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Dust and Emissions Management Plan

Pengarnddu Industrial Estate Transfer Station

Hampshire Demolition and Recycling Limited

Report No. CRM.0127.001.P.R.010

'Experience and expertise working in union'

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Dust and Emissions Management Plan V5

Project:	Pengarnddu Industrial Estate Transfer Station
For:	Hampshire Demolition and Recycling Limited
Status:	FINAL
Date:	December 2020
Author:	Steph Charnaud, Director of Permitting
Reviewer:	Peter Cumberlidge, Director

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1.0 Introduction

1.1 Overview

1.1.1 This Dust and Emissions Management Plan (DEMP) has been prepared to support an Environmental Permit application for a waste transfer and treatment facility in Pengarnddu Industrial Estate area of Merthyr Tydfil. The operator of the site will be Hampshire Demolition and Recycling Limited ("the Operator"). Drawings of the proposed development can be found in Appendix A of this document.

1.1.2 The site was previously occupied and operated by Merthyr Industrial Services Limited (MIS) who operated a waste management facility and biomass boiler. That operation was abandoned in December 2014 after court proceedings. Numerous piles of waste, liquids along with redundant plant and equipment was left on the site after it was abandoned. The majority of the material still remains in-situ.

1.2 Aims and Objectives

1.2.1 The aims and objectives of this DEMP are to:

- Identify dust sensitive receptors in the vicinity of the site;
- Identify potential sources of dust emissions at the site and any foreseeable situations which may compromise the Operators ability to prevent and/or minimise emissions of dust;
- Identify and employ appropriate methods, including monitoring regimes and contingency plans, to control and minimise dust emissions
- Identify and employ appropriate control measures and actions that the Operator will take to minimise the impacts of dust emissions;
- Prevent unacceptable levels of dust pollution at all times;
- Reduce the risk of dust releasing incidents or accidents by anticipating them and planning accordingly; and
- Provide a working document for operational staff on a day to day basis.

1.2.2 This DEMP will be transposed into the site's Environmental Management System (EMS) following approval by NRW. The plan will be updated and reviewed in accordance with the requirements of the site's management system. It outlines the main sources of potential dust emissions at the site, the mitigation measures to be used to reduce the risk of dust impacting off site receptors and the monitoring and reporting methods to be used when the site becomes operational.

1.2.3 This DEMP is intended to be used as a stand-alone working document for operational staff on a day to day basis. Copies of this document will be held across the site and will be readily accessible by all site operatives. All on site personnel and contractors will be briefed on the contents of this plan to ensure on site personnel understand the measures in place to prevent emissions of dust.

1.2.4 This document has been prepared in accordance with the following key guidance:

- Natural Resources Wales Guidance: How to comply with your environmental permit, Version 8, October 2014;

- Environment Agency Guidance: Dust and Emissions Management Plan Template, Version 10, October 2018;
- Environment Agency Guidance: Develop a management system: Environmental permits, February 2019 (Updated January 2019);
- Natural Resources Wales: Technical Guidance Note M17 (Monitoring): Monitoring Particulate Matter in Ambient Air around Waste Facilities, Version 4, October 2014;
- Environment Agency Sector Guidance Note S5.06: Recovery and disposal of hazardous and non-hazardous waste, 13th May 2013 (updated 10th October 2018);
- Environment Agency Guidance: Control and monitor emissions for your environmental permit, February 2016 (Updated November 2018); and
- Environment Agency Guidance: Risk assessments for your environmental permit, February 2019 (Updated February 2020).

1.3 Site Location

1.3.1 The site location can be seen in the Site Location Plan referenced CRM.0127.001.PE.D.001.

1.3.2 The site address is:

Pengarnddu Industrial Estate Transfer Station
Unit 2 Pengarnddu Industrial Estate
Pengarnddu
Merthyr Tydfil
Wales
CF48 2TA

1.3.3 The National Grid Reference for the site is **SO 07780 08940**.

1.4 Site Description

1.4.1 The site is located approximately 700m to the north of Dowlais Top on the opposite side of the A465, approximately 765m east of Pant, approximately 2.8kms to the west of Rhymney and 3km north east of Merthyr Tydfil.

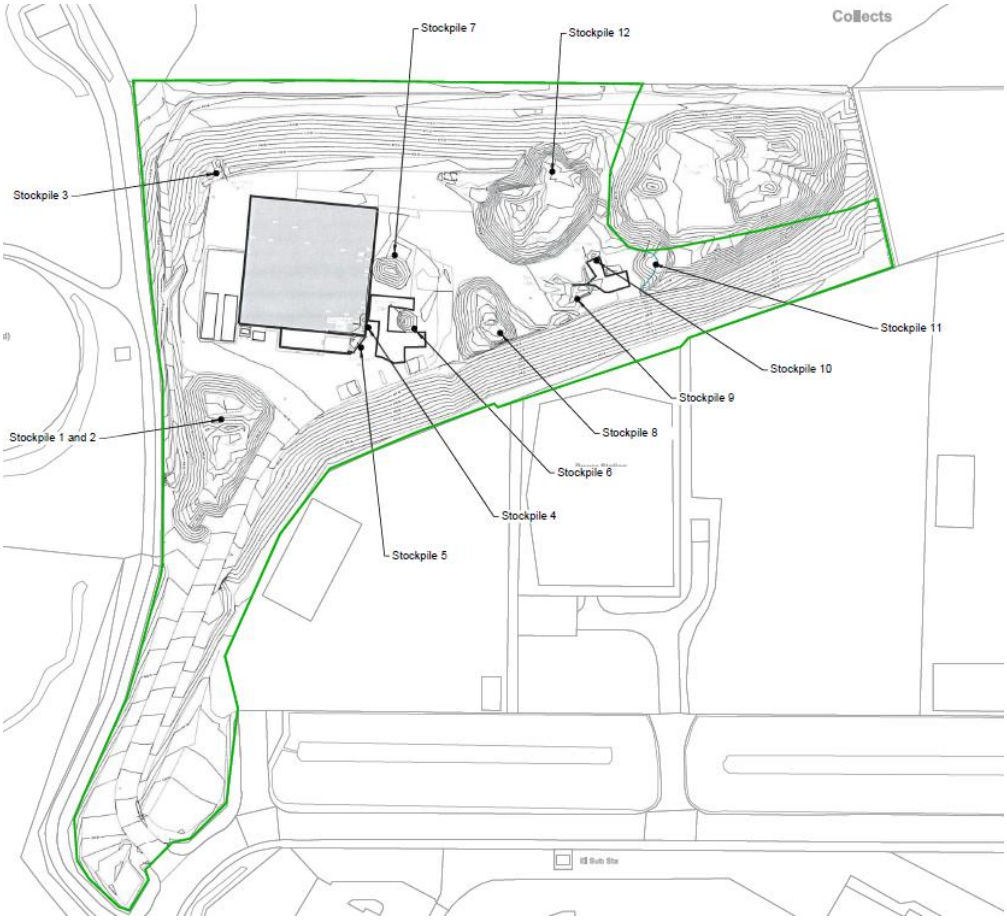
1.4.2 The nearest residential properties are located approximately 192m to the west of the site on an unnamed road.

