



## **ODOUR MANAGEMENT PLAN**

**CARDIFF WASTE MANAGEMENT RESOURCE CENTRE  
WATERSIDE BUSINESS PARK  
LAMBY WAY  
RUMNEY  
CARDIFF  
CF3 2EQ**

**Document Reference: BF5023/OMP.R0  
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**Project Quality Assurance  
Information Sheet**

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LAMBY WAY, RUMNEY, CARDIFF, CF3 2EQ**

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**ENVIRONMENTAL PERMIT APPLICATION**

**ODOUR MANAGEMENT PLAN**

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## 1.0 INTRODUCTION

### 1.1 Scope & Background

1.1.1 Sirius Environmental Limited ('Sirius') has been commissioned by BWB Consulting Limited ('BWB') on behalf of Biffa Waste Services Limited ('Biffa') to prepare an Environmental Permit Application for a Hazardous Waste Transfer Station Installation in Waterside Industrial Park, Rumney, Cardiff (hereafter referred to as "The Site").

1.1.2 Biffa have previously undertaken such activities under at their existing facility at Curran Embankment, Riverside, Cardiff. Due to the proposed redevelopment of the land within which the Biffa's existing facility is located, they are required to relocate their operations to new premises and the Lamby Way site was selected as the new location of the Waste Transfer Station. Accordingly, Biffa are seeking to transfer the existing operations to the Lamby Way site.

1.1.3 This Odour Management Plan has been prepared in accordance with guidance on best practice, and in particular the following specific regulations and guidance (where applicable) contained in:

- Environmental Permitting (England and Wales) Regulations 2016;
- Environmental Permitting Core Guidance (DEFRA, Updated March 2020);
- General Natural Resources Wales Guidance;
- Best Available Techniques (BAT) Reference Document (BRef) for Waste Treatment (August 2018);
- Establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council, Commission Implementing Decision (EU) 2018/1147; and
- Natural Resources Wales Document H4 – Odour Management (October 2014).

1.1.4 The objectives of this Odour Management Plan are as follows:

- Employ appropriate methods, including monitoring and contingencies, to control and minimise odour pollution;
- Prevent unacceptable odour pollution at all times; and
- Reduce the risk of odour releasing incidents or accidents by anticipating them and planning accordingly.

1.1.5 The following aspects have been considered during the preparation of this Odour Management Plan:

- The activity which produced the odour and the point(s) of odour release (both intentional and unintentional);
- Possible process or control failures or abnormal situations which could lead to an increased level of exposure;
- The potential outcome of each failure scenario in respect of the likely odour impact on local sensitive receptors; and
- The actions which are to be taken to mitigate the effect of the odour release, and details of the persons responsible for the actions on the Regulated Facility.

1.1.6 This Odour Management Plan is a live document and as such will be subject to regular review and revision.

## 1.2 Site Setting

- 1.2.1 The Site is located c. 3.7km northeast of Cardiff city centre, to the south of Rumney in the County of Cardiff as illustrated on **Drawing Reference Number BF5023/09/01**. The site is approximately centred at National Grid Reference: ST 22019 78619. The area surrounding the Site has a long and established agricultural, residential and transport infrastructure history with the first residential developments commencing between 1919-1920 and the mainline railway present since 1881.
- 1.2.2 The area covered by the Environmental Permit boundary of the Site is illustrated on **Drawing Reference BF5023/09/02**. The site boundary is defined as shown on the above drawing and delineated in the appropriate colour (Green – Environmental Permit Boundary).
- 1.2.3 All permitted waste activities will be undertaken upon with designated areas of the site. The Site consists of covered storage bays and designated loading/unloading areas and site offices and welfare facilities. The indicative operational layout of the site is illustrated on **Drawing Reference BF5023/09/03**. Access to and egress from the site will be undertaken from the main access road which enters the site on the southern boundary of the site and connects to Lamby Way.
- 1.2.4 The site is secured by security fencing, CCTV and lockable security gates which are kept secure outside of operational hours.
- 1.2.5 Industrial and commercial properties are located to the immediate east, south and west of the Site. The Network Rail operated mainline railway between Cardiff and London Paddington is located to the north of the Site behind established vegetation.
- 1.2.6 Residential properties situated on New Road associated with Rumney are located to the north of the railway line, with the nearest located ~50m from the Site's northern boundary. Open grassland, the A4232 and the Rhymney River are located beyond the industrial and commercial properties to the West of the Site. Cardiff HWRC, the former Lamby Way Landfill, and open grassland are located beyond the industrial properties to the south of the Site.
- 1.2.7 The site is located within 1km of four Sites of Scientific Interest (SSSIs); Gwent Levels (Biological Designation), Rumney Quarry (Geological Designation), Rumney River Section (Geological Designation) and the Severn Estuary (Biological Designation). with the Severn Estuary.
- 1.2.8 In addition to its designation as a SSSI, the Severn Estuary is also designated as a Ramsar Site, a Special Area of Conservation (SAC) and a Special Protection Area (SPA).
- 1.2.9 No other statutory sites are located within 1km of the site.

1.2.10 The site is also located within 1km of five sites with non-statutory Sites of Importance for Nature Conservation (SINC) designation; Lamby Way SINC, Lamby North SINC, Rhymney Grassland East SINC, Lamby Salt Marsh SINC and River Rhymney SINC. The sites have been designated due to the presence of the following priority habitats:

- **Lamby Way SINC:**
  - Lowland Meadow, purple moor-grass, and rush pasture
- **Lamby North SINC:**
  - Coastal Saltmarsh
- **Rhymney Grassland East SINC:**
  - Lowland meadow and lowland calcareous meadow
- **Lamby Salt Marsh SINC:**
  - Coastal Saltmarsh
- **River Rhymney SINC:**
  - River

1.2.11 The site is not located within 1km of a designated Air Quality Management Area (AQMA) as stated by DEFRA. The closest AQMA is the Stephenson Court AQMA under Cardiff City Council which declares the pollutant Nitrogen Dioxide (NO<sub>2</sub>) and is located c.3km to the southwest of the site.

1.2.12 A review of dominant wind directions indicates that the prevailing wind blows in from the West/West-Southwest.

### 1.3 Site Operations

1.3.1 Operations at the Site consist of the receipt, storage, processing, treatment and transfer of containerised non-hazardous and hazardous waste. Waste processing operations comprise of the bulking, blending and re-packaging of waste for onward transfer. Waste treatment operations consist of shredding of washed plastic bottles and crushing of washed drums.

1.3.2 The Site will operate under the effective system of management accredited to ISO14001 which is formed of Biffa's written Standard Operating Procedures. This will include, but is not limited to, the following:

- Standard Operating Procedure. Pre-acceptance of Containerised Waste. Reference SOP 01.
- Standard Operating Procedure. Waste Acceptance at Transfer Stations. Reference SOP 02.
- Standard Operating Procedure. Storage of Containerised Waste in Transfer Stations. Reference SOP 03.
- Standard Operating Procedure. Non-conformance and Waste Rejection. Reference SOP 04.
- Standard Operating Procedure. Bulking of Waste in Transfer Stations. Reference SOP 05.
- Standard Operating Procedure. Laboratory Smalls Packing Procedure. Reference SOP 06

1.3.3 All elements associated with the operation of the Cardiff Waste Management Resource Centre accord with the latest published BREF document for Waste Treatment (August 2018) and the associated BAT Conclusions. The above listed SOPs and the storage of non-hazardous and hazardous materials have been prepared in accordance with various HSE standards, including HSG 51, 71, 76, 140, 176 & CS21.

