Odour Management Plan

Pengarnddu Industrial Estate Transfer Station

Hampshire Demolition and Recycling Limited

Report No. CRM 0127.001.PE.R.011 OMP

'Experience and expertise working in union'

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Odour Management Plan CRM 0127 001 PE R 011 V3

Project:	Pengarnddu Industrial Estate Transfer Station
For:	Hampshire Demolition and Recycling Limited
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Reviewer:	Peter Cumberlidge, Director

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1.0 Introduction

1.1 Overview

1.1.1 This Odour Management Plan (OMP) has been prepared as part of on-site operational documentation in support of the Permit Application for the Pengarnddu Industrial Estate Transfer Station ('the facility') which is located at Unit 2, Pengarnddu Industrial Estate, Merthyr Tydfil.

1.1.2 The Operator of the site will be Hampshire Demolition and Recycling Limited herby referred to as 'the Operator'.

1.1.3 This OMP will be transposed into the site's Environmental management System (EMS) following approval by Natural Resources Wales (NRW). The plan will be updated and reviewed in accordance with the requirements of the site management systems.

1.1.4 This OMP is intended to be used as a stand-alone document for operational staff on a day to day basis. It outlines the main potential odour sources at the Facility, the mitigation measures to be used to reduce the risk of odour nuisance and the monitoring and reporting methods to be used when the site becomes operational. It will be reviewed regularly and revised as required, and every four years as a minimum review period.

1.2 Aims and Objectives of the OMP

1.2.1 This OMP has been compiled based on the requirements of NRW's Horizontal Guidance Note 'How to comply with your environmental permit Additional guidance for: H4 Odour Management' October 2014 (referred to as 'H4 Guidance' for the purposes of this report). The Environment Agency guidance note of the same title (dated March 2011) also sets out in Appendix 4 the requirements for an OMP and describes the following objectives:

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

1.2.2 All OMPs need to consider sources, released and impacts and use these to identify cost effective opportunities for odour management. For a given activity, some methods may be more applicable than others. When deciding on the most applicable methods of odour management the Best Available Techniques (BAT) Reference document for waste treatment, 2018 was examined.

1.3 Relevant Guidance and Documentation

1.3.1 This OMP has been prepared with reference to the following key guidance;

- How to comply with your environmental permit, Additional guidance for H4 Odour Management, NRW, Version 2, October 2014;
- Best Available Techniques (BAT) Reference Document for Waste Treatment, European Commission, 2018;

- Control and monitor emissions for your environmental permit, Environment Agency, updated 2018 ;and
- Sector Guidance Note S5:05, Guidance for the Recovery and Disposal of Hazardous and Non-Hazardous Waste, 2013 (as updated).

1.4 Regulated Activities

1.4.1 The Operator is applying to NRW for a Bespoke Waste Permit to allow the site at Unit 2 Pengarnddu Industrial Estate to be cleared of waste which was left in situ when the previous operator Merthyr Industrial Services abandoned the site in 2014. The wastes which were left in situ arose from commercial, industrial and household sources.

1.5 Site Location

1.5.1 The site address will be:

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

Figure 1.5.1: Site Location

1.5.2 The National Grid Reference for the site is NGR SO 07780 08940.

1.5.3 The Facility is located on an industrial estate, approximately 700m to the north of Dowlais Top on the opposite side of the A465, approximately 765m east of Pant and approximately 2.8kms to the west of Rhymney.

1.5.4 Sensitive receptors are generally considered to represent places where people are likely to be for prolonged periods / where members of the public / off–site workers may be exposed to harmful releases arising from the proposed development. The term "sensitive receptor" would therefore apply to dwellings and associated gardens and many types of workplaces. Table 1.5.1 provides details on sensitive receptors within 2kms of the Facility.

Table 1.5.1: Sensitive Receptors

Receptor	Type	Distance and Direction (m)
Unnamed drainage ditch	Ecological	0m north, south and west
Merthyr Reclamation	Business	0m south
Merthyr Salvage and Recycling	Business	15m east
Reservoir (covered)	Ecological	16m west
Abba	Business	18m south
Reservoir (open)	Ecological	80m west
St Merryn	Business	105m east south east

