


BMBC Council & Trade Waste Facility

Odour Management Plan

Site Address:	Smithies Lane Depot, Smithies Lane, Smithies, Barnsley, S71 1NL
Client:	Barnsley Metropolitan Borough Council
Report Ref:	AC00165/BMBC CaTWF/OMP V2.0
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REPORT LIMITATIONS

This Management Plan has been produced by AC Environment Solutions Limited, (AC Environment Solutions) for the site that is to be known as the BMBC Council and Trade Waste Facility, located at/within Smithies Lane Depot, Smithies Lane, Smithies, Barnsley S71 1NL on behalf of the client, Barnsley Metropolitan Borough Council, (BMBC) via the Association for Public Service Excellence (APSE); solely for the use of the client and their professional advisors with whom the assignment has been agreed.

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AC Environment Solutions and/or BMBC and their professional advisors retain the right to review, and, if warranted, to modify and update the Plan accordingly to ensure it remains relevant to site operations whilst the Permit remains in force in accordance with the review procedure contained within this Plan.

AC Environment Solutions knows of no conflict of interest in the production of this Plan.

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Date: November 2019

BMBC Council & Trade Waste Facility, Smithies Depot – Odour Management Plan

Operator: Barnsley Metropolitan Borough Council - Environment and Transport Place

Directorate

Site Location: Smithies Lane Depot, Smithies Lane, Smithies, Barnsley S71 1NL

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- B3 Schematic Layout Plan [HS-SLD-LBA-100-05] – General Waste Transfer & Treatment Area
- C Sensitive Receptors and Neighbouring Occupancies Plan
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Monitoring and Reporting Forms

- BMBC/MS/OMP 01 – Odour Monitoring Report Form
- BMBC/MS/OMP 02 – Odour Complaint Report Form
- BMBC/MS/OMP 03 – Odour Diary Report Form

1 Introduction

Executive Summary

- 1.1 AC Environment Solutions Limited (AC Environment Solutions), has been appointed by Barnsley Metropolitan Borough Council (BMBC), to prepare an Odour Management Plan (OMP), for a proposed new council and trade waste operation at Smithies Depot, Smithies Lane, Smithies, Barnsley S71 1NL. This FPP accompanies an application to the Environment Agency for a Bespoke Environmental Permit. The location of the depot is indicated on the plan at Appendix A. The only site access is via the depot entrance off Smithies Lane to the south of the site.
- 1.2 Smithies Lane is BMBC's main operational depot, which has been subject to recent master planning to facilitate a series of improvements, and a programme of ongoing redevelopment of areas of the wider depot has commenced at the time of writing of this Plan. Two operational areas are to be included in the permitted area (known as upper and lower), with two small separate oil storage and battery storage areas situated to the east and south of the Fleet Services Garage also included within the permit boundary. Redevelopment of the lower site area to be occupied by the proposed waste facility is also already in progress.
- 1.3 This OMP Has been produced with reference to the Environment Agency's (EA's) current guidance, '*Control and monitor emissions for your environmental permit*' last updated on 08 November 2018, and '*H4 Odour Management - how to comply with your environmental permit*', dated March 2011, in conjunction with the Bespoke Environmental Risk Assessment which has been prepared for the facility.
- 1.4 This OMP is a stand-alone live document which will form part of the waste facility's integrated Management System (MS). This should enable BMBC to more effectively manage their on-site processes to meet the following objectives:
- how to operate within any emissions limits set within the permit;
 - how to monitor emissions from the activity;
 - how to put in place effective control measures to prevent pollution caused by odour from occurring outside of the site boundary.
- 1.5 The guidance defines pollution as any emission caused as a result of the operations which may:
- be harmful to human health or the quality of the environment, for example ecosystems on land or water;
 - cause offence to human sense, for example hearing (apart from stand-alone surface or groundwater discharges);
 - cause damage to property;
 - damage or interfere with amenities or other users of the environment.

Permit Details

- 1.6 This Management Plan accompanies an application to the Environment Agency for a Bespoke Environmental Permit based upon Standard Rules SR2015 No 6: 75kte household, industrial and commercial waste transfer station with treatment. The guidance states that an OMP is mandatory for a bespoke permit for this type of activity.
- 1.7 The waste arisings will comprise mainly '*trade waste*' from local businesses although the facility will also deal with a proportion of wastes generated internally by the local authority, particularly inert materials generated from street works.

- 1.8 BMBC intends to accept and treat up to 74,799 tonnes per year of non-hazardous wastes, including some combustible waste types, with these activities being confined to the lower yard area to the south-west. N.B. the upper yard to the north comprises the non-biodegradable materials processing and storage area which will account for the majority of the non-hazardous/inert waste types being stored on site at any one time. This area is considered to present a lower risk of producing odour emissions.
- 1.9 Physical treatment activities for non-hazardous wastes include manual and mechanical sorting, separation, screening, baling, shredding, crushing or compaction, and physico-chemical treatment by natural dewatering.
- 1.10 A small proportion of hazardous wastes (up to 200 tonnes per annum / no more than 25 tonnes stored on site at any one time), will also be accepted for bulking up only and onward transfer to other third-party specialist recovery facilities. The majority of the hazardous wastes will be stored either within the separate gas cylinder store to the south-east of the entrance to the northern site area, or within the waste oil or battery storage areas located to the east and south of the Fleet Services Garage.
- 1.11 Plans showing the layout of the wider depot site and the two main operational areas are included at Appendix B and the waste types to be accepted at the site (including the bespoke additions) are listed in Appendix C.

2 Environmental Permit Odour Conditions

Odour Conditions

- 2.1 As stated, an OMP is a mandatory requirement to accompany an application for a bespoke permit based upon Standard Rules SR2015 No 6: 75kte household, industrial and commercial waste transfer station with treatment.
- 2.2 The current form of odour condition used in environmental permits is given below and usually consists of two elements:
- the odour boundary condition, which specifies the outcome which the operator must achieve (i.e. no pollution beyond the site boundary); and,
 - a condition requiring compliance with an OMP (where activities are considered likely to give rise to odour).

The Boundary Condition

- 2.3 The odour '*boundary condition*' states that:
- '*Emissions from the activities shall be free from odour at levels likely to cause pollution outside of the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in an approved OMP, to prevent or where that is not practicable to minimise the odour*'.
- 2.4 The measures that will be considered appropriate to achieve compliance with this condition are based on the methodology within the guidance and the Bespoke Environmental Risk Assessment whilst taking costs and benefits into account. BMBC will not be in breach of the boundary condition provided they are using appropriate control measures. However, if the residual odour is at a level that is unreasonable, it would be necessary for BMBC to take further measures to reduce odour pollution, or risk having to reduce, restrict or cease operations at the site, although the Environment Agency will work closely to assist in finding solutions that should avoid this eventuality.
- 2.5 Whilst the condition is based on odour levels at the boundary, if there are no receptors close to the boundary, the Environment Agency may permit a facility that meets the criteria further away, i.e. at the nearest receptor. However, even where a facility has not caused odour problems in the past operators may have to take action to prevent or, where that is not practicable, minimise actual or potential odour pollution if circumstances change e.g. a new residential development is built near to the site boundary. The guidance states that in in in this instance, it may be appropriate to design to the tighter boundary standard to future proof the investment. It is considered necessary for BMBC to design to the tighter boundary standard due to the proximity of nearby sensitive receptors (these are identified in a subsequent section of the OMP).
- 2.6 In conjunction with Figure 1 below, the Environment Agency officer will need to decide:
- **STEP 1:** Whether or not unreasonable odour pollution is being or is likely to be caused, even if appropriate measures are used, and,
 - **STEP2:** If the odour pollution is not, or is not likely to be at, the unreasonable level whether appropriate measures are being used.
- 2.7 Thus, an OMP assists in identifying the appropriate measures for the site, but it will need to be routinely reviewed, and particularly in instances where the operational circumstances may have changed.