- 1.3.4 All Standard Operating Procedures are regularly reviewed and updated (where required) to ensure Best Operational Practice. Hard copies of all relevant Standard Operating Procedure documents are held within the Site Office and digital copies of all Standard Operating Procedures can be accessed via the Biffa Waste Services Intranet system.
- 1.3.5 An overview of how the Standard Operating Procedures control odour emissions is presented in **Section 3.4**.
- 1.3.6 The site will operate under Biffa's own Environmental Management System which is externally certified under ISO14001. In order to comply with the regulatory requirements as stated in the Environmental Permitting Regulations, Biffa will ensure that the site is covered by a technically competent person with the appropriate qualifications to manage the Site. The technically competent person will be responsible for ensuring the OMP is enforced and followed at the site.
- 1.3.7 NRW will be informed within 24 hours of any proposed changes to the technical competence arrangements.

#### Operational Hours

- 1.3.8 Waste processing activities shall only be carried out between 08:00hrs – 18:00 hrs Monday to Fridays and 08.00 - 13.00 hrs on Saturdays and Sundays.
- 1.3.9 All other activities on site shall be restricted to 08:00hrs to 20:00hrs.
- 1.3.10 Maintenance of plant and equipment will be undertaken during operational hours only.
- 1.3.11 The operator will not undertake any activities associated with the waste transfer activities outside of the agreed hours of operation, unless in an emergency. In such instances, NRW will be notified within 24 hours and the details/activities recorded in the site diary.

### **1.4 Sensitive Receptors**

- 1.4.1 The Site is located c. 3.7km northeast of Cardiff city centre, to the south of Rumney in the County of Cardiff as illustrated on **Drawing Reference Number BF5023/09/01**. The site is approximately centred at National Grid Reference: ST 22019 78619. The area surrounding the site has a long and established agricultural, residential and transport infrastructure history with the first residential developments commencing between 1919-1920 and the mainline railway present since 1881.
- 1.4.2 The nearest residential receptors to the site are located c. 50m north of the site and extend northwards from the mainline railway. In addition to this, residential areas of Rhymney are situated to the north. Relevant receptors are included in **Table OMP1** above and visually depicted in **Drawing Reference Number BF5023/09/05**.

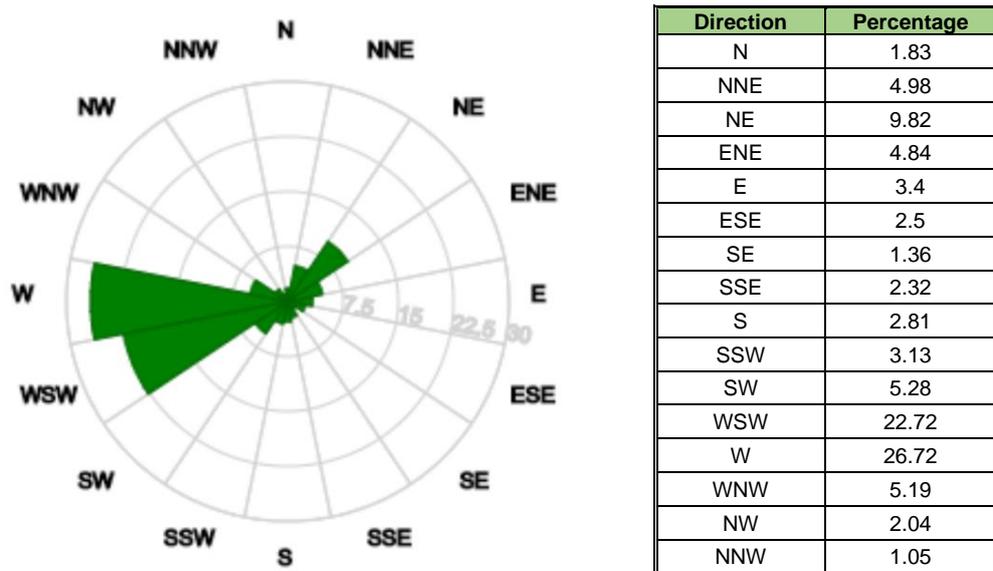
**Table OMP1: Identified Potential Receptors within 1000m of the Site**

ID	Receptor Name	Receptor Type	Approximate distance from the operational area	Direction from the Site
1	Commercial/industrial Properties	Commercial and Industrial	Adjacent up to 1000m	All Directions
2	Great Western Railway Mainline	Railway Line	Adjacent	N
3	Cardiff HWRC	Commercial and Industrial	220m	S
4	Residential Areas of Rumney	Residential	50m	N
5	Residential Areas of Pengam	Residential	800m	W
6	Parc Tredelerch	Recreational	40m	W
7	Rumney Hill Gardens	Recreational	890m	NW
8	Allotments	Recreational	520m	NE
9	Rhymney River SINC	Surface Water	570m	W, SW
10	Rhosog Fach Reen	Surface Water	235m	S, SE
11	Gwent Levels SSSI	Designated Habitat (Biological)	460m	E
12	Severn Estuary SSSI, Ramsar, SAC & SPA	Designated Habitat (Biological)	980m	S, SE
13	Lamby Way SINC	Designated Habitat (Biological)	110m	S
14	Lamby North SINC	Designated Habitat (Biological)	650m	WSW
15	Rhymney Grassland East SINC	Designated Habitat (Biological)	520m	WNW
16	Lamby Salt Marsh SINC	Designated Habitat (Biological)	960m	S
17	Rumney Primary School	School	490m	NW
18	Greenway Primary School	School	820m	N
19	Brightside Manor Care Home	Care Home	920m	NW
20	Rumney Primary Care Centre	Medical	500m	N
21	Surface Water Courses	Surface Water	500m – 1000m	ENE/SE
22	Public Roads	Highway	Adjacent up to 1000m	All Directions
23	Buttercups Day Nursery	Preschool	110m	S/SE

## 1.5 Meteorological Conditions

- 1.5.1 The Fugitive emissions of odour from the site could be affected by local weather conditions, in particular wind direction and rainfall.
- 1.5.2 The nearest meteorological station to the site is the Cardiff-Wales Airport (EGFF) which is situated c.19km southwest of the site. The weather station is deemed the most appropriate for use in order to characterise the site due to its proximity and its environmental setting. Wind patterns at the Cardiff-Wales Airport Station are likely to be similar to those likely to be experienced at the site.
- 1.5.3 Data from the RenSMART wind data archive, for a 10-year period between 2000 and 2010 for Cardiff-Wales Airport station has been utilised in order to typify the meteorological conditions likely at the Site. The wind rose, as shown by **Figure OMP1** shows the percentage of wind vector that could be generated in each of the 16 points of a compass.
- 1.5.4 The wind rose indicates that the predominant wind directions are from the west and west-southwest. Therefore, it is considered that the experienced at the Site wind will principally be blowing eastwards.