Receptor	Type	Distance and Direction (m)
New Tredegar Skip Hire	Business	150m south west
Residential houses	Residential	192m west
B&M Home Store	Business	243m south
Carpet Right	Business	277m south
Poundstretcher	Business	285m south
Houses on an unnamed road	Residential	300m south west
Trade Price Sofas	Business	339m south west
ASDA	Business	400m south
Comfort Zone Merthyr	Business	420m south
Electricity sub station	Utility	428m west
Lidl	Business	430m south east
Reclaimed Stone	Business	434m north west
Heads of the Valleys Salvage	Business	434m south east
CEMEX Merthyr Tydfil Concrete Plant	Business	437m south east
Jepson's Pond	Ecological	444m north west
Valleys Filling Station	Business	607m south east
Closest house at Dowlais Top	Residential	626m south
Closest house at Pant	Residential	714m west
Trecatti Landfill Site	Business	1000m south east

1.5.5 The prevailing winds at the Facility are from the south west, south west, west south west, and west north west (based on regular observations recorded at the Ebbw Vale/Rassau weather station). The site is located in an elevated location hence the variation in the prevailing wind direction.

1.5.6 As detailed above the majority of the sensitive receptors which could be impacted by any potential odour emissions form the site are downwind of the prevailing wind direction.

1.5.7 Output for this station is provided below in Figures 1.5.1A and 1.5.1B.

Figure 1.5.1A: Ebbw Vale/Rassau Wind Rose

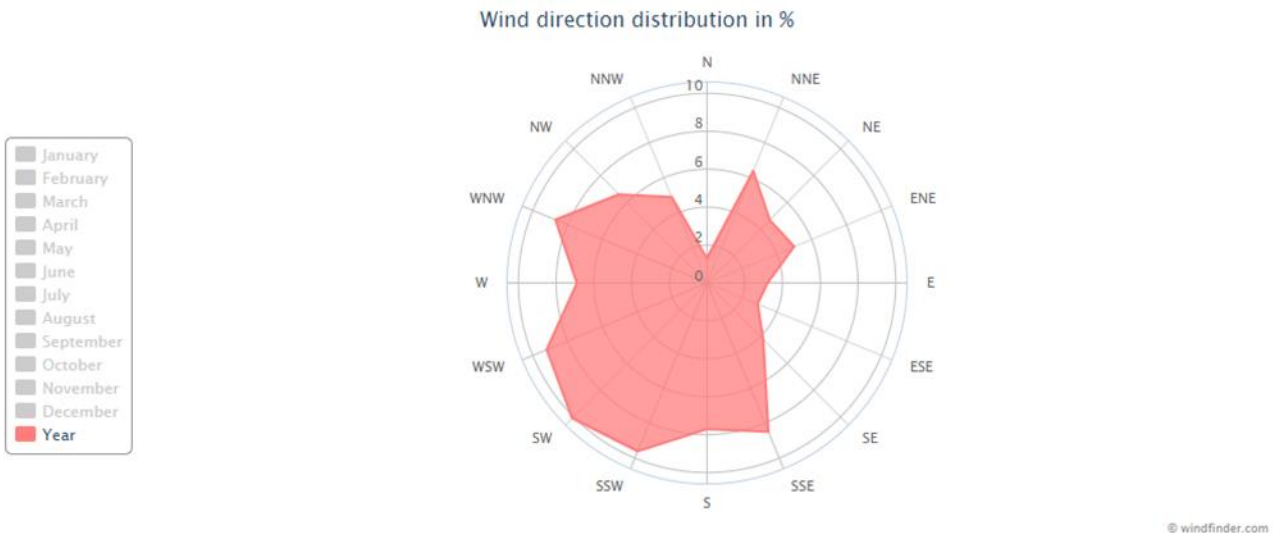

Figure 1.5.1B: Ebbw Vale/Rassau Wind Statistics

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

2.0 Facility Description

2.1 Overview

2.1.1 The Facility is the site of waste which was left in situ by the previous operator, Merthyr Industrial Services Limited, when the site was abandoned by them in 2014 after court proceedings. The operation of the Facility will be to ultimately remove the waste off site.

2.1.2 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.

2.1.3 Waste Transfer and Treatment operations shall be carried out on the site during the following operational hours:

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

2.2 Waste Treatment

2.2.1 The Operator is proposing the treatment of material stockpiles in a phased approach as detailed below. This approach has been designed to minimise the risk of any further environmental impact by restoring the sites drainage system and interceptor and creating a safe and functional operational area on the concrete hardstanding on site.

