Odour Management Plan

Permit No EPR/LB3709LG/V003

Skipaway Limited

Site B, North Farm Industrial Estate,

North Farm Lane,

Tunbridge Wells,

TN2 3EE

Date	**February 2025**
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Checked by	**TBC**

Previous Revisions

Date	Version
February 2025	**1**

Contents

1.0 Introduction

The procedures within this document relate to the permitted activities at Site B, North Farm Industrial Estate, North Farm Lane, Tunbridge Wells, Kent, ME2 3EE.

This Odour management plan has been produced to support the varying of the existing permit for Skipaway Limited.

The premise of the application is:

- Add waste codes EWC:
  20 03 01 mixed municipal waste
  19 12 12 mechanically treated waste

This odour management plan should be read in conjunction with the EMS, Dust Emissions management plan and Fire prevention plan.

The facility handles three principal waste streams:

1. Mixed commercial and industrial wastes,
2. Mixed construction and demolition wastes,
3. Soil and stone

The storage times of waste on site are between 3 days to 1 month depending on the waste type.

The approved Environmental Management System (EMS) is available on site and should be read in conjunction with this document.

The aim of this OMP is to ensure that odour is controlled or eliminated to a level that does not materially affect the enjoyment of neighbouring properties or cause harm or offence or reduce their legitimate use of the environment. This OMP is intended to be a working document, with the specific aim that:

- Odour is primarily controlled at source by good operational practices.
- All appropriate measures are taken to prevent (or where that is not reasonably practicable, to reduce) odorous emissions from the facility at nearby sensitive receptors.
- Appropriate monitoring of odour to take place.
- Actions, contingencies and responsibilities are clearly specified to address problems should they arise.
- Regular reviews of the effectiveness of the odour control measures takes place.

2.0 Description of the Site and Waste Handling Procedures

Site overview

The permitted area is 0.8 Hectares approximately. The site is not located within 500 metres of a European Site or SSSI. The site is not located within a specified AQMA.

The infrastructure includes the following features:

An impermeable concrete surface is laid across the entire site to create a sealed impervious base. The site is kerbed with linear gullies to allow for the containment and safe disposal of non-hazardous waste materials.

It has a fully functioning drainage system with interception prior to discharge into the public sewer. A piped mains water supply is available from existing services on the access road.

The site is bordered to the west by a concrete batching plant and adjoining sewage treatment works. Immediately to the north and east lies Mid Kent Metal recycling and further afield to the north, Tunbridge Wells Municipal Depot. Tunbridge Wells Civic Amenity site is located some 400m to the west. The site is adjoined to the north by Brett concrete and Omni Recycling Limited.

The site is located to the north of a larger industrial / commercial estate that comprises various businesses, from food outlets to DIY stores.

Odour sensitive receptors

A search of the Agencies Multi-Agency Geographic Information for the Countryside (MAGIC) confirms that the site is not located within 1km of sensitive sites requiring specific control measures. However, there is a designated nature reserve (Barnetts wood) located approximately 700m southwest.

Within the 1km radius search area for sensitive receptors it should be noted that the region forms part of a large-scale mixed industrial and commercial area and bordered immediately to the east of a large sewage treatment works. (See appendix A for-satellite image of site and its surroundings within a 1km radius.)

There are no, care homes, hospitals, or similar sensitive receptors within 1km of the site. Skinners' Kent primary school is located 600m to the south of the site, however, due to winds predominantly emanating from a south westerly direction, it is not considered that the school will be a high-risk receptor. All sensitive receptors will be considered throughout the entirety of the document. There are, light commercial and food outlets within the 1km radius but those that would be deemed potentially sensitive are located upwind.

Adjoining to the north, is a waste management facility having a similar permit and waste management operations to Skipaway Limited.