**Figure OMP1: Wind Rose for Cardiff-Wales Airport Station between 2000-2010**



## **1.6 Potential Off-Site Odour Sources**

- 1.6.1 The Site lies within an industrial area and is located c.200m to the north of an existing waste management facility named 'Cardiff Household Waste Management Centre' which is owned and operated by Cardiff Council. The Cardiff Household Waste Management Centre services include wastes with the potential to produce odour, including food and general waste. It should be noted however, that this site is considered to have odour control measures in place.
- 1.6.2 The Site is also located c. 475m north of the closed Lamby Way Landfill. It is understood that wastes accepted for deposition included those that with the potential to produce odour. The site is understood to be fully capped and landfill gas and leachate management controls are implemented at the site. The landfill and associated management of leachate and landfill gas has the potential to result in odour emissions if not managed appropriately.
- 1.6.3 The industrial units surrounding the site do not generally have odour generation potential as they comprise businesses such as building materials suppliers, car dealerships, scrap metal yard, electrical wholesalers etc.

## 2.0 ODOUR SOURCE INVENTORY

### 2.1 Odour Sources

2.1.1 To aid with risk identification and magnitude justification an Odour Risk Assessment has been carried out as part of the Fugitive Emissions Risk Assessment and Management Plan (**Document Ref.: BF5023/06/FRA**). The Odour Risk Assessment has been completed by considering each of the odour sources identified in the following sections in terms of:

- Frequency of occurrence;
- Intensity of odour released;
- Pathways and receptors involved;
- Environmental Consequences of the event;
- Overall risk and its significance to the environment;
- Control and mitigation measures needed to prevent or reduce the risks.

2.1.2 The Odour Risk Assessment also considers the potential odour sources that may be encountered during maintenance and abnormal conditions or situations.

2.1.3 The aforementioned Odour Risk Assessment has been summarised and is presented as an inventory of potential odour sources; developed in accordance with NRW H4 Guidance Document (October 2014), in **Table OMP2**.

2.1.4 Due to the number of waste codes associated with the Site, to streamline the presentation of information within **Table OMP2**. Waste types have been divided into the following categories:

- Biodegradable & Putrescible Wastes;
- Wastes Containing Volatile Organic Compounds (VOCs) and Semi-Volatile Organic Compounds (SVOCs) ;
- Non-Biodegradable Wastes Containing Putrescible Components; and
- Non-Biodegradable Wastes.

2.1.5 Details relating to storage arrangements of potentially odorous wastes are summarised in **Table OMP3**. The characteristics of odours that could be generated at the Site will be variable depending on the type, condition, and age of the wastes.

2.1.6 The remaining waste stored on site include non-biodegradable wastes which wastes are considered negligible in terms of odour generating potential.

2.1.7 In consideration of the packaged/containerised nature of the waste accepted and stored at the Site, and the scope of waste management activities, the potential for odour emissions is severely limited.

2.1.8 Despite this, activities where there is the potential for odour release are identified in **Sections 2.2 – 2.4**.

2.1.9 Identified off-site locations with odour generating potential are presented in **Section 2.5**.

## 2.2 Normal Activities Involving Odour Sources

2.2.1 The normal activities involving the sources of odour would include:

- Waste Acceptance & Delivery – Sampling & Vehicle Wating;
- Waste Transfer & Storage;
- Waste Treatment – Washing, crushing and shredding of containers;
- Waste Processing – Mixing, blending, bulking, and re-packaging.

2.2.2 As discussed above, whilst the potential for odour emissions is more associated with specific elements of the activities e.g. delivery, storage, processing, and treatment of potentially odour generating wastes, it is not exclusively the case.

## 2.3 Maintenance Activities Involving Odour Sources

2.3.1 Operational interaction between odour sources and maintenance activities could include the following:

- Waste storage cleansing – this could include containers associated with materials transport or the internal processing offloading areas or storage areas.
- Building Fabric Maintenance – this could include maintenance on building access and egress points (vehicle / plant and personnel doors) which results in pathways for fugitive emissions which are not normally present.
- Treatment Infrastructure Maintenance – this could include routine upgrades to treatment and storage tanks, vessels, and pipes.
- Drainage Maintenance and Cleansing – clearing blocked channels, drains and ensuring the small sump on site is regularly emptied and cleansed to prevent additional point sources of odour.

## 2.4 Accidents / Incidents Involving Odour Sources

2.4.1 Accidents and their consequences have been considered for a range of potential risks from the overall operation in the Accident Risk Assessment (**Document Ref.: BF5023/06/ARA**).

2.4.2 Notwithstanding the existing information, with regards to accident / incident events involving sources of odour, these could be related to:

- Spillages and loss of containment.
- Damage / faults with buildings or treatment infrastructure.
- Faults with processing equipment or storage areas.

2.4.3 All vehicles delivering waste to the site will be fully enclosed or covered and daily visual inspections will be carried out as part of the daily Operation and Management checks. Absorbent materials will be kept on site and used for these purposes. Litter picking will also be carried out as and when necessary.

## 2.5 Location of Potentially Odorous Activities

- 2.5.1 It can be considered that the processing and storage of odorous waste streams has the potential to be the cause of unacceptable fugitive malodorous emissions. The area on site that has the greatest potential to be the location of the unacceptable emissions is the waste processing area where waste will be removed from their respective containers for processing such as blending, bulking etc.
- 2.5.2 Such waste will be stored and processed in designated bays within buildings enclosed on three sides. The bays will be of concrete construction and situated over impermeable surfacing.
- 2.5.3 The concrete bay walls will act as a barrier to wind and hence minimise the potential release of significant fugitive emissions from external storage areas. Furthermore, the arrangement of the buildings will act as a further barrier to wind.
- 2.5.4 Each bay will be fitted with a dedicated drainage system which will keep any run-off generated in the bays separate from the wider site drainage system.
- 2.5.5 The locations of the aforementioned bays and drainage systems are presented in **Drawing Reference BF5023/09/03** and **Drawing Reference BF5023/09/04**.

**Table OMP2: Identified Potential Odour Sources**

Source Description				Likely Odorous Compounds	Containment/Release Point	Odour Description	Intensity at/or Near Release Point	Pattern of Release	Potential
Source	Type of Emission	Type of Waste	Odour Risk						
Acceptance (sampling/vehicle waiting)	Fugitive	Biodegradable & Putrescible Wastes	Medium	Odours associated with the decay of organic materials contained in incoming waste	Vehicles closed or covered	Variable depending on the composition and age of waste	Odour is expected to be noticeable only in close proximity to vehicle (<1m).	Intermittent release, near to ground level.	Only if load received contains a large proportion of decaying organic material and waste packaging has been compromised.
	Fugitive	Wastes Containing VOCs and SVOCs	Medium	Odours associated with the volatilisation of organic compounds contained in incoming waste		Variable depending on the composition of waste	Odour is expected to be noticeable only in close proximity to vehicle (<1m).	Intermittent release, near to ground level.	Only if waste packaging has been compromised
	Fugitive	Non-Biodegradable Wastes Containing Putrescible Components	Medium – Low	Odours associated with the decay of organic materials contained in incoming waste		Variable depending on the composition and age of waste	Dependent on proportion of putrescible components present. Odour is expected to be noticeable only in close proximity to vehicle (<1m).	Intermittent release, near to ground level.	Only if load received contains a large proportion of decaying organic material and waste packaging has been compromised
	Fugitive	Non-Biodegradable Wastes	Low	Non-putrescible materials in incoming wastes		Odour should be marginal	No odour expected	None expected	None expected