2.2.2 A brief summary of the approach to processing material stockpiles on site is provided below:

1. Disused plant and equipment located immediately to the east of the building on site will be either taken off site, or have the fluids drained before being removed from the concrete hardstanding to create a processing area for the other material on site.
2. Stockpile 3 will be removed from the drainage ditch and treated as described below. Details of the storage of processed material is described in the Fire Prevention and Mitigation Plan document referenced CRM.0127.001.PE.R.008.
3. Once an operational area has been created on the hardstanding on site and the site's drainage system and interceptor are fully operational, waste stockpiles 6, 7, 1, 2, 8, 9, 10, 11 and 12 will be processed in accordance with the methods described below.
4. Once sufficient space within the site is cleared, the Operator will begin to import material into the site from Stockpile 13.

2.2.3 The details of the treatment methods to be applied to each of the waste piles is described in chapter 2 of the Operational Techniques and Monitoring Plan submitted as part of the Permit application.

3.0 Sources, Pathways and Receptors

3.1 Overview

3.1.1 Understanding the nature and extent of potentially odorous materials held on-site is key to recognising and implementing appropriate control measures. Management of these materials primarily involves limiting the volume of material handled or utilising appropriate holding conditions designed to reduce the material's odour potential and the site's odour releases.

3.1.2 As mentioned above this site is unique in that the majority of waste to be treated, Piles 1-12, are already on-site and the waste to be brought into the Facility, i.e. waste in pile 13, is located adjacent to the Permit's eastern boundary. These waste piles have been present on site and adjacent to the site since at least December 2014. Therefore, the management procedures are focussed on the potential for odours to be released from these waste piles when they are disturbed for processing.

3.2 Odour Forming Mechanisms

3.2.1 A list of wastes which are understood to be present at the site, or will be imported from pile 13 is included in Appendix A of this OMP which also describes which waste types are present on site and those which are likely to generate odour.

3.2.2 A description of the potential odour sources identified at the Facility are summarised in Table 3.2.1 below.

Table 3.2.1: Odour Sources

Ref	Aspect	Ref	Potential Odour Source	Scenario
1	Vehicle off-loading (receipt of waste from pile 13)	1	Bulk solid feedstock being tipped	Tipping of waste releases trapped odours and exposes new odour surfaces. Wastes may contain residual contamination which may be odorous
2	Storage of waste already present at the Facility	2	Waste is already stored on the site in piles. There have been no complaints of odour from the storage. Until these piles are processed the risk of odorous released is low.	Wastes may contain residual contamination which may be odorous, however this is unlikely due to the lack of odour complaints from the site over the last 6 years.
3	Treatment of wastes within piles 1-12 on site	3	Odours emissions when the in-situ waste piles are moved for treatment and during treatment by sorting, screening, segregation, grading and shredding.	Movement and treatment of waste releases trapped odours and exposes new surfaces. Wastes may contain residual contamination which may be odorous.
4	Storage of treated waste before transportation off site	4	Odorous emissions from within waste storage areas	If stored for extended periods some wastes may generate odour.
5	Treatment of waste imported onto the site (from Pile 13)	5	Odorous emissions	Release of odour whilst waste is moved exposes new odour surfaces. Wastes may contain residual contamination which may be odorous.

Ref	Aspect	Ref	Potential Odour Source	Scenario
6	Emptying of the interceptor and silt trap	6	Odorous emissions when the interceptor and silt trap are opened for emptying	Odour during the emptying process.
7	Wheel wash	7	Wheel wash water with waste residues	Wheel waste water carries odorous residues from vehicle wheels, spills onto the hardstanding area.

3.3 Potential Pathways

3.3.1 The following factors are well documented as being significant to the potential transferability of odour and are all considered to be highly variable over time:

- The nature and magnitude of odorous emissions released from the source;
- The wind direction and speed; and
- Atmospheric turbulence (vertical and horizontal) and the level of dilution and dispersion odours undergo as they travel downwind.

3.3.2 The wastes which are to be treated at the Facility are already present either within the Permit boundary or adjacent to it. As the wastes will be treated outside the curtilage of a site building wind speed and direction at the site will be monitored and inherently odorous activities will not be carried out when the prevailing wind speed and direction is likely to result in odour complaints at local sensitive receptors.

4.0 Mitigation and Control - Normal Operations

4.1 Introduction

4.1.1 Environment Agency guidance and the European Union BREF Best Available Techniques Guidance Documents state that odour prevention, in the first instance, by good housekeeping and working practices including managing the inventory of odorous wastes, is the best and most effective means of mitigating odour. As such the Operator will endeavour to ensure that wherever practicable Best Available Techniques (BAT) are implemented for the management of the waste at the Facility.

4.1.2 The operations at the Facility will be carried out outside the building which is present on the site, the integrity of which is unknown. This will minimise the number of times the waste will need to be handled.