Figure 1 – The three levels of odour (Reproduced from H4 Odour Management guidance)

<p>Unreasonable odour amounting to serious pollution is being or is likely to be caused (regardless of whether appropriate measures are being used).</p> <p>You must take further action, or you may have to reduce or cease operations. The Environment Agency would not issue a permit if it considered that you were likely to be operating at this level.</p>
<p>Odour pollution is or is likely to be caused beyond boundary.</p> <p>Your duty is to use appropriate measures to minimise odour.</p> <p>You are not in breach if you are using appropriate measures.</p> <p>If appropriate measures are being used, residual odour will have to be tolerated by the community. For some activities appropriate measures will achieve no smell beyond the boundary.</p>
<p>No odour beyond the boundary, and not likely to be.</p> <p>= no pollution = no action needed.</p>

The Odour Management Plan Condition

- 2.8 In this instance, where The OMP has to be submitted for approval as part of the permitting process, there is a general operating condition that requires the operator to comply with the OMP and to submit revisions of the plan in the future, should this prove necessary.
- 2.9 The ‘*Odour Management Plan condition*’ states:
- ‘*The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in Schedule 1, Table S1.2, unless otherwise agreed in writing by the Environment Agency*’.
 - ‘*If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plans specified in Schedule 1, Table S1.2 or otherwise required under this permit, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the agency*’.

Approval of the Odour Management Plan

- 2.10 The Environment Agency will agree the scope and suitability of key measures of the OMP and in doing so, they recognise that no OMP can cover every eventuality, even if the operator is taking all the appropriate measures specified. It will remain BMBC’s responsibility to ensure that operational reviews are undertaken at suitable intervals to ensure that any situation not already covered in the OMP can be reasonably foreseen and the details of any equipment specification design, operation and maintenance are suitable and sufficient.
- 2.11 If it is necessary to carry out rapid action to solve an odour problem, it is possible that something in the OMP has been contravened. The priority will therefore be to take the necessary action to solve the problem and bring the OMP up to date as soon as possible after the event.

BMBC OMP Review Procedure

- 2.12 A routine audit and review of the effectiveness of all aspects of the OMP will held annually (or more frequently if deemed necessary) and will include representatives from the site operations team and BMBC's Management Team.
- 2.13 It is proposed that the first full annual review will be held on the first anniversary of the issue of the permit and opening of the facility. The formal audit and review process will identify the need for and programming in of any refresher training.
- 2.14 BMBC Staff will need to be trained on the provisions of the OMP, and in particular, how to recognise where new or changed operations may give rise to the need for the plan to be updated. Records will be kept of the training which is undertaken.
- 2.15 Should amendments to the FPP be necessary, draft changes would be made and submitted to the Environment Agency for approval. Once changes are approved, controlled copies will be updated, and superseded documents archived for reference purposes.

3 Assessing the Level of Odour Pollution / Appropriate Measures

An **odour unit** (in the context of odour modelling) is a measure of the concentration of a mixture of odorous compounds. It is determined by means of olfactometry.

Odour unit values are determined by a standard method giving in BSEN 13725; 2003 on olfactometry. An odour unit as defined by the CEN standard is 1 ou_E (European Odour Unit).

1 ou_E/m³ is the point of detection.

- 3.1 The H4 Odour Management guidance states that whilst the permit conditions describe odour as causing '*nuisance*' or '*annoyance*', odour will be treated as '*pollution*'. The definition of pollution as set out in Regulation 2 of the Environmental Permitting Regulations is '*an emission which may be harmful to human health or the quality of the environment, cause offence to a human sense or impair or interfere with amenities or other legitimate uses of the environment*'.
- 3.2 Final determination by a regulatory officer as to whether there has been a permit breach will involve an assessment of the level and effect of the emissions and the appropriateness of the measures being employed. Referring to Figure 1 in the previous section, there are two key steps in assessing the level of odour pollution and appropriate measures.

Step 1: Is there serious pollution?

- 3.3 There is no single method of reliability measuring or assessing odour pollution, and any conclusion is best based on a number of pieces of evidence. The **FIDOR/FIDOL** acronym is a useful reminder of the factors that will determine the degree of odour pollution.
- frequency of detection;
 - intensity as perceived;
 - duration of exposure;
 - offensiveness;
 - receptor sensitivity and location.
- 3.4 **Frequency and duration** may be assessed from emissions and process control data, wind direction data complaints and odour diaries.
- 3.5 **Exposure intensity** can be assessed from monitoring information, for example:
- sniff testing (which gives a judgment of intensity and offensiveness);
 - the use of a field dilution olfactometer;
 - complaints and odour diaries;
 - emissions or ambient air monitoring where feasible.
- 3.6 Whilst there are more complex means of measuring and examining exposure intensity for new sites, such as modelling of odour emissions to recognised standards and closely examining other similar operations carried out in similar circumstances, it is considered that this is beyond the scope of the management requirements that will be necessary for the BMBC site, both at the present time and within the foreseeable future.
- 3.7 **Offensiveness** Some odours are generally regarded as more unpleasant than others and therefore, if present, would need to be subject to greater control.

3.8 **Receptor sensitivity** (location) must be considered very carefully. The guidance gives examples of the types of factors that need to be considered with examples which are reproduced below:

- Some receptors are more sensitive than others. Domestic residences, or a pub with a beer garden are more likely to be sensitive than an industrial complex or passers-by.
- Some individuals will be extremely tolerant of odours at high intensities while others will be unable to tolerate an odour as soon as they identify it. Evidence that, for example, only one person finds the odour unacceptable whereas most others, similarly exposed, find it acceptable in that context (e.g. in a rural village) would be relevant to the assessment of the degree of pollution.
- There are a very small number of people (e.g. Addison's sufferers), who have conditions which put them well outside the normal range of sensitivities and make them able to detect very low concentrations of odour. The Environment Agency would not expect an operator to design a system to satisfy those individuals.
- The degree of pollution increases with the size of the exposed population. Therefore, the more people that are affected the greater will be the justifiable expenditure on control measures. However, even if only a very small number of individuals are affected, the seriousness of the exposure may require further control measures.
- For new proposals, an assessment should be made of the sensitivity of existing and likely future receptors e.g. complete history, local development plans etc.

Step 2: Is The operator taking appropriate measures?

3.9 For more complex situations, whether some or all appropriate measures or best available technique (BAT) should be used, can be informed by a combination of the H4 guidance document, any other current Environment Agency sector guidance notes, and other industry guidance and best practice. The higher the level of pollution (assessed in accordance with the criteria contained in Step 1) the more measures you will be expected to take and the greater the justifiable financial investment will be. In summary, and as outlined in Figure 1 this approach will result in the following scenarios:

- Where no odour is detectable, or likely to be detectable, beyond the boundary of the site there will be no pollution, and no further action in relation to odour pollution will be required.
- Where odour is detectable, it may or may not cause offence and the Environment Agency's response will depend upon the degree of pollution and the cost and practicability of any remedial measures.
- Where all appropriate measures are being used but are not completely preventing odour pollution, a level of residual odour will have to be accepted.
- Where the odour is serious, even if all efforts have been made to apply BAT/appropriate measures, it may be necessary to suspend or revoke the permit in full or in part.

