sound operations.

2.9.3 The new activities associated with the proposed changes, in particular operation of the new equipment proposed to be installed in the MRF, will be carried out in accordance with the site's EMS and by the stringent management controls in place. Where required, the EMS and associated procedures will be updated to reflect all proposed changes.

2.10 Point Source Emissions from the Facility

2.10.1 There are no changes to point source emissions from the facility, aside from relocating the Physical Treatment Facility. This does not involve any changes to the emissions profile from this Facility.

2.11 Environmental Risk Assessments

2.11.1 The proposed changes do not result in any significant change to the environmental impact from the on-site activities.

2.11.2 An Environmental Risk Assessment was completed as part of the preparatory work undertaken to support this Permit Variation Application. The assessments undertaken have followed the EA's Guidance: *Risk assessment for your environmental permit,* updated January 2019.

2.11.3 Risks to amenity, including odour, water, air and land as a result of the proposed changes were considered and, in all instances, the outcome of the assessment was negligible or low risk.

2.12 Operating Techniques and Assessment against NRW Guidance

2.12.1 Section 3.0 of this report describes the proposed changes to operations and pollution prevention techniques and demonstrate evidence of compliance with relevant regulations and guidance.

2.13 Monitoring

2.13.1 There are no monitoring requirements specified in the Permit.

2.14 Closure and Decommissioning

2.14.1 If activities cease on site and de-commissioning is required, the site's 'Closure Plan' will be followed. This document will be updated to reflect changes brought about by the new plant and equipment installed in the MRF and other minor changes proposed as part of this application.

3.0 Operating Techniques

3.1 Overview

3.1.1 This section describes the changes to operating techniques and compares those techniques with NRW guidance and where applicable, regulatory standards and best practice.

3.2 Pre-Acceptance Procedures for Incoming Waste

3.2.1 Pre-acceptance procedures are in place at the Bryn Pica Waste Operations facility and will be updated to include the additional proposed waste streams. The Operator will continue to ensure that the requirements detailed in Section 2.1.1 Pre-acceptance procedures to assess waste of Sector Guidance Note SGN5.06 are followed.

3.2.2 A complete list of waste types to be accepted at the facility is provided within Appendix A to this report, including the new proposed waste types.

3.2.3 All deliveries to the site will be subject to pre-acceptance evaluation and delivery schedule as agreed with customers prior to arrival on site.

3.2.4 There will be no unscheduled waste deliveries. If a vehicle arrives on site and it is verified that there has been no prior agreement made to receive that vehicle, the delivery will be refused, the vehicle turned away, and the incident recorded in the site diary.

3.2.5 The following information will be requested from all customers prior to waste being accepted on site:

- European Waste Catalogue (EWC) Code (where appropriate);
- process generating SIC Code (where appropriate);
- delivery container type (where appropriate);
- written description of the material, including composition of the waste; handling requirements and hazards; and quantity and form of the waste; and
- anticipated date and time of delivery.

3.2.6 Waste delivery contracts will not be entered into until the operator is confident that the facility is able to receive the waste, and that the nature of material can also be processed without impacting on operations and impacting on any nearby sensitive receptors.

3.3 Waste Acceptance Procedures

3.3.1 Waste acceptance procedures are in place at the Bryn Pica Waste Operations facility and will be applied to the additional waste streams. The Operator will continue to ensure that the requirements detailed in Section 2.1.2 Acceptance procedures to assess waste of Sector Guidance Note SGN5.06 are followed.

3.3.2 Waste will be delivered to the site during the operational hours described in Paragraph **Error! R eference source not found.**, which are proposed to be extended from the current operational hours to allow the larger volume of wastes to be handled and processed.

3.3.3 All delivery vehicles entering the site will park at the cabin by the weighbridge to undertake Duty of Care paperwork checks.

3.3.4 The Weighbridge Operator will incoming wastes before they are directed to the waste facility carrying out a full visual inspection if concerns are raised during initial checks in line with the Facility's Waste Acceptance Procedures. Operatives within the tipping areas will also visually check each load and escalate to the Shift Supervisor if any malodorous loads, smouldering (or other signs of heat/fire) or non-conforming wastes are tipped. The vehicle driver will be advised to wait in case the loads needs to be rejected or dealt with separately.

3.3.5 Non-conforming wastes will not be accepted at the facility. Any wastes which are found not to comply with the conditions of the Permit, or do not conform to the description provided by the waste carrier/producer will be rejected with records maintained. In the event of an emergency, or if incorrect wastes area accepted onto site, there is a quarantine area on-site where waste can be temporarily stored pending removal.

3.3.6 Details and description of the vehicle delivering the waste, the driver's name and the operator of the vehicle will be taken; and a description of the waste by type and quantity will be recorded.

3.3.7 Following unloading, waste will be stored within each facility's waste reception areas only.

3.3.8 Waste deliveries will be prohibited from entering the site if the reception area is found to be at full capacity and there is insufficient space for storage of waste or incoming vehicles on site.

3.4 Changes to Waste Storage and Handling on-site

3.4.1 The Operator will continue to ensure that the relevant requirements detailed in '*Section 2.1.3 Waste Storage'* of Sector Guidance SGN5.06 are followed.

3.4.2 Storage arrangements will remain the same within the Inert Material Recycling Facility and for externally stored separated recyclable material fractions. There are minor changes to storage of wastes in other operational areas which are summarised in Table 3.4.1 and described in the sections below. As part of developing the Fire Prevention and Mitigation Plan (FPMP) for the facility, submitted with this application, the storage areas were reviewed with additional controls and restrictions put into place in relation to storage volumes and retention times. In all instances, both storage volumes and retention times have either remained the same or have reduced.

Table 3.4.1: Changes to Storage of wastes

Waste Type	Storage Arrangements (current)	Storage Arrangements (proposed)
MRF: Incoming mixed recyclable materials	Two waste piles within the MRF building which is provisioned with a sealed concrete hardstanding surface.	One waste stack of 400m^3 within the MRF building which is provisioned with a sealed concrete hardstanding surface.
Mattress Recycling Facility	Waste stored in a single building and externally in secure containers.	Waste stored in two adjoining buildings and externally in secure containers. The additional building is required to separate mattresses into their component parts. Internal waste storage comprises: • 96m^3 incoming mattress storage pile • 42m^3 baled mattress components pile External waste storage comprises:

Waste Type	Storage Arrangements (current)	Storage Arrangements (proposed)
		• 70m^3 textile storage in shipping container • 70m^3 foam storage in shipping container • 70m^3 shredded metal storage in skip
WTS: Storage of solid fraction digestate	Not applicable.	Walled 30m^3 digestate storage clamp within the WTS facility, which is provisioned with a sealed concrete hardstanding surface.
Physical Treatment Facility: Storage of gully suckings	Surfaced area leading to collection tank to allow settling of run-off prior to discharge to sewer.	New location (see site plan in the Drawings section of this report). Fully contained, sealed concrete surfaced area leading to collection tank to allow settling of run-off prior to discharge to sewer. Throughput and storage volumes of gully suckings remain unchanged.

Materials Recycling Facility (MRF)

3.4.3 The MRF comprises two main buildings: the MRF tipping hall and the MRF treatment hall. It is proposed that the MRF will undergo a significant upgrade with replacement of the current plant and equipment with up to date, high efficiency equipment. This is described more fully in Section 3.5 below. As part of these changes, the volumes of waste and retention times for waste storage areas will be carefully controlled to provide fire mitigation and prevent self-combustion of waste.

3.4.4 The maximum amount of stored waste will be controlled to a minimum level due to the improved efficiency and rapid processing speed of the new plant and equipment enabling an increased throughput of waste. Storage will remain with the MRF tipping hall however the pile size will be restricted to 400m^3. Storage arrangements are described on Table 3.4.2A below and assessed against the requirements of Sector Guidance Note SGN 5.06.

Table 3.4.2A: Indicative Requirements for Storage of Waste (Mixed Recyclable Materials in MRF)

Requirement	Mitigation measures proposed by Operator	Meets requirements of SGN 5.06?
Storage areas should be located away from watercourses and sensitive perimeters	Storage area is within a building with drainage diverted to sewer via landfill leachate collection system. There are no sensitive watercourses or other sensitive receptors nearby.	Yes
Storage areas should be located to eliminate or minimise the double handling of wastes	Materials processing and treatment equipment is directly adjacent to reception area. Storage of processed wastes is directly adjacent to processing and treatment equipment.	Yes
Storage areas should be clearly marked and signed with regard to the quantity and hazardous characteristics of the wastes stored therein.	Waste storage areas are labelled. Capacity is limited by the size of each respective storage area or container. Incoming waste storage volume is restricted by the MRF building reception area.	Yes

Requirement	Mitigation measures proposed by Operator	Meets requirements of SGN 5.06?
Storage area drainage infrastructure should ensure that all contaminated run-off is contained, that drainage from incompatible wastes cannot come into contact with each other and that fire cannot spread between storage / treatment areas via the drainage system.	Storage of waste is on sealed hardstanding and there are no incompatible wastes stored nearby. Wastes are stored within individual dedicated storage areas which would minimise spread of fire. Fire resistant bunkers are in place where required. In the event of a fire, firewater is diverted to firewater lagoon where it is held pending discharge or disposal via authorised waste contractor depending on level of contamination.	Yes
Procedures must be in place for the regular inspection and maintenance of storage areas.	The whole facility is subject to inspections and planned preventative maintenance	Yes
There should be vehicular, for example, forklift, and pedestrian access at all times to the whole of the storage area	Full vehicular access is provided.	Yes

Mattress Recycling Facility

3.4.5 Whilst there is now an additional building to store and treat the mattresses, storage and treatment operations remain broadly the same however they are described in Table 3.4.2B for completeness. The incoming waste storage piles will be controlled to the pile sizes provided in Table 3.4.1 are in place to prevent and minimise the impact from fire.

3.4.6 In order to demonstrate compliance with the relevant waste storage requirements in Sector Guidance Note SGN5.06, a comparison of proposed techniques has been carried out and presented in Table 3.4.2B below.

Table 3.4.2B: Indicative Requirements for Storage of Mattresses

Requirement	Mitigation measures proposed by Operator	Meets requirements of SGN 5.06?
Storage areas should be located away from watercourses and sensitive perimeters	Storage area is within a building with a concrete surface. There are no sensitive watercourses or other sensitive receptors nearby.	Yes
Storage areas should be located to eliminate or minimise the double handling of wastes	There is no unnecessary double handling of waste. Mattresses are separated into their component parts then stored pending removal from site.	Yes
Storage areas should be clearly marked and signed with regard to the quantity and hazardous characteristics of the wastes stored therein.	Mattress storage areas are labelled. Capacity is limited by the size of the storage container or by markings on the buildings floor.	Yes

Requirement	Mitigation measures proposed by Operator	Meets requirements of SGN 5.06?
	The mattresses or their components have no hazardous characteristics.	
Storage area drainage infrastructure should ensure that all contaminated run-off is contained, that drainage from incompatible wastes cannot come into contact with each other and that fire cannot spread between storage / treatment areas via the drainage system.	Storage of waste is on sealed hardstanding and there are no incompatible wastes stored nearby. Operations are dry and do not generate effluent. In the event of a fire, firewater is diverted to firewater lagoon where it is held pending discharge or disposal via authorised waste contractor depending on level of contamination.	Yes
Procedures must be in place for the regular inspection and maintenance of storage areas.	The whole facility is subject to inspections and planned preventative maintenance.	Yes
There should be vehicular, for example, forklift, and pedestrian access at all times to the whole of the storage area	Full vehicular access is provided.	Yes

Waste Transfer Station (WTS)

3.4.7 The only material change to this facility is the acceptance of small quantities of solid fraction digestate from the adjacent Biogen Limited AD facility. There is no connectivity between the AD facility and Bryn Pica operations, other than providing this additional buffer storage of solid fraction digestate. The digestate is proposed to be stored under the existing cover of the WTS building within a storage clamp. Having undergone the treatment stages and final liquid removal stage within the AD process, the solid fraction has minimal odorous potential. Storage quantities are described on Table 3.4.2C below.

3.4.8 In order to demonstrate compliance with the relevant waste storage requirements in Sector Guidance Note SGN5.06, a comparison of proposed techniques has been carried out and presented in Table 3.4.2C below.

Table 3.4.2C: Indicative Requirements for Storage of Waste (Solid Fraction Digestate in WTS)

Requirement	Mitigation measures proposed by Operator	Meets requirements of SGN 5.06?
Storage areas should be located away from watercourses and sensitive perimeters	Storage area is within a concrete clamp within the WTS. There are no sensitive watercourses or other sensitive receptors nearby.	Yes
Storage areas should be located to eliminate or minimise the double handling of wastes	There is no double handling of waste within the WTS. Digestate is stored and is not re-located	Yes

Requirement	Mitigation measures proposed by Operator	Meets requirements of SGN 5.06?
	until it is removed off-site permanently.	
Storage areas should be clearly marked and signed with regard to the quantity and hazardous characteristics of the wastes stored therein.	Digestate storage area is labelled. Capacity is limited by the size of the storage clamp.	Yes
Storage area drainage infrastructure should ensure that all contaminated run-off is contained, that drainage from incompatible wastes cannot come into contact with each other and that fire cannot spread between storage / treatment areas via the drainage system.	Storage of waste is on sealed hardstanding and there are no incompatible wastes stored nearby. Waste is stored within a concrete digestate clamp which would minimise spread of fire. Drainage system is in place around WTS which diverts all site drainage to the adjacent landfill leachate collection system.	Yes
Procedures must be in place for the regular inspection and maintenance of storage areas.	The whole facility is subject to inspections and planned preventative maintenance	Yes
There should be vehicular, for example, forklift, and pedestrian access at all times to the whole of the storage area	Full vehicular access is provided.	Yes

Physical Treatment Facility

3.4.9 The gully suckings treatment area has been moved to a new plant area. The reasons for this change are to increase the settling tank size to improve water run-off treatment efficiency prior to discharge, which is ultimately to sewer; and to bring the facility closer to the run-off discharge point. This represents an improvement to the previous operations. There is no increase to volumes of stored waste, run-off or other impact.