4.1.3 The prevailing wind direction is downwind from the nearest sensitive receptors.

4.2 Source Material Control

4.2.1 Control of incoming feedstock often plays a key role in management of odour at a waste facility. The waste to be accepted and processed at the Facility is already located at the Facility or immediately adjacent to the Facility as a result of the previous operator abandoning the site.

4.2.2 The Facility is being Permitted to facilitate the clearance of the waste from the wider site to allow the land to be brought back into use. The only material which will be brought onto the site is that within pile 13 in order for it to be processed and removed.

4.3 Process Control

4.3.1 As the site is being operated to remove the piles of abandoned wastes and machinery present both within the Permit boundary and adjacent to it, there will be no significant infrastructure installed on the site.

4.3.2 Appendix A contains an assessment of the likelihood of odorous releases from each waste pile to be treated.

4.3.3 In the event that potentially odorous wastes are uncovered when waste piles are treated they will be removed from the site as a matter or priority. Wherever practicable, waste piles which potentially contain odorous wastes will be treated when the prevailing wind direction is away from the local sensitive receptors.

4.3.4 Appendix B the odour control matrix describes controls applied to odour sources identified in section 3 above.

5.0 Monitoring and Maintenance

5.1 Overview

5.1.1 The Operator will monitor odour emissions at the Facility to ensure that any odour releases that may occur do not result in the creation of an odour nuisance at nearby receptors. This monitoring includes both on-site monitoring of boundary areas as well as process activities in order to reduce the potential for odour generation and release. The monitoring procedures are based on those measures set out in NRW's H4 Guidance.

5.1.2 Monitoring arrangements are described in this section and summarised in the Odour Management Matrix in Appendix B.

5.2 Monitoring

General/Odour Monitoring

5.2.1 Monitoring of odour emissions by sensory/olfactory assessment (sniff testing) will be carried out by the Site Manager or a relevant person who has not recently been subjected to potentially odorous wastes at the site. Sniff tests will record the perceived level of odour present at the site's Environmental Permit Boundary and will give an indication of the effectiveness of the current operation conditions at the site.

5.2.2 Sniff testing shall take place at the same monitoring points (M1-M4) set out in the Dust Management Plan Site Layout, CRM 0127 001 PE D 005.

5.2.3 Such an assessment is a 'sensory' evaluation, as the human nose is used as the detector as opposed to a specific item of monitoring equipment, as no such equipment is available for the detection of odour.

5.2.4 Routine monitoring of odour will include:

- Sniff testing to a standard as defined by NRW's H4 Guidance;
- Sniff testing will be undertaken at a minimum at the start of each working day;
- Monitoring of weather conditions using a weather forecasting app such as the Met Office, at the start of each working day, using the flag on-site during the day to indicate any change in wind direction;
- Monitoring of on-site odour abatement equipment;
- Monitoring of process conditions to give early warning of potential odour issues; and
- Monitoring of complaints and other forms of community feedback.

5.2.5 Additional monitoring, to that described in 5.2.4 above will undertaken for the following reasons:

- During periods of adverse meteorological conditions;
- During periods when piles containing potentially odourous wastes are being turned and processed;
- In the event that a complaint is received in relation to the Facility; and

- During plant breakdowns or other periods of abnormal operation which may result in factors affecting odour.

5.2.6 The Site Manager and other relevant persons will be trained in the requirements of NRW's H4 Guidance Note with specific reference to Sniff Testing. The results of sniff testing carried out will be recorded in the site diary.

5.3 Receipt and Storage of Wastes

5.3.1 Waste piles 1-12 are already stored on site. 'Stockpile 2' has almost completely been removed from site. With the exception of 'Stockpile 4', all waste piles are stored outside the building which is present on site. To minimise handling of waste, no waste from the externally stored piles will be moved inside the building.

5.3.2 Pile 13 is stored adjacent to the Facility. Waste from pile 13 will be imported into the Facility for processing. This waste will be visually inspected both when it is removed from pile 13 and when it is accepted onto the Facility for processing. Highly odorous waste will be treated as a priority and moved off site as soon as reasonably practicable.

5.4 Control Measures during Routine Maintenance

5.4.1 Wherever possible planned maintenance will be undertaken between the finishing of processing of one pile and the starting of processing of the next. This should reduce the risk of any potentially odorous wastes on site being exposed for extended periods.

5.4.2 Frequency of inspections and site monitoring techniques will increase during routine maintenance shutdown to ensure that the risks during planned shutdown are appropriately managed.