3.10 The degree of residual odour that one would expect from an activity that is using all appropriate measures (BAT) will vary from sector to sector, as it is easier to control odour in some sectors than others. For some activities there should be no odour at all beyond the boundary.

4 OMP Aims and Objectives

Aims and Objectives

- 4.1 The aims and objectives as set out in the Environment Agency's guidance, are to design the OMP in order to:
- 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.
- 4.2 This OMP considers sources, pathways, receptors and impacts as is summarised by, and within the context of, the examples given in the table below (also reproduced from the H4 Odour Management guidance). The results of the assessment will be used to identify cost effective opportunities for odour management as may be appropriate, including implementation of appropriate control measures and monitoring.

H4 Table A4.1 - Summary of odorous emissions, pathways and impacts

Sources	<ol style="list-style-type: none"> 1. Inventories of odorous chemicals: The way processes are managed can encourage the breakdown of odour as chemicals or generate more. The formation of odours will begin before materials are received so inventory control must begin before arrival at site. 2. Transfer to air: Only volatile (gaseous) chemicals can be detected. If they can be trapped in a liquid or solid state, they will not cause odour exposure. 3. Release to atmosphere: Containment of odorous air, followed by treatment (e.g. scrubbing) of emissions is often necessary but can be very expensive.
Pathways	<ol style="list-style-type: none"> 4. Dispersion: Movement and dilution in ambient air is a natural phenomenon which may be influenced by releasing through an elevated stack or increasing the distance from receptors. 5. Exposure of individuals: Asking People to leave the area or stay indoors with windows closed are not appropriate long-term solutions to odour impact. However, awareness of factors which influence the pattern of exposure can facilitate an understanding of the likely annoyance effects.
Receptors	<ol style="list-style-type: none"> 6. Perception: Masking agents and perfumes can often cause more problems than they solve, so intervention at this stage is generally inappropriate. Nevertheless, understanding perception is one of the key factors in the effective management of odour. 7. The meaning: Natural gas and LPG are deliberately odourised, and users are encouraged to act if they smell it because the odour means danger. Most odours do not represent a hazard in the same way and providing information about the source can sometimes help to reduce anxiety. 8. Personal coping strategies: Some individuals will cope with the stress of odours by trying to deal with the problem (e.g. by making complaints) and may be sensitive to lower levels of exposure. Others will seek to modify their own emotional response and be less sensitive to annoyance. Personal reactions one way or another are influenced by factors such as economic interest, perception of threat, or whether people are working or resting.
Impacts	<ol style="list-style-type: none"> 9. Secondary consequences: Chronic odour exposure can result in profound economic and social consequences for an area (e.g. people who can afford to move away). It may also give rise to health issues e.g. allergic or psychosomatic responses.

- 4.3 OMPs for some sites which have a high potential for odour pollution need to be detailed and robust. Conversely, sites with a lower odour potential require comparatively simple and concise OMPs.

5 Sources and Pathways

Consideration of Sources

- 5.1 **Background sources of odour:** The site is located on the outskirts of Barnsley town centre essentially between built-up areas comprising mainly housing and commercial properties, and the occasional light industrial unit or small estate, all existing within a 1 km radius. A pond and lake exist to the south of the depot, and a shallow valley opens out to the north-west, although this is not subject to much farming activity; perhaps only informal grazing if any. East Gawber Farm is the only farm at approximately 300m N. A small sewage works exists upwind of the site approximately 2 km from the proposed facility, but this is off the map at Appendix C.
- 5.2 A Household Waste Recycling Centre, also run by contractors on behalf of BMBC, exists immediately to the south of the lower waste transfer area, approximately 20m from the south-eastern corner of the Traveller Site. This site accepts mainly furniture and bulky items, garden and construction wastes, paints, electrical goods and other general recyclables that cannot be disposed of via the bin collection. The site is known to produce odour occasionally as it provides a '*bring service*' for household waste for the residents of Barnsley Borough who urgently need to dispose of waste when their grey bin has been missed during normal collections.
- 5.3 Despite its proximity, complaints are not known to have arisen from residents of the Traveller Site, however, anecdotal evidence from the Operations Depot Purchasing and Supplies Manager at the depot, Mick Clegg, (who is also registered to become one of the two TCMs), is that odour had been detected on occasions in the Council's offices (directly adjacent and downwind) when windows had been open to provide ventilation during hot weather.
- 5.4 Operations and activities within the Council Depot itself are not known to have generated any odours and do not have a history of complaints in this regard. There are no other known sources of odour in the vicinity of the site.
- 5.5 **Transfer to air:** Volatile organic compounds (VOCs) are organic chemicals that have a high vapour pressure at ordinary room temperatures. The high vapor pressure results from their low boiling point which causes large numbers of molecules to evaporate or sublimate from the liquid or solid form of the compound and enter the surrounding air; a trait known as volatility.
- 5.6 Volatility is not anticipated to present a problem at the site as the wastes would be contained and are therefore trapped in liquid form. The only potential waste types that would be considered volatile would be either:
- waste oils, which are generated by the Fleet Services Garage (as is current) and/or may be accepted in small quantities from the third-party customers;
 - paints and varnishes (also generated in very small quantities from the Fleet Services Garage within the depot).
- 5.7 **Creation of potentially odorous wastes:** Moderate to extreme meteorological conditions, such as high temperature, and increased moisture may increase the risk of odour being generated from certain wastes.
- 5.8 It will be necessary for all wastes having this potential to be dealt with promptly, ensuring there is a regular throughput of materials as opposed to allowing the waste to be stored on site for long periods of time e.g. green waste.

- 5.9 **Waste types on the permit including bespoke additions:** The waste types being applied for include the list of wastes within standard rules permit SR2015 No 6 75kte – household, commercial and industrial waste transfer station with treatment, upon which the bespoke permit application is based. The list also includes a number of bespoke additions to the permit which have the potential to become odorous. A complete inventory of all the potentially odorous wastes/materials from the two lists are set out in the table below:

Table 1 – Waste types with the potential to become odorous

EWC Code	Entry Type	Description	Source / Origin
SR2015 No 6 Standard List:			
02 01 03	AN	Plant tissue waste	Green waste from third party horticultural customers.
02 05 01	AN	Materials unsuitable for consumption or processing	Food waste from third party food processing. Small quantities anticipated.
20 01 08	AN	Biodegradable kitchen and canteen waste	Food waste from BMBC internal, commercial and industrial customers. Small quantities anticipated.
20 02 01	AN	Biodegradable waste	From BMBC's own parks, gardens and cemeteries (not kerbside) and commercial and industrial customers. Small quantities anticipated.
20 03 01	AN	Mixed municipal waste	From the council's own sites and premises (not kerbside) and commercial and industrial customers. Small quantities anticipated.
20 03 02	AN	Waste from markets	Barnsley Markets cleaned on a daily basis by BMBC operatives. Could include waste fruit and vegetables and other food waste mixed with packaging materials.
20 03 03	AN	Street cleaning residues	Gully washings from BMBC street sweeping and drain cleansing activities. Up to 10 tonnes to be stored at any one time.
Bespoke Additions:			
02 01 01	AN	Sludge from washing and cleaning	Sludge and sediment from Smithies Depot wash bay. Very small quantities anticipated.
02 01 02	AN	Animal tissue waste	Dead pets to be kept in a freezer for up to 21 days to allow owners the opportunity to claim. Any not claimed are taken to BMBC Pet Crematorium.
02 01 06	AN	Animal faeces, urine and manure etc	Emptying of council dog bins - generally relatively small quantities of waste that has been bagged prior to acceptance.
17 02 04*	MH	Glass, plastic and wood containing or contaminated with hazardous substances	Fly tipping – may involve transfer to air. Waste characterisation likely to be necessary that may involve sampling. Ad hoc waste stream, difficult to predict volumes or nature and extent of any odour that could be encountered.