1.4.3 There are a series of unnamed ditches which run around the perimeter of the site. The Nant Carno is located approximately 1012m to the east of the site and there is a covered reservoir located approximately 16m to the west of the site boundary.

1.4.4 The site is located above a minor aquifer with variable permeability. The site is not located within a flood zone.

1.4.5 The site area can be seen on the Proposed Permit Boundary Plan referenced CRM.0127.001.PE.D.002 in Appendix A and in Figure 1.4.1 below.

Figure 1.4.1 Proposed Permit Boundary



1.4.6 A review of DEFRA's Air Quality Management Area (AQMA) online mapping confirms that the site does not lie within, or in the vicinity of, an AQMA.

1.4.7 Meteorological data from the nearest monitoring station to the site, as summarised on www.windfinder.com, is presented below. Measurements at the Ebbw Vale/Rassau Weather Station were taken daily between 04/2013 and 05/2019 and show that the prevailing wind at the site is generally from the south-west.

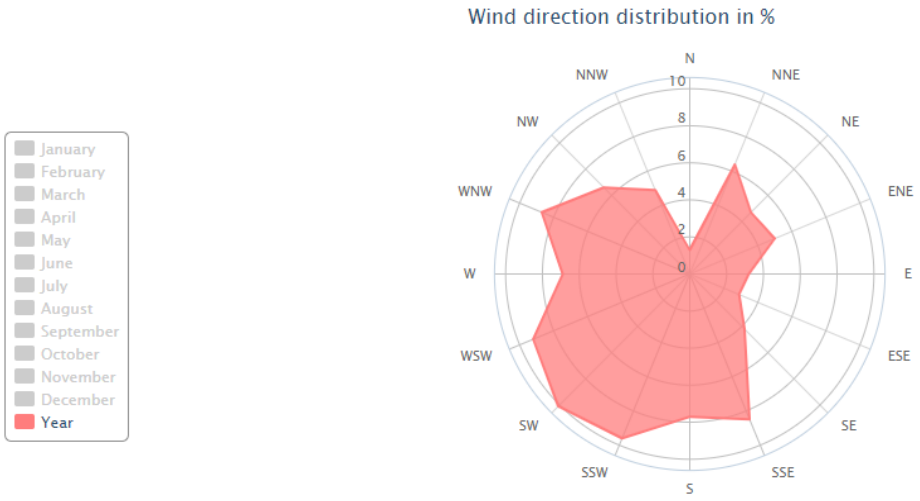
1.4.8 The Met Office does have a daily forecast available for Dowlais Top, however no long term data was available. For the seven day period searched the highest hourly wind speed was recorded as 16mph and the average was 8.2mph. Winds are generally stronger in the afternoon than in the morning. Due to the site being on a hill the wind direction is changeable. For the seven days viewed the prevailing wind direction was predominately from the south west and west north west. However, it was also recorded as being from the west south west and north west for a significant time.

1.4.9 Other historical weather data sites were searched to determine if data was held for the Dowlais Top area. The CEDA Archive stopped recording data from this site in 1962 which is deemed out of date. The Met Office historical data was also searched with the closest site being located at Tredegar, however no wind speed of direction data was recorded. Therefore, the Ebbw/Rassau weather data was deemed most appropriate historic long term data.

1.4.10 Statistics from the weather station are presented in Figure 1.4.2 below.

Figure 1.4.2 Wind Statistics: Ebbw Vale/Rassau Weather Station

Month of year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
	01	02	03	04	05	06	07	08	09	10	11	12	1-12
Dominant wind direction													
Wind probability >= 4 Beaufort (%)	14	17	16	10	9	8	7	8	7	11	13	17	11
Average Wind speed (kts)	6	7	6	6	6	5	5	5	5	6	6	6	5
Average air temp. (°C)	5	5	7	11	14	17	19	17	15	12	7	7	11



Images taken from www.windfinder.com ©

1.4.11 Table 1.4.3 below identifies potential additional sources of dust emissions in the vicinity of the site of the proposed Facility.

Table 1.4.3 Potential Additional Sources of Dust Emissions in Vicinity of Site

Source and Address	Operation Type	Distance and Direction (m)
Reclamation Specialists South Wales 1 Tydfil Terrace, Troedyrhiw, Merthyr Tydfil CF48 2TA	Reclamation centre	0 S
Abba Unit 4 Pengarnddu Ind Est, Merthyr Tydfil CF48 2TA	Scrapyard	20 SE
Containerised combustion plant (unnamed- within above site)	Energy generation facility	30 ESE
New Tredegar Skip Hire Unit 5 Pengarnddu Ind Est, Merthyr Tydfil CF48 2TA	Skip hire company	150 S
Merthyr Reclamation	Reclamation centre	150 E

Source and Address	Operation Type	Distance and Direction (m)
6 Pengarnddu Business Park, Merthyr Tydfil CF48 2TA		
Reclaimed Stone Blaen Morlais Farm, Pengarnddu, Merthyr Tydfil CF48 2TH	Reclamation centre	434 NW
Heads of the Valley Salvage Dowlais Top, Merthyr Tydfil CF48 2YG	Scrap metal dealer	500 SE
Biffa (Trecatti Landfill Site) Trecatti Landfill Site, Merthyr Tydfil CF48 4AB	Landfill site	1050 SSE

1.5 Sensitive Receptors

1.5.1 Key receptors that have been identified with the potential to be impacted by fugitive emissions of dust and particulates from the site are presented in Table 1.5.1 below.