6.0 Abnormal/Emergency Operations

6.1 General

6.1.1 Operators must consider what incidents or emergencies might adversely affect the control of odour pollution in order that they can plan and take appropriate steps to reduce the likelihood of the incident occurring, minimise any impacts if the incident were to occur; and re-establish normal operations as quickly as possible.

6.1.2 It is not necessary to consider events which are very unlikely to occur or where odour would be a minor element of the overall environmental impact. For example, if there was a major environmental incident in the local area (such as snow) which affected the general area and prevented staff from getting to work, then odours would be a relatively minor aspect of the overall disruption and environmental impact.

6.1.3 However, events that are common but reasonably foreseeable which could affect the running of the Facility and cause odour problems should be addressed e.g. staff may be unavailable due to illness or the assessments carried out on the piles may not have identified pockets of odorous materials.

6.2 Abnormal Meteorological Conditions

6.2.1 If meteorological conditions prevent dispatch vehicles, or staff arriving on site, emergency measures are in place, as detailed in Table 6.6.1 to ensure the site can be remotely managed until the Facility can return to operation under normal conditions. The Site Manager and operatives undertake weather checks to ensure that any abnormal weather conditions can be foreseen as much as possible and contingency arrangements can be put in place prior to any problem occurring on site. As the waste is already present on site then abnormal weather conditions will not increase odour risks on site, but more delay removal.

6.3 Breakdown of Plant and Equipment

6.3.1 There is no complex equipment associated with the Facility, therefore breakdowns are unlikely to be a factor. The Operator will maintain a stock of spare parts at the Facility and a maintenance contract will be in place which will include guarantees to ensure rapid recovery following a breakdown.

6.3.2 When a spare part is used, the Site Manager will be made aware so a replacement part can be ordered, to ensure that the stock of spare parts is replenished and to reduce delays in repairing plant and equipment.

6.3.3 Plant and equipment are only operated during working hours described above in Section 2.3 when the site is manned.

6.4 Staffing Issues

6.4.1 There is a staff rota in place which is actively managed. In the event of staff illness, the next name is drawn down from the list. Staff are trained and able to undertake different roles at the Facility.

6.4.2 Short term staff shortages (such as a few days illness) will not affect the ability of the site to operate effectively as other employees can be reassigned to critical operations.

6.4.3 In the event of prolonged absence of employees, temporary staff will be recruited and appropriately trained to fulfil non-critical roles whilst other more experienced staff members are reassigned.

6.5 Accidents and Incidents Resulting in Odour Emissions

6.5.1 Potential accidents or incidents may arise from site hazards from machinery failure, vehicle collisions, fires resulting from arson and vandalism, and accidental fires.

6.5.2 As mentioned above there is no complex equipment associated with the Facility, so breakdowns are unlikely.

6.5.3 The Facility is surrounded by a security fence and is accessed via a gate which is locked when the Facility is not manned.

6.5.4 The site has in place a Fire Prevention Plan and Environmental Risk Assessment in place which describe measures to prevent and minimise the risks posed by both normal and abnormal operations at the Facility.

6.6 Abnormal Conditions

6.6.1 In order to ensure adequate mitigation measures are in place to address all possible abnormal odour emission scenarios at the proposed Facility, the possible scenarios and response measures to be implemented are presented in table 6.6.1 below.

6.6.2 Following the occurrence of any abnormal/emergency scenarios at the Facility, an investigation will be carried out by the Site Manager and if necessary, modifications to the control and mitigation measures, training and contingency arrangements will be implemented and this OMP updated accordingly.

6.6.3 When an event is found to be due to deviation from operational procedures, staff will be re-trained in the operational procedures as necessary.