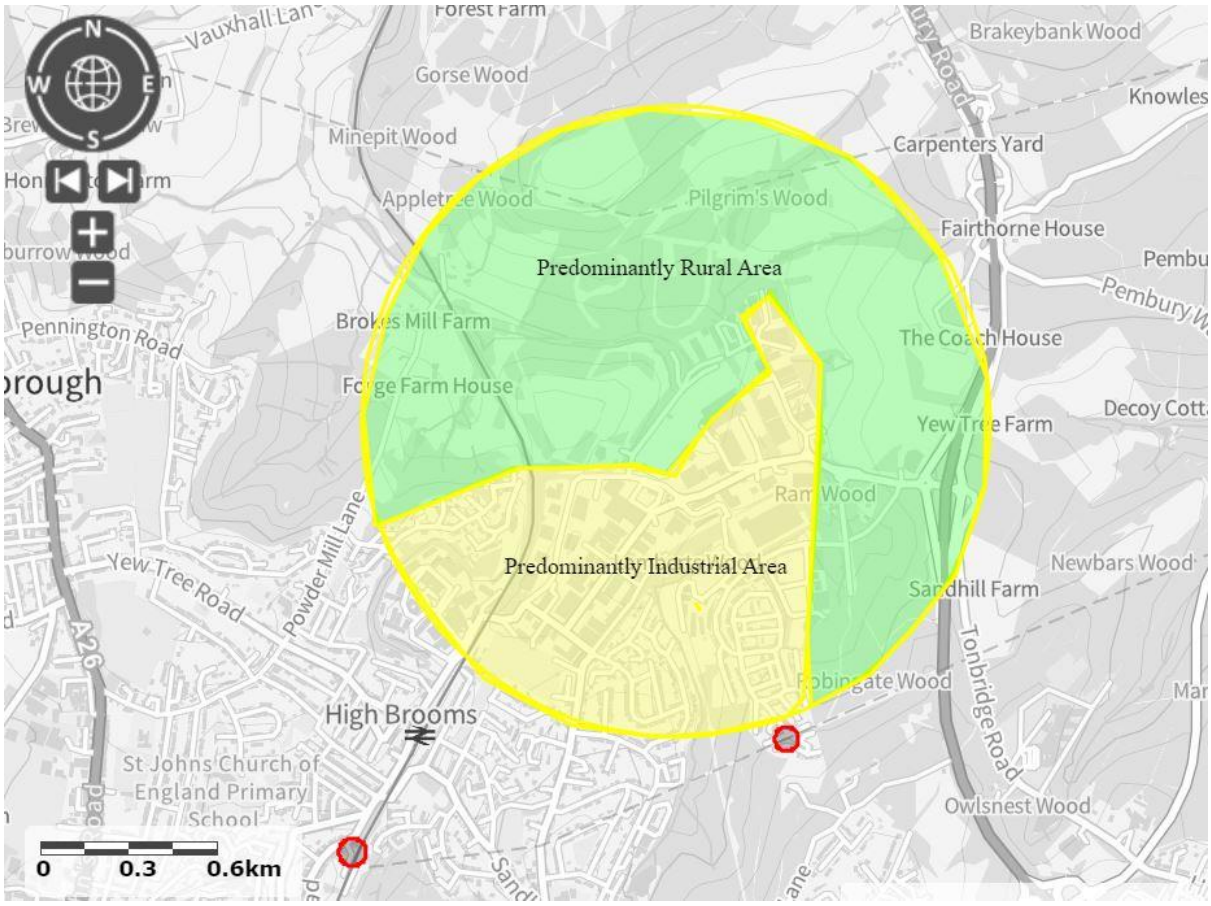
To the southwest, is located a large effluent treatment plant operated by Southern Water. Slightly further afield (400m) to the southwest is Tunbridge Wells household waste site and depot.

To the south and southeast are located various commercial stores and transport depots. Immediately to the north is a scrap metal recycling facility and some 50m further on is a large municipal collection deport operated by Tunbridge Wells Council.

Due to the absence of sensitive locations, consideration of the existing nature of the business and position amongst many other waste companies, it is concluded that continual operation of the site as a waste management facility poses no threat to the locality or environment.

The potential area of influence from Skipaway Limited is shown in figure 1 and represents 1km radius from the site. The locations to the north and northeast are those most at risk from uncontrolled odour emissions and therefore this document will focus on this area as the main concern. External odour surveys will be undertaken at the points considered as sensitive and being downwind of the site.