1.5.2 A sensitive receptor plan referenced CRM.0127.001.PE.R.003 is included in Appendix A.

Table 1.5.1: Sensitive Receptors

Receptor	Type	Distance and Direction (m)
Merthyr Reclamation	Business	0 S
Merthyr Salvage and Recycling	Business	15 E
Abba	Business	18 S
Reservoir (open)	Ecological	80 W
St Merryn	Business	105 ESE
New Tredegar Skip Hire	Business	150 SW
Residential houses	Residential	192 W
B&M Home Store	Business	243 S
Carpet Right	Business	277 S
Poundstretcher	Business	285 S
Houses on an unnamed road	Residential	300 SW
Trade Price Sofas	Business	339 SW
ASDA	Business	400 S
Comfort Zone Merthyr	Business	420 S
Lidl	Business	430 S
Reclaimed Stone	Business	434 NW
Heads of the Valleys Salvage	Business	434 SE
CEMEX Merthyr Tydfil Concrete Plant	Business	437 SE
Jepson's Pond	Ecological	444 NW
Valleys Filling Station	Business	607 SE
Closest house at Dowlais Top	Residential	626 S

Receptor	Type	Distance and Direction (m)
Closest house at Pant	Residential	714 W
Pantysgallog Primary School	Educational	1009 W
Trecatti Landfill Site	Business	1000 S
Blean Carno Farm	Residential/Business	1006 ESE
Nant Carno	Ecological	1012 E
Cwm Taf Fechan Woodlands (SSSI)	Ecological	2125 NW

2.0 Site Operations

2.1 Overview

2.1.1 Waste transfer and treatment activities for the processing and removal or wastes will be carried out at the following operational hours:

- Monday to Saturday 07:30 – 18:30
- No handling operations shall take place on Sundays or Public Holidays

2.1.2 The site will not be accepting any waste during the initial phase of operations. Phase 1 is focussed on the treatment of the waste which is currently present on the site in preparation for recovery, recycling or disposal. Phase 2 will involve the import of materials from the area immediately east of the Proposed Permit Boundary into areas of the site which have been cleared during Phase 1 (known as Pile 13).

2.1.3 The Facility is proposed to operate for a limited time and shall treat the estimated 2,070 tonnes of waste material in piles (piles 1-12) which are located within the Permit boundary, as well as the estimated 13,982 tonnes of waste in pile 13 which will be imported onto the site. In addition to this, plant and equipment which has been abandoned on site will be removed, and an area of made ground, estimated to be 3000m³ will also need to be treated removed from the site.

2.1.4 A complete list of waste types to be treated have been supplied to NRW as part of this Permit application.

2.2 Programme of Works and Design for Dust and Emission Control

2.2.1 Site operations will be undertaken in accordance with the processes and procedures set out in the Operating Techniques and Monitoring Plan referenced CRM.0127.001.PE.R.006. This includes the proposed treatment method for each pile on the site and details a phased approach to the works - allowing piles to be dealt with one at a time and the site cleared to allow an easier and more controlled operation for each subsequent phase. This is considered the least impactful approach to undertaking the works and will allow the Operator to design in measures for dust and emissions prevention as the site becomes clear.

2.2.2 Site operatives shall check weather data, using a source such as the Met office at the start of each day. This source shall also be checked before waste piles with a high level of fines within them are to be moved and processed. To aid ongoing monitoring of wind direction a flag will be provided on site to indicate changes in weather conditions to operatives.

2.3 Responsibility for the Implementation of this Plan

2.3.1 The site's Environmental Management System (EMS) and this Dust Management Plan (which forms part of the EMS) is the responsibility of the site's Technically Competent Manager (TCM) and their deputy.

2.3.2 This DMP will be reviewed every 4 years or after a major dust incident. Any technical and managerial changes on site will also initiate a review to ensure that the dust mitigation and control techniques remain appropriate for the site.

2.3.3 The CIWM/WAMITAB continuing competence scheme is designed to ensure that the technically competent person on a waste site has knowledge and skills that keep pace with changes made

across the waste management industry, such as the introduction of new legislation, technologies and techniques.

2.3.4 The CIWM/WAMITAB continuing competence scheme requires technically competent people in England and Wales to pass an assessment that demonstrates individuals have kept their competence up to date. Continued competence must be demonstrated every 2 years. Copies of the relevant certificates have been provided to support this Permit application.

2.3.5 Where specific activities or tasks require additional training, these will be identified when preparing method statements / safe systems of works for each task, and training / toolbox talks delivered as appropriate. For contract work undertaken on site, permits to work will be issued which will detail method statements that are to consider the potential for any emissions from the activities as well as the appropriate mitigation measures to be taken whilst the works are carried out.

2.3.6 Staff training records are held within the site's Environmental Management System (EMS). Refresher training is delivered either by external training providers or in house (as appropriate)

3.0 Dust and Particulate Management

3.1 Sources of Dust Emissions and Control Measures

3.1.1 The Source Pathway Control Matrix presented in Appendix E sets out the main dust and particulate forming processes at the site. These are considered to be:

- Dispersion of dust and particulates from material stockpiles on-site, including during uncovering/disturbance by plant and machinery;
- Tipping of wastes from pile 13;
- Emissions from waste processing activities on site (screening, shredding, crushing, etc);
- Vehicle movements within the site dispersing dust from hardstanding and emissions from vehicle exhausts;
- Loading of processed material onto vehicles prior to removal off site, and loss of containment whilst in transit; and
- Emissions associated with abnormal operations.

3.1.2 For each of the processes above, the pathway and potential receptors of dust emissions have been identified. Impacts are likely to be associated with inhalation by human receptors, elevated PM_{10} concentrations, visible dust plumes and deposition on adjacent businesses, residential properties and ecological receptors.

3.1.3 Dust prevention and suppression techniques in place to reduce the likelihood of impacts to receptors are described within the Source Pathway Control Matrix presented in Appendix E. The outcome of the assessment in relation to each dust forming process is summarised below.

3.2 Material Stockpiles

3.2.1 Emissions are likely to be associated with atmospheric dispersion of dust and particulates of material stockpiles by wind. As the material stockpiles have been in-situ for several years; the risk of further dispersion of stored material is considered low prior to the piles being disturbed. However, risks of emissions of dust as material stockpiles are disturbed by plant and machinery are assumed to be high.