Table 6.6.1: Abnormal/Emergency Scenarios

Scenario	Abnormal/Emergency Operations	Likely effect on emissions inventory	Contingency/Control Measures
Treating of waste pile reveals severely odours wastes	Abnormal	Increase in emissions from waste treatment and storage areas while severely odorous wastes are being treated	If odorous wastes are detected during the processing of the in-situ waste piles then they will be processed and removed from the site as a matter of priority. Further processing of the affected piles will be carried out wherever possible when the prevailing wind direction is away from sensitive local receptors.
Severely odorous wastes received on site	Abnormal	Increased in emissions from waste treatment and storage areas while severely odorous wastes are being treated	If odorous wastes are received into the site from pile 13 then these wastes shall be treated as a matter of priority (FIFO). Further processing and importation of material from pile 13 will be carried out wherever possible when the prevailing wind direction if away from sensitive local receptors.
Mechanical or electrical failure/preventing treatment	Abnormal	Potential increase in emissions.	Instigate immediate investigation and remedial action as required. If backlogging of waste is considered to be an ongoing risk, then no more waste will be accepted on-site from pile 13.
Restricted staff availability	Abnormal	Risk of increased impact from an area of the Facility where normal operations are affected.	Staff will be trained to operate the limited machinery on site. Staff are trained and able to undertake different roles at the facility. If required hired staff are employed as necessary.
Plant breakdown	Abnormal	Risk of increased odour emissions from the Facility.	A supply of critical spares is maintained at the Facility. The Facility will employ skilled fitters to promptly undertake any repairs, and additional

Scenario	Abnormal/Emergency Operations	Likely effect on emissions inventory	Contingency/Control Measures
			plant would be hired in where required. If spares or fitters are not available, the relevant site operations would be suspended if necessary to prevent significant release of odour emissions or off site impacts.
Fire resulting in damage to equipment	Emergency	Risk of increased odour emissions from the Facility.	Fire risk procedures are adopted and a Fire Prevention and Mitigation Plan is in place. If required following a fire, operations will cease until all plant and infrastructure is restored. No further waste would be accepted onto the site from pile 13 and no further processing would take place until all necessary plant operation is restored.
Extreme meteorological conditions	Abnormal/Emergency	No change anticipated	When extreme meteorological conditions occur inhibiting the adequate dispersion of odours or increasing risk of unacceptable exposure at receptors, potential odour generating activities will be suspended.

7.0 Records and Reporting

7.1 Complaints and Incident Review

7.1.1 Records of sniff testing will be undertaken and recorded in the site diary. The site diary is kept on-site for inspection by NRW's Regulatory Officers as and when required.

7.1.2 Should odour be detected at the site boundary, it is noted in the site diary and the Site Manager is informed so that appropriate steps, e.g. temporarily suspending the treatment process, can be taken to mitigate the odour.

7.1.3 Details of the local meteorological conditions, including the prevailing wind direction shall be recorded in the site diary when an odour is detected outside the site boundary or if an odour complaint is received.

7.1.4 Routing odour monitoring is not reported to NRW unless required by the Environmental Permit.

7.1.5 Odour complaints received at the facility will be reported to NRW and followed up with an on-site investigation, the findings of which shall also be reported to NRW in accordance with Environmental Permit conditions. Olfactory monitoring will be carried out by appropriately trained individuals.

7.1.6 As the waste is stored outside is it deemed feasible to undertake grab-sampling monitoring at the Facility.

7.1.7 It is vital to record and act upon complaints received and communicate the outcome of the investigation to the complainant. It is equally vital to undertake a review following complaints or incidents, if warranted, to implement further control measures or change behavioural practices on site to prevent the event from occurring again. The Operator will undertake a formal review of onsite processes following any major incident and will routinely review any complaints received as and when they occur.

7.1.8 All records and actions taken will be retained as required by the Environmental Permit.

7.2 Notifying NRW

7.2.1 In the event than an accident or incident occurs which may cause an odour 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 NRW Regulatory Officer for the Facility should any complaints be received directly to site and advise of what remedial actions have been taken to address the problem. Copies of any relevant complaints received will be made available to NRW for review.

7.2.2 NRW will be notified in accordance with the Environmental Permit for the Facility, using the notification form provided in the Permit Schedules.

7.3 OMP Review

7.3.1 The OMP will be reviewed by senior management immediately following any major incident/event.

7.3.2 Any technical and managerial changes on site will also initiate a review of the OMP to ensure that the odour control techniques remain appropriate for the site.

7.4 Cessation or reduction of Operations

7.4.1 Once all waste has been removed from site, the Operator will prepare a site closure plan in line with NRW and EA guidance to confirm how the site will be decommissioned to return it to a satisfactory state upon cessation of the activities which will consider odour impacts.

7.4.2 De-commissioning will comply with procedures outlined within the Site Closure Plan. During the de-commissioning process, operational records will be reviewed and assessed against the Site Condition Report, submitted as part of the Permit Application. If areas of deterioration during the operation of the site are identified, these areas will be re-examined and the site returned to a satisfactory state. 'Satisfactory' is to be determined by NRW as the Facility Operator is taking on a site which has had significant waste already present onto it. The Operator as mentioned above is only proposing to remove the waste which has been left in-situ so a pragmatic approach will need to be agreed.