Source Description				Likely Odorous Compounds	Containment/Release Point	Odour Description	Intensity at/or Near Release Point	Pattern of Release	Potential
Source	Type of Emission	Type of Waste	Odour Risk						
Transfer and storage of waste	Fugitive	Biodegradable & Putrescible Wastes	Medium	Odours associated with the decay of organic materials contained in incoming waste	Reception Area / Waste Storage Area	Variable depending on the composition and age of waste	Odour is expected to be noticeable only in close proximity to the open container during inspection (<1m).	During waste receipt and other waste movement activities.	Only if load received contains a large proportion of decaying organic material and waste packaging has been compromised.
	Fugitive	Wastes Containing VOCs and SVOCs	Medium	Odours associated with the volatilisation of organic compounds contained in incoming waste		Variable depending on the composition of waste	Odour is expected to be noticeable only in close proximity to the open container during inspection (<1m).	During waste receipt and other waste movement activities.	Only if waste packaging has been compromised
	Fugitive	Non-Biodegradable Wastes Containing Putrescible Components	Medium – Low	Odours associated with the decay of organic materials contained in incoming waste		Variable depending on the composition and age of waste	Dependent on proportion of putrescible components present. Odour is expected to be noticeable only in close proximity to the open container during inspection (<1m).	During waste receipt and other waste movement activities.	Only if load received contains a large proportion of decaying organic material and waste packaging has been compromised
	Fugitive	Non-Biodegradable Wastes	Low	Non-putrescible materials in incoming wastes		Odour should be marginal	No odour expected	None expected	None expected

Source Description				Likely Odorous Compounds	Containment/Release Point	Odour Description	Intensity at/or Near Release Point	Pattern of Release	Potential
Source	Type of Emission	Type of Waste	Odour Risk						
Waste Processing (mixing, blending, bulking, and re-packaging)	Fugitive	Biodegradable & Putrescible Wastes	Medium	Odours associated with the decay of organic materials contained in incoming waste	Waste Processing Bays	Variable depending on the composition and age of waste	Odour is expected to be noticeable only in close proximity of opened containers during processing (<1m).	Intermittent release, near to ground level.	Only if waste contains a large proportion of decaying organic material and waste left outside of packaging for a prolonged period of time
	Fugitive	Wastes Containing VOCs and SVOCs	Medium	Odours associated with the volatilisation of organic compounds contained in incoming waste		Variable depending on the composition of waste	Odour is expected to be noticeable only in close proximity of opened containers during processing (<1m).	Intermittent release, near to ground level.	Only if waste left outside of packaging for a prolonged period of time
	Fugitive	Non-Biodegradable Wastes Containing Putrescible Components	Medium – Low	Odours associated with the decay of organic materials contained in incoming waste		Variable depending on the composition and age of waste	Dependent on proportion of putrescible components present. Odour is expected to be noticeable only in close proximity of opened containers during processing (<1m).	Intermittent release, near to ground level.	Only if waste contains a large proportion of decaying organic material and waste left outside of packaging for a prolonged period of time
	Fugitive	Non-Biodegradable Wastes	Low	Non-putrescible materials in incoming wastes		Odour should be marginal	No odour expected	None expected	None expected

Source Description				Likely Odorous Compounds	Containment/Release Point	Odour Description	Intensity at/or Near Release Point	Pattern of Release	Potential
Source	Type of Emission	Type of Waste	Odour Risk						
Water Drains (Run-Off from storage or processing bays)	Fugitive	N/A	Low	Odours associated with effluent draining from incoming waste which is collected in site-wide drainage system.	Drainage Covers	Odour should be marginal	Any odour detected will only be in close proximity to the drainage gratings (<1m).	Intermittent release, near to ground level.	<p>All waste will be containerised/packaged reducing likelihood of spillages into site-wide drainage system.</p> <p>Waste storage bays will be fitted with dedicated drainage systems separate to the side-wide drainage system.</p> <p>Washings of packaging will be undertaken within the confines of a bay, with all run-offs collected in the bay's dedicated drainage system (i.e. separate from the site-wide drainage system)</p> <p>All bay drainage systems will be inspected for integrity and liquid levels and emptied to an appropriately permitted facility. This approach which means water is unlikely to stagnate.</p>

**Table OMP3: Waste Type Storage Arrangements**

Type of Waste	How is the material stored?	Age of waste upon receipt	Maximum Storage Time	Management Arrangements
Biodegradable & Putrescible Wastes	Stored within sealed packaging/containers within internal concrete storage bays enclosed on three sides over impermeable surfacing and dedicated drainage systems.	Age of received waste will vary depending on specific waste stream. However, all waste will arrive in a packaged form.	<ul style="list-style-type: none"> <li>The maximum storage time any waste will be retained on site will be 6-months.</li> </ul>	<ul style="list-style-type: none"> <li>All loads will be inspected upon delivery with any malodorous wastes will be identified and repacked or rejected if required;</li> <li>Containers / pallets visibly checked for damage as part of daily inspections;</li> <li>Daily visual and olfactory inspections carried out;</li> <li>Waste containers will remain sealed and will only be opened to facilitate acceptance and bulking activities;</li> <li>Waste is to be stored internally in storage bays at the site which will aid in controlling odour emissions.</li> <li>Activities to be carried out by chemist, or by trained operatives as supervised by the chemist;</li> <li>Waste is to be unpackaged /repackaged internally in the waste processing area which will aid in controlling odour emissions.</li> <li>Good housekeeping standards (incl. spillage kits) will ensure that the site areas are kept clean to remove and waste spillages waste;</li> <li>Chemist to ensure that any spills are cleared completely.</li> </ul>
Wastes Containing VOCs and SVOCs				
Non-Biodegradable Wastes Containing Putrescible Components				

### 3.0 ODOUR CONTROL MEASURES

#### 3.1 Source-Pathway-Receptor Model

3.1.1 The potential sources, pathways and receptors to odour emissions originating at the site as well as the associated mitigation and odour control measures to be taken at the site have been summarised in **Document Ref.: BF5023/06/FRA.**

#### 3.2 Process Controls

##### Pre-Acceptance

3.2.1 The Site operates according to the written Standard Operating Procedure for the Pre-Acceptance of containerised waste (SOP 01).

3.2.2 The purpose of SOP 01 is to prevent the acceptance of unsuitable wastes, all waste streams destined for the Site are subject to a pre-acceptance process involving the producer, Sales, Operations, Customer Services and Technical personnel. These pre-acceptance criteria extend to potentially malodorous wastes.

3.2.3 Additionally, SOP 01 ensures that incoming waste is correctly identified, classified, labelled, priced and the onward fate of the waste is determined prior to acceptance at the site. Waste should not be accepted without a clear method of treatment or disposal route being determined.

3.2.4 The stringent procedures carried out as part of the pre-acceptance checks significantly reduces the potential for malodorous wastes to be delivered the site.

##### Waste Reception

3.2.5 The Site operates according to the written Standard Operating Procedure for Waste Acceptance at Transfer Stations, (SOP 02).