Status of the Accepted Waste Materials and Quantity Limits

- 5.10 The waste materials identified within the inventory of potentially odorous materials may exist as raw materials or waste, and become feedstocks, intermediaries or wastes, or remain as wastes during their passage through the transfer and treatment facility, up to the point when they leave the site. Definitions of each of these are as follows:
- 5.11 **(R) Raw Materials:** materials or substances that can be converted by manufacture or processing or a combination into a new and useful product.
- 5.12 **(F) Feedstocks:** raw materials to supply or fuel a machine or industrial process. BMBC require feedstock for the Biomass Boiler located at the depot.
- 5.13 **(I) Intermediaries:** Materials, substances or products that may be bought by a merchant, agent, broker, wholesaler, reseller or distributor.

5.14 **(W) Waste:** Materials that are intended to be discarded.

5.15 The status of the waste materials and their anticipated respective quantity limits (tonnes at any one time) are set out in the table below.

Table 2 – Waste status and quantities

Code	Description	Status	Acceptance / Storage (Tonnes)	Treatment (Tonnes)	Products (Tonnes)	Total Quantity Tonnes
SR2015 No 6 Standard List:						
02 01 03	Plant tissue waste	R F I W	0-50 [§] 0-50 [§] 0-10	0-50 [§] 0-50 [§]	0-50	0-110
02 05 01	Materials unsuitable for consumption or processing	W	0-5	0	0	0-5
20 01 08	Biodegradable kitchen and canteen waste	W	0-2	0	0	0-2
20 02 01	Biodegradable waste	R F I W	0-150 [§] 0-150 [§] 0-15	0-150 [§] 0-150 [§]	0-150	0-315
20 03 01	Mixed municipal waste	R W	0-10 0-10	0-10 0-10	0-20	0-60
20 03 02	Waste from markets	R I W	0-2 0-3	0-1 0-1 0-3	0-2 0-2	0-14
20 03 03	Street cleaning residues	W	0-10*	0-10*	0	0-10*
Bespoke Additions:						
02 01 01	Sludge from washing and cleaning	W	0-1	0	0	0-1
02 01 02	Animal tissue waste	W	0-1	0	0	0-1
02 01 06	Animal faeces, urine and manure etc	W	0-2	0	0	0-2
17 02 04*	Glass, plastic and wood containing or contaminated with hazardous substances	W	0-10	0	0	0-10

*Storage and treatment (dewatering) occur in the same bay. Total stored at any one time – 10 tonnes.

[§]Logs 02 01 03 and 20 02 01 will either be made into raw materials for the biomass boiler and/or intermediaries for sale. Total stored on site at any one time 400 tonnes (Loose log store/wood chip). Up to 25 tonnes to be stored in separate green waste bay.

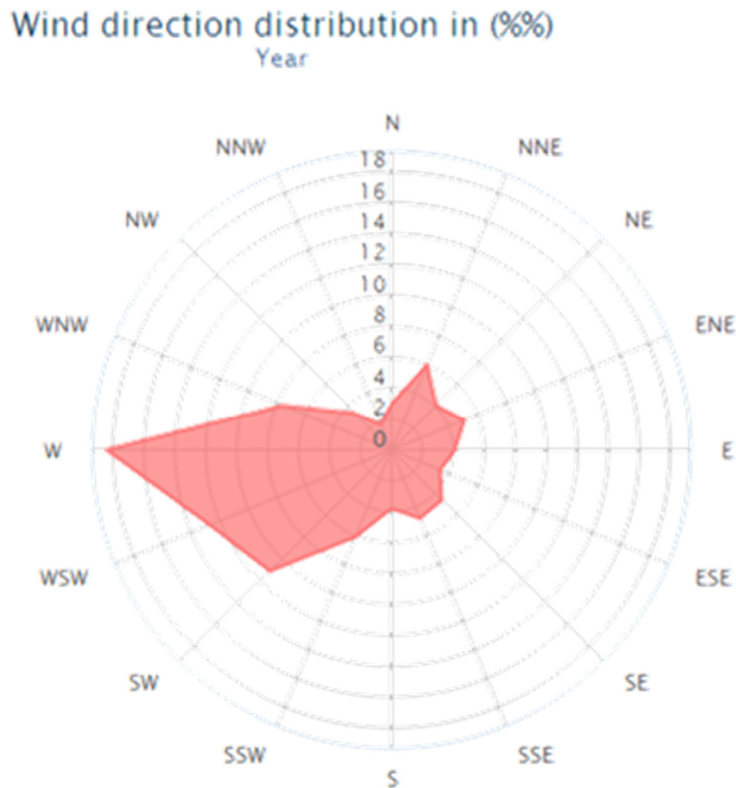
Consideration of Pathways

5.16 **Dispersion:** Is the process by which wind moves odour through ambient air with dilution occurring.

5.17 **Prevailing wind direction:** The prevailing wind direction in the UK usually exists in the segment between south and west. However, the direction of the prevailing winds can be modified by local topography. In general, it is the case that the more pronounced the topography, then the greater the potential influence upon local wind directions.

- 5.18 The prevailing wind direction for the Council and Trade Waste Facility located within Smithies Depot is from the west-north-west to south-south-west, although it is understood from other wind data closer to Barnsley researched from the internet that it is also from the south. The Operations Depot Purchasing and Supplies Manager has also indicated that the open land to the north-west also appears to have an impact upon wind direction.
- 5.19 A wind rose has been supplied by BMBC to provide indicative average strength and direction for 2014 (See figure 2 below).

Figure 2: Wind Rose Summary Chart for Sheffield/Rotherham (2014)



Exposure of Individuals

- 5.20 As the sources and pathways for odour at the site have been quantified and examined, nearby sensitive receptors are identified, and an assessment of the magnitude of the anticipated odour impacts made in the following section. Any solutions deemed to be required must be suitable and sufficient to ensure that there is no long-term exposure to odour, and that any discomfort or annoyance is temporary and residual in nature.