7.4.3 Due consideration at the decommissioning phase will be given to ensuring any potential odour risks during dismantling and removal of plant and equipment from the Facility.

8.0 Complaints Procedure

8.1 Engagement with Neighbours

8.1.1 In the event of odour issues, the Operator will ensure that the complaints procedure is followed and engagement with the public will occur in an appropriate and timely manner.

8.2 Responding to Complaints

8.2.1 A dedicated complaints number shall be made available to members of the public should they wish to register a complaint. Details of this number shall appear at the entrance to the site. Following any complaints received, the Operator will endeavour (where possible) to contact the complainant to provide feedback on actions taken to both assess the event and convey any remedial actions taken.

8.2.2 All complaints are recorded on an Odour Complaint Form (Appendix C). A record of any complaints will be forwarded to the site's NRW Regulatory Officer. Information recorded includes the date, time, location/address of the complainant (where provided), time the odour was noted to be causing a nuisance and a description of the odour (from the complainant).

8.2.3 A trained member of staff will then attend the location of the odour complaint and undertake a walkover sniff test recording the results on an Odour Monitoring Form (Appendix D).

8.2.4 If odour is encountered, the source of it will be investigated by site management and the outcome of these investigations recorded.

8.2.5 Investigations will be carried out into the likely source and causes of the odour, including a review of the meteorological data. Where odour is identified, suitable remedial action will be implemented. The complainant and anyone else likely to have been affected by the odour will be informed of the action taken. All actions taken shall be recorded.

8.2.6 In such circumstances, an incident report will be completed and provided to NRW with suitable feedback provided to the complainant also.

8.2.7 Where no odour is observed, a record of the monitoring round will be taken, the meteorological data will also be checked for prevailing conditions at the time the odour was observed, and a report will be provided to NRW with suitable feedback provided to the complainant.

8.2.8 The appropriate Environmental Permit Notification Forms will be used to report any odour incidences / complaints to NRW.

9.0 References

- Control and monitor emissions for your environmental permit, Environment Agency, 1st February 2016 (updated 2018);
- How to comply with your environmental permit, Additional guidance for H4 Odour Management, NRW, Version 2, October 2014;
- Best Available Techniques (BAT) Reference Document for Waste Treatment, European Commission, 2018; and
- Sector Guidance Note S5:05, Guidance for the Recovery and Disposal of Hazardous and Non-Hazardous Waste, 2013.

Waste types	Odour potential	Approximate volume m^3	Containment, description, location, surfacing inside/outside building
Broken pieces of timber of differing sizes, with occasional pieces of plastic, metal and brick.	Minimal odour potential	527	Located on the bituminous surfaced area at the front of the site building
Chipped and screened timber with some small quantities of plastic, stone and concrete	Minimal odour potential	1087	Located on the bituminous surfaced area at the front of the site building.
Waste consists of concrete pieces, rebars, rubble and small and large pieces of plastic, metal and general waste	Potentially odorous	19	Located adjacent to and within a drainage ditch to the north and west of the building.
Wood cut into 100x100x20mm sizes	Minimal odour potential	3	Located within the site building
Untreated timber comprising of different sizes, some small pieces of plastic noted.	Minimal odour potential	20	Some logs stored on racking with the remainder stored on the hardstanding next to the racking
Wood chippings, in varying degrees of degradation, some dark sand and occasional pieces of brick and plastic along with on large tyre	Minimal odour potential	73	Located to the eastern side of the building immediately south of the roller shutter door on hardstanding.
Comprised predominately of builders general rubble with large amounts of plastic and carpet and some timber, metal, rubber and dark brown sand. There are also two areas of chipped wood on the	Potentially odorous	717	Located on the existing concrete hardstanding.

Waste types	Odour potential	Approximate volume m^3	Containment, description, location, surfacing inside/outside building
western side of the pile and some UPVC doors and Windows against the eastern side.			
Comprised of finer material of dark brown sand with large quantities of plastic and occasional rubber and glass. Some UPVC doors and windows are present	Potentially odorous	42	Located around an old screen with blower, magnet and picking station. On made ground
Comprised of finer material of dark brown sand with large quantities of plastic and occasional rubber and glass. Some UPVC doors and windows are present	Potentially odorous	2	Located around an old screen with blower, magnet and picking station. On made ground
Comprises of general waste consisting of dark brown sand with plastic, wood chippings, metal, material and some large boulders of concrete/sandstone	Potentially odorous	92	Located on made ground to the south eastern edge of the site
Comprised of builders/general waste containing large volumes of plastic, carpet, material, some wood along with pieces of concrete and brick along with some dark grey sand and wood chippings. Tyres are also present along with an area of concrete fragments and rebars.	Potentially odorous (Evidence suggests that this pile was moved/turned in 2017)	3302	Located on made ground to the north eastern edge of the site.