3.2.6 The purpose of SOP 02 is to ensure that all waste arriving on site is correctly identified, that it conforms to the Pre-Acceptance Technical Assessment and to verify the arrangements in place for compliant storage, processing and onward transfer of the waste.

3.2.7 SOP 02 details the waste offloading, waste acceptance and reception area storage procedures utilised at the Site.

3.2.8 Verification and compatibility testing are undertaken as part of the waste acceptance procedure. Verification testing ensures that the waste delivered conforms to the pre-acceptance characterisation. Compatibility testing informs the storage bay in which waste is stored and considers the chemical composition of the waste with due regard to compatibility with other materials stored in the receiving storage bay.

3.2.9 All incoming wastes will remain sealed during the waste reception process, unless being sampled for verification and compatibility testing. A sampling plan will be implemented prior to the commencement of sampling to ensure that containers are only opened once. This approach reduces the potential for odour emissions.

- 3.2.10 Waste will be handled in such a way that protects it from damage during unloading and transfer to allocated storage bays, thereby reducing the potential for odour emissions from compromised packaging.
- 3.2.11 The waste reception procedures significantly reduce the risk of odour emissions during the reception of waste.
- 3.2.12 The Site will implement the Standard Operating Procedure for Non-Conformance and Waste Rejection (SOP 04) which details the assessment and action processes undertaken at the Site.

#### Malodorous Wastes

- 3.2.13 Visual and olfactory inspections of wastes will be carried out by trained site staff during the waste reception process. Any malodorous wastes in unsuitable containers will either be repacked upon receipt or will be prevented from being offloaded and removed from site. A record of any such incidents will be made in the site diary.
- 3.2.14 If the carrier has left the site it will be stored within the most appropriate storage area and marked as quarantine pending offsite removal.
- 3.2.15 Materials that require quarantine but are suitable for site will be quarantined within a storage bay of the same major hazard. Materials in quarantine will be accepted or rejected within 5 working days in line with SOP 04 (*Non-Conformance and Waste Rejection v4*).

#### Waste Storage

- 3.2.16 The waste storage procedures are outlined in the Standard Operating Procedure for Storage of Containerised Waste in Transfer Stations (SOP 03).
- 3.2.17 The purpose of SOP 03 is to ensure that hazardous and non-hazardous containerised materials are stored in the Transfer Station (and supervised/monitored) in such a way as to prevent exposure to harmful substances and to prevent the occurrence of any adverse reaction that could initiate or propagate an incident involving the loss of control of the materials stored on site.
- 3.2.18 Storage on site is laid out according to chemical composition in accordance with HSE guidance notes HSG71 and HSG51 and DSEA Regulations. The designated storage area for each waste will be determined with cognisance of the compatibility testing undertaken during the waste reception procedure (SOP 02).
- 3.2.19 All wastes stored at the site will be containerised and separate storage areas will be maintained for material combinations that have the ability to react adversely together. This approach significantly reduces the potential for odours to be released from the waste and the likelihood for adverse reactions; which could result in odour emissions, to occur.
- 3.2.20 The storage arrangements at the site are depicted in **Drawing Reference BF5023/09/03**.
- 3.2.21 Daily inspections of the conditions of the containers, pallets, bunding, drainage collection systems will take place to identify, in particular, signs of damage, deterioration and leakage. Records must be kept of these inspections and any remedial actions e.g. over-drumming / re-drumming etc taken to deal with leaks etc noted in the site diary.

- 3.2.22 In the event of a spillage or the identification of damaged waste containers, the container will be fixed or replaced as soon as practicable and spill kits will be immediately deployed to mitigate any spillages. If deemed necessary, the area should be washed with water and/or detergent. Records of such instances will be kept.
- 3.2.23 Olfactory odour assessments will also be undertaken as part of Daily Site Inspections. If an odour intensity of 3 or above is recorded, then appropriate odour source investigation and remediation arrangements will be made.
- 3.2.24 The inherent packaged/containerised nature of the waste stored at site combined with the adopted standard operating procedures are considered to significantly reduce the likelihood of odour emissions.

#### Waste Processing

- 3.2.25 Waste Processing activities at the site are outlined in the Standard Operating Procedures for Bulking in Transfer Stations (SOP 05) and Laboratory Smalls Packing Procedure (SOP 06).
- 3.2.26 The purpose of both SOP documents is to ensure that all appropriate safety measures are observed when processing wastes in order to prevent the mixing of incompatible wastes which may lead to an adverse reaction; which could include odour emissions.
- 3.2.27 Bulking will be undertaken in cognisance of the compatibility assessment undertaken during waste reception. Wastes which are confirmed to be compatible with one another are subsequently bulked together.
- 3.2.28 No bulking of non-compatible wastes will be undertaken at the proposed site. All non-compatible wastes will be segregated to prevent adverse reactions.
- 3.2.29 All wastes will be bulked into appropriate sealable vessels including UN-approved IBCs or 205l bung-top or clip top drums or UN approved carbon impregnated IBCs.
- 3.2.30 All processing activities will be undertaken in a methodical manner with waste containers only unsealed when they are to be processed. Furthermore, containers are immediately sealed once processing has been completed. This approach reducing the potential timeframe within which any odour emissions could occur.
- 3.2.31 Spill kits will immediately be deployed should any spillages occur. If deemed necessary, the area should be washed with water and/or detergent. Records of such instances will be kept.
- 3.2.32 All equipment used in the waste processing will be cleaned after use to remove any residual waste. Any empty waste containers will also be cleaned thoroughly and re-sealed.
- 3.2.33 The waste processing operating procedures implemented at the Site will significantly reduce the potential for odour emissions.

### 3.3 Physical Controls

- 3.3.1 All biodegradable wastes will be delivered and removed from site in covered or enclosed sheeted vehicles.
- 3.3.2 The majority of wastes, including laboratory smalls, will be stored in containers, within an open-faced building with solid walls on three sides. This will provide primary and secondary containment for any potential odour emissions. The only waste types that will be stored externally will be empty gas containers or empty gas storage bottles. These are highly unlikely to give rise to odours,
- 3.3.3 The Site is located in the Waterside Business Park. The trading estate is located on Lamby Road and comprises of a combination of industrial/commercial buildings of similar height to the Site infrastructure. The Site is bounded on the western, southern, and eastern sides by similarly sized industrial buildings and by established vegetation to the north. This combination of established industrial buildings and vegetation means that these features will act as a windbreak. This will significantly reduce windspeeds experienced on the site, and the potential for odour dispersal by wind.
- 3.3.4 The bays in which waste will be stored are bounded on three sides by concrete walls with a freeboard space of 0.6m which will be clearly marked on the bay walls and maintained at all times. The concrete bays will act as a further physical barrier to any wind blowing across the site and hence minimise the risk of any fugitive odour emissions extending beyond the site boundary.
- 3.3.5 The allocated freeboard space will ensure that no pieces of waste with an odour generating potential are distributed by the wind, should any escape their containers. This reduces the potential for waste cross-contamination and subsequently migration of odour emission sources.

#### Building

- 3.3.6 There will not be forced extraction or ventilation within the building, however, passive ventilation will be present via the open-fronted building to avoid odour emissions building up in the roof space.
- 3.3.7 The storage of waste within buildings will also limit the amount of heating experienced as a result of direct sunlight. Heating of potentially odours waste and waste containing VOCs and SVOCs is a key factor in odour generation. Thereby the storage arrangements severely reduce the likelihood for the heating of waste by direct sunlight.