3.2.2 Dust sensitive receptors with the potential to be impacted from emissions are considered to be the occupants of adjacent commercial properties, residential properties and ecological receptors. As the prevailing wind at the site is from the south-west, the nearest residential and most commercial receptors lie upwind of the site. Only during November is the prevailing wind likely to carry emissions in the direction of these receptors.

3.2.3 Whilst the proximity of several commercial receptors to the site means that there is the risk of dispersion of dust into these areas during all meteorological conditions, they are not considered particularly dust sensitive as many are undertaking similar activities to the operator.

3.2.4 Given the distance and direction of ecological receptors from the site (Jepson's pond lies 444m NW and Cwm Taf Fechan Woodlands SSSI lies 2125m NW) the risk of impacts from emissions at these sites is considered low.

3.2.5 Dust prevention and suppression techniques in relation to material stockpiles include:

- Dampening down of material stockpiles before being disturbed by on site plant;
- Sheeted windbreaks, in the form of 2m high, knitted windbreak netting, will be permanently attached to the site's perimeter fencing, to prevent suspended dust leaving the site, to ensure the local sensitive receptors which lie in the direction of the prevailing wind, particularly St Merryn are protected;
- Drop height from excavators into dumpers minimised and double handling avoided;
- Operator to undertake a phased approach to stockpile processing in order to minimise the disturbance of stored material;
- Trained operatives only to operate vehicles, plant and equipment on site, with supervision from the site manager and or TCM for higher risk activities;
- Site activities to be restricted during periods of high winds (>15mph) with the potential to carry emissions in the direction of sensitive receptors. The TCM on site is responsible for the assessment of operational risk during adverse meteorological conditions

3.2.6 Residual risk following the control measures above is considered Low.

3.3 Waste Processing Activities

3.3.1 Emissions are likely to be associated with atmospheric dispersion of dust and particulates from waste processing activities, including screening, crushing, shredding and tromelling. Due to the types of material on site the potential for these activities to generate dust is considered High.

3.3.2 Dust sensitive receptors with the potential to be impacted from emissions are considered to be the occupants of adjacent commercial properties, residential properties and ecological receptors. Impacts are considered to be moderate, owing to prevailing meteorological conditions and taking account of the proximity of several commercial receptors to the site.

3.3.3 Dust prevention and suppression techniques include:

- Windbreaks, in the form of 2m high, knitted windbreak netting, will be permanently attached to the fencing to protect local sensitive receptors which lie downwind of the prevailing wind direction at the site, to prevent suspended dust from leaving the site;
- Water sprays/hoses (with year-round supply) are available in operational areas;
- Processed fines to be stored for a maximum of 4 weeks and will be sheeted;
- Segregated materials stored in metal containers and covered where the materials stored e.g. fines, are at risk of creating dust; and
- Site activities are restricted during periods of high winds (>15mph)with the potential to be carried in the direction of sensitive receptors. TCM on site is responsible for the assessment of operational risk during adverse meteorological conditions

3.3.4 Residual risk following the control measures above is considered Low.

3.4 Site Vehicles During Normal Operations

3.4.1 Emissions are likely to be associated with atmospheric dispersion of dust and mud from internal haul roads and particulate emissions from vehicle exhausts

3.4.2 Dust sensitive receptors with the potential to be impacted from emissions are considered to be the occupants of adjacent commercial properties, residential properties and ecological receptors. Impacts are considered to be moderate, owing to prevailing meteorological conditions and taking account of the proximity of several commercial receptors to the site.

3.4.3 Dust prevention and suppression techniques include:

- 15 mph speed limit in place across site;
- Inspection and sweeping of internal roads and site access forms part of daily checks;
- Damping down of internal roads and operational areas with on-site sprays/hoses during hot and dry weather (more than three days without rainfall) if visual monitoring and weather data (wind speeds of 15mph in the direction of local sensitive receptors) show that dust migration off site and impacts on local sensitive receptors is deemed likely;
- All site vehicles are the responsibility of the Operator and are maintained in accordance with manufacturers recommendations. No vehicles are allowed to be left to idle when not in use; and,
- Only trained operatives to operate vehicles, plant and equipment on site, with supervision from the site manager and or TCM for all higher risk activities.

3.4.4 Residual risk following the control measures above is considered Low.

3.5 Plant and Equipment

3.5.1 Emissions from plant and equipment are likely to be associated with the re-suspension of dust from surfaces.

3.5.2 As part of the visual monitoring undertaken by the TCM, Site Manager and Site Operatives, dust emissions from plant and equipment and other site surfaces will be monitored on a daily basis. Dust/fluff build up on plant and equipment will be removed and stored within the covered fines container.

3.5.3 Water is available from taps and hoses next to the site building which can be used to damp down surfaces, plant and equipment to reduce the re-suspension of dust particles. Water will be used on dust build up on site surfaces including plant and equipment and the site building should dust build up occur in between monitoring and dust is becoming air borne.

3.6 Export of Material off-site

3.6.1 Emissions are likely to be associated with atmospheric dispersion of dust and particulates as vehicles are loaded with processed material, from tarmac haul roads at the site access, following the loss of containment from loaded vehicles and from particulate emissions from vehicle exhausts.

3.6.2 Dust sensitive receptors with the potential to be impacted from emissions are considered to be the occupants of adjacent commercial properties, residential properties and ecological receptors. Impacts are considered to be moderate, owing to prevailing meteorological conditions and taking account of the proximity of several commercial receptors to the site.

3.6.3 Dust prevention and suppression techniques include:

- All material leaving the site to be in sheeted/covered vehicles;

- Material to be loaded onto vehicles in areas protected from wind, if weather data (wind speed >15mph in the direction of local sensitive receptors) and site monitoring indicate that dust migration off site and impact on local sensitive receptors is deemed likely, and minimising drop heights;

- 15 mph speed limit in place across site;

- Internal roads comprise hardstanding to reduce the likelihood of mud mobilising off-site and wheel washing facilities are in place at site egress;

- Inspection and sweeping of internal roads, the site access and operational areas form part of daily checks. Additional sweeping and damping down with on-site sprays/hoses during hot and dry weather (more than 3 days without rainfall), if weather data (wind speeds >15mph in the direction of local sensitive receptors) and site monitoring indicate that dust migration off site and impact on local sensitive receptors is deemed likely; and

3.6.4 Residual risk following the control measures above is considered Low.

3.7 Abnormal Operations

3.7.1 Emissions are likely to be associated with fugitive emissions of dust following a breakdown or failure of plant, equipment or machinery, or the atmospheric dispersion of dust and particulates following accidental fires on the site and/or resulting from arson.