Appendix B: Odour Control Matrix

Ref	Aspect	Odour Source	Scenario	Odour Rating	Monitoring	Control
1.	Vehicle off-loading (receipt of waste from pile 13)	Bulk solid waste being	Tipping of waste releases trapped odours and exposes new odour surfaces. Wastes may contain residual contamination which may be odorous.	Medium	When pile 13 is dug into to move the waste to the Facility, sniff testing will be carried out.	If the waste is particularly odourous it will be treated within the Facility as a priority and moved off site as soon as reasonably practicable.
2.	Storage of Waste	Fugitive emission from piles of stored waste.	Wastes may contain residual contamination which may be odorous, however there have been no odour complaints about the site for the last 5 years.	Medium	Checked during boundary sniff tests. No recent reports have been received by the site's owner MTCBC.	Piles 1-12 are already stored on site and have been so since the site was abandoned in 2014. The site has not had any recent odour complaints and as the site is being cleared there are no extra control measures in place to reduce odours from the piles
3.	Treatment of waste within piles 1-12.	Treatment by sorting, screening, separation, bailing, shredding and compaction.	Movement and treatment of waste releases trapped odours and exposes new odour surfaces. Wastes may contain residual contamination which may be odorous.	Medium	Checked during tipping. Checked during manual sorting.	If odorous wastes are present within the waste pile on-site, they will be processed quickly (FIFO) or removed from site.
4.	Storage of treated waste before transportation off site	From piles of stored wastes	Odorous emissions from within waste storage areas if stored for extended periods	Medium	Checked when placed into storage piles and during routine sniff testing	Highly odorous wastes are moved off site as soon as reasonably practicable.

Ref	Aspect	Odour Source	Scenario	Odour Rating	Monitoring	Control
						Waste storage times for all wastes are minimised.
5.	Treatment of waste imported onto the site (from Pile 13)	From wastes within vehicle	Release of odour whilst waste is moved exposes new odour surfaces. Wastes may contain residual contamination which may be odorous.	Medium	Checked during tipping. Checked during manual sorting. Checked prior to storage.	If odorous wastes from Pile 13 are accepted into the Facility, they will be processed quickly (FIFO) and removed from the Facility as soon as reasonably practicable.
6.	Interceptor and silt traps	Interceptor and silt trap opened for emptying	Odour during the emptying process	Medium	Checked during routine site inspections. Carry out sniff testing at the site boundary during emptying.	Good housekeeping measures, including regular emptying of interceptors in line with manufacturers recommendations to minimise odour generation.
7.	Wheel wash	Wash water with waste residues	Wash water contains odorous residues from wheels and spills onto the hardstanding area	Medium	Routine monitoring undertaken by site manager or relevant staff	Good housekeeping practices, including regular cleaning of wheel wash area and emptying of the sump

Appendix C: Odour Complaint Report Form

Odour Complaint Report Form	
Time and date of complaint:	Name and address of complainant:
Telephone number of complainant:	
Date of odour:	
Time of odour:	
Location of odour, if not at above address:	
Weather conditions (i.e., dry, rain, fog, snow):	
Temperature (very warm, warm, mild, cold or degrees if known):	
Wind strength (none, light, steady, strong, gusting):	
Wind direction (e.g. from SW):	
Complainant's description of odour: ○ What does it smell like?	
○ Intensity (see below):	
○ Duration (time):	
○ Constant or intermittent in this period:	
○ Does the complainant have any other comments about the odour?	
Are there any other complaints relating to the installation, or to that location? (either previously or relating to the same exposure):	
Any other relevant information:	
Do you accept that odour likely to be from your activities?	
What was happening on site at the time the odour occurred?	
Operating conditions at time the odour occurred:	
Actions Taken	
Form completed by and date	Signed

Intensity

0 – No odour 1 – Very faint odour 2 – Faint odour 3 – Distinct odour 4 – Strong odour 5 – Very strong odour 6 - Extreme odour

Appendix D: Odour Monitoring Survey Form

Odour Management Checks/Sniff Sheet

Date	Operative	Drains/Drainage	Stored wastes (pile number)	Treatment area.	Boundary	Comments

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