### 3.4 Management Controls

#### Engagement with neighbours

- 3.4.1 As required by the Site's ISO 14001 Environmental Management System, an open communication channel with the local community and receptors who may be affected by the Site's operations will be maintained. The Site/Operations Manager will liaise with neighbouring residential properties every quarter for the first year of operation, and annually thereafter to determine if the Site is resulting in any level of annoyance. Appropriate contact information (e.g. telephone number and e-mail) will also be displayed at the site.
- 3.4.2 The Site will be a reliable source of information to the community and readily available to answer any questions or queries. Active participation in the community will ensure that communication channels such as emails and phone calls are welcomed, and an appropriate response is formed by the Site/Operations Manager.
- 3.4.3 The Site also operates a comprehensive complaint reporting and resolution procedure which can be utilised by members of the public and neighbours. This process is presented in **Section 5.0**.

#### Reception and Storage Operational Procedure

- 3.4.4 As outlined in **Section 3.2**, Standard Operating Procedures are in place for the Site and provide robust practices for the receipt, storage, and processing of incoming waste streams. These procedures ensure that waste arrives, is stored, and departs the site in a safe manner and reduces the likelihood for abnormal operating circumstances and related emissions (including odour).
- 3.4.5 In the event that the Site is at full capacity or non-functional, no more waste loads would be accepted.
- 3.4.6 Biffa operate similar waste facilities across the country. If required, incoming wastes would be temporarily diverted to one of these facilities (for example Wednesbury Treatment Centre and Atherstone Transfer Station) until storage capacity is liberated or activities restart.

#### Waste Acceptance Parameters

- 3.4.7 The Waste acceptance procedures outlined in **Section 3.2** provide a robust framework to prevent the acceptance of unsuitable wastes at the Site.
- 3.4.8 Any malodorous wastes in unsuitable containers will either be repacked upon receipt or will be prevented from being offloaded and removed from site. NRW will be informed at the appropriate juncture should any malodorous wastes be rejected from the Site.

#### Minimising Evaporation of Odorous Materials

- 3.4.9 Certain wastes have the potential to generate odorous vapours under during period of elevated ambient temperature or when exposed to direct sunlight. To counteract the potential for such events, wastes will be stored in such a way that minimises exposure to such conditions. If deemed appropriate, supplementary olfactory monitoring will be undertaken during such periods to ensure any odour emissions are identified at the earliest opportunity.
- 3.4.10 Additionally, storage bays are located in a roofed building which provides shading from direct exposure to sunlight and associated heating.

### Containment and Abatement

- 3.4.11 It is considered that the wastes to be accepted at the site will not produce significant levels of odour, particularly with the management and pollution control methods outlined above. Primary containment will be provided in the form of storing waste within containers and secondary containment will be provided in the form of storage within a semi-enclosed building. Therefore, the abatement of emissions is unlikely to be required. As such, the ventilation provided by the open fronted storage buildings is considered to be sufficient to ensure the build-up of volatiles does not occur in the roof space and measures such as forced extraction / ventilation are not deemed necessary.
- 3.4.12 The significant majority of containment and abatement measures employed at the site are independent of power supplies (e.g. electricity). Accordingly, should there be a power failure at the site this will not impact upon the integrity of the containment and abatement systems.

### Dispersion

- 3.4.13 As the wastes to be accepted at the site are not considered likely to produce significant odour emissions, it will not be necessary to conduct dispersion modelling. The main emissions points will be situated at locations which are furthest away from the nearest sensitive receptor and monitoring points will be strategically located to ensure this is effective.

### Housekeeping and Routine Cleaning

- 3.4.14 The site will be subjected to a strict housekeeping regime which assists with the aim of proactive management and associated environmental compliance. Daily inspections of the site will be undertaken as part of the management procedures. Daily checks are reinforced and supported by weekly supervisor and monthly manager inspections.
- 3.4.15 Routine cleaning of the relevant areas of the site, such as the reception area both external and internal will be undertaken at appropriate frequencies. The routine cleaning will be arranged to ensure there is no disruption to the continuity of operations.

### Plant and Equipment

- 3.4.16 Site infrastructure and plant will be inspected daily for damage and wear by the site personnel as part of daily Operation and Management Checks.
- 3.4.17 Any defects noted during these daily inspections will be logged and reported to the maintenance team, so repairs can be scheduled.
- 3.4.18 Records of inspections will be maintained in a site log. All plant items and equipment will be serviced and maintained according to manufacturer's schedules and recommendations in order to minimise the risk of breakdown. All maintenance on the plant is programmed into the company's planned preventative maintenance (PPM) system which generates work orders for the up-coming maintenance and logs when maintenance has been completed.
- 3.4.19 Trained maintenance staff will carry out plant repairs quickly where required. Mobile plant repairs will be undertaken as soon as practicable, dependant on the availability of spares.

### Responsible Reporting

- 3.4.20 As part of the operator's overall management system, reporting of relevant issues will be undertaken in accordance with the conditions of the Environmental Permit. The operator will be tasked with ensuring a level of 'self-policing' and will therefore be responsible to ensure that any matters that warrant it are brought to Natural Resources Wales' attention within the required timescales.

## **3.5 Odour Control During Abnormal Events and Maintenance Periods**

### Abnormal Operational Situations

- 3.5.1 The following scenarios have been identified in the Odour Risk Assessment within **Document Ref.: BF5023/06/FRA** that may affect odour control:

- Storage of waste during long periods of time due to plant shutdown;
- Accidents resulting from leakage of any waste ;
- Delivery of malodorous waste;
- Plant and equipment malfunction/breakdown.

- 3.5.2 The risk assessment approach used for the assessment of potential odour impact during normal operations has also been employed in the assessment of odour control techniques during abnormal situations. The risk assessment is presented in **Document Ref.: BF5023/06/FRA** and includes an appraisal of abnormal conditions where odour control may be compromised, the potential impact or consequences and how the conditions may be prevented and/or mitigated and controlled.

- 3.5.3 The control measures to be employed during abnormal operational situations are presented in the **Document Ref.: BF5023/06/FRA** and consist of similar controls to those employed during normal operating situations. The controls involve:

- Identification of malodorous waste during waste acceptance checks;
- The rejection of malodorous incoming waste loads from site;
- Agreeing waste delivery schedules prior during pre-acceptance checks;
- Identification of contingency facilities to which incoming waste could be temporarily diverted to;
- The quarantine of accepted waste which has become malodorous during time stored on site and its removal by a licensed carrier within 24 hours.