Table 3.4.1C: Indicative Requirements for Storage of Waste (Physical Treatment Facility)

Requirement	Mitigation measures proposed by Operator	Meets requirements of SGN 5.06?
Storage areas should be located away from watercourses and sensitive perimeters	There are no sensitive watercourses or other sensitive receptors nearby.	Yes
Storage areas should be located to eliminate or minimise the double handling of wastes	There is no double handling of waste. Gully suckings are transferred to the storage area and then moved to the WTS.	Yes
Storage areas should be clearly marked and signed with regard to the quantity and hazardous characteristics of the wastes stored therein.	Physical Treatment Facility storage area is clearly designated by the concrete pad and bunded sides. Capacity is limited by the size of the bunded area.	Yes

Requirement	Mitigation measures proposed by Operator	Meets requirements of SGN 5.06?
Storage area drainage infrastructure should ensure that all contaminated run-off is contained, that drainage from incompatible wastes cannot come into contact with each other and that fire cannot spread between storage / treatment areas via the drainage system.	Storage of waste is on sealed, bunded, concrete hardstanding and there are no other wastes stored within its vicinity. The gully suckings effluent drains to the landfill leachate collection facility and then to sewer.	Yes
Procedures must be in place for the regular inspection and maintenance of storage areas.	The whole facility is subject to inspections and planned preventative maintenance	Yes
There should be vehicular, for example, forklift, and pedestrian access at all times to the whole of the storage area	Full vehicular access is provided.	Yes

3.5 Changes to Waste Treatment Operations

3.5.1 Changes to each of the operational plant areas are discussed in the sections below. Most of these changes to the waste treatment methods carried out on-site are not likely to result in changes to the Permit, however the Operator seeks to notify the EA of these minor operational changes by means of this Permit Variation Application.

Materials Recycling Facility

3.5.2 The MRF is to undergo a major overhaul which will involve installation of new plant and equipment to improve plant efficiency. The new techniques are simply improved methods compared with current techniques and are all within the scope of the permitted activities listed in Table S1.1 of the existing Permit. The new methods incorporate robotics, artificial intelligence and optical and infra-red sensors to improve waste sorting and segregation methods. The MRF will operate at rapid processing speeds which will mean that it can handle a higher throughput of recyclable material within the same footprint. It is anticipated that the proposed changes will increase the amount of materials processed which can be recycled from 80% to 90%.

3.5.3 To enable flexibility in the wastes received by the MRF, and to fully serve the Rhondda Cynon Taff district by providing an efficient recycling service for a wider scope of input recyclable wastes, the Operator requests the addition of the following waste codes, shown in Table 3.5.1, to be included in the Permit.

Table 3.5.1: Additional Waste Codes -- MRF

Waste Code	Description	Similar waste codes included in Permit	Description
19 12 01	paper and cardboard	20 01 01	paper and cardboard
19 12 02	ferrous metal	16 01 17	ferrous metal
19 12 03	non-ferrous metal	16 01 18	non-ferrous metal
19 12 04	plastic and rubber	20 01 39	plastics
19 12 05	glass	20 01 02	glass

Waste Code	Description	Similar waste codes included in Permit	Description
19 12 07	wood other than that mentioned in 19 12 06	20 01 38	wood other than that mentioned in 20 01 37
19 12 08	textiles	20 01 11	textiles
19 12 09	minerals (for example sand, stones)	20 02 02	soil and stones
19 12 10	combustible waste (refuse derived fuel)	Various	Similar to residual wastes from other EWC Chapter 20 codes.
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	Various	Only required to accept household-like wastes from other waste management facilities.

3.5.4 All new waste codes are all similar to wastes already accepted onto site as demonstrated in Table 3.5.1 and do not require new treatment operations or increase the risk to the environment. A full list of additional waste codes requested as part of this Permit Variation Application is included in Appendix A.

Waste Transfer Station

3.5.5 The only change to current operations at the WTS operations will be storage of a small amount of solid fraction digestate for up to a maximum duration of two weeks to provide additional storage capacity for the adjacent AD facility.

3.5.6 Digestate storage arrangements are described above in Table 3.4.2C. The solid fraction digestate is only transferred onto the WTS by a single Operator and only from the adjacent Biogen AD Facility. The waste transfer operation will adhere to the waste pre-acceptance and acceptance procedures described in Sections 3.2 and 3.3 above. The digestate will be stored on sealed hardstanding within a walled clamp, as described in Table 3.4.2C. As maximum storage volumes will not exceed 30 tonnes (and typical storage volumes will be significantly lower than this), and maximum throughput is anticipated to be lower than 1000 tonnes per year, storage of digestate is not considered to present a risk to the environment.

3.5.7 The solid fraction digestate is only stored for bulking up on site; no further treatment is carried out within the WTS. Therefore, this does not bring about any change which impacts Permit conditions, or the limits to the activities described in Table S1.1 of the Permit.

3.5.8 The Environmental Risk Assessment in Section 4.0 concludes that risks to the environment are low as a result of transferring and storing the solid fraction digestate at the WTS and the Odour Assessment in Appendix D concludes that the overall likely odour effect is 'not significant'.

3.5.9 The addition of the solid fraction digestate 19 06 04 waste code '*digestate from anaerobic treatment of municipal waste*' is requested as part of this Permit variation, alongside the other waste codes in the table Appendix A.

Inert Material Recycling Facility

3.5.10 No changes are proposed to the Inert Material Recycling Facility including to the waste types, waste volumes or location.

Physical Treatment Facility

3.5.11 This Facility has been moved and improved to an area where there was additional space to install the improved facility, as described in Section 3.4 above and as shown on the site plan in the Drawings section of this report. The new facility includes larger settling tanks and a bunded, sealed concrete waste storage area. This represents a significant improvement to operations and a higher level of environmental protection is in place to prevent accidental releases to the surrounding ground. There are no changes to the throughput or storage volumes of waste. This does not bring about any change which impacts Permit conditions, or the limits to the activities described in Table S1.1 of the Permit.

Mattress Recycling Facility

3.5.12 There are no changes to the throughput or volumes of mattresses processed. An additional building has been constructed to sort textiles for recycling of the component parts however this does not bring about any change which impacts Permit conditions, or the limits to the activities described in Table S1.1 of the Permit. The site plan has been amended to show the new building, which is included in the Drawings section of this report.

3.6 Management

Environment Management System

3.6.1 The approach to permitting and regulation under EPR 2016 relies heavily upon the use of Environmental Management Systems (EMS) as a driver for environmental compliance and improvement. Under the Environmental Permitting Regime, modern regulation is fundamentally driven by applying a risk-based approach to activities, where operators are encouraged to implement suitable management systems with which to operate, and to implement self-regulation and reporting. An operator who holds a Permit under EPR 2016 is required to have an appropriate Environmental Management System in place.

3.6.2 Cynon Valley Waste Disposal Ltd will continue to be the operator of the proposed Facility and to operate within the scope of their existing EMS. The EMS will be updated to include the following changes, which will be incorporated into the site's operational procedures from commencement of the changes:

- increased MRF throughput, installation of new MRF plant and equipment, and addition of new waste streams;
- change of location of the dewatering facility which handles gully suckings;
- extension to the Mattress Recycling Facility; and
- storage of solid fraction digestate within the WTS.

3.6.3 There will be new operational procedures for the day to day operation of the new equipment to be installed in the MRF. Operation of the other plant areas remain broadly the same as under the site's current operation.

3.6.4 There are a wider scope of physical and operational changes relating to fire prevention, which are described fully in the FPMP, submitted with the Permit Variation Application.

3.6.5 The only change which affects the management and minimisation of odour at the facility is the introduction of solid fraction digestate at the WTS. A standalone Odour Management Plan (OMP) is in place at the Facility and will be updated to incorporate the proposed changes to operations. The additional aspects related to transfer and storage of solid fraction digestate are included in Appendix E.

3.6.6 The existing EMS has been made available to NRW with no issues raised.

Accident Prevention

3.6.7 The operator maintains an Accident Management Plan (AMP). Potential accidents which may arise during the operation of the installation have been considered and assessed using three elements:

- identification of hazards;
- assessment of risks (and possible consequences); and
- identification and implementation of techniques to reduce the risk of accidents (and contingency plans for any accidents that may occur).

3.6.8 Potential accident scenarios for the operation of the new MRF and as a result of other changes to operation, plant and associated equipment have been identified and assessed. The summary output of this assessment and any control measures in place are described in Appendix B. The existing AMP will be updated to include these scenarios in line NRW guidance.

3.6.9 A FPMP has been produced and submitted with this permit variation application in accordance with NRW guidance (referenced CRM.0121.001.PE.R.FPMP). In developing the FPMP, several improvements have been made to site operations including construction of new firewater lagoons to serve the MRF and surrounding areas where combustible wastes may be stored and WTS, new fire detection equipment and fire suppression equipment.

Training and Competence

3.6.10 The proposed changes do not impact the competency requirements for the facility as the new waste codes are broadly similar to those already accepted onto the site.

3.6.11 The operational changes to the MRF will require training of site operatives to enable correct and safe use of the new plant and equipment. This will be carried out by the Operator and supported by equipment manufacturers where required.

3.6.12 The existing competency certificates are appropriate for the current and proposed operations and are provided in Appendix F.

Maintenance

3.6.13 The Operator maintains critical plant and equipment and there are services contracts or other similar provisions in place. All new plant and equipment will be maintained in accordance with equipment manufacturer's instructions.

4.0 Environmental Risk Assessment

4.1 Scope of the Assessment

4.1.1 This Environmental Risk Assessment (ERA) was completed to support the Permit variation application. This ERA was prepared in response to Question 6 on the NRW Application Form Part C2.

4.1.2 This report follows the guidance as described within the EA's Guidance: *Risk assessments for your environmental permits*, updated January 2019. This guidance identifies the following potential risks to the environment, as a result of the proposed changes, which have been be considered and included in this assessment:

- odour impact and effects;
- noise impact;
- accidents and amenity impacts from uncontrolled or unintended ('fugitive') emissions, including dust, litter, pests and pollutants that shouldn't be in the discharge; and
- site waste.

4.1.3 Impacts from these aspects are discussed in this section of the report including qualitative assessments. The outcome of these assessments is presented in Appendix C, which presents the results of the qualitative risk assessment been carried out to determine impact from the proposed changes on the environment.

4.1.4 The proposed changes do not increase point source emissions released from the facility. There are no point source emissions to air or land from the waste treatment operations. There are no changes to emissions released to water, other than the relocation of the physical treatment facility (treatment of gully suckings) which does not involve any changes to the nature or volumes of effluent generator, or the discharge or treatment arrangements (see Section 3.5). For this reason, no specific assessments have been carried out as part of this ERA in relation to point source emissions.

4.1.5 The Waste Processing Facility will be operated in compliance with requirements detailed in the relevant technical guidance notes, specifically the EA's *Technical Guidance Note S5.06*, *Guidance for the Recovery and Disposal of Hazardous and Non- Hazardous Waste,* 2013. Techniques to minimise the environmental impacts associated with the facility are Section 3.0 above and in the Risk Assessments presented in Appendix C of this report.

4.2 Nearby Sensitive Receptors

4.2.1 Key receptors that have the potential to be impacted by emissions from the site are summarised in Table 4.2.1 below. Locations of nearby ecological sensitive receptors were investigated using the government's magic.gov website and none of the following types of sites, areas or zones were located within 2km of the facility:

- Nitrate Vulnerable Zone;
- Local Nature Reserve;
- National Nature Reserve;
- Ramsar Site;

- Special Protection Area;
- Special Area of Conservation;
- Site of Special Scientific Interest.
- Nitrate Sensitive Area;
- Area of Outstanding Natural Beauty;
- Environmentally Sensitive Area; or
- National Park.

Table 4.2.1: Sensitive Receptors

Receptor	Type	Distance (m) from MRF	Direction	Distance (m) from WTS	Direction
Biogen AD Facility	Industrial	60m	NNW	730m	N
Unnamed watercourse	Watercourse	140m	SW	640m	SSE
Coedcae Farm	Residential	1250m	S	500m	S
Residential area of Abernant	Residential	1700m	S	1050m	S
Tir-ergyd	Residential	850m	WSW	1050m	WNW
Dylas Cottage	Residential	720m	WNW	1200m	NW
Ysgubor-wen House	Residential	1500m	SW	1050m	SW
Gelli-uchan Farm	Residential	1100m	W	1500m	NW
Dylas Farm	Residential/Agricultural	860m	NW	1540m	NNW

4.2.2 The Operator of the Bryn Pica Landfill Site is the same as the Operator of Bryn Pica Waste Operations (which will include the digestate storage area) and therefore have been excluded as a receptor as they are part of the same organisation and there are shared operations.

4.2.3 The Facility is not located within a flood zone.

4.2.4 The site is over a Groundwater Vulnerability Zone which is a Secondary A aquifer however it is not within a Source Protection Zone.

4.3 Odour Emissions

4.3.1 The odour profile of the MRF is not likely to change. The new waste types are comparable to existing waste types already included in the Permit (see Section 3.5). All operations are carried out within a building and the new plant and equipment is not anticipated to result in any change the odour profile. Whilst the throughput is increasing by increasing the efficiency of the facility

through the installation of processing equipment which operates at high speeds, factors which have the potential to increase odour i.e. the retention time or storage volumes, will not increase. Following improvements to fire prevention measures on-site, retention times and storage volumes will be better controlled and, in all instances, will either remain the same or decrease compared with current levels.

4.3.2 To demonstrate this, a qualitative risk assessment of the impact of odour on the local environment has been carried out considering controls in place to assess the impact of the proposed changes and is included in Appendix C of this report. Based on the output of this risk assessment, the potential risk to the environment from odour is low.

4.3.3 The Mattress Recycling Facility and Inert Waste Treatment Facility do not carry out odour generating activities.

4.3.4 The proposed changes to the Physical Treatment Facility do not change the odour profile and provide a higher level of environmental protection.

4.3.5 Within the WTS, addition of the solid fraction digestate storage has the potential to increase the odour profile and this has been investigated further by carrying out an odour assessment in line with the guidance provided in the following documents;

- Institute of Air Quality Management (IAQM) guidance on assessment of odours for planning, IAQM, 2014 (termed 'the IAQM Guidance' for the purpose of this report).
- NRW's 'How to comply with your environmental Permit Additional guidance for: H4 Odour Management' NRW, October 2014 (termed 'H4' for the purposes of this report).

4.3.6 The Odour Assessment is included in Appendix D of this report and concludes that overall likely odour effect, as a result of the proposed change to store solid fraction digestate, is 'not significant' with an overall assessment output of 'negligible effect'. The digestate is a considerable distance from any receptors (>500m) and storage of digestate is unlikely to result in complaints.