Waste types that are known to have the potential to produce odour, such as plasterboard, are not intentionally brought to site but may arrive as an undisclosed inclusion. Pre-treatment inspection of the load would highlight such inclusions and result with the items being quarantined.


Predominantly Rural Area
Predominantly Industrial Area
Forest Farm
Brakeybank Wood
Gorse Wood
Minepit Wood
Carpenters Yard
Appletree Wood
Pilgrim's Wood
Fairthorne House
Brokes Mill Farm
The Coach House
Forge Farm House
Yew Tree Farm
Ram Wood
Pennington Road
Yew Tree Road
Powder Mill Lane
Newbars Wood
Sandhill Farm
Robingate Wood
Tonbridge Road
High Brooms
St Johns Church of England Primary School
Owlsnest Wood
A26
0 0.3 0.6km

2.1 Description of Site Activities

Waste treatment, sorting and separation activities are conducted in the following manner.

Treatment and Storage

- The waste management permit places restrictions on the operator limiting the activities that may be undertaken within the contextual surroundings of the site, for example, storage, crushing, sorting, screening and shredding.
- Hardcore stored externally is also passed through the segregating equipment to manually remove small particles of wood, plastic and paper. This material is then transferred to bays or in the case of soil and stone, to a dedicated storage area.

Delivery of Pre-Segregated Materials

- Waste delivery vehicles traverse the site to deposit waste into bays designated by waste type.
- Manual sorting of mixed waste with individual waste types transferred to segregation bays elsewhere on site.
- Segregated materials are loaded onto waiting transport for off- site disposal and treatment.

Small Vehicles

- Small vans / tippers deposit bulky waste separately in a dedicated area located at the start of the processing equipment line.
- At this stage large items are removed either by hand or machine to the appropriate location

Commercial Waste

- Vehicles carrying commercial waste have a separate area located away from the processing equipment.

2.2 Principal Waste Handling and Treatment Processes

The waste treatment process involves manual and mechanical sorting to separate materials such as wood, metal, soil, hardcore and cardboard.

The waste will be deposited within the reception area. There will be a visual check to ensure there are no non-conforming items and any that may prove detrimental to the treatment equipment. Large items of recyclates will be manually removed at this stage. The waste will then be loaded into the treatment plant hopper by a 360-waste grab.

The waste is then "sized" by a shredder to allow progress through a series of stages of the manual picking line. The next stage is through the trommel screen. This is a rotating drum which is used to break the consistency of the waste and to remove the finer particles.

The fine material drops into a bay beneath the trommel.

The conveyor will continue to move waste passing an over-band magnet to remove metal.

Once segregated, individual materials are transported by loading shovel to storage bays to await transport from site. Trommel fines from other waste facilities (191212) is waste that has already been through mechanical treatment but will be cleaned further to remove any heavy material which could be recovered, such as metal, stones and grit.

Table 1 below illustrates the general waste types entering the site and likely composition of the load.

Waste Type	EWC	Containment Type	Typical Composition
Con/Dem	17 09 04	Variety of skip sizes	Soil, hardcore,
General Waste	20 03 01	Small vans	Bulky items, house clearance
General Waste	20 03 01	Large bulkers and variety of skips	Wood, metal, plastics, paper, and card
Commercial	20 03 01	Bulkers	Card, paper, plastic film
Soil and Stone	17 05 04	Skips	Soils, brick

Table 2 list the types of waste exiting the site.

Waste Type	EWC	Containment Type	Typical Composition
General Waste	19 12 12	Heavy bulker, articulated vehicle	bulky items and non- recyclables
Wood	19 12 07	Heavy bulker	Various sized wood
Metals	19 12 02	Heavy bulker	Non-ferrous metals
Metals	19 12 03	Heavy bulker	Ferrous metals
Hardcore	19 12 12	Heavy bulker	Brick, ceramics and concrete
Fines	19 12 12	Heavy bulker	Soil
Soil and stone	19 12 12	Heavy bulker	Soil

Table 3 illustrates the treatment process with final destinations of separated materials.