3.7.2 Dust sensitive receptors with the potential to be impacted from emissions are considered to be the occupants of adjacent commercial properties, residential properties and ecological receptors. Impacts are considered to be moderate, owing to prevailing meteorological conditions and taking account of the proximity of several commercial receptors to the site.

3.7.3 Dust prevention and suppression techniques include:

- All plant, equipment and vehicles at the site are maintained in accordance with manufacturers recommendations and key spare parts are held on site.
- The site is surrounded by a security fence and the gate and plant and equipment is located out of hours.

3.7.4 A standalone Fire and Prevention Management Plan (CRM.0127.001.PE.R.008) has been prepared to identify sources of potential fire risk at the site. This document sets out the control measures to be integrated into on site procedures. Residual risk following the control measures above is considered Low.

4.0 Monitoring, Reporting and Complaints Procedures

4.1 Visual Dust Monitoring

4.1.1 Visual monitoring of dust emissions will be carried out by the TCM for the site or acting deputy daily and during site activities which could create emissions of dust which would leave the site boundary and impact on local sensitive human receptors.

4.1.2 All staff employed on site will receive training in the identification of fugitive dust emissions and what issues to look out for to proactively prevent fugitive emissions release.

4.1.3 Routine monitoring of dust / particulate emissions will include:

- Monitoring of weather conditions, including wind direction and speed. This monitoring will occur at the beginning of each day using online weather services, such as the Met Office App, and prior to carrying out activities which could create emissions of dust (i.e. moving of stockpiles of waste, screening, crushing, tromelling and shredding of waste as well as loading waste onto vehicles for transportation off-site) that have the potential to leave the permitted site boundary and impact on local sensitive human receptors as well as by visual monitoring of the flag present on site;
- Daily visual inspections of the site hardstanding and access roads;
- Visual inspections of waste deliveries upon arrival; and
- Daily visual inspections of waste processing areas.

4.1.4 Additional monitoring will be carried out under the following circumstances:

- During prolonged periods of dry meteorological conditions;
- Upon processing of dry or dusty materials;
- During periods of abnormal operations; and
- In the event that a complaint is received on site.

4.1.5 Records of visual monitoring will be documented in the site diary. Monitoring shall be undertaken at the locations identified on the Site Layout Plan. Monitoring shall take place by site operatives when there is a risk of dust migrating off site. The Beaufort Wind Scale states that a moderate breeze, which equates to a wind speed of 15-18mph can cause 'dust to blow about'. If the weather forecast shows that wind speeds are likely to reach this level, then this will trigger monitoring by site operatives at the defined locations, should activities which could generated emissions of dust be planned. The site flag shall also be monitored throughout the day to indicate and changes in wind direction.

4.1.6 If excessive dust emissions are identified, the TCM will temporarily shut down site operations until a review of dust suppression techniques is complete and the operator is confident that they can operate without causing impacts off site. Excessive dust emissions are those which are considered to be capable of migrating off site and causing nuisance to the local sensitive receptors.

4.1.7 No permanently installed dust and particulate monitors and/or trigger alarms are considered proportionate or necessary. This is due to the temporary nature of the site and the operations which are to occur under the Environmental Permit. The site is being operated for the purpose

of clearing the abandoned waste from it. Following receipt of any off-site complaints and/or perceived impacts this will be reviewed.

4.1.8 Should the weather forecast show that the local wind speeds will exceed 15-18mph out of hours, stockpiles which contain fine materials, at risk of creating dust will be damped down before the site is closed for the day.

4.2 Community Engagement

4.2.1 The waste on the site at Pengarnddu Industrial Estate has been in situ for several years. Merthyr Council recognise that this currently not only presents an immediate risk to the environment, but also causes amenity impacts to surrounding commercial and residential receptors.

4.2.2 The operator intends on clearing the material from the site and restoring it to productive use as quickly as possible. As such, as a result of permitted activities there will be a significant benefit to the amenity of surrounding receptors. The Operator will be proactive in responding to complaints if they are received at the Facility and impacts are perceived by off-site receptors.

4.3 Other Considerations

Water Availability

4.3.1 Water is available from hoses adjacent to the buildings on site for dust suppression by dampening down where weather conditions show that there is a risk of dust being transported off-site. In the event of water shortages in the area, water will be bought onto the site via tanker using a third-party contractor and stored in mobile water bowsers. If water is not available for dust suppression, activities at the site will be temporarily shut down by the Operator.

4.4 Complaints and Incident Review

4.4.1 All records of dust monitoring undertaken will be noted on the site diary. These will be kept on site for inspection by NRW.

4.4.2 Should dust be detected at the site boundary, a note of this will be made in the site diary and the Site Manager will take appropriate steps to mitigate the dust which comprise as a minimum:

- Inspection of site operations to identify the dust source;
- Cessation of activity generating the dust;
- Spraying of the area causing the dust; and
- Review of site operation procedures to reduce the likelihood of recurrence.

4.4.3 Dust complaints received at the facility will also be reported to NRW and followed up on with on-site investigation, which will also be reported to NRW via the appropriate Environmental Permit Notification System. A dust complaints form is included as Appendix B.

4.4.4 It is important to record and act upon complaints received and communicate the outcome of the investigation to the complainant. It is equally important to undertake a review following complaints or incidents if warranted to implement further control on site to prevent the event from reoccurring. The Operator will undertake a formal review of onsite processes and the mitigation measures posed in this document, following any major incident and will routinely review any complaints received as and when they occur.

4.4.5 When complaints are received complainants will be contacted via their preferred method with details of how their complaint has been addressed within 7 days of the complaint being received.

4.4.6 Should more than 5 dust complaints be received within an hour, activities shall be ceased. Head office shall be informed and a review of the mitigation measures within this document and site operations will be undertaken to determine the cause of the emissions of dust and review the mitigation measures currently in place to determine their effectiveness, and whether any changes are needed to operational procedures and this DMP.