4.3.7 A standalone OMP is in place at the Facility. As stated above, the changes to the MRF and Physical Treatment Facility do not impact the odour profile, however the OMP will be updated as required to reflect all proposed changes to operations. As the solid fraction digestate to be stored in the WTS is potentially odorous, the operations relating to storage and transfer of digestate are included in Appendix E and will also be incorporated into the Operator's OMP.

4.4 Noise Emissions

4.4.1 The proposed changes are not likely to result in additional emissions of noise. Whilst there will be new plant and equipment introduced to the site in the MRF, it is all contained within a building and it does not generate any additional noise compared with current operations. Furthermore, the facility is a significant distance from any sensitive receptors (>800m) and has no history of noise complaints.

4.4.2 Whilst the operational times have been amended compared with current operating times, the site is not located near any sensitive receptors and the closest resident is a significant distance away at over 500m from the WTS and 600m from the MRF. For this reason, it is not considered necessary to carry out detailed noise modelling.

4.4.3 There are no changes to other plant areas which could impact the noise profile for the site.

4.4.4 A qualitative assessment of the impact of noise on the local environment has been carried out considering controls in place to assess the impact of the proposed changes and is included in Appendix C of this report. Based on the output of this risk assessment, the potential risk to the environment from noise is low.

4.5 Accidental Releases to Air

4.5.1 The proposed changes are not likely to result in additional fugitive releases to air. However, without controls in place, the increased throughput within the MRF may result in additional generation of dust.

4.5.2 The key sensitive receptors are operatives at the site and operatives of the adjacent Biogen AD Plant.

4.5.3 As per current operations, all waste material will arrive onto site in enclosed or sheeted vehicles to minimise fugitive releases. Warnings are issued to customers of the site in the event of non-conformance with this measure. All waste delivery vehicles will have their wheels cleaned prior to exiting the reception building if needed to ensure no litter is tracked out of the building from plant areas accessed via unsealed roads (WTS and Physical Treatment Facility).

4.5.4 Following implementation of changes, waste processing will continue to take place inside the MRF building in a controlled environment. The majority of the treated wastes are stored in buildings, containers or bunkers, which serve to minimise the risk of dust, or within compacted bales in designated storage areas. In addition, management controls include good housekeeping practices and undertaking routine visual inspections of the site and its immediate environs to identify any dusty releases or other materials.

4.5.5 Activities on site will be managed in accordance with the operator's management systems. This will include regular inspections and maintenance of equipment, including all point source emissions to air to ensure risks of fugitive emissions from site are kept to a minimum.

4.5.6 As stated in Section 4.3, a standalone AMP is in place at the Facility and will be updated to incorporate the proposed changes to operations. The additional aspects related to the proposed changes are included in Appendix B.

4.5.7 As stated in Section 4.3, a standalone FPMP is in place at the Facility and will include the proposed changes to operations. The FPMP is included as part of this application.

4.5.8 A qualitative assessment of the impact of fugitive releases to air has been carried out considering controls in place to assess the impact of the proposed changes and is included in Appendix C of this report. Based on the output of this risk assessment, the potential risk to the environment is low.

4.6 Accidental Releases to Water and Land

4.6.1 The site is over an aquifer however the site is not within a Source Protection Zone. Receptors identified are the ground and groundwater beneath the site.

4.6.2 The proposed changes are not likely to result in additional fugitive releases to water and the following proposed changes will improve prevention and mitigation of potential impacts to land and water in the event of an incident:

- The Physical Treatment Facility has been relocated to a new area where incoming wastes (gully suckings) are stored on sealed hardstanding, which drains towards the

concrete collection sumps with a concrete bund in place around the perimeter of the storage area to prevent spills to land.

- As stated in Section 3.64.3, a standalone FPMP is in place at the Facility and will include the proposed changes to operations. The FPMP addresses firewater run-off and specifies measures to prevent such releases entering watercourses. This is primarily achieved by the construction of two firewater holding lagoons near the MRF and WTS.

4.6.3 The site has been engineered to provide robust containment to minimise risks of fugitive emissions to groundwater with concrete handstanding installed in the main waste storage areas. There are no new liquids to be stored on-site as a result of the changes.

4.6.4 There is no potential for liquids to be generated within the mattress recycling buildings, and there are no changes which could generate pollutants from this operation.

4.6.5 Solid fraction digestate stored within the WTS building is provided with a concrete storage clamp to prevent release of digestate outside of the building. Digestate is dewatered and has a very low moisture content minimising the potential for leaching off-site.

4.6.6 There are no changes to external waste storage areas which would result in additional generation of pollutants, other than an increase of waste processed in the MRF. Storage areas are situated on concrete hardstanding.

4.6.7 Any liquor generated within the WTS buildings will be directed to foul sewer, via the Byrn Pica Landfill effluent treatment facility, and be regulated by a trade effluent consent by Dwr Cymru.

4.6.8 As stated in Section 4.3, a standalone AMP is in place at the Facility and will be updated to incorporate the proposed changes to operations. The additional aspects related to the proposed changes are included in Appendix B.

4.6.9 A qualitative assessment of the impact of fugitive releases to water has been carried out considering controls in place to assess the impact of the proposed changes and is included in Appendix C of this report. Based on the output of this risk assessment, the potential risk is low.

4.7 Pests

4.7.1 The key sensitive receptors identified for pests include the local human population, and users of the site itself. Potential hazards include vermin and flies attracted to wastes delivered and stored on site. Areas which could attract pests are the MRF and WTS buildings and stored wastes.

4.7.2 The proposed changes are not likely to result in an increase in the level of pests on-site. Volumes of waste stored on-site and retention times will be controlled to fixed maximum levels.

4.7.3 Pests can be attracted to food sources which may be present in the incoming waste materials and it is proposed that the input of wastes, and therefore subsequent storage of incoming and sorted/treated wastes will increase.

4.7.4 Waste processing will continue to take place inside the MRF and WTS buildings in a controlled environment. In addition, management controls to be implemented include good housekeeping practices and undertaking routine visual inspections of the site and its immediate environs to identify any signs of pests.

4.7.5 Any issues identified will be noted in the site diary, investigated and appropriate remedial action taken.

4.7.6 The facility has been designed and will be operated in such a way that the attraction of animals, vermin, pests and flies is reduced to a minimum. All waste acceptance activities are carried out within a building. Wastes arriving at the site will be managed using the 'first-in', 'first-out waste handling practice, reducing as far as possible the storage time of untreated materials at the facility.

4.7.7 The site will be carefully managed including good housekeeping procedures and regular checks will be made within and around the site for litter and spillages. In addition, the site access and highway outside will be regularly inspected to ensure the access routes in and out of the facility are kept clean.

4.7.8 The Operator has a vermin/pest control contract set up with a pest control specialist. Monthly pest control inspections will continue to be carried out by the contractor which are recorded along with any actions undertaken. The effectiveness of these techniques will be kept under review and appropriate modifications implemented if required. Records of all vermin and pest control visits and initiatives will continue to be maintained and will be available for inspection by the relevant authorities.

4.7.9 A qualitative assessment of the impact of pests on the local environment has been carried out considering controls in place to assess the impact of the proposed changes and is included in Appendix C of this report. Based on the output of this risk assessment, the potential risk to the environment from pests is low.

4.8 Mud and Litter

4.8.1 Increased generation of mud is highly unlikely as a result of the proposed changes.

4.8.2 Without controls in place, litter may increase due to the increased throughput of waste. Waste processing will continue to take place inside the MRF and WTS buildings in a controlled environment. Wastes which may generate litter are stored in buildings, containers or bunkers, which serve to minimise the risk of wind-blown litter, or within compacted bales in designated storage areas. In addition, management controls include good housekeeping practices and undertaking daily visual inspections of the site and its immediate environs to identify any litter which are recorded by site supervisors.

4.8.3 Any issues identified will be noted in the site diary, investigated and appropriate remedial action taken.

4.8.4 A qualitative assessment of the impact of litter on the local environment has been carried out considering controls in place to assess the impact of the proposed changes and is included in Appendix C of this report. Based on the output of this risk assessment, the potential risk to the environment from litter is low.

4.9 Waste Recycling, Recovery or Disposal

4.9.1 The purpose of the Bryn Pica Waste Operations site is to provide a recycling service to the Rhondda Cynon Taff district to handle municipal, commercial and industrial wastes. There are no proposed changes to the wastes accepted onto or transferred from the Inert Material Recycling Facility, Physical Treatment Facility or the Mattress Recycling Facility. Changes to the MRF and WTS are described in the sections below.

Materials Recycling Facility

4.9.2 The MRF achieves an already high recyclable material sorting rate of 80% which will be increased to a projected 90% following installation of new high efficiency plant and equipment and increased automation. Recyclable materials are separated into waste streams on-site for recycling off-site.

4.9.3 The high projected efficiency of the MRF demonstrates the Operator's continued commitment to adhering to the waste hierarchy. The improvements to the efficiency of the MRF and the increased throughput at the facility will contribute significantly to the Rhondda Cynon Taff County Borough Council's ambitious recycling targets.

4.9.4 Residual wastes which cannot be recycled are recovered by incineration at a facility which has 'R1 status' (currently Trident Park Incinerator, Cardiff).

4.9.5 There is a small amount of waste (comprising less than 0.5%) of the incoming waste stream, which cannot be recycled or recovered, which is sent to the adjacent Bryn Pica Landfill. Whilst the volume of waste accepted onto site is proposed to increase in volume, the percentage of the material which is recycled will increase.

Waste Transfer Station

4.9.6 The WTS operations will remain the same aside from acceptance of solid fraction digestate, which is a new waste stream. The proposed throughput of digestate is 1000 tonnes per annum which will be transferred off-site and spread to land.

4.10 Conclusions

4.10.1 Qualitative environmental risk assessments have been carried out to determine whether the proposed changes to the Bryn Pica Waste Operations Facility can be carried out with minimal risk to the environment, and without causing significant pollution. All risk assessments have been undertaken in accordance with relevant NRW Guidance and best practice.

4.10.2 The assessments undertaken consider the possible impacts on sensitive receptors from the proposed changes to the waste operations. The risk assessments have considered both the design and operational practices at the Facility and conclude that:

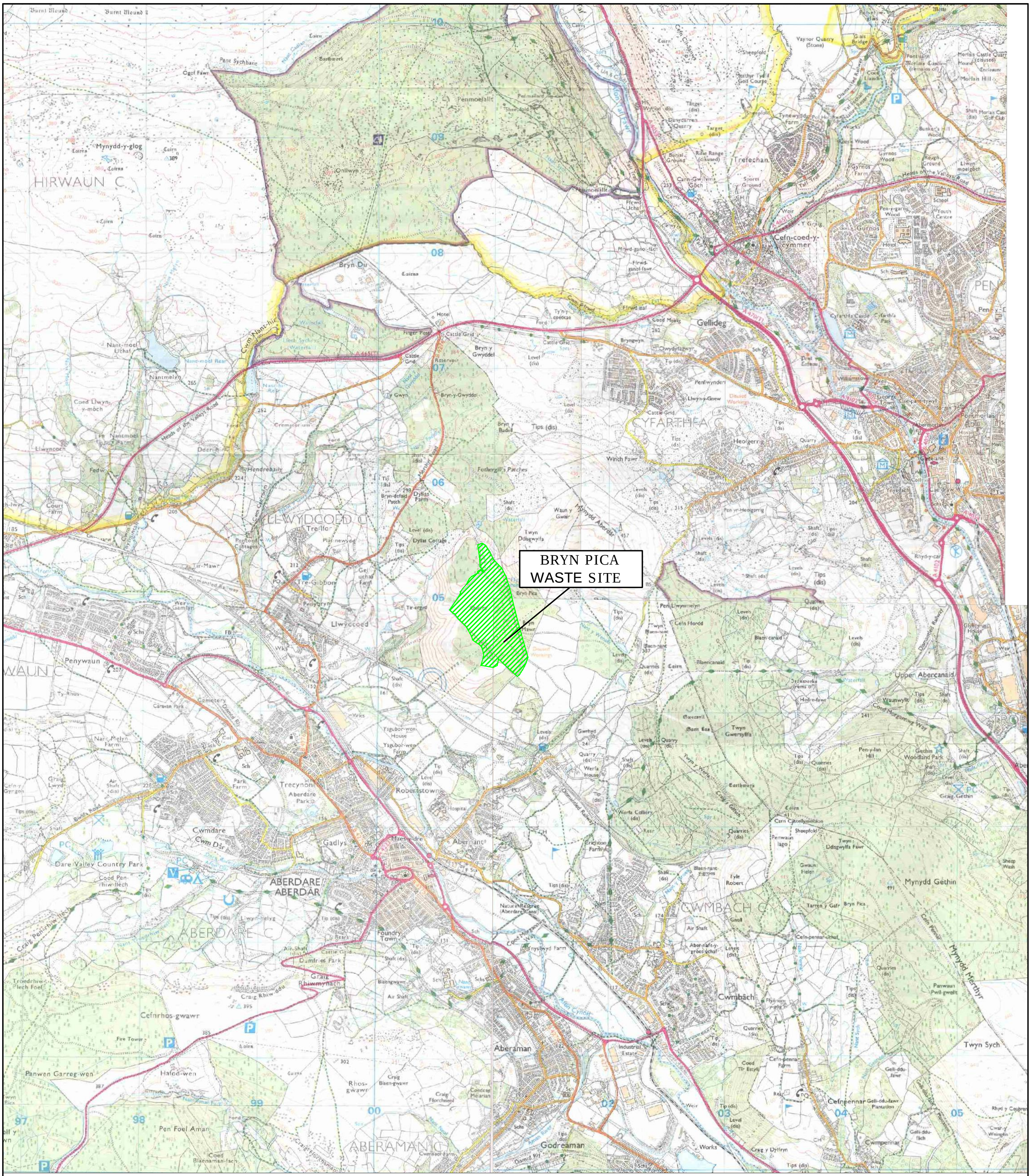
- The overall risk to receptors from odour from the proposed changes is 'not significant' according to the criteria in the IAQM Guidance. The Operator will continue to adhere to the controls in the Facility's OMP which will be updated to include the proposed changes to ensure operation control measures remain appropriate.
- By applying the proposed control measures, the risk of release of fugitive emissions to air and water is low as a result of the proposed changes.
- The overall risks from vermin, pests and litter is low due to the control measures in place and the minimal volume of waste-containing food sources.
- The overall risk to receptors from accidents which may arise due to the proposed changes is low due to the low-risk nature of activities on the site and the control measures in place. Overall, changes to the plant will serve to better protect receptors reducing the risk of accidents.
- The impact from noise emissions as a result of the proposed changes is low as the changes do not materially increase the level of noise generated from the Facility.