6 Sensitive Receptors

Identification of Sensitive Receptors

- 6.1 Neighbouring occupancies and sensitive receptors located within a 1 km radius of the site have been identified for the purposes of the management plans covering Fire Prevention (FPP), Odour Management (OMP) and Dust and Fugitive Emissions (DFEMP)). Receptors are presented in the comprehensive table below with the ones of potential concern in the context of odour highlighted in green:

No.	Description of Sensitive Receptors / Neighbouring Occupancies	Distance / Direction
Waterways, watercourses, lakes, groundwater boreholes, wells or springs (supplying water for human consumption), and/or otherwise environmentally sensitive receptors:		
1.	River Dearne (including nearby tributary streams and drainage)	15m N / 300m SW
2.	Fleets Lake	500m SSE
3.	Fishing Pond	150m S
Roads, bus stations, railways, airports, pylons (on or immediately adjacent to the site), other above ground utilities etc:		
4.	A61 Wakefield Road	200m E
5.	Smithies Lane	200m SSE
6.	A633 Rotherham Road	600m E
7.	B6132 Carlton Road	380m SE
8.	Burton Road	950m SSE
9.	Railway Line – Barnsley to Leeds	800m SW
10.	Electricity Pylons	0m (On Site)
Schools, hospitals, nursing and care homes, residential areas, and significant places of work:		
11.	Athersley South Primary School	600m NW
12.	Part of Richard Newman Primary School	800m NNW
13.	Burton Road Primary School	950m SSE
14.	Part of Linwood Nursing Home, New Lodge	820m NNW
15.	New Lodge Housing Estate	450m NNW
16.	Athersley South Housing Estate	550m NW
17.	Honeywell Housing Estate	450m SSW
18.	Devonshire Drive and part of Barnsley High School Housing Estate	720m WSW
19.	Smithies Housing Estate (Bottom of Reasbeck Terrace)	200m SW / 200m E
20.	Housing Estate North of Honeywell Lane	800m SE
21.	Monk Bretton Housing Estate	500m SE
22.	Travellers' Housing Site	10m SSW
23.	Barnsley MBC Smithies Depot and Offices	0m Adjacent
24.	Asda Superstore	900m S
25.	Wickes DIY Store	1000m SSE
26.	BMB Buildbase	130m E
27.	Stagecoach Bus Depot	150m NE
28.	Trust Ford Showroom	380m SE
29.	New Lodge Club and Industrial Estate	400m N
30.	Industrial/Commercial Units on Wakefield Road	500m SE
31.	Industrial Units West of Old Mill Lane	900m SSE
32.	Part of Barnsley College Campus	1000m SSW
33.	Barnsley MBC Smithies Lane Public Waste Recycling Centre	0m Adjacent
34.	Residential properties adjacent to the south-eastern boundary of the Depot on Smithies Lane	150m SE to 200m SSE

Potential Odour Impacts

- 6.2 On consideration of the types and quantities of wastes accepted at the site that would possibly produce odour and the perceived strength of that odour; it would seem apparent that odour modelling would not be appropriate in this case as the cost of the work carry out the modelling and to design and install any abatement would be disproportionate to any benefits. It would also seem logical (due to the proximity of residential properties) that masking the odours using perfumes may be inappropriate.

- 6.3 With careful formulation and implementation of suitable operational control measures it would seem reasonable to assume that odour could be kept to an absolute minimum without the need to adopt special measures certainly in the short term.
- 6.4 It should be noted that the Traveller Site does not seem to have been impacted by odour known anecdotally to have been emitted from the adjacent Household Waste Recycling Centre, whilst the BMBC's offices are known to have suffered some previous albeit minor impacts. This correlates with what would be expected taking the prevailing wind direction into consideration.
- 6.5 If odour does occur on any occasion beyond the site boundary thus resulting in impact of some magnitude to a sensitive receptor, it will also be necessary to ascertain which of the two permitted sites it is actually being emitted from, particularly if any episode results in permit breaches and/or complaints that need to be investigated.
- 6.6 An embankment with some vegetative screening exists to the west of the depot which may result in some screening and subsequent mitigation against the migration of odour in the general direction of the prevailing wind.
- 6.7 The locations marked on the plan at Appendix D (red triangles), comprise monitoring points for odour based on the identified sensitive receptors. Monitoring location 1 on Smithies Lane to the south-west of the site would be regarded as the upwind monitoring point.

7 Control Measures

Assessment of Control Measures for Odorous Wastes

7.1 The table below is a reproduction of the potentially odorous waste types identified in Section 5 with appropriate storage locations, storage times, treatments, record keeping, and monitoring measures identified. Many of these waste types are only occasionally anticipated on site, and in relatively small quantities.

Code	Entry Type	Description	Origin / Control Measures
Standard List:			
02 01 03	AN	Plant tissue waste	<p>Age of Waste – Directly from jobs/sites within 48 hours of production.</p> <p>Process Control Measures - Pre-acceptance communication with third party customers to ensure waste is newly generated and has not been stored on site and allowed to become wet and anaerobic (particularly applies to green waste). Waste must be pre-booked in advance to ensure the site has the capacity to deal with/store the material, particularly as the site may also be accepting BMBC generated green waste. Anticipate site being busier between the months of April-Sept. Surges in activity possible and degradation of nitrogen source wastes such as grass clippings and leaves. This may result in the need to divert green waste to other sites.</p> <p>Green waste to be stored in a dedicated bay with sealed drainage.</p> <p>Green waste to be frequently removed by an approved contractor with suitable provisions being made for bank holidays where necessary.</p> <p>Turn green waste in bay using machine – should not be required under normal circumstances if removed within prescribed timescales.</p> <p>Critical Limits – removal within 24 hours on weekdays during April-Sept and wet periods at other times of the year (48 hours at other times where no odour issue arises).</p> <p>Storage – Loose logs bay, wood chip storage area (treated), and green waste has a dedicated bay likely to be used more frequently in the summer.</p> <p>Treatment – Loose logs (chipping), other green waste manual cutting or sawing/none.</p> <p>Storage Time – It is BMBC's intention that green waste would be removed mostly daily from the bay as capacity is constantly required. The only time when emptying may not happen within this time frame is on bank holidays but only if the quantities are very small and weather forecast favourable.</p> <p>Records – TN/weighbridge ticket (in), plus batch record sheet (EMS) for logs and weighbridge ticket/TN for green waste (out).</p> <p>Monitoring – Visual and olfactory examination at the weighbridge/monitoring storage times/daily site checks/sniff testing.</p>
02 05 01	AN	Materials unsuitable for consumption or processing. (Food waste from third party food processors).	<p>Age of Waste – Directly from jobs/sites within 48 hours of production (where possible).</p> <p>Process Control Measures - Pre-acceptance communication with third party customers to ensure waste is newly generated and has not been stored on site and allowed to become wet, anaerobic, mouldy or putrescible.</p> <p>Waste must be pre-booked in advance to ensure the site has the capacity to deal with/store the material appropriately.</p> <p>Large consignments would not be accepted particularly if other sites can offer more suitable treatment (e.g. AD plant) and are able to remove any associated packaging such as glass jars.</p> <p>Small quantities of waste only anticipated – waste to be bagged at source to prevent odour release and covered immediately on transfer to appropriate skip.</p>