### Maintenance Periods

- 3.5.4 Where planned or emergency, maintenance of plant or equipment is required, and there is a likelihood of odour being released to atmosphere in quantities sufficient to result in detection of odour by offsite receptors, a detailed risk assessment of the activity will be undertaken in accordance with the following guidance documents:
- H1 Environmental Risk Assessment Part 1: Simple assessment of environmental risk for accidents, odour, noise, and fugitive emissions;
  - Natural Resources Wales Horizontal Technical Guidance Note H4 – Odour Management- How to Comply with Your Environmental Permit (October 2014).
- 3.5.5 If the subsequent risk assessment identified a high risk of odour generation from specific on-site waste/processed materials during the maintenance period, then the technically competent manager will arrange for the collection and removal for the identified waste/materials from the site.
- 3.5.6 However, to reduce the likelihood of equipment breakdowns and mitigate the potential impact the following control measures will be in place:
- A preventative maintenance schedule will be employed to reduce the risk of plant breakdown;
  - All maintenance undertaken will be in accordance with plant equipment manufactures recommendations;
  - A list of suppliers or contractors for critical equipment and/or standby equipment will be maintained;
- 3.5.7 Biffa maintenance personnel can be called to the site within 24 hours in the event of any breakdown of critical plant.

## 4.0 ODOUR MONITORING AND RECORDING

### 4.1 Odour Monitoring

4.1.1 Biffa's accredited Integrated Management System includes details relating to odour monitoring procedures that have been developed and accord with accepted guidance and standards, including NRW's document 'H4 Odour Management – How to Comply with your Environmental Permit'. Due to the nature of the facility, olfactory monitoring techniques will be principally employed within the curtilage of the site and completed as part of Operational and Maintenance Daily Checks.

4.1.2 Additional monitoring beyond the site boundary will be completed in response to the identification of potential significant odours within the site or the receipt of complaints. All monitoring will be carried out in cognisance of the prevailing weather conditions.

4.1.3 Monitoring will comprise olfactory monitoring (i.e. 'Sniff' tests) with monitoring record sheets completed and filed accordingly. Any odour emissions noted will result in the implementation of the Odour Management Plan protocols detailed herein. Any complaints received in relation to odour will be fully investigated as detailed in the following sections. The resultant actions will be recorded in the Site Diary.

4.1.4 Further details of the odour monitoring to be undertaken are provided within the following paragraphs.

#### Meteorological Conditions

4.1.5 Meteorological forecasts and weather conditions (including cloud cover, atmospheric pressure as well as wind speed and direction) will be monitored daily to enable potential odour problems to be predicted and necessary remedial actions to be implemented.

#### Regular Inspection / Olfactory Monitoring

4.1.6 Odour monitoring will be undertaken in order to assess how successful the operational management and mitigating control measures are at the Site and to identify whether odour is causing a potential nuisance as well as to ensure that appropriate remediation measures are adopted early.

4.1.7 It is important to ensure that those odours that may be attributable to the Site are those ones being monitored for.

4.1.8 All site personnel will be responsible for reporting any odour problems as soon as reasonably practicable to the Site Manager or the next level of management if the Site Manager is not available.

4.1.9 The Technically Competent Person will ensure that olfactory odour monitoring is completed; in accordance with the NRW H4 guidance, as part of the Operation and Maintenance Daily Checks and that both operational areas and the site perimeter are inspected. This approach will enable the identification of any sources of odour and establish whether any odours are attributable to site operations are discernible from beyond the site perimeter.

4.1.10 Appendix 9 of **Document Ref.: BF5023/05** contains a copy of the Operation and Maintenance Daily Check Sheet on which daily olfactory monitoring will be recorded.

- 4.1.11 Monitoring will be carried out by staff who have had limited exposure to operational areas of the site to minimise the risk of inspection being carried out by staff that may be suffering from odour fatigue.
- 4.1.12 Odour monitoring at the site will consist of the items outlined in **Table OMP4**, below.

**Table OMP4: Odour Monitoring Parameters, Techniques and Frequencies**

Parameter	Monitoring Technique	Frequency
Meteorological Monitoring	On site weather station or appropriately obtained meteorological data.	Continuous.
Olfactory Monitoring ('sniff testing')	Site perimeter and off-site checks (towards the identified sensitive receptors).	Daily during operations hours
Complaints Monitoring	Telephone or written representations direct from the public or via the regulatory authorities.	Ad-Hoc.

**Note:** The frequency will be reviewed monthly within the first 12 months of operation, subject to operational experience and complaints which may require more frequent monitoring.

- 4.1.13 If significant odours are identified around the periphery of the site olfactory monitoring will be extended beyond that boundary to determine the extent of any impact and in consideration of the presence of a sensitive receptor and wind direction. The location of monitoring will also depend on the location of any complaints received at the Site with the monitoring results recorded in the site diary.
- 4.1.14 Once again, olfactory monitoring or sniff testing will be carried out in accordance with the recommendations detailed in the NRW H4 guidance, including avoiding strong foods or drinks and strongly scented deodorisers or toiletries etc. for at least half an hour prior to the monitoring. In addition, monitoring personnel will not be suffering from a cold, sore throat or sinus problems that may impair their ability to detect odours. Likewise, the olfactory monitoring will be undertaken by employees that have not been desensitized by frequent and extensive exposure to waste operations.
- 4.1.15 The designated person stood outside and remain in the locality for a minimum of 1 minute whilst breathing normally. Any external activities that may contribute to odour generation in the surrounding area will also be noted together with weather conditions (including wind direction and speed) and then an assessment of the intensity of the odour will be made using the guide below:

Intensity Scale

0. No detectable odour
1. Very faint odour (only just detectable)
2. Faint odour (barely detectable, need to stand still and inhale facing into the wind)
3. Distinct odour (detected while walking and breathing normally)
4. Strong odour (easily detected while walking and breathing normally, possibly offensive)
5. Very strong odour (bearable, but offensive)
6. Extremely strong odour (not bearable)

- 4.1.16 In the event odour is detected above an intensity scale of 3 (Distinct Odour), the site management will be informed immediately, and the approximate location and extent of the odour plume assessed, and site operations reviewed/suspended. However, it is not simply the intensity that is being assessed, as consideration will also be given to the FIDOR (Frequency of detection, Intensity, Duration, Offensiveness and Receptor sensitivity) principle

such that, for example, a long duration lower intensity odour or very offensive short duration event will both be assessed and investigated.

- 4.1.17 Unlike the olfactory odour assessment completed as part of the Operation and Maintenance Daily Checks, any odour assessments undertaken in response to the detection of an odour intensity ranking of 3 (Distinct Odour) or above OR as a result of an external complaint will be completed using the Odour Assessment Report presented in **Appendix OMP1**.

## **4.2 Odour Diaries and Community Surveys**

- 4.2.1 Full records will be kept with regards to a range of incidents that may occur in relation to the site activities.
- 4.2.2 The main diary will be used to record the status of the operation and its emissions in relation to odour. This will act as a site wide document confirmation that odour monitoring has been undertaken and summarise the conclusion of that exercise.
- 4.2.3 On review of meteorological data and any complaints received, should a clear pattern emerge, if necessary, community surveys will be undertaken at set intervals with frequency proportionate to the risk from said emissions posed. These surveys will be a more detailed assessment of specific locations within the receptor areas identified. These surveys will be made available as required as part of on-going community liaison commitments.

## **5.0 COMPLAINTS HANDLING**

### **5.1 Complaints Process**

5.1.1 Any complaints received at the Site or via the Regulatory bodies (including Natural Resources Wales and Local Authority), will be recorded and will instigate further olfactory monitoring at the location of the complaint and on site to determine the extent and location of the plume and the odour causing materials and / or process will be identified. Where possible, as much information and detail about the complaint will be recorded, whether this be from the relevant authority or complaint direct to the site. This information will assist in the investigation and determining the source of the odour.