- Waste streams produced by the site operators are likely to fall as the new plant and equipment proposed to be installed within the MRF will improve efficiency and increase projected recycling levels from 80% to 90% of the incoming waste streams.

In summary, the proposed changes to the Bryn Pica Waste Operations Facility are not considered to represent an unacceptable risk to the environment.

1. Waste Framework Directive;
2. Environmental Permitting (England & Wales) Regulations 2016 (as amended 2019) referred to as 'EPR 2016' for the purpose of this report;
3. Natural Resource Wales, How to comply with your environmental Permit, Version 8, October 2014, referred to as 'NRW how to comply guidance' for the purpose of this report;
4. EA, Risk assessments for your environmental Permit, updated January 2019;
5. Environmental Permitting Core Guidance, Defra; March 2013;
6. Environmental Permitting Guidance: The Waste Framework Directive, Defra 2011;
7. Sector Guidance Note S5.06: Guidance on the Recovery and Disposal of Hazardous and Non-Hazardous Waste, EA 2013;
8. NRW/EA, Horizontal Guidance Series; and
9. NRW/EA Regulatory Guidance Series.

Drawings



AMGEN Cymru
TOTAL SOLUTIONS IN WASTE MANAGEMENT

AMGEN CYMRU
BRYN PICA
LLWYDCOED
ABERDARE
CF44 OBX

JOB TITLE

BRYN PICA PERMIT VARIATION 2019

DRAWING TITLE

SITE LOCATION PLAN

REV.	DESCRIPTION	DATE

DRAWN	DATE	STATUS
L.F.	23/07/19	FOR COMMENT ☐ FOR APPROVAL ☐
APPROVED	DATE	DRAFT ☐ FINAL ☑

SCALE	SHEET	DRAWING NO.
1:50,000	A4	AC2019/ENV/03/001

MATERIAL RECYCLING FACILITY
RECEPTION AREA AND
MAIN TREATMENT BUILDING

MATTRESS RECYCLING
FACILITY

WASTE TRANSFER STATION

DEWATERING BAY
GULLY WASTE
(PHYSICAL TREATMENT)

205000

300000

NOTES

1. DO NOT SCALE FROM THIS DRAWING
2. SURVEY DRAWING AMGEN CYMRU NOV-18

KEY

PERMIT BOUNDARY

REV	DESCRIPTION	DATE	BY
1.0	ORIGINAL DRAFT	24.07.19	LF

AMGEN CYMRU
BRYN PICA
LLWYDCOED
ABERDARE
CF44 OBX

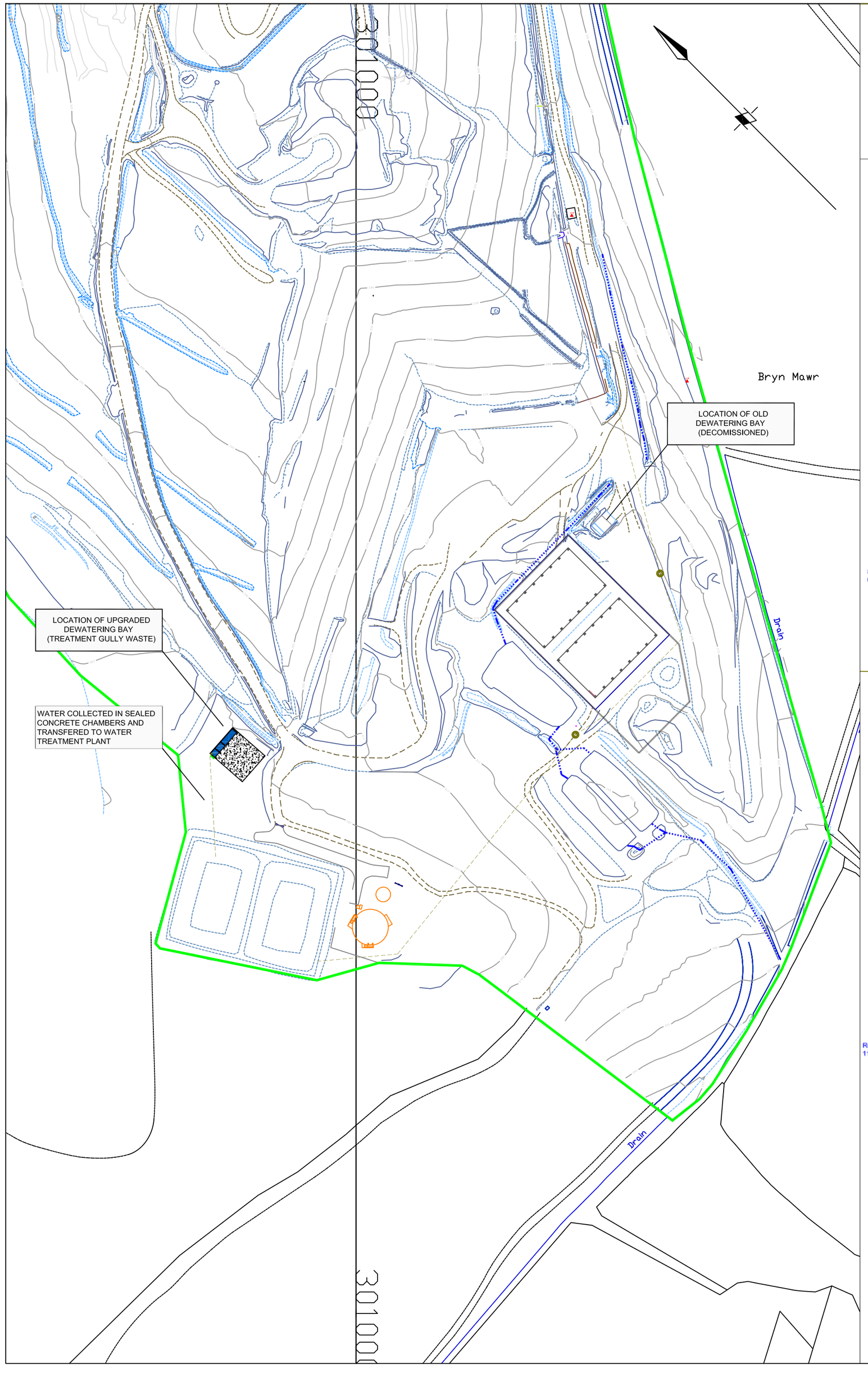
TEL: 01685 870770
FAX: 01685 874684

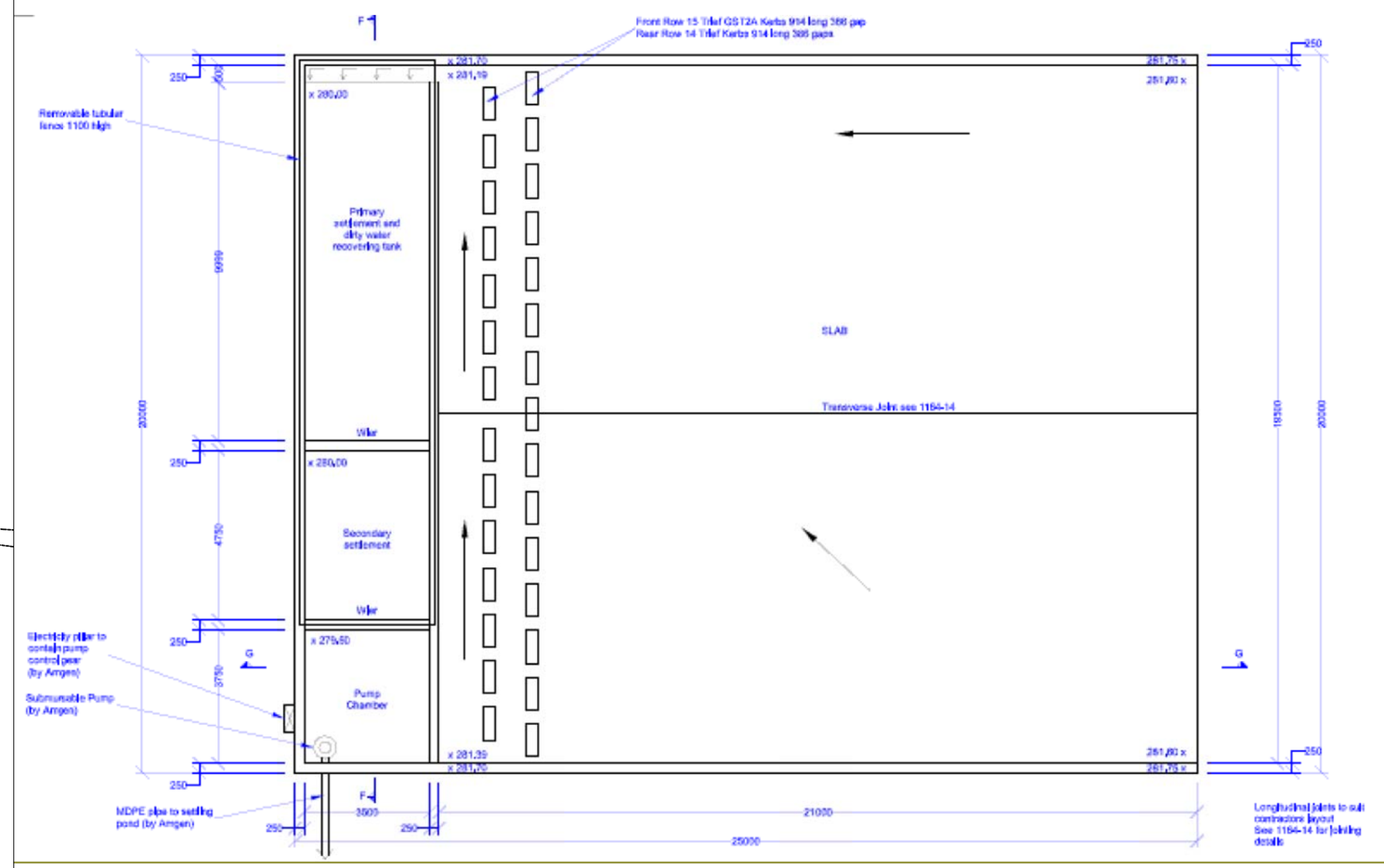
JOB TITLE
BRYN PICA
PERMIT VARIATION
2019

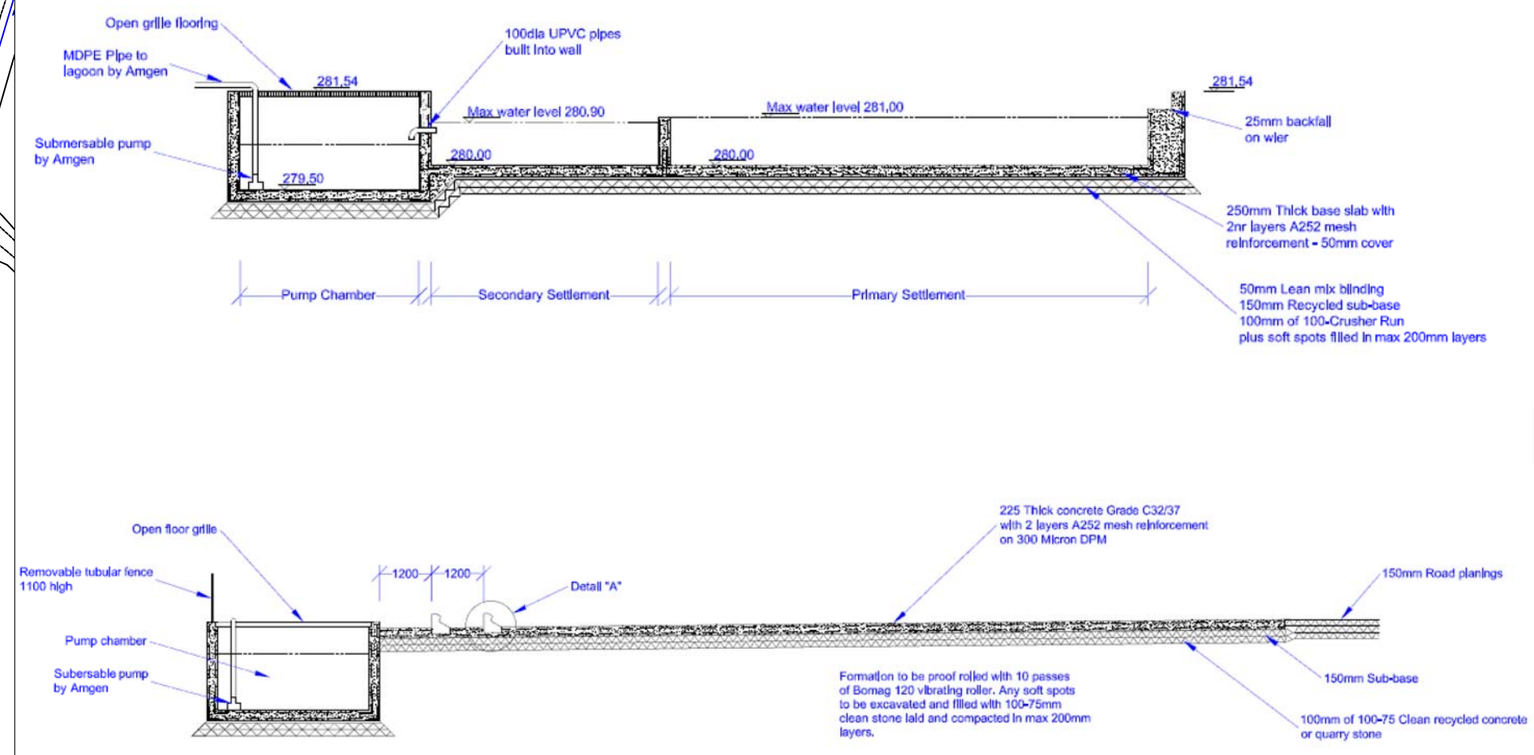
DRAWING TITLE
PERMIT BOUNDARY
AND
GENERAL SITE LAYOUT

DRAWN	DATE	APPROVED	DATE
LF	24.07.19	IM	TBC

SCALE	SHEET	DRAWING NUMBER	REVISION
1 : 4000	A2	AC2019/ENV/03/002	1.0







NOTES

1. DO NOT SCALE FROM THIS DRAWING
2. SURVEY DRAWING AMGEN CYMRU NOV-18
3. WASTE STACK DIMENSIONS LISTED AS W x L x H
4. WASTE TRANSFER STATION (WTS)