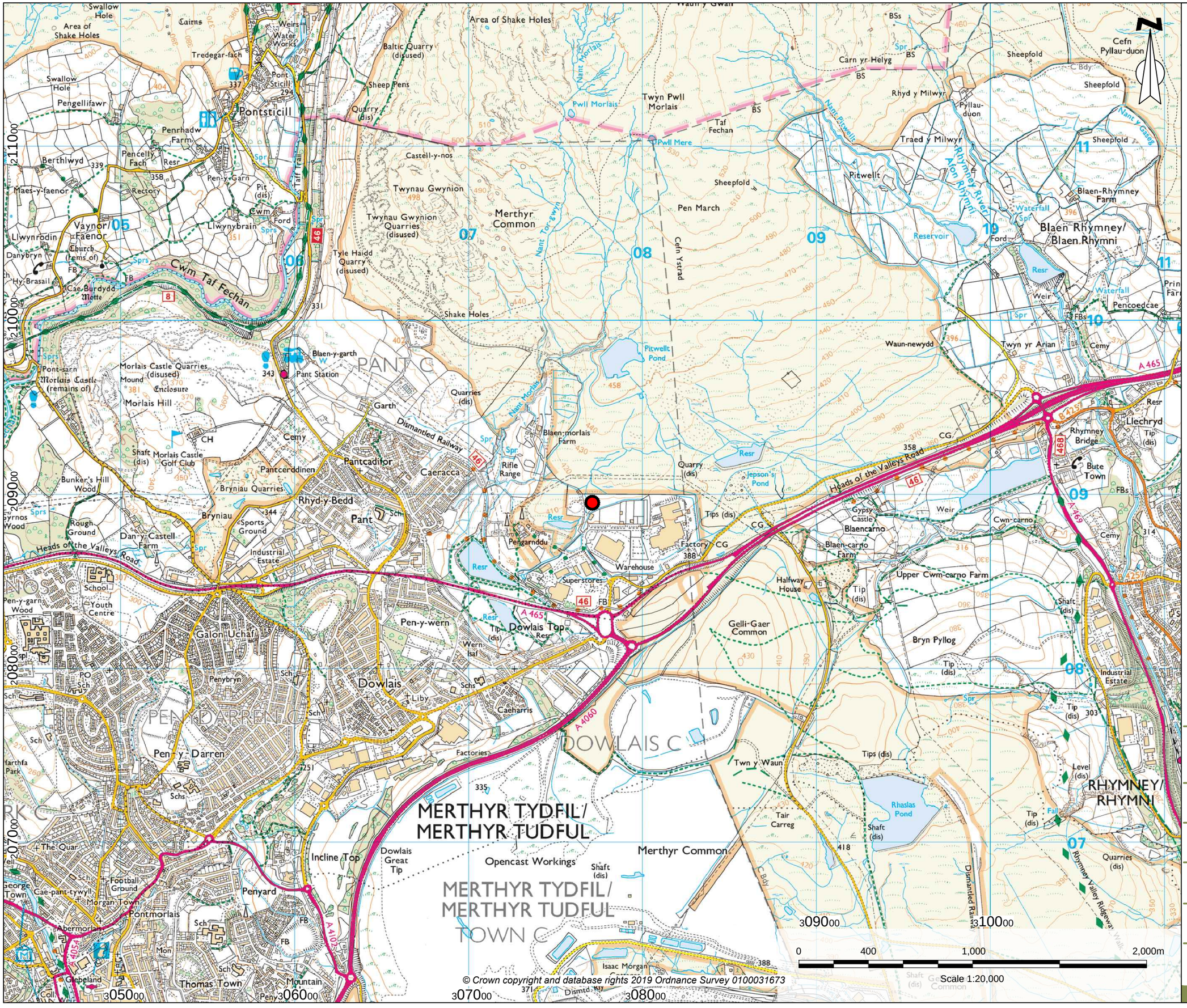
4.4.7 All records of events and actions taken will be retained as required by the Environmental Permit.

4.5 Notifying Natural Resources Wales

4.5.1 In the event that an accident or incident occurs which may cause a dust impact, the Operator will notify NRW immediately, using the emergency 24hr phone line (0300 065 3000). The Site Manager for the Facility will also notify the Regulatory Officer should any complaints be received directly to site and advise what remedial measures or actions have been taken to address the issue. Copies of any relevant complaints received will be made available to NRW for review.

4.5.2 NRW will also be notified via the appropriate Environmental Permit Notification System.

Appendix A – Sensitive Receptors and Site Plans



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Key

● Site Location
(SO 07780 08940)

enzygo
environmental consultants

Samuel House, 5 Fox Valley Way, Stocksbridge, Sheffield, S36 2AA

CLIENT:
Hampshire Demolition and Recycling Limited

SCALE: 1:20,000@A3

PROJECT REF: CRM.0127.001

DRAWN: MG

CHECKED: RC

DATE: July 2019

PROJECT:
Penganddu Industrial Estate

TITLE:
Site Location Plan

DRAWING NO:
CRM.0127.001.PE.D.001

Potential for unmade ground

Site vehicl overnight parking area

Concrete lip

Quarantine area

(15 x 10m)

M1

Metal skips for combustible material storage x7

(7.3m3 with 2m spacing between skips)

M3

Processed timber storage area

(8 x 13 x 3m

M2

Concrete lip

Extent of concrete hardstanding

M4

Inert / non-combustible material storage

Concrete lip

Flag

Waste processing area

Access road to be clear

(min 3.7m width)

Processed timber storage area

(10 x 5m)

Collects

Works

Reservoir (covered)

SA

WB

FB

Drain

El Sub Sta

0 20 40 60 80 100m

Scale 1:1,000

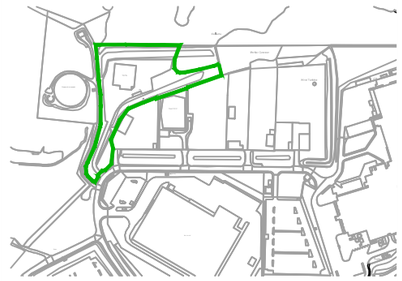
KEY

- Permit Boundary and Fence
- Concrete Hardstanding
- Water Supply Point
- Spill Kits
- Smoking Area
- Fuel Bowser
- Road Gullies