			<p>Critical Limits – Removal within 24 hours on weekdays (48 hours where no odour issue arises).</p> <p>Storage – General waste skip.</p> <p>Treatment – Possible repackaging/none.</p> <p>Storage Time – Waste would be removed daily on most weekdays, no pre-bookings immediately before bank holidays unless provisions to deal with the waste are in place.</p> <p>Records – Pre-booking register/TN/weighbridge ticket (in), pre-booking register/weighbridge ticket/TN (out).</p> <p>Monitoring – Visual and olfactory examination at the weighbridge/monitoring storage times/daily site checks/sniff testing.</p>
20 01 08	AN	Biodegradable kitchen and canteen waste. (Food waste from BMBC internal and commercial and industrial customers).	<p>Age of Waste – Directly from jobs/sites within 48 hours of production.</p> <p>Process Control Measures - Pre-acceptance communication with BMBC and third party customers to ensure waste is newly generated and has not been stored on site and allowed to become wet, anaerobic, mouldy or putrescible.</p> <p>Waste must be pre-booked in advance to ensure the site has the capacity to deal with/store the material appropriately.</p> <p>Large consignments would not be accepted particularly if other sites can offer more suitable treatment (e.g. AD plant).</p> <p>Small quantities of waste only anticipated – waste to be bagged at source to prevent odour release and covered immediately on transfer to appropriate skip.</p> <p>Critical Limits – Removal within 24 hours on weekdays (48 hours where no odour issue arises).</p> <p>Storage – General waste skip.</p> <p>Treatment – Possible repackaging/none.</p> <p>Storage Time – Waste would be removed daily on most weekdays, no pre-booking immediately before bank holidays unless provisions to deal with the waste are in place.</p> <p>Records – Pre-booking register/TN/weighbridge ticket (in), pre-booking register/weighbridge ticket/TN (out).</p> <p>Monitoring – Visual and olfactory examination at the weighbridge/monitoring storage times/daily site checks/sniff testing.</p>
20 02 01	AN	Biodegradable waste	<p>Age of Waste – Directly from jobs/sites within 48 hours (not kerbside).</p> <p>Process Control Measures - Pre-acceptance communication with BMBC staff and external customers to ensure waste is newly generated and has not been stored on site and allowed to become wet and anaerobic (particularly applies to green waste).</p> <p>Waste must be pre-booked in advance to ensure the site has the capacity to deal with/store the waste, particularly third party waste, as the site may already be accepting BMBC generated green waste.</p> <p>Anticipate site being busier between the months of April-Sept. Surges in activity possible and degradation of nitrogen source wastes such as grass clippings and leaves may result in rapid degradation and the need to divert green waste to other sites.</p> <p>Green waste to be stored in a dedicated bay with sealed drainage.</p> <p>Green waste to be frequently removed by an approved contractor with suitable provisions being made for bank holidays where necessary.</p> <p>Turn green waste in bay using machine – should not be required under normal circumstances if removed within prescribed timescales.</p> <p>Critical Limits – Removal within 24 hours each weekday during April-Sept and wet periods at other times of the year (or 48 hours at all other times where no odour issue arises).</p> <p>Storage – Loose logs bay, wood chip storage area (treated), and green waste has a dedicated bay which would be likely to be used more frequently in the summer.</p>

			<p>Treatment – Loose logs (chipping); other green waste manual cutting or sawing/none.</p> <p>Storage Time – It is BMBC's intention that green waste would be removed daily from the bay as capacity is constantly required. The only time when emptying may not happen within this time frame is on bank holidays if the quantities are small and weather forecast favourable.</p> <p>Records – TN/weighbridge ticket (in), plus batch record sheet (EMS) for logs and weighbridge ticket/TN for green waste (out).</p> <p>Monitoring – Visual and olfactory examination at the weighbridge/monitoring storage times/daily site checks/sniff testing.</p>
20 03 01	AN	Mixed municipal waste	<p>Age of Waste – Directly from jobs/sites (not kerbside).</p> <p>Process Control Measures - Pre-acceptance communication with BMBC staff and external customers to ensure waste is newly generated and has not already been allowed to become odorous.</p> <p>Waste description must be obtained in advance to determine what materials will be present and what handling may be necessary. Small quantities only are anticipated.</p> <p>Pre-booking in advance to ensure the site has the capacity to deal with/store the waste types requiring to be dealt with.</p> <p>General (household type) municipal wastes capable of producing odour must be appropriately bagged or contained prior to acceptance. NB Kerbside missed bins are dealt with by the BMBC civic amenity site adjacent which is currently being run by FCC.</p> <p>Critical Limits – Removal within 24 hours each weekday (48 hours where no odour issue arises).</p> <p>Storage – General waste skip / recycling skips.</p> <p>Treatment – Possible repackaging and/or manual/mechanical separation/none.</p> <p>Storage Time – Waste would be removed daily on most weekdays, no pre-bookings immediately before bank holidays unless provisions to deal with the waste are in place.</p> <p>Records – Pre-booking register/TN/weighbridge ticket (in), pre-booking register/weighbridge ticket/TN (out).</p> <p>Monitoring – Visual and olfactory examination at the weighbridge/monitoring storage times/daily site checks/sniff testing.</p>
20 03 02	AN	Waste from markets	<p>Age of Waste – Directly from jobs/sites.</p> <p>Process Control Measures – Pre-acceptance communication with BMBC maintenance staff who tend to markets on an ongoing basis to ensure waste is newly generated and has not been stored on site and allowed to become wet, anaerobic, mouldy or putrescible (particularly if it contains food waste including fruit and vegetables).</p> <p>Waste must be pre-booked in advance to ensure the site has the capacity to deal with/store the material appropriately.</p> <p>Potentially odorous waste is bagged at source to prevent odour release in accordance with BMBC Markets Rules.</p> <p>Bagged waste to be covered immediately on transfer to appropriate skip.</p> <p>Enquiries to be made of BMBC to determine if recyclables such as cardboard packaging either already is, or can be, source segregated to increase recovery and reduce the volume of waste with the potential to cause odour.</p> <p>Critical Limits – Removal within 24 hours each weekday (48 hours where no odour issue arises).</p> <p>Storage – General waste skip/recycling skips.</p> <p>Treatment – Possible repackaging and/or manual/mechanical separation/none.</p> <p>Storage Time – Waste would be removed daily on most weekdays, no pre-bookings immediately before bank holidays unless provisions to deal with the waste are in place.</p>