KEY

- INSPECTION CHAMBERS
- FOUL DRAINAGE
- ROOF DRAINAGE GULLY POT
- RODDING EYE
- SURFACE WATER (ROOF) DRAINAGE
- SURFACE WATER (SITE) DRAINAGE
- PERMIT BOUNDARY

REV	DESCRIPTION	DATE	BY
1.0	ORIGINAL DRAFT	23.07.19	LF

AMGEN CYMRU
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JOB TITLE
BRYN PICA
PERMIT VARIATION 2019

DRAWING TITLE
LOCATION AND SPECIFICATION OF UPGRADED DEWATERING BAY (TREATMENT OF GULLY WASTE)

DRAWN	DATE	APPROVED	DATE
LF	23.07.19	IM	TBC

SCALE	SHEET	DRAWING NUMBER	REVISION
1 : 250	A2	AC2019/ENV/03/DW01	1.0

Appendix A List of Additional Permitted Waste Types

Bryn Pica Waste Transfer Facility -Additional Waste Types	
Waste Code	**Description**
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 06	**Wastes from anaerobic treatment of waste**
19 06 04	digestate from anaerobic treatment of municipal waste
Bryn Pica Materials Recycling Facility -Additional Waste Types	
Waste Code	**Description**
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 12	**wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified**
19 12 01	paper and cardboard
19 12 02	ferrous metal
19 12 03	non-ferrous metal
19 12 04	plastic and rubber
19 12 05	glass
19 12 07	wood other than that mentioned in 19 12 06
19 12 08	textiles
19 12 09	minerals (for example sand, stones)
19 12 10	combustible waste (refuse derived fuel)
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11

Appendix B: AMP Accident Control Matrix

Event	Likelihood	Consequence of Occurrence	Actions taken or proposed to minimise the chances of the event occurring.	Residual Risk	Actions planned if the event does occur
Containment Failure					
Contaminated run-off/rainwater from site surfaces causing contamination of land and pollution of local groundwater.	Low	Medium	MRF and WTS reception buildings surfacing comprises concrete hard standing. MRF and surrounding areas drain to an unnamed watercourse via a Class 1 interceptor. WTS and Physical Treatment Facility drainage is discharged into the landfill leachate collection facility then to sewer. There is very limited potential for liquors to be generated in all other waste storage areas. All hardstanding areas are inspected for damage daily and repairs carried out promptly to original specification. The drainage system is inspected and maintained on a regular basis	Low	Follow the spill response procedure.
Failure of maintenance oil storage causing contamination of land, surface watercourses and groundwater.	Low	Medium	Regular inspection to check for spillage. All oil containers are provided with secondary containment and are located on concrete hard standing which is served by a Class 1 interceptor.	Low	Follow the spill response procedure.
Spillages					
Spillages of waste from delivery and collection vehicles causing contamination of land, groundwater and local amenity sites. Release of odour	Low	Medium	All wastes are delivered in enclosed or covered vehicles.	Low	All spillages will be cleaned up as soon as practicable. Follow the spill procedure.

Event	Likelihood	Consequence of Occurrence	Actions taken or proposed to minimise the chances of the event occurring.	Residual Risk	Actions planned if the event does occur
Escape of liquids from waste storage.	Medium	Low	There are minimal liquids generated from the MRF, Mattress Recycling Facility and surrounding storage areas. Any liquids generated by the Physical Treatment Facility or the WTS are discharged to the landfill leachate collection system and then to sewer.	Low	Any spills are isolated and cleaned. Follow the spill response procedure.
Fire					
Fire causing smoke, damage to plant and equipment and resulting in contaminated fire water.	Medium	Medium	FPMP in place – see this document for details of prevention and mitigation measures. Key measures include: Fire water provision, application and containment. Maintain a tidy site and minimise stockpiles of combustible materials. No smoking policy on site and no waste materials are burned on site. Fire training and emergency drills are undertaken.	Low	Adhere to controls and response described in FPMP. Only tackle small fires if it is safe to do so in line with company procedures. First person to detect the fire must sound the alarm. Emergency services will be called and all personal will meet at the fire assembly point.
Flood					
Flooding on site	Very Low	Low	The Facility is not located within a floodplain and it is located on higher ground compared to the nearest surface watercourse. Fuels and oils and are provided with secondary containment and are located on concrete hardstanding. Treatment areas are constructed on impermeable surfaces.	Low	The likelihood of a flood occurring is extremely low. Depending on location and severity of flooding, temporarily close site and postpone deliveries. Assess flood water to determine disposal route Hire pump to dewater site. Inform NRW.
Failure of Plant/and or Equipment					

Event	Likelihood	Consequence of Occurrence	Actions taken or proposed to minimise the chances of the event occurring.	Residual Risk	Actions planned if the event does occur
Unplanned breakdown of key equipment causing contamination of land, pollution of groundwater, harm to human health, fire, release of dust or odour to the atmosphere.	Low	Medium	The reception areas is sized to cater for extreme failure during busy periods. New MRF has dual waste treatment lines to mitigate impact of failure of one line. Machinery and plant used to process the wastes will be serviced and maintained in line with the manufacturers recommendations to prevent failure. Breakdown contract in place. Full provision of spare parts on-site. Additional plant will be hired in if required, to keep facility fully operational.	Low	If storage capacity is likely to be exceeded, the Facility will be temporarily closed to new deliveries of waste or less once waste storage is full.
Overcapacity					
Too much waste received or incorrect combinations of wastes received resulting in improper waste storage leading to contamination of land and groundwater.	Low	Medium	The reception area is sized to cater for extreme failure during busy periods. New MRF has dual waste treatment lines to mitigate impact of failure of one line. Deliveries to the facility are scheduled. No ad-hoc deliveries will be received. Machinery and plant used to process the wastes will be serviced and maintained in line with the manufacturers recommendations to prevent failure. The reception areas is sized to cater for extreme failure during busy periods. MRF has dual waste treatment lines to mitigate impact of failure of one line.	Low	If storage capacity is likely to be exceeded, the Facility will be temporarily closed to new deliveries of waste or less once waste storage is full.
Staff Shortage					
Staff illness	Medium	Low	Staff are trained and able to undertake different roles at the facility. Emergency rota in place.	Low	Recruitment of staff to undertake less critical roles and reassignment of

Event	Likelihood	Consequence of Occurrence	Actions taken or proposed to minimise the chances of the event occurring.	Residual Risk	Actions planned if the event does occur
					more experienced staff into more critical roles. Use of temporary staff if required.
Vandalism					
Vandalism causing damage to plant and equipment	Medium	Medium	Secure gate and fence. Site locked when unmanned. Plant and machinery secured out of hours. Site is monitored by CCTV cameras	Low	Follow spill, fire or incident response procedures. Ensure plant and equipment is repaired or replaced without delay. Maintain written records of near misses or incidents as instructed in response procedures.
Vehicle Collision					
Vehicle Collision causing contamination of surface and/or groundwater by fuel and/or oil. Risk to health and safety of workforce and visitors.	Low	Medium	Vehicle movements are limited on site, and traffic management system in place. Deliveries are scheduled and supervised by site staff	Low	Follow the spill or incident response procedures. Ensure plant and equipment is repaired or replaced without delay. Maintain written records of near misses or incidents as instructed in response procedures.

Appendix C: Environmental Risk Assessment

Table 1: Assessment of Odour Risks

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of risk	Risk Management	Residual risk
What is the hazard to the Environment?	***What is the agent or process which has the potential to cause harm?***	***How might the receptor come into contact with the source***	***What is at risk?***	***Likelihood of contact?***	***How Severe will the consequences be if this occurs?***	***What is the overall magnitude of risk?***	***Proposed operational control measures to be implemented on site to manage the risk and reduce the magnitude?***	***What is the residual risk after management?***
Bryn Pica Waste Operations								
Odours from waste delivered to and transported from site	Odorous waste in vehicles	Air Prevailing wind direction is from the west	Site employees Members of the public Local residents Workforce at and users of the local industrial estate	Low	Moderate	Moderate	Wastes will be delivered to the facility via the road in enclosed or sheeted vehicles. Potentially odorous wastes typically comprise less than 10% of wastes received. OMP implemented. Operational controls in place to strictly control waste types accepted on site. Particularly odorous deliveries refused entry. If odorous waste is not determined until it has been tipped in the waste reception building, the waste will be re-loaded onto the delivery vehicle and removed off site. Vehicles cleaned and inspected before leaving site to remove odorous or biodegradable material if required.	Low - if operational procedures and working practices followed consistently.

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of risk	Risk Management	Residual risk
							Vehicles sheeted before leaving site. Daily odour assessments carried out at the site boundary and appropriate action taken if required. Assessments can be carried out more frequently during warm weather. Operational procedures are in place to deal with odour events or complaints and records are maintained. Staff trained appropriately to respond to odour issues with records maintained. Remote location to residential or sensitive receptors (nearest is over 600m from site).	
Odour from wastes stored on-site	Odorous waste stored on-site	Air	Local residents, workforce on the industrial estate, users of amenity sites	Low	Moderate	Moderate	OMP implemented. Potentially odorous wastes are only stored and processed within reception building at all times. If not identified in pre acceptance procedures and accepted onto site highly odorous waste is stored for less than 24 hours. Regular cleaning of the site to prevent build-up of odorous or biodegradable materials and to clean up spillages of odorous or potentially odorous material.	Low - if operational procedures and working practices followed consistently.

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of risk	Risk Management	Residual risk
							Waste arriving at the site will be processed in a timely fashion using the 'first in' – 'first – out' principle. Daily odour assessments carried out and appropriate action taken if required e.g. during warm weather. Operational procedures to deal with odour events or complaints. Staff trained appropriately to respond to odour issues with records maintained. Remote location to residential or sensitive receptors (nearest is over 600m from site).	
Odour from failure of plant equipment (e.g. increasing waste storage times).	Odorous waste stored on-site	Air Prevailing wind	Site employees Members of the public and local residents and industrial estate users	Low	Moderate	Moderate	Activities will be managed in accordance with the operator's management systems. This will include regular inspections and maintenance of equipment to ensure they continue to operate at optimum conditions. Processing operations will cease immediately in the event of failed plant, and new waste will not be accepted until it is rectified. Critical spare parts will be held onsite and staff will be trained in appropriate maintenance procedures to ensure that plant failure is rectified in a timely manner.	Low - if operational procedures and working practices followed consistently.

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of risk	Risk Management	Residual risk
							Remote location to residential or sensitive receptors (nearest is over 600m from site).	

Table 2: Noise & Vibration

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of risk	Risk Management	Residual risk
Noise and vibrations	Increased vehicle movements to and from and on-site	Noise through the air and vibrations through the ground	Local residents, workforce on the industrial estate, users of amenity sites	Low	Low	Low	Vehicle movements into and out of the site will only take place during the normal working day. All roadways will be surfaced with no significant undulations and with 'non-squeal' surfaces. Vehicles will be subject to regular maintenance and service schedules. All vehicles will not be allowed to idle when not in use. Remote location to residential or sensitive receptors (nearest is over 600m from site). Operational procedure in place to deal with complaints about noise with records maintained.	Low

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of risk	Risk Management	Residual risk
							Staff trained appropriately to be able to respond to noise issues or incidents with records maintained.	
Noise and vibrations	Noise and vibration from new plant and equipment	Noise through the air and vibrations through the ground	Local residents, workforce on the industrial estate, users of amenity sites	Low	Low	Low	All plant and equipment are within MRF building. Activities will be managed in accordance with the operator's management systems. This will include regular inspections and maintenance of equipment to ensure they continue to operate at optimum conditions. Processing operations will cease immediately in the event of failed plant, and new waste will not be accepted until it is rectified. Critical spare parts will be held on-site and staff will be trained in appropriate maintenance procedures to ensure that plant failure is rectified in a timely manner. Remote location to residential or sensitive receptors (nearest is over 600m from site).	Low

Table 3: Fugitive Emissions to Air

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of risk	Risk Management	Residual risk
Releases of particulate matter	Releases of dust from roadways and loading/unloading activities	Air transport then deposition or inhalation	Site employees Members of the public, local residents and workforce at industrial estate	Moderate	Moderate Annoyance/ Nuisance Health Risks – respiratory irritation and/or illness	Moderate	Daily visual assessment of the site condition by the Site Manager. All site operatives to be vigilant and report any problems immediately to the Site Manager to implement appropriate corrective action. Using water bowser or hoses to damp down yard and access road in dry weather. Adequate water supply maintained to supply water bowser or hoses. Site sweeping or cleaning of all paved areas, especially in dry and/or windy weather. 5mph speed limit on site for all vehicles. Vehicle wheels cleaned prior to leaving site if required. Ensuring skips are covered when delivering to site or when removing waste from site. Staff trained appropriately to minimise emissions of dust and records maintained.	Low - if operational procedures and working practices followed consistently.