STORAGE MATERIALS (SKIPS)

CONTEXT PLAN

Scale 1:10,000



enzygo environmental consultants

Samuel House, 5 Fox Valley Way, Stocksbridge, Sheffield, S36 2AA

CLIENT: Hampshire Demolition and Recycling Limited

SCALE: 1:1,000@A3

PROJECT REF: CRM.0127.001

DRAWN: MG

CHECKED: RC

DATE: Sept 2020

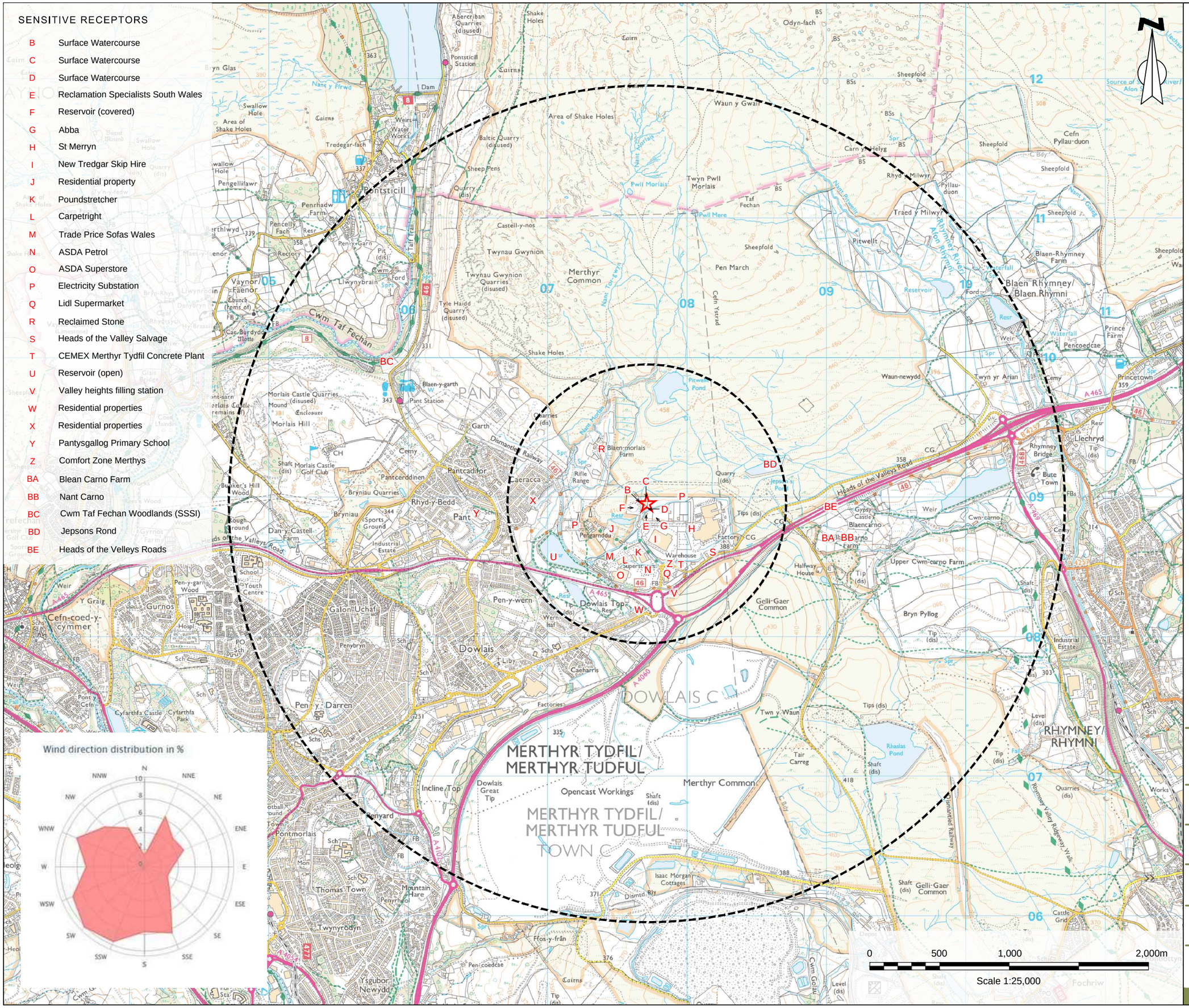
PROJECT: Penganddu Industrial Estate

TITLE: DMP Site Layout

DRAWING NO: CRM.0127.001.PE.D.004

SENSITIVE RECEPTORS

B	Surface Watercourse
C	Surface Watercourse
D	Surface Watercourse
E	Reclamation Specialists South Wales
F	Reservoir (covered)
G	Abba
H	St Merryn
I	New Tredgar Skip Hire
J	Residential property
K	Poundstretcher
L	Carpetright
M	Trade Price Sofas Wales
N	ASDA Petrol
O	ASDA Superstore
P	Electricity Substation
Q	Lidl Supermarket
R	Reclaimed Stone
S	Heads of the Valley Salvage
T	CEMEX Merthyr Tydfil Concrete Plant
U	Reservoir (open)
V	Valley heights filling station
W	Residential properties
X	Residential properties
Y	Pantysgallog Primary School
Z	Comfort Zone Merthys
BA	Blean Carno Farm
BB	Nant Carno
BC	Cwm Taf Fechan Woodlands (SSSI)
BD	Jepsons Rond
BE	Heads of the Velleys Roads



Key

☆ Site

- - - - 1000m & 3000m Buffer Zone

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Samuel House, 5 Fox Valley Way, Stocksbridge, Sheffield, S36 2AA