			<p>Records – Pre-booking register/TN/weighbridge ticket (in), pre-booking register/weighbridge ticket/TN (out).</p> <p>Monitoring – Visual and olfactory examination at the weighbridge/monitoring storage times/daily site checks/sniff testing.</p>
20 03 03	AN	Street cleaning residues	<p>Age of Waste – Emptying of sweepers and drain cleansing vehicles directly from jobs/sites.</p> <p>Process Controls – Sweepers and drain cleaning vehicles discharged on a daily basis.</p> <p>Minimal odour anticipated which would be short lived whilst dewatering close to the bay. Not anticipated to present a problem beyond the site boundary. Use enclosed skip if problem arises.</p> <p>A maximum of 10 tonnes of material only to be stored in the bay at any one time.</p> <p>Sweepings and gully emptyings to be placed to rear of bay to facilitate effective drainage, avoiding strip drain to minimise blockages.</p> <p>Bay to be cleared promptly once capacity is reached.</p> <p>Runoff to sealed drainage to be inspected daily to ensure there are no blockages/obstructions caused by solids/sediment.</p> <p>Drainage to be maintained in accordance with drainage procedure covering longer term inspections and maintenance.</p> <p>Critical Limits – N/A Risk of odour considered to be very low.</p> <p>Storage – Dedicated bay for road sweepings and gully emptyings.</p> <p>Treatment – physico-chemical treatment (natural draining/drying).</p> <p>Storage Time – Until fully drained (or dry) and as demand for bay allows (short periods, a few days at most). Suitable materials may subsequently be reprocessed alongside the inerts/secondary aggregates. (Risk of odour anticipated to be very low).</p> <p>Records – TN/weighbridge ticket (in), weighbridge ticket (out) if Wrap Protocol compliant, TN also for disposal if not.</p> <p>Monitoring – Monitoring storage times/daily site checks/sniff testing.</p>
Bespoke Additions:			
02 01 01	AN	Sludge from washing and cleaning	<p>Age of Waste – Periodic Emptying of accumulated sludge and sediment from depot wash bay as required.</p> <p>Process Controls – Quantities of waste very small and infrequent.</p> <p>Minimal odour anticipated which would be short lived whilst dewatering and close to the bay. Not anticipated to present a problem beyond the site boundary. Use enclosed skip if problem arises.</p> <p>Large quantities of water not anticipated but use specific skip or bin to store if detergents are apparent to prevent mobilisation of oils from interceptor in sealed drainage system.</p> <p>Spread out within bay to allow faster drainage/drying, avoiding strip drain to minimise blockages.</p> <p>Bay to be cleared promptly once capacity is reached.</p> <p>Runoff to sealed drainage to be inspected daily to ensure there are no blockages/obstructions caused by solids/sediment.</p> <p>Drainage to be maintained in accordance with drainage procedure covering longer term inspections and maintenance.</p> <p>Critical Limits – N/A Risk of odour considered to be very low.</p> <p>Storage - Dedicated bay for road sweepings and gully emptyings.</p> <p>Treatment – physico-chemical treatment (natural drying).</p> <p>Storage Time – Until fully drained (or dry) and as demand for bay allows (short periods, a few days at most). Suitable materials may subsequently be reprocessed alongside the inerts/secondary aggregates. (Risk of odour anticipated to be very low).</p> <p>Records – TN/weighbridge ticket (in), weighbridge ticket (out) if Wrap Protocol compliant, TN also for disposal if not.</p>

			<p>Monitoring – Monitoring storage times/daily site checks/sniff testing.</p>
02 01 02	AN	Animal tissue waste	<p>Age of Waste - Dead pet cadavers from road traffic accidents – BMBC response within 48 hours.</p> <p>Process Controls – Quantities very small and infrequent. Each pet is checked to determine if it is microchipped prior to being double bagged at the location/scene of accident. Cadavers are brought to the depot the same day and placed in the freezer for up to 21 days. Cadavers returned to owner for home burial or to Pet Crematorium in frozen state.</p> <p>Critical Limits – N/A Risk of odour considered to be very low due to double bagging at the earliest possible opportunity.</p> <p>Storage – Freezer unit housed within a metal shipping container.</p> <p>Treatment – none.</p> <p>Storage Time – Dealt with by Cannon Hall Pet Crematorium if not claimed by owner within Council specified period of 21 days.</p> <p>Records – Dead pets register, animal by-products controls (and specialist handling procedures).</p> <p>Monitoring – Monitoring storage times/daily site checks/sniff testing/refrigerator cleaning record/refrigerator electrical and mechanical maintenance record.</p>
02 01 06	AN	Animal faeces, urine and manure etc	<p>Age of Waste – Emptying of dog bins directly from Council sites/rounds.</p> <p>Process Controls – Waste is double bagged upon emptying of each of the bins on the round minimising the risk of odour. Waste transferred to general (residual) waste skip immediately on arrival to prevent bags becoming damaged, to avoid odour, to prevent the attraction of flies and the spread of pathogens thus creating unnecessary health risks. Once placed in the general waste skip immediate coverage of the waste is advised.</p> <p>Critical Limits – Removal within 24 hours each weekday (48 hours where no odour issue arises).</p> <p>Storage - General waste skip.</p> <p>Treatment – none.</p> <p>Storage Time – Waste would be removed daily on most weekdays.</p> <p>Records - Pre-booking register/TN/weighbridge ticket (in), pre-booking register/weighbridge ticket/TN (out).</p> <p>Monitoring - Visual and olfactory examination at the weighbridge/monitoring storage times/daily site checks/sniff testing.</p>
17 02 04*	MH	Glass, plastic and wood containing or contaminated with hazardous substances	<p>Age of Waste – Dependent upon speed of reporting of incident. Response times may vary.</p> <p>Process Controls - Incidents relate to construction related fly-tipping incidents involving potentially hazardous items – BMBC to promote site for jobbing tradesmen to avoid fly-tipping in the Borough. Fly tipping may comprise a hoc waste stream where it is difficult to predict volumes or nature and extent of any odour that may be encountered. Each fly tipping incident would need to be assessed individually. It may be possible to segregate some types of hazardous items and allow some waste to be recovered, however some substances may require appropriate sampling and analysis. Certain wastes may require storage in a covered or enclosed skip and prompt removal at an appropriate point once characterised. The services of a DGSA may be required by a suitable waste contractor.</p> <p>Storage – Spare bin (shown as bay 14 on drawing) or sited temporarily in quarantine area until suitability for recycling/disposal route determined.</p> <p>Treatment – possible manual segregation/none.</p>

			<p>Storage Time – Dependent upon any testing requirements, otherwise within 48 hours.</p> <p>Records – CN/weighbridge ticket (in), weighbridge ticket/CN (out). BMBC central records/online mapping system which allows incidents to be logged with an incident number, location, waste types etc.</p> <p>Monitoring - Monitoring storage times/daily site checks/sniff testing.</p>
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8 Monitoring

- 8.1 Whilst it is considered that odour modelling is not justified at this point in time, it is proposed that regular monitoring for odour is conducted.

Pre-Acceptance Communication

- 8.2 The initial stage will entail pre-acceptance communication with both departments internal to BMBC and third party commercial customers. Completion of a level 1 waste acceptance form prior to each waste stream being accepted on site, and the quantities, conditions of and actions required prior to acceptance (age of waste, segregation, bagging and handling requirements etc) will be agreed at this stage.

Pre-Booking of Waste

- 8.3 Customers will be required to ensure that waste potentially odorous wastes are pre-booked within the timescales agreed at the pre-acceptance stage. A register of pre-booked waste will be held on site at the weighbridge with the details being passed on to the operational manager and site operatives on a daily basis.

Monitoring of Waste Storage Times

- 8.4 Monitoring of storage times will be undertaken as an extension of the waste pre-booking procedure for potentially odorous wastes. A register of booked waste will serve as an active record of the waste held on site and a means of ensuring that it leaves site within the timescales prescribed in the previous section. This will also ensure that adequate forward planning can be ensured for holiday periods.

Trigger Levels for Corrective Action

- 8.5 For the purposes of olfactory monitoring, the intensities recognised in the Environment Agency's H4 Odour Management guidance are to be recognised. These are:

- 0 No Odour
- 1 Very Faint Odour
- 2 Faint Odour
- 3 Distinct Odour
- 4 Strong Odour
- 5 Very Strong Odour
- 6 Extremely Strong Odour

- 8.6 **Routine Daily Audit:** Odour will be included on the routine daily audit for the site. However, operatives will also be trained to investigate odour issues immediately outside of the daily audit.

- 8.7 On any occasion when an odour perceived as Level 2 on the scale (Faint Odour) is detected within the site boundary, an olfactory check of the site boundary will be initiated. Particular attention will need to be paid to the western boundary due to the proximity of the nearest sensitive receptor (the Travellers' Housing Site). Breeze/wind direction will therefore be of significance and will need to be recorded, although the prevailing wind direction for this location is in the opposite direction to the Travellers' Housing Site.