Table 4: Fugitive Emissions to Water

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of risk	Risk Management	Residual risk
Contaminated run-off/rainwater from site surfaces	Loss of containment of wastes on site from new physical treatment facility drainage system	Percolation through soils, direct run-off from site across the ground and entering surface water drains or natural channels / ditches and groundwater	Pollution of surface water, groundwater and land.	Moderate	Deterioration of groundwater quality and surface water quality	Moderate	The Facility is constructed on impermeable surfacing. Records will be available and kept up to date of all drainage structures including the routing of all drains and the identification of all storage crates. No new liquids stored as a result of the proposed changes – change involves just a change of location. Operational procedures will ensure the drainage system and condition of the hard-standing areas are inspected daily by the Site Manager and any damage is repaired and to the original construction specification. Staff trained appropriately to minimise emissions to water and records maintained.	Low

Table 5: Pests

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of risk	Risk Management	Residual risk
Pests (flies, vermin, birds) attracted to the waste materials	Pests due to increased throughput of waste in MRF	Air transport and over land	Site employees Users of local amenity areas Members of the public and local residents & users of the industrial estate Nearby natural habitats.	Low	Low	Low	Minimal quantities of wastes which may attract pests. Waste acceptance activities are carried out within a building. Waste arriving at the site will be processed in a timely fashion using the 'first in' – 'first – out' principle with short residence time for incoming wastes (typically 2-3 days). Storage duration will not increase as a result of the changes. Daily inspection includes visual monitoring for pests with records maintained. Vermin/pest control contract will be set up with a pest control specialist prior to operations commencing. Records of all vermin and pest control visits will be maintained. Records will be kept to monitor the frequency of pest infestations and the effectiveness of control measures put in place.	Low

Table 6: Mud and Litter

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of risk	Risk Management	Residual risk
Litter	Litter blown off waste due to increased throughput of waste in MRF	Air transport then deposition	Site employees Users of local amenity areas Members of the public and local residents & users of the industrial estate Nearby natural habitats.	Moderate	Low	Moderate	Waste is delivered to and stored within the reception building. All wastes will arrive on site in enclosed or sheeted vehicles. Good housekeeping practices to monitor litter levels on a daily basis and take appropriate action both on the site, on the site fences and in the immediate environs if required. Incidents of litter problems to be logged. Litter inspections will be carried out on daily basis, and any litter will be cleaned up on an ongoing basis and at least at the end of each working day. Staff trained appropriately to minimise emissions of litter and records maintained.	Low
Mud	Mud from vehicle movements from transfers of digestate to and from WTS	Tracking from vehicles entering and leaving the site.	Site employees Members of the public and local residents & industrial estate units Nearby natural habitats.	Low	Low	Low	The site is predominantly surfaced with hardstanding. A wheel wash is in place for vehicles which access the unsealed site areas (WTS, physical treatment facility). The site access will be regularly inspected. Any issues identified will be noted in the site diary, investigated and appropriate remedial action will take place as soon as practicable.	Low

Table 7: Accidents

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of risk	Risk Management	Residual risk
Vehicle collision	All on-site machinery and vehicles from increased number of waste deliveries	Direct physical contact	Drivers, on-site staff and neighbouring premises	Low	Moderate	Moderate	Vehicle movements on site relating to deliveries and removal of waste from the site are scheduled and supervised by site staff where required. Activities are management and operated with a management system (which includes site security measures to prevent unauthorised access)	Low
Arson and / or vandalism causing fire and the release of polluting materials to air (smoke or fumes), water or land.	Unauthorised access	Air transport of smoke then inhalation. Spillages and contaminated firewater by direct run off from site.	Site employees Users of local amenity areas Members of the public and local residents & users of the industrial estate Nearby natural habitats.	Low	High	Moderate	Activities shall be managed and operated in accordance with a management system (which shall include fire and spillage procedures). The Operator's AMP will be updated to manage foreseeable risks which may arise from the changes to the Facility. A FPMP has been compiled to manage foreseeable risks from the Facility. The MRF and WTS shall have a monitored fire detection and alarm system. Site security measures to prevent unauthorised access will include a perimeter security fence, security gates and CCTV monitoring. Security gates will be kept locked and secured outside normal working hours.	Low

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of risk	Risk Management	Residual risk
Accidental fire causing the release of polluting materials to air (smoke or fumes), water or groundwater.	New on-site machinery Combustion of waste.	Transportation through air then inhalation. OR Transportation through air the deposition Spillages and contaminated firewater by direct run off from site.	Site employees Users of local amenity areas Members of the public and local residents & users of the industrial estate. Nearby natural habitats.	Low	Moderate	Moderate	Activities shall be managed and operated in accordance with a management system (which shall include site security measures to prevent unauthorised access). FPMP which meets NRW's guidance will be applied to site operations as required. The MRF and WTS shall have a monitored fire detection and alarm system. All plant and equipment and electrical installations will be kept maintained and in good working condition and subject to routine inspection and maintenance. The Operator's AMP will be updated to manage foreseeable risks which may arise from the changes to the Facility. Site security measures to prevent unauthorised access will include total fencing of the site, security gates. Security gates will be kept locked and secured outside normal working hours. The Operator's Management System will include procedures and actions required in the event of fire or spillage to control and minimise their spread. Firefighting equipment will be maintained on site in accordance with fire regulations.	Low

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of risk	Risk Management	Residual risk
							The site will enforce a No Smoking Policy which will be strictly enforced by Site Rules and by signage around site. No waste will be burned on site. Good housekeeping measures will be employed across the site. Any fire on site will be treated as an emergency and will be extinguished at the earliest opportunity utilising local Fire & Rescue Services if required. All Site staff will be fully trained in the fire procedure and the use of firefighting equipment where appropriate. Any incidents of fire will be reported to NRW and recorded in the site diary. Waste will be moved off-site regularly	

Appendix D: Qualitative Odour Assessment

enzygo
environmental consultants

Qualitative Odour Assessment EPR/AP3199FE/V013

Bryn Pica Waste Operations Environmental Permit Variation

Cynon Valley Waste Disposal Limited

Report No. CRM.0121.001.PE.R.004

'Experience and expertise working in union'

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Qualitative Odour Assessment CRM.0121.PE.R.004.B

Project:	Bryn Pica Waste Operations Environmental Permit Variation
For:	Cynon Valley Waste Disposal Limited
Status:	FINAL
Date:	July 2019
Author:	Jane Hall, Principal Consultant
Reviewer:	Steph Charnaud, Principal Consultant

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Registered Office Stag House Chipping Wotton-Under-Edge Gloucestershire GL12 7AD

Contents

Tables and Figures

Drawings and Appendices

1.0 Introduction

1.1 Overview

1.1.1 A qualitative Odour Assessment has been carried out by Enzygo Ltd on behalf of the Operator to support the Environmental Permit Variation Application EPR/AP3199/V013 to assess the impact of odour as a result of the proposed changes to the Bryn Pica Waste Operations Facility.

1.1.2 The Bryn Pica Waste Operations Facility is operated by Cynon Valley Waste Disposal Limited within an area occupied by the Bryn Pica Landfill Site at the following address:

Bryn Pica Waste Operations
Llwydcoed
Aberdare
Rhondda Cynon Taff
CF44 0BX

1.1.3 The Operator currently carries out the following activities at the facility:

- Materials Recycling Facility which sorts, screens, separates, bails, shreds and compacts household, commercial and industrial wastes.
- Waste Transfer Station (WTS) which sorts, separates, shreds or compacts household, commercial and industrial wastes.
- Inert Material Recycling Facility which sorts, separates, crushes, blends and screens inert wastes such as soil and stones and wastes arising from construction and demolition activities.
- Physical Treatment Facility which de-waters gully suckings.
- Mattress Recycling Facility which sorts, separates and shreds mattresses for recovery.

1.1.4 The operator proposes a series of improvements to the existing facility comprising:

- investment to upgrade, renew and update waste processing in the Materials Recycling Facility (MRF) increasing the normal operational throughput from 35,000 Tonnes per annum to a maximum of 110,000 tonnes per annum;
- increase in the permitted annual waste throughput of the facility from 74,999 Tonnes to 150,000 tonnes;
- extension to the Mattress Recycling Facility;
- improvements to the dewatering facility which handles gully suckings; and
- addition of new waste codes, similar to those already in the Permit.

These changes will require a variation to the Permit which are described in this Application. There are no changes to the location of the site, or the facility boundary.

1.1.5 Changes to the MRF do not result in any changes to the odour profile as the only change is an increase in throughput. The residence time of the waste is unlikely to increase, and the new waste types proposed are comparable with existing wastes accepted onto site.

1.1.6 Changes to the Physical Treatment Facility do not result in any changes to the odour profile as the improvements involve a change of location and upgrade to the de-watering liquid collection system. The types of wastes and residence time of the wastes will not change as a result of the planned improvements.

1.1.7 The new waste codes proposed are all broadly comparable with existing codes, except for dewatered digestate which is to be stored (no treatment carried out) within the WTS building. As digestate is potentially odorous, an assessment is required to be carried out to assess potential impact.

1.1.8 A site plan is included in the Drawings section of this report showing the location of the new digestate storage area within the WTS.

1.2 Scope of Assessment

1.2.1 As the only proposed change to operations which may impact the odour profile is the storage of digestate, this assessment is only concerned with this activity which is carried out within the WTS.

1.3 Relevant Guidance

1.3.1 The approach to assessing the odour impacts from the digestate storage, on the surrounding area is to apply a qualitative risk-assessment described in the Institute of Air Quality Management (IAQM) guidance on assessment of odours for planning, IAQM, 2014 (termed 'the IAQM Guidance' for the purpose of this report).

1.3.2 Natural Resources Wales' (NRW) 'How to comply with your environmental permit Additional guidance for: H4 Odour Management' NRW, October 2014 (termed 'H4' for the purposes of this report) has also been consulted in producing this report.

2.0 Assessment Approach

2.1.1 The odour risk assessment set out in the IAQM Guidance follows a Source-Pathway-Receptor approach. This approach describes the concept that, for an odour impact (such as annoyance or loss of amenity) to occur, there must be a source of odour, a pathway to transport the odour to an off-site location, and a receptor (e.g. people) to be affected by the odour.

2.1.2 In order to determine the risk of potential odour effects, several factors determining odour exposure were used. These factors are outlined as, and referred to as, the 'FIDOR' factors in NRW's H4 Guidance Document. The FIDOR factors are:

- **F**requency – the frequency with which odours are detected;
- **I**ntensity – the intensity of odours detected;
- **D**uration – the duration of exposure to detectable odours;
- **O**ffensiveness – the level of pleasantness or unpleasantness of odours; and
- **R**eceptor – the sensitivity of the location where odours are detected, and/or the proximity of odour releases to an odour-sensitive location.

2.1.3 The risk of odour effects at a given receptor location may be estimated using the following fundamental relationship of

Effect ≈ Dose x Response

2.1.4 In this relationship, the dose is a measure of the likely exposure to odours, or the impact. The response is determined by the sensitivity of the receiving environment and therefore the overall effect is the result of changes in odour exposure at specific receptors, considering their sensitivity to odours.

2.1.5 The key factors that will influence the effects of odours are the magnitude of the odour source(s), the effectiveness of the pathway for transporting odours, and the sensitivity of the receptor. The methodology set out in the IAQM Guidance document describes in detail a Source-Pathway-Receptor approach to odour risk assessment and includes tables and matrices to assist in determining the likely risk of odour effects. The IAQM methodology is outlined below. It includes an element of professional judgement.

2.2 Stage 1: Determination of Odour Impact

2.2.1 Table 2.2.1 below describes the risk rating criteria as a summarised from the information provided in Table 9 of the IAQM Guidance.

Table 2.2.1: Source Pathway Receptor Risk Ratings

Source Odour Potential	Pathway Effectiveness	Receptor Sensitivity
Large Source Odour Potential: Large-scale odour source and/or a source with highly unpleasant odours (hedonic tone -2 to -4); no odour control.	Highly Effective Pathway: Very short distance between source and receptor (e.g. adjacent to site); receptor downwind of source relative to prevailing wind; ground level releases (e.g. open lagoons); no obstacle between source and receptor.	High Sensitivity: Highly sensitive receptors e.g. residential properties, touristic areas and schools
Medium Source Odour Potential: Medium-scale odour source and/or a source with moderately unpleasant odours (hedonic tone 0 to -2); basic odour controls in place.	Moderately Effective Pathway: Receptor is local to the source; releases are elevated but compromised by building effects.	Medium Sensitivity: Moderately sensitive receptors e.g. users would expect to enjoy a reasonable level of amenity, commercial and retail premises, and recreation areas.
Small Source Odour Potential: Small-scale odour source and/or a source with pleasant odours (hedonic tone 0 - +4); effective, tangible odour controls.	Ineffective Pathway: Long distance between source and receptor (>500 m); receptors upwind of source relative to prevailing wind; odour release from stack/high level.	Low Sensitivity: Receptors not sensitive e.g. industrial activities or farms.

2.2.2 The risk ratings identified using the criteria in Table 2.2.1 above are then combined with the source odour potential in Figure 2.2.1 below, which has been reproduced from Table 10 in the IAQM Guidance. This matrix is then applied to estimate the overall risk of odour impact at each receptor location.

Figure 2.2.1: Table 10 of IAQM Guidance - Risk of Odour Impact at Receptor Locations

Table 10: Risk of odour exposure (impact) at the specific receptor location

		Source Odour Potential		
		Small	Medium	Large
Pathway Effectiveness	Highly effective pathway	Low Risk	Medium Risk	High Risk
	Moderately effective pathway	Negligible Risk	Low Risk	Medium Risk
	Ineffective pathway	Negligible Risk	Negligible Risk	Low Risk

Source: IAQM Guidance

2.3 Stage 2: Determination of Odour Effect

The next stage of the risk assessment is to identify the potential odour effect at each receptor location. This is carried out using the matrix presented in Figure 2.3.1 below (replicated from Table 11 in the IQAM Guidance), which combines the overall odour impact for each receptor with the receptor sensitivity determined using the criteria in Table 2.2.1 above.

Figure 2.3.1: Table 11 of IQAM Guidance - Magnitude of Odour Effect at Receptor Locations

Table 11: Likely magnitude of odour effect at the specific receptor location

Risk of Odour Exposure	Receptor Sensitivity		
	Low	Medium	High
High Risk of Odour Exposure	Slight Adverse Effect	Moderate Adverse Effect	Substantial Adverse Effect
Medium Risk of Odour Exposure	Negligible Effect	Slight Adverse Effect	Moderate Adverse Effect
Low Risk of Odour Exposure	Negligible Effect	Negligible Effect	Slight Adverse Effect
Negligible Risk of Odour Exposure	Negligible Effect	Negligible Effect	Negligible Effect

Source: IAQM Guidance

2.3.1 At the final stage of assessment, an overall significance of odour effects is determined, based on professional judgment and considering the significance of effect at each specific receptor location.

3.0 Odour Risk Assessment

3.1 Overview

3.1.1 The following sections determine the site-specific information required to complete the assessment, then apply the assessment methodology described in Section 2.0 to determine the odour effect on the receptors from odours arising from the handling and storage of digestate.

3.2 Sensitive Receptors

3.2.1 Locations sensitive to odour emitted during the handling and storage of digestate are places where members of the public are regularly present. Residential properties closest to, and downwind of, the digestate storage area will be most sensitive. The surrounding industrial properties are likely to be of low to sensitivity, with those closest to, and downwind of, the digestate storage area most likely to be affected by odours.

3.2.2 Key receptors that have the potential to be impacted by odour emissions from the digestate storage area are summarised in Table 3.2.1 below.