CLIENT:
Hampshire Demolition and Recycling Limited

SCALE:	PROJECT REF:
1:25,000@A3	CRM.0127.001

DRAWN:	CHECKED:	DATE:
MG	RC	July 2019

PROJECT:
Penganddu Industrial Estate

TITLE:
Sensitive Receptor Plan

DRAWING NO:
CRM.0127.001.PE.D.003

Appendix B – Dust Complaint Form

Complainant Details	
Name	
Address Postcode	
Customer Contact Details	
Tel	
Email	
Date	
Complaint Ref Number	
Complaint Details	
Investigation Details	
Investigation carried out by	
Position	
Date & time investigation carried out	
Weather conditions	
Wind direction and speed	
Investigation findings	
Feedback given to Environment Agency and/or local authority	
Date feedback given	
Feedback given to complainant	
Date feedback given	
Review and Improve	
Improvements needed to prevent a reoccurrence	
Proposed date for completion of the improvements	
Actual date for completion	
If different insert reason for delay	
Does the dust management plan need to be updated	
Date that the dust management plan was updated	
Closure	
Site manager review date	
Site manager signature to confirm no further action required	

Appendix C – Source Pathway Control Matrix

Source	Pathway	Receptor	Type of Impact	Risk	Dust Prevention and Suppression Techniques	Residual Risk
Material stockpiles currently on site	Atmospheric dispersion of dust and particulates by wind Atmospheric dispersion of dust as piles are disturbed by plant and machinery	Adjacent commercial properties Ecological receptors Residential properties	Amenity Human Health Adverse Ecological Impacts	High	Material stockpiles have been in-situ for several years; as such the risk of further dispersion of stored material is considered low prior to the piles being disturbed Stockpiles to be dampened down before being disturbed by on site plant if site monitoring (both visual and weather data) shows there is a risk of dust migrating off-site towards sensitive receptors. Windbreaks, in the form of 2m high knitted windbreak netting, will be permanently attached to the site boundary fencing to prevent suspended dust from leaving the site and protect location sensitive receptors that lie downwind from the prevailing wind direction. Minimise drop height from excavators into dumpers, and reduce double handling Phased approach to stockpile processing in order to minimise the disturbance of stored material as described in the operational techniques and monitoring plan Only trained operatives to operate vehicles, plant and equipment on site. Supervision from the site manager and or TCM for all higher risk activities Site activities are restricted during periods of high winds (>15mph) with the potential to be carried in the direction of sensitive receptors. TCM or the site manager is responsible for the assessment of operational risk during adverse meteorological conditions	Low - Medium
Waste processing activities (screening,	Atmospheric dispersion of dust and particulates	Adjacent commercial properties	Amenity Human Health	Moderate - High	Windbreaks, in the form of 2m high, knitted windbreak netting, will be permanently attached to the site boundary fencing to protect location sensitive receptors that lie downwind from the prevailing wind direction.	Low

Source	Pathway	Receptor	Type of Impact	Risk	Dust Prevention and Suppression Techniques	Residual Risk
shredding, crushing, etc)	during processing activities	Ecological receptors Residential properties	Adverse Ecological Impacts		Water sprays/hoses (with year-round supply) are available in operational areas where waste processing activities as described in 4.3.1 above, may generate dust to damp down dust generating sources Processed fines to be stored for a maximum of 4 weeks on site and sheeted Segregated materials which are stored in metal containers and covered where the wastes stored are likely to cause dust migration off site towards sensitive receptors. Wastes deemed likely of causing dust migration off site are, timber fines and, other fines. Site activities are restricted during periods of high winds (>15mph) with the potential to be carried in the direction of sensitive receptors. TCM on site is responsible for the assessment of operational risk during adverse meteorological conditions	
Vehicles during normal operations on site	Atmospheric dispersion of dust and mud from internal haul roads Particulate emissions from vehicle exhausts	Adjacent commercial properties Ecological receptors Residential properties	Amenity Human Health Adverse Ecological Impacts	Medium	15 mph speed limit in place across site Inspection and sweeping of internal roads and site access forms part of daily checks Damping down of internal roads and operational areas with on-site sprays/hoses will occur where daily inspections show that there is a risk of dust build up Additional sweeping and damping down during hot and dry weather (more than 3 days without rainfall) if weather data (wind speeds in excess of 15mph in the direction of sensitive receptors) and site monitoring indicates dust migration off site and impact on local sensitive receptors is deemed likely. All site vehicles are the responsibility of the Operator and are maintained in accordance with manufacturers recommendations. No vehicles to be left idling when not in use	Low

Source	Pathway	Receptor	Type of Impact	Risk	Dust Prevention and Suppression Techniques	Residual Risk
					Only trained operatives to operate vehicles, plant and equipment on site Supervision from the site manager and or TCM for all higher risk activities	
Vehicles removing processed materials from the site	Atmospheric dispersion of dust and particulates as vehicles are loaded with processed material Atmospheric dispersion of dust and mud from tarmac haul roads Loss of containment from loaded vehicles Particulate emissions from vehicle exhausts	Adjacent commercial properties Ecological receptors Residential properties	Amenity Human Health Adverse Ecological Impacts	Medium	All material leaving the site to be in sheeted/covered vehicles. Material to be loaded onto vehicles in areas protected from wind, using windbreaks, in the form of 2m high knitted windbreak netting, which are permanently attached to the boundary fencing to prevent suspended dust from leaving the site and protect sensitive receptors that lie downwind from the prevailing wind direction. Minimise drop heights when loading Wheel washing facilities in place at site egress 15 mph speed limit in place across site Internal roads comprising hardstanding are in place to reduce the likelihood of mud mobilising off-site Inspection and sweeping of internal roads, access and operational areas form part of daily checks. Additional sweeping and damping down with mobile water bowser during hot and dry weather (more than 3 days without rainfall) will take place if weather data (wind speeds in excess of 15mph in the direction of sensitive receptors) and site monitoring indicate that dust migration off site and impact on local sensitive receptors is deemed likely.	Low
Abnormal operations	Increase in fugitive emissions of dust following a breakdown or failure of plant,	Adjacent commercial properties	Amenity Human Health	Medium	All plant, equipment and vehicles at the site are maintained in accordance with manufacturers recommendations and key spare parts are held on site.	Low

Source	Pathway	Receptor	Type of Impact	Risk	Dust Prevention and Suppression Techniques	Residual Risk
	equipment or machinery Atmospheric dispersion of dust and particulates following accidental fires on the site and/or arson	Ecological receptors Residential properties	Adverse Ecological Impacts		The site is surrounded by a security fence and the gate and plant and equipment is located out of hours. A standalone Fire and Prevention Management Plan (CRM.0127.001.PE.R.008) has been prepared to identify sources of potential fire risk at the site. This document sets out the control measures to be integrated into on site procedures.	

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