- 8.8 The Operational Site Manager will be notified, and an investigation will take place to locate the source and extent of the odour and reasons for the release.

- 8.9 Once this has been carried out, and the source identified appropriate action will be taken to minimise the intensity and any further dispersion of the odour. The details will be recorded on the daily audit and the Level 2 Odour Monitoring Report which is to form part of the EMS.
- 8.10 **Olfactory Survey (Sniff Testing):** A full Olfactory Survey by sniff testing to be undertaken in any instance where the perceived odour inside the boundary is Level 3+ or in the event of a complaint being received.
- 8.11 As stated in Section 6, the locations marked on the plan at Appendix D (red triangles), comprise monitoring points for odour based on protection of the identified sensitive receptors. Monitoring location 1 on Smithies Lane to the south-west of the site would be regarded as the upwind monitoring point.
- 8.12 Persons will not be put at risk by attempting to sniff potentially hazardous emissions and will need to be mindful of the physical hazards that may be associated with sniff testing locations (e.g. safe parking of vehicles / entry into third party sites such as the Stagecoach bus depot).
- 8.13 As also previously noted, in the event of odour occurring, it may be necessary to ascertain which of the two sites in close proximity to one another that the odour is being emitted from, and this needs to occur immediately upon its detection so the problem can be rectified promptly.
- 8.14 If it is suspected to be the Household Waste Recycling Centre, acknowledgement of the incident is recommended, preferably in conjunction and consultation with the manager of that site, with the details still being recorded on an Odour Complaint Form and in the general site diary for the transfer station.
- 8.15 This would be particularly useful in the event that complaints are also received by the Environment Agency, which results in an investigation to determine whether a breach of the permit has occurred.

Corrective Actions

- 8.16 All incidences of odour being recorded, either at Level 2 or at Level 3+ will be reviewed and corrective actions for the waste types (and volumes) in question, the pre-acceptance procedures, the operational acceptance procedures and processes, and odour control procedures will be undertaken as necessary. The OMP will be updated, if any significant changes are made to existing procedures or if any new procedures need to be adopted.

Odour Complaints

- 8.17 The need for a means of recording complaints arising from incidences of odour emissions from the site is necessary. It is recognised that complaints are a direct indication that odours may be causing pollution and that operations must always be controlled, to minimise any potential impacts on the local community particularly given the council's position and need to maintain an excellent compliance record.
- 8.18 It is recognised that complaints may arise directly from community members, or indirectly from the Environment Agency or other parts of the Local Authority. Complaints may also be received immediately following an odour incident, or at some point later.

- 8.19 Community members may have concerns about other issues such as flies, dust and noise, and therefore may extend beyond just the issue of odour. Odour complaints will therefore be recorded and investigated as soon as they occur.

Odour Diary

- 8.20 The guidance suggests that affected community members could take part in odour monitoring to help to give an idea of the level of odour annoyance that they may be subjected to, and to assist in determining whether there has been a marked improvement subject to the modification of procedures and control measures.
- 8.21 BMBC would prefer to take a view as to whether this would be appropriate under the particular circumstances relevant at the time. Give the desire of the Authority to maintain a good compliance record, and the low expectation that odour from the site would actually become a major issue, there may not be a need to adopt this approach. However, it will remain available just in case it does become an option that needs to be considered. BMBC staff residing at the depot offices but not associated with the site could also be considered as a source of independent information.
- 8.22 Record keeping including recording formats are addressed in Section 9.

Other Contingency Plans (Accident and Emergency)

- 8.23 Other contingencies need to be in place to prevent the release of odour in accident or emergency situations. The following are contingency plans that BMBC have in place in such situations.
- Plant and machinery are kept in good working order. Daily checks are undertaken, and maintenance and servicing's are carried out in accordance with manufacturers' instructions for all plant and equipment used on site. Records are kept if all daily checks maintenance and servicing.
 - A fitting and servicing garage is present on site within the Depot, which allows a fast response when breakdowns occur.
 - Two small loading shovels are available so one is always serviceable if the other one breaks down.
 - Drainage is to be checked regularly so that it can be kept clear at all times. The drainage will be maintained in accordance with drainage asset management procedure within the EMS.
 - A spillage procedure is to be included in the EMS, which will extend to cover odorous waste.
 - BMBC will maintain access to additional contractors in the event that potentially odorous waste cannot be transferred within stated timescales.
 - The area of the site where odorous wastes are received is not expected to flood, however should this occur, most of the potentially odorous wastes are not stored in a location where they may be affected by flood water.
 - BMBC has a fire prevention plan in place for the permitted activities which forms part of the Depot fire precautions plan. South Yorkshire Fire and Rescue have direct input into the plan.
 - BMBC will have staff absence procedure in place to ensure the site is fully manned at all times.
 - A provision will be made to carry out a review of any situation where odour may be being produced as a result over the site operating either at, or near to full capacity.
 - In addition to the Order Complaints Procedure, BMBC has in place a universal complaints procedure which can be accessed and completed online.

9 Record Keeping

Monitoring and Reporting Forms and Further Considerations

- 9.1 Recording of any assessments constitutes good practice when gauging whether we are complying with our permit. BMBC recognises that it may be also be necessary to record assessments as part of an investigation into a complaint.
- 9.2 We will endeavour to use routine assessments to build up a picture of the impact any odour has on the surrounding environment throughout the life of the permit. Consideration will be given to the need to carry out assessments during adverse weather conditions, or if a particularly odorous cycle of an operation is identified, and whether either of these alters the level of impact. This can be used to determine '*worst case*' scenarios, despite the overall risk of nuisance from odour at the site being assessed as **Low**.
- 9.3 Completed monitoring and reporting forms will be kept in the weighbridge office for inspection purposes.
- 9.4 The forms set out in the H4 Odour Guidance are considered appropriate for use at our facility without modification and are reproduced in the final section following the document appendices. Following our initial assessment of perceived odour risk, there appears to be no apparent reason to depart greatly from those formats at the present time. Whilst the forms may undergo slight modification, they will be branded accordingly and added to our MS once the site becomes operational.
- BMBC/MS/OMP 01 – Odour Complaint Report Form
 - BMBC/MS/OMP 02 – Odour Monitoring Report Form (Level 3+ Olfactory Survey – offsite locations)
 - BMBC/MS/OMP 03 – Odour Diary Report Form
 - BMBC Daily Site Audit (EMS procedure – in progress)
 - BMBC Level 2 Odour Monitoring Report Form (EMS procedure – in progress)

Appendix A
Location Plan

Appendix B1

Depot Layout/Signing & Lining Plan [HS-SLD-LBA-1100-05]

Appendix B2

Schematic Layout Plan [HS-SLD-LBA-100-04] – Inert Waste Storage & Treatment Area

Appendix B3

Schematic Layout Plan [HS-SLD-LBA-100-05] – General Waste Transfer & Treatment Area

Appendix C

Sensitive Receptors and Neighbouring Occupancies Plan

Appendix D

Sensitive Receptors and Neighbouring Occupancies Plan – Odour Monitoring Points

Monitoring and Reporting Forms

BMBC/MS/OMP 01 – Odour Monitoring Report Form

BMBC/MS/OMP 02 – Odour Complaint Report Form

BMBC/MS/OMP 03 – Odour Diary Report Form