Table 3.2.1: Sensitive Receptors

Reference	Receptor	Type	Distance (m) from WTS	Direction
1	Biogen Anaerobic Digestion (AD) Facility	Industrial	730m	N
2	Coedcae Farm	Residential	500m	S
3	Residential area of Abernant	Residential	1000m	S
4	Tir-ergyd	Residential	1000m	WNW
5	Ysgubor-wen House	Residential	1000m	SW
6	Dylas Cottage	Residential	1200m	NW
7	Gelli-uchan Farm	Residential	1500m	NW
8	Dylas Farm	Residential	1540m	WNW
9	Residential area of Winchfawr	Residential	2000m	NNE

3.2.3 The Operator of the Bryn Pica Landfill Site is the same as the Operator of Bryn Pica Waste Operations (which will include the digestate storage area) and therefore have been excluded as a receptor as they are part of the same organisation and there are shared operations.

Stage 1: Determination of Odour Impact

3.3 Storage and Handling of Digestate

3.3.1 The digestate is received within the WTS from the adjacent Biogen AD Facility. It is transferred to the WTS in sealed vehicles. The digestate is then unloaded in the WTS building in a clamp where it is stored for periods of up to a maximum two weeks however typical duration is less than one week. It is not treated or turned during this time due to the short storage duration period.

3.3.2 The digestate is stored on-site as buffer storage capacity for the adjacent AD facility and it is removed from the WTS in sealed vehicles.

3.4 Source Odour Impact

3.4.1 As discussed in Section 1.0 of this report, the only change to operations as a result of this Permit Variation Application is the introduction of storage of digestate in the WTS. The potential for odour to be generated is assessed using the assessment methodology in Section 2.0 of this report.

3.4.2 Table 3.3.1 below describes the key potential odorous processes at the WTS associated with receipt and storage of digestate and identifies the potential for odour releases from each source. For each source, the odour potential in terms of the FIDO part of FIDOR is discussed (i.e. the frequency, intensity, duration and offensiveness).

3.4.3 It is considered that the solid fraction of digestate, as opposed to whole digestate, is of medium odour potential. This is because the more odorous compounds within the digestate are retained within the liquid fraction which has largely been removed prior to acceptance onto the Facility.

Table 3.3.1: Odour Source Potential

Potential Odour Source	Frequency and Duration	Intensity and Offensiveness	Management and Mitigation	Overall Source Odour Potential
Handling and transport of solid fraction digestate	Moderately frequent deliveries of solid fraction digestate to the facility (approximately weekly)	Offensiveness is anticipated to be moderate. Whilst whole digestate may be odorous, only the solid fraction is stored, which has been treated and many of the odorous compounds are removed during treatment of the raw waste by AD and dewatering.	Transfers to and from the WTS will be made by covered vehicles. Digestate is not disturbed or double handled within the WTS or subject to treatment. It is only stored on-site, then removed within covered vehicles, limiting disturbance which in turn limits odour release potential.	Medium
Storage of solid fraction digestate	Short term storage of solid fraction digestate (less than two weeks maximum)	Offensiveness is anticipated to be moderate. Whilst whole digestate may be odorous, only the solid fraction is stored, which has been treated and many of the odorous compounds are removed during treatment of the raw waste by AD and dewatering. Quantities stored are relatively low volume (approximately 30m^3 maximum, but typically much lower) and	Solid fraction digestate only will be received in WTS building, which is covered, within a storage clamp providing mitigation for the transfer of odour from the digestate. Digestate is not disturbed or double handled within the WTS or subject to treatment. It is only stored on-site, then removed within covered vehicles, limiting disturbance which in	Medium

Potential Odour Source	Frequency and Duration	Intensity and Offensiveness	Management and Mitigation	Overall Source Odour Potential
		low throughput (approximately an average of 3.8 tonnes per day maximum).	turn limits odour release potential.	

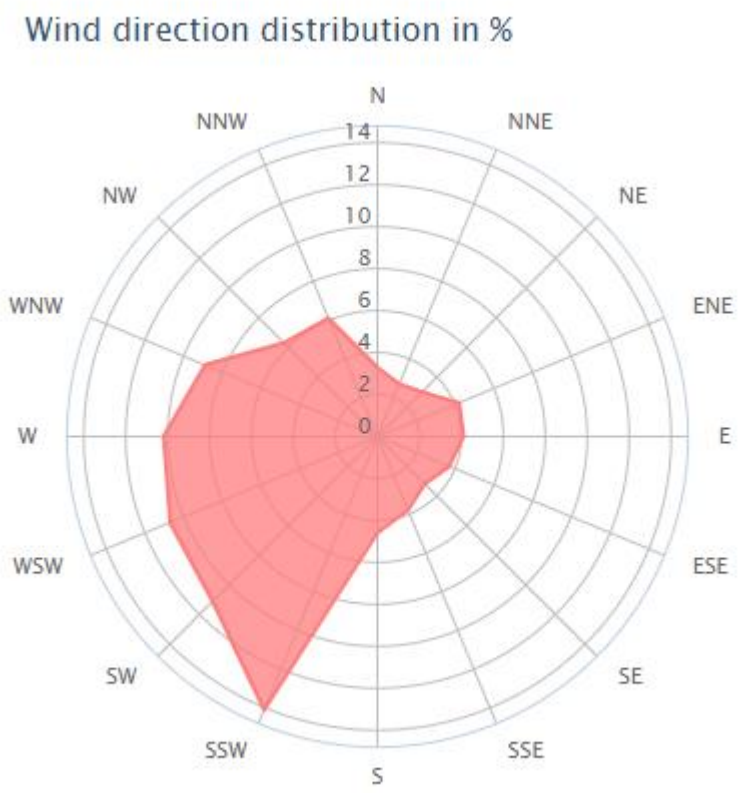
3.4.4 In summary, the overall source odour potential is 'medium'. Dewatered fibrous digestate has a lower odour potential than whole digestate which would have a higher hedonic tone and source odour potential.

3.5 Pathway Effectiveness

3.5.1 Proximity and location of the receptors are identified in Table 3.2.1. The receptors selected are within the closest proximity to the WTS, which is the only location where the digestate will be stored, in all directions which represent 'worst case' locations.

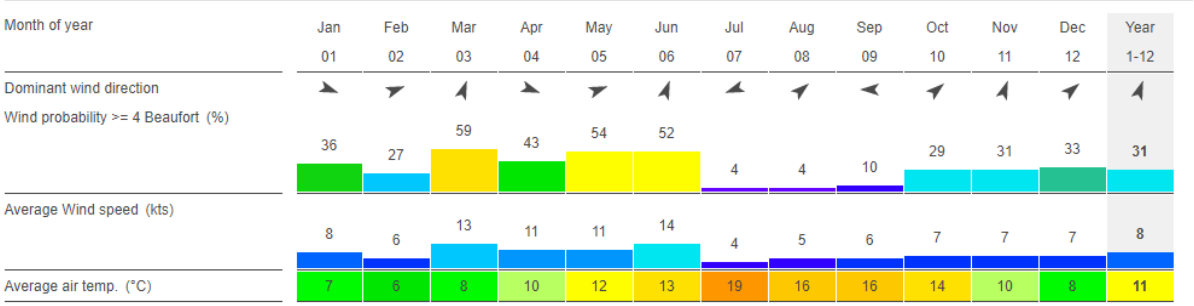
3.5.2 The prevailing winds at this site are from the south south west, west south west and west (based on regular observations recorded at the 'Penybont' monitoring station between April 2013 and February 2017 (www.windfinder.com)). Output for this station is provided below in Figures 3.5.1A and 3.5.1B.

Figure 3.5.1A: Penybont Wind Rose



Source: www.windfinder.com

Figure 3.5.1B: Penybont Wind Statistics



Source: www.windfinder.com

3.5.3 In general, odours will be transported by the wind and will not detectable at locations upwind of a source. The exception to this is during very light wind conditions when odours may disperse against the wind direction, although typically only for relatively short distances.

3.5.4 The effectiveness of the odour pathways between the digestate storage area and the nearby, worst-case sensitive receptors is summarised in Table 3.5.1 below, which draws upon the guidance set out in Table 9 in the IQAM guidance (summarised in Table 2.2.1 of this Report).

Table 3.5.1: Effectiveness of Odour Pathway

Reference	Receptor	Type	Distance (m) from WTS	Direction	% Winds from Source	Pathway Effectiveness
1	Biogen Anaerobic Digestion (AD) Facility	Industrial	730m	N	4.6%	Ineffective
2	Coedcae Farm	Residential	500m	S	3.3%	Ineffective
3	Residential area of Abernant	Residential	1000m	S	3.3%	Ineffective
4	Tir-ergyd	Residential	1000m	WNW	3.7%	Ineffective
5	Ysgubor-wen House	Residential	1000m	SW	3%	Ineffective
6	Dylas Cottage	Residential	1200m	NW	3.2%	Ineffective
7	Gelli-uchan Farm	Residential	1500m	NW	3.2%	Ineffective
8	Dylas Farm	Residential	1540m	WNW	2.8%	Ineffective
9	Residential area of Winchfawr	Residential	2000m	NNE	14.1%	Ineffective

3.5.5 The overall pathway effectiveness is based on professional judgement, taking account of distance between source and receptor, and frequency of winds.

3.5.6 All receptors are located more than 500m from the WTS, and the effectiveness of the pathway between the facility and both receptors is inhibited by dense woodland. The only receptor within the prevailing wind direction is the residential area of Winchfawr which is some 2km

from the facility. Thus, the pathway effectiveness for these highly sensitive receptors is judged to be ineffective.

Stage 2: Determination of Odour Effect

3.6 Receptor Sensitivity

3.6.1 Receptors two to eight represent residential properties and are therefore considered to be high sensitivity receptors with respect to odour impacts. Receptor 1 is an industrial facility (Biogen AD Facility) and is of low sensitivity.

3.7 Potential Odour Effects

3.7.1 Table 3.7.1 below describes the source odour potential, effectiveness of pathway and receptor sensitivity identified using the criteria described in the respective Sections of this report, which are referenced in the Table. It consolidates the output of the assessments carried out to identify the overall odour impact using the methodology described in Section 2.0 of this report.

Table 3.7.1: Assessment of Potential Odour Effects from the Proposed Digestate Storage Area

Receptor Reference	Source Odour Potential	Effectiveness of Pathway	Risk of Odour Impact	Receptor Sensitivity	Likely Odour Effect
	Dose: Risk of Odour Impact				
	See Section 3.4 for Criteria	See Section 3.5 for Criteria	Assessment Output	See Section 3.6 for criteria	Overall Assessment Output
1	Medium	Ineffective	Negligible risk	Low	Negligible effect
2	Medium	Ineffective	Negligible risk	High	Negligible effect
3	Medium	Ineffective	Negligible risk	High	Negligible effect
4	Medium	Ineffective	Negligible risk	High	Negligible effect
5	Medium	Ineffective	Negligible risk	High	Negligible effect
6	Medium	Ineffective	Negligible risk	High	Negligible effect
7	Medium	Ineffective	Negligible risk	High	Negligible effect
8	Medium	Ineffective	Negligible risk	High	Negligible effect
9	Medium	Ineffective	Negligible risk	High	Negligible effect

3.8 Conclusions

3.8.1 The potential odour effects have been identified using the effect ≈ dose x response relationship described in Section 2.0 of this report.

3.8.2 Based on a medium source odour potential, where the pathway is deemed to be ineffective, then the risk of odour impacts (dose) is judged to be of negligible effect. This conclusion is based on the findings of the risk assessment by applying the methodology described in Section 2.0 of this report.

3.8.3 The IAQM Guidance states that *'where the overall effect is greater than "slight adverse", the effect is likely to be considered significant. Note that this is a binary judgement: either it is*

"significant" or it is "not significant"'. It is therefore concluded that the impact of odour on the receptors is 'not significant' despite assuming the worst-case scenario odour potential.

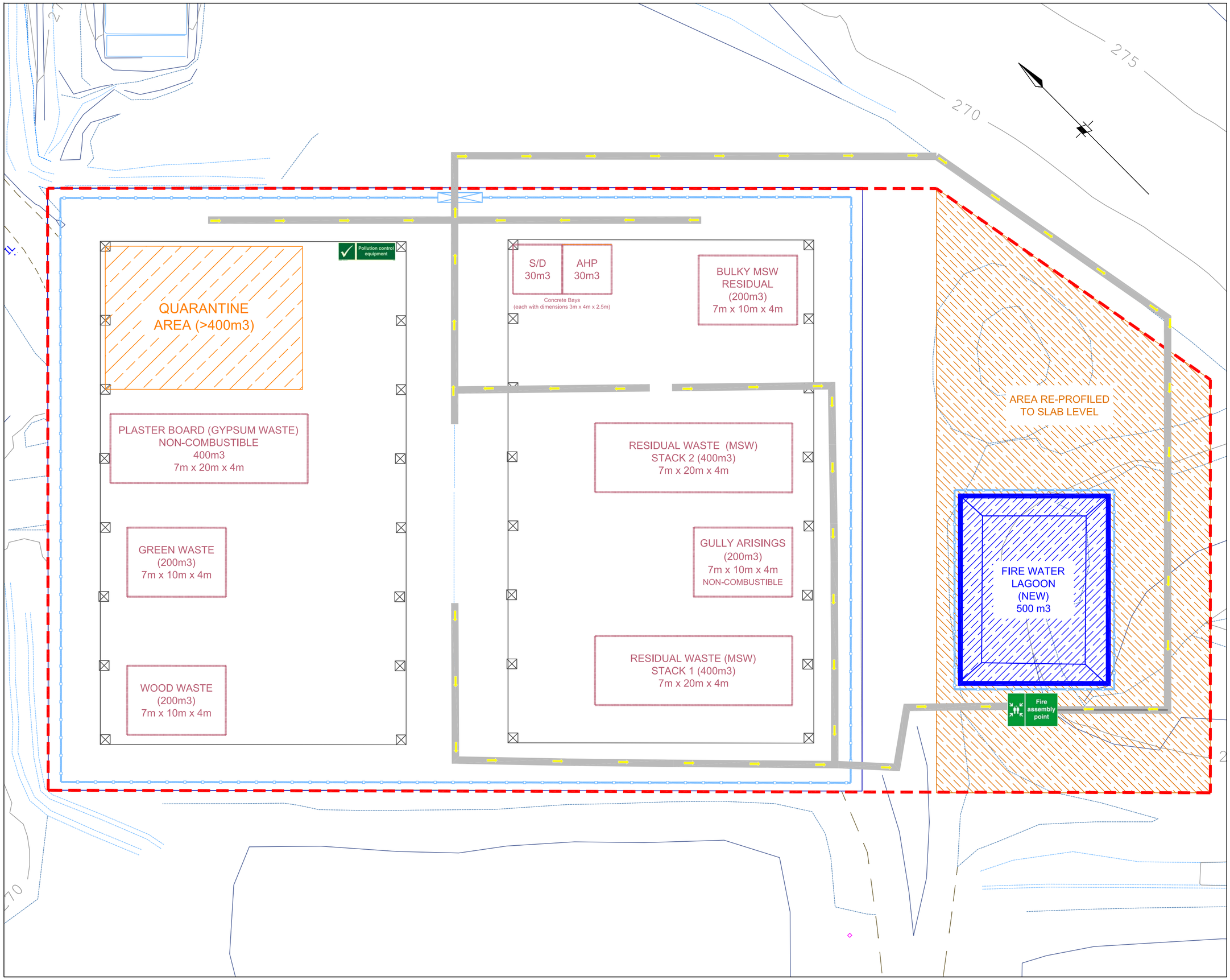
3.8.4 Odour emissions will also be minimised by means of a stringent Odour Management Plan (OMP) which will be updated to include storage of digestate. The OMP will be adhered to by all site staff at all times.