### **5.2 Means of Contact**

5.2.1 The Site will be readily contactable to outside organisations and to members of the public. The site signage board (placed in a visible location) will contain the necessary details for both the site operations and Natural Resources Wales, including contact details and the site permit number.

5.2.2 Contact details will also be made available through the local community liaison groups.

5.2.3 As part of the Site operation and development, a community engagement plan will be developed if found to be necessary, the purpose of which would be to identify all sensitive receptors and formulate a communications plan. The community engagement plan will detail the complaints management and reporting procedures, this will include, but will not be limited to:

- Information provided to the local neighbours (via Natural Resources Wales) regarding the point and method of contact for the Site in the event an odour has been detected or they want to discuss any activities etc at the Site;
- Advice provided to the neighbours that any complaints / concerns will be addressed immediately following identification / notification and contingency action implemented; and
- The neighbours will be informed of any corrective action and a follow up call will be carried out if necessary.

5.2.4 Any complaints received directly to the site will be notified to the Regulator as soon as possible.

5.2.5 Therefore, should an off-site issue arise, the complainant has a means of getting in touch with the operator.

### 5.3 Complaint Recording

5.3.1 Should a complaint be received, the following information will be gathered and recorded on an Odour Complaint Form (**Appendix OMP2**):

- Complaint details (including the address of the complainant where possible) and the location where odour is perceived;
- Weather conditions including atmospheric pressure, wind speed and wind direction;
- Results of the latest olfactory monitoring carried out by the site personnel;
- Operational status of the Site (noting any abnormal conditions that may have caused the complaint); and
- Details of the proposed corrective action if required.
- Subsequent follow up to the complaint detailing whether the corrective action, if required, was successful. If not, a new strategy will be implemented until the issue is resolved.

5.3.2 Records of complaints received (completed Odour Complaint Forms) will be kept in the appropriate file in the site office for inspection and review by both internal and external personnel.

### 5.4 Complaint Screening

5.4.1 As part of each odour complaint received, these will be objectively assessed against the wider environment to ensure that the source of the emission is traced back to the correct source. As discussed earlier in this OMP, it is essential that the source is correctly identified in order that mitigating measures can be applied effectively and correctly. The complaint will also be assessed against previous records to place the nature of the complaint into context.

## 5.5 Complaint Investigation

5.5.1 In the event that odour is found to be causing a problem at the site, as determined, and confirmed by investigation into off site complaints or during routine monitoring, measures will be taken to determine the source, and the following courses of action shall be taken:

- Additional olfactory monitoring as detailed above to identify the extent of the plume and potential cause of the odour i.e. waste material and / or process activity;
- Examination of the operational activities at the site at the time of the odour complaint or odour identification;
- Examination of the meteorological conditions at the time of the complaint or odour identification;
- Examination of the process conditions via the plant operational records / telemetry;
- A review of the operational procedure and process controls and the instigation of any control measures immediately following identification of the problem; and
- Further olfactory monitoring will be carried out to ensure the issue has been addressed and to monitor the effectiveness of any control measures undertaken.

5.5.2 It is the operator's experience that complaints submitted to regulatory authorities can be made long after the actual odour event or delayed in their relay to the Permit holder for actioning thereby making some investigations difficult due to the often-transient nature of odour or changing meteorological conditions. All complaints will be investigated, however, direct calls to site from complainants will allow for an immediate response and review.

## **6.0 ACTIONS, CONTINGENCIES & RESPONSIBILITIES DURING PROBLEM EVENTS**

### **6.1 Default Procedures**

6.1.1 In the event that an emission of odour is identified during the normal course of operations, either through daily routine monitoring, or in response to off-site complaints, the default procedure will be to investigate the emission in line with **Section 5.5** above which is an appropriate response to both off site complaints as well as on site investigations following on from routine inspections.

6.1.2 It is the responsibility of the site management team (Site Manager/Technically Competent Manager and associated supervisors) to ensure that the procedures set out in the Odour Management Plan are put into action.

### **6.2 Emergency Procedure**

6.2.1 Monitoring for odorous emissions will be undertaken during a time in which extreme release of odour is experienced e.g. delivery of material to site, processing of putrescible waste. Odour masking agents can be utilised if necessary and operations which may lead to increased odour release will be temporarily stopped.

6.2.2 Consideration will also be made as to the suspension of receipt of malodorous wastes and / or the removal of waste from the site that is held in storage areas (if necessary).

### **6.3 Event Reporting**

6.3.1 In the event of any significant environmental emergency / incident, a representative of Biffa Waste Services Limited ('Biffa') will notify Natural Resources Wales by telephone immediately, but first having due regard for the incident at hand and any remediation actions required to ensure the safety of site personnel and the immediate environment.

6.3.2 Details of any environmental incident will be confirmed to Natural Resources Wales in writing by the next working day after identification of the incident. This confirmation will include the time and duration of the incident, the receiving environmental medium or media where there have been any emissions as a result of the incident, an initial estimate of the quantity and composition of any emission, the measures taken to prevent or minimise any further emission and a preliminary assessment of the cause of the incident.

6.3.3 Any incident notified to Natural Resources Wales will be investigated, and a report of the investigation sent to NRW. The report will detail, as a minimum, the circumstances of the incident, an assessment of any harm to the environment and the steps taken to bring the incident to an end. The report will also set out proposals for remediation (if appropriate) and for preventing a repetition of the incident.

## **6.4 Problem Resolution**

- 6.4.1 Once the identified problem has been rectified, a report will be prepared assessing the nature of the incident, the actions taken to resolve the issue, and what changes could be made to the operational practises that would ensure, wherever possible, that the issues had less of a chance of arising again in the future.
- 6.4.2 The Odour Management Plan Risk Assessment will also be reviewed in the event that management practices require updating.
- 6.4.3 This information will be provided to Natural Resources Wales in accordance with the Event Report procedures discussed in **Section 6.3** above. Any improvements or amendments to operational practices will be discussed with the NRW prior to their implementation.

## 7.0 REPORT CLOSURE

- 7.1.1 This document will be subject to on-going review and revision where necessary. This review will be undertaken in response to events which may occur on site, and also to ensure that it accords with the latest regulations and associated guidance documents. The review of the Odour Management Plan for the site will occur at least once per annum.
- 7.1.2 All revisions to the document will be recorded and details of said revisions will be described as part of the required record relating to document review. This is a requirement in any event as part of Biffa's Quality and Environmental Management Systems and procedures.
- 7.1.3 It is considered that this document complies with the indicative BAT Requirements (BAT 12) as outlined in the BRef for Waste Treatment Document<sup>1</sup> and BAT Conclusion Document (2018/1147) and the Natural Resources Wales H4 Guidance Document on Odour.

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<sup>1</sup> Antoine Pinasseau, Benoit Zerger, Joze Roth, Michele Canova, Serge Roudier; *Best Available Techniques (BAT) Reference Document for Waste treatment Industrial Emissions Directive 2010/75/EU (Integrated Pollution Prevention and Control)*; EUR 29362 EN; Publications Office of the European Union, Luxembourg, 2018; ISBN 978-92-79-94038-5, doi:10.2760/407967, JRC113018