4.0 References

1. Institute of Air Quality Management (IAQM) guidance on assessment of odours for planning, IAQM, 2014 (termed 'the IAQM Guidance' for the purpose of this report).

2. Natural Resources Wales' (NRW) 'How to comply with your environmental permit Additional guidance for: H4 Odour Management' NRW, October 2014 (termed 'H4' for the purposes of this report).

Site Plan



NOTES

1. DO NOT SCALE FROM THIS DRAWING
2. SURVEY DRAWING AMGEN CYMRU NOV-18
3. WASTE STACK DIMENSIONS LISTED AS W x L x H
4. WASTE TRANSFER STATION (WTS)

KEY

Fire assembly point — LOCATION OF FIRE ASSEMBLY POINT FOR AMGEN STAFF AND CONTRACTORS

Pollution control equipment — LOCATION OF POLLUTION CONTROL EQUIPMENT

PEDESTRIAN ACCESS

REV	DESCRIPTION	DATE	BY
1.0	ORIGINAL DRAFT	17.06.19	LF
1.1	ADDITION OF POLLUTION CONTROL EQUIPMENT ADDITION OF PERSONNEL ACCESS GATE AND ESCAPE ROUTE	08.07.19	LF

AMGEN CYMRU
BRYN PICA
LLWYDCOED
ABERDARE
CF44 OBX

TEL: 01685 870770
FAX: 01685 874684

JOB TITLE: BRYN PICA FIRE PREVENTION AND MITIGATION PLAN

DRAWING TITLE: WASTE TRANSFER STATION ESCAPE ROUTE AND FIRE ASSEMBLY POINT

DRAWN	DATE	APPROVED	DATE
LF	17.06.19	IM	TBC

SCALE	SHEET	DRAWING NUMBER	REVISION
1 : 250	A2	AC2019/ENV/03/FPMP08	1.1

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Appendix E: OMP: Additional Aspects - Storage of Solid Fraction Digestate

Ref	Aspect	Odour Source	Scenario	Odour Rating	Monitoring	Control
WTS						
1.	Vehicle off-loading (digestate)	Bulk wastes being tipped	Tipping of waste releases trapped odours and exposes new odour surfaces.	Medium	Checked during waste acceptance. Checked during tipping.	Severely offensive wastes are not accepted onto site. Tipping is only carried out within WTS structure. Wastes are stored for up to 2 weeks within bunker. Limited potential impact on receptors due to location and wind direction.
2.	Transfer from WTS off-site (digestate)	Wastes within vehicle	Release of odour whilst waste is moved exposes new odour surfaces	High	Checked during waste acceptance. Checked during tipping.	Highly offensive wastes are not accepted onto site. If highly odorous digestate is accepted into the WTS, it will be removed from site. Wastes are stored for up to 2 weeks. Wastes are not likely to degrade within this timeframe and therefore are unlikely to generate offensive odours. Limited potential impact on receptors due to

Ref	Aspect	Odour Source	Scenario	Odour Rating	Monitoring	Control
						location and wind direction.
3.	Storage of solid fraction digestate	Digestate stored on concrete hardstanding within WTS	If stored for extended periods, wastes may generate odour	Medium	Checked during waste acceptance. Checked during tipping.	Severely offensive wastes are not accepted onto site, solid fraction digestate is typically not severely odorous. Tipping is only carried out within WTS structure. Wastes are stored for a maximum of 2 weeks. Limited potential impact on receptors due to location and wind direction.

Appendix F: Certificates of Technical Competence

WAMITAB

WASTE MANAGEMENT INDUSTRY TRAINING AND ADVISORY BOARD

CERTIFICATE No: 10345

CERTIFICATE OF TECHNICAL COMPETENCE

This Certificate confirms that

Ian McAlister

has demonstrated the standard of technical competence required for the management of a facility of the type set out below

Facility Type:

Level 4 in Waste Management Operations -

Managing Landfill Hazardous Waste (4LH)

Authorising Signatures:

Director General _____

Director _____

Date of issue: 05 January 2009

WAMITAB

WASTE MANAGEMENT INDUSTRY TRAINING AND ADVISORY BOARD

CERTIFICATE No: 09987

CERTIFICATE OF TECHNICAL COMPETENCE

This Certificate confirms that

Ian McAlister

has demonstrated the standard of technical competence required for the management of a facility of the type set out below

Facility Type:

Level 4 in Waste Management Operations -

Managing Transfer Hazardous Waste (4TSH)

WAMITAB INCORPORATED 1369

Authorising Signatures:

Director General

Director

Date of issue: 18 August 2008

WAMITAB

WASTE MANAGEMENT INDUSTRY TRAINING AND ADVISORY BOARD

CERTIFICATE No: 10346

CERTIFICATE OF TECHNICAL COMPETENCE

This Certificate confirms that

Ian McAlister

has demonstrated the standard of technical competence required for the management of a facility of the type set out below

Facility Type:

Level 4 in Waste Management Operations -

Managing Treatment Hazardous Waste (4TMH)

Authorising Signatures:

Director General

Director

Date of issue: 05 January 2009

Certificate No. CCC16167

Continuing Competence Certificate

This certificate confirms that

Ian McAlister

Has met the relevant requirements of the Continuing Competence scheme for the following award(s) which will remain current for two years from 31/01/2018

LH	Landfill - Hazardous Waste
TMH	Treatment - Hazardous Waste
AD	Anaerobic Digestion

Expiry Date:
31/01/2020

Awarded: 31/01/2018

Authorised

WAMITAB Chief Executive Officer

CIWM Chief Executive Officer

The Chartered Institution of Wastes Management

00097630

Appendix G: Company Registration Certificate

FILE COPY

CERTIFICATE OF INCORPORATION

OF A PRIVATE LIMITED COMPANY

No. 2660628

I hereby certify that

CYNON VALLEY WASTE DISPOSAL COMPANY LIMITED

is this day incorporated under the Companies Act 1985 as a private company and that the Company is limited.

Given under my hand at the Companies Registration Office, Cardiff the 6 NOVEMBER 1991

P Bevan

P. BEVAN

an authorised officer

Environmental Permitting: record of pre-application discussion

Name of officer carrying out pre-application: Richard Taylor

Job title: Regulatory Officer, PIR/RSR

Office: Rivers House

Contact number: 3139

Date: 21st May 2019

What is the activity? **(i.e. waste, installation or water)**	Waste
Type of Application: **New – standard or bespoke** **Transfer – full or partial, with or without Fit and Proper Person** **Surrender – full or partial** **Variation – admin, minor technical, normal or substantial variation.**	Standard Variation
Existing Permit No. **(for transfers, consolidation, variations or surrenders)**	AP3199FE Current variation V012 issued 27th March 2015
Application Expected Date **(PAS only)**	June 2019
Site Name and Address **Post code** **Grid Ref**	Cynon Valley Waste Disposal Limited Bryn Pica Waste Operations Llwydcoed Aberdare Rhondda Cynon Taff CF44 0BX
Permit Type **(Schedule 1 ref, A code or Standard Rules set)**	Bespoke Waste

Operator Name and Registered Office Address inc Companies House number **(if transfer we need the proposed new holder – transferee - details)**	Bryn Pica Llwydcoed Aberdare Rhondda Cynon Taff CF44 0BX

Record of pre-application discussions

Record operator name and address on page 1

Permit number	Our ref: Site ref: EPR/AP3199AE Cust ref:
Date(s) of discussion(s):	21/05/2019

Record of officer(s) carrying out pre-application discussions

Name of officer carrying out pre-application:	Richard Taylor
Job title:	Regulatory Officer, PIR/RSR
Office:	Rivers House, St Mellons, Cardiff,
Contact number:	3139
Date:	21/05/2019

Name:
Job title:
Office:
Contact number:
Date form completed:22/05/2019

Issues to discuss (See Operational instruction topic sections)
What is the boundary of the facility? The boundary is unchanged from previous variations and will remain the same
Is it likely to be a high public interest application?: No – Site is currently permitted. The variation carries 6 changes to V012, none of which significantly alter the operation.
Are there any confidentiality or national security issues: Officer not made aware of any issues of this kind.
What are the key priorities for this type of facility: Pre-application discussions took place between the site representative and their consultant via telecon. Site wishes to mechanise the process which has led to a requirement to increase the capacity allowed to be throughput by the permit. The application would be for; 1. A consolidated permit to include the removal of the old equipment and replacement with new Hi Tech waste recognition systems. 2. The current estimated 60 tonnes process capacity of 60 tonnes per 8 hour shift will be increased to an estimated 100 tonnes per 8 hour shift subject to confirmation. 3. This will increase annual throughput from the permitted maximum of 74,999 t p y to 149,999 t.p.y which requires an amendment to Schedule 2. 4. There is also a requirement for new EWC codes 19 -- -- to be included with the application. This is mainly from the adjacent AD plant run under a separate permit by Biogen Bryn Pica. These new 19 codes will be confirmed on application. 5. An increase in the volume of the mattress recycling facility by 10x20ft is requested to be shown on the new site map. 6. The area of the physical treatment facility on page 9 of V012 is requested also to be shown on the permitted site diagram. 7. A minor amendment is also requested under schedule 1 operations under the waste treatment station facility headline where under the 'limits of activity' at the paragraph beginning with 'The maximum quantity of non-hazardous waste treated on site for recovery or mix of recovery and disposal shall not exceed 75 tonnes per day'. The variation would include a suffix along the lines 'by means of a D9 activity'. Summary discussion recommended site submit a H1 assessment with the application together with an OPRA profile form. The site would also include an existing odour assessment for the 19 coded waste, plus an updated Fire risk assessment plan. This FRP is likely to be delayed beyond the permit variation application, so would be likely to be the subject of an improvement condition. Site expected to submit with their application; 1. Non-technical summary of the permit changes 2. Site Plan – in line with application form guidance, ***[2]***

[2] It was later decided that a site plan was not required, and drawings showing only layout changes would suffice (see email dated 05/06/19 below).

3. Application fee – from current NRW fees and charges scheme.
4. H1 Assessment [***3***]
5. Updated OPRA profile. ***4***
6. Fire Prevention Plan – subject to an improvement condition.

Other issues discussed –

The current 15 hours of free consultation is scheduled to be replaced by 2 hours of free pre-app advice before a fee of £125 per hour as per email from Team Leader cat Harvey on 3/5/19. Therefore this telecon was counted as 1 hour of free consultation.

Checklist of common items to discuss (from standard and bespoke permit tables in the OI)

Ref	Item	Tick
	Conservation and biodiversity screening	N
	Standard rules	N
	Application forms and guidance to forms – different parts for new, changes to a permit, transferring a permit and surrendering a permit.	Y, Form A, C2, C4, F1 & C0.5 expected.
	Charges	Y – site informed of 15 hour free advice before charging rate starts.
	Guidance – How to Comply, horizontal and technical guidance – where to find on web or get a copy from.	Y
	Operator ability – management systems and technical competence	Y
	Scope of facility, other permits on site, consolidation	Y
	Planning issues	N
	Conservation issues	N
	Confidentiality issues	N

[3] It was later decided that an H1 was not required, and an Environmental Risk Assessment would suffice (see email dated 05/06/19 below).
[4] It was later decided that the updated OPRA profile was not required and that we should submit only the current OPRA profile (see email dated 05/06/19 below).

	Sites of high public interest	N
	Installation specific issues	Y
	Waste specific issues	Y – assessment over whether site suitable to accept EWC 19 coded waste.
	Mining waste specific issues	N
	Surface water specific issues	N
	Groundwater specific issues	N
	Radioactive substances specific issues NB refer to RSR officer	N/A

From: Taylor, Richard <Richard.Taylor@cyfoethnaturiolcymru.gov.uk>
Sent: 05 June 2019 11:13
To: Jane Hall <Jane.Hall@enzygo.com>
Cc: Foulkes, Lee <Lee.Foulkes@rctcbc.gov.uk>
Subject: RE: Bryn Pica Waste Operation Pre-Application

Jane

I managed to locate a couple of ancient OPRA profiles for the MRF site on our old EDRM system– see attached.

I have been in touch with our permitting team regarding your application to vary the Bryn Pica MRF permit AP3199FE. As a result, there is an updated list of documents that are required to be submitted with the application form.

- Non tech summary
- Application forms
- Updated EMS – specifically the section of the EMS relating to annual throughput and the management of the increase in annual throughput and the new waste codes.
- Electronic OPRA – based on current activities – a new OPRA would be given at the point of issue.
- Fire prevention plan (FPMP)
- Odour management plan (OMP) – dependent on the new waste codes and the increase in annual throughput and if increasing amount stored.
- Risk assessment – This replaces the need for a H1 assessment, a site specific risk assessment is required instead.
- A site plan is not required because the site boundary is not changing. -if there are site layout changes these would typically be outlined in any plan included as part of the EMS.

If you have any queries or concerns, feel free to get in touch.

Kind Regards

Richard

Recording time spent on pre-application discussions			
Date	Officer name	Summary of information provided, and issues discussed	Time (hours)
21/05/2019	Richard Taylor	As above	1.00

Charging for pre-application discussions	Y or N	Date
Pre-application time exceeds 15 hours?	N	
Standard letter sent explaining need to commence charging?	N	
If no, decision made not to charge? Provide written justification for decision.	N/A	
Operator agreement to charging received and filed?	N/A	
If no, ceased pre-application discussion?	N/A	

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