Table 3.

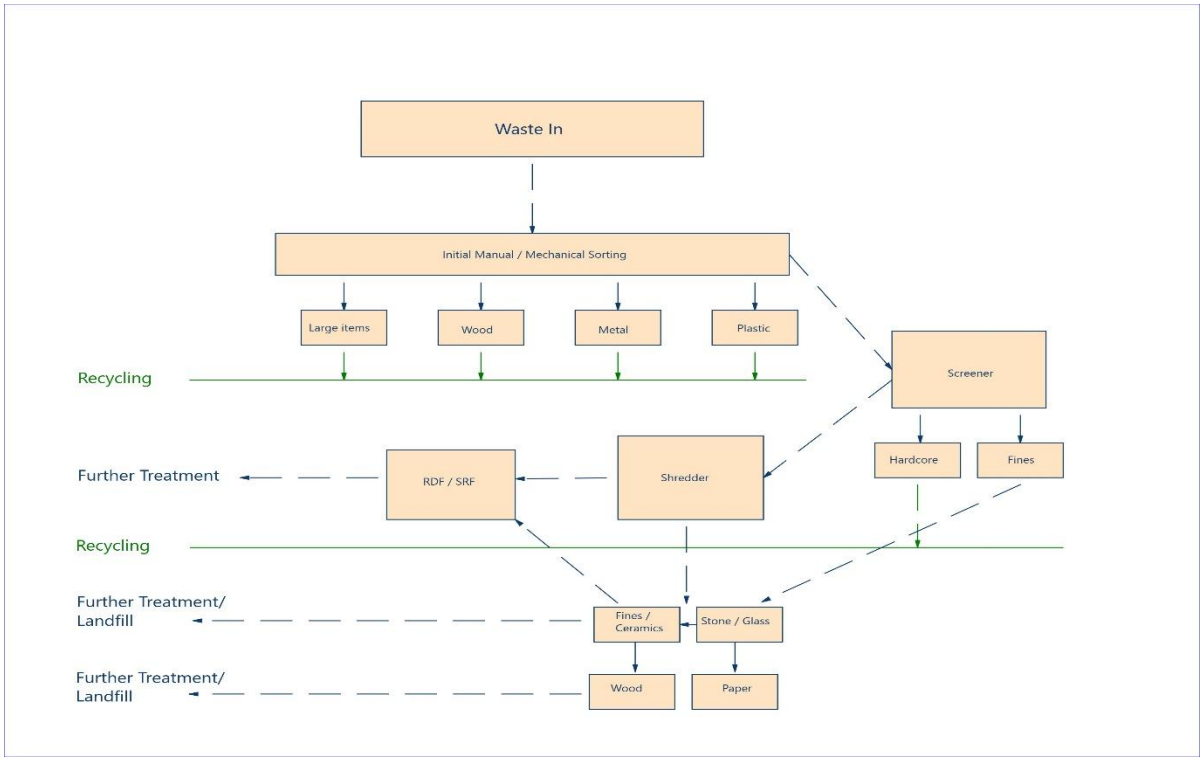


Table 4 presented below illustrates the approximate quantity of waste stored on site for each waste type.

Table 4.

Waste stream	Location	How it is stored	Max. length / m	Max. width / m	Max. height / m	Volume / m^3	Max. time it will be stored
Hardcore	External along southern boundary	Loose on bays	4.8	6	4	115	1 month
Ferrous metal	External along southern boundary	Loose in bays	4.8	6	4	115	1 month
Non-ferrous metal	External along southern boundary	Loose in bays	4.8	6	4	115	1 month
Mixed wood	External along southern boundary	Loose in a bay	4.8	6	4	115	1 week
Mixed waste	External along southern boundary	Loose in bay	4.8	6	4	115	< 3 days
Mixed soils, stone, and ceramics	External along southern boundary	Loose in a bay	4.8	6	4	115	<1 month
Mixed plastic	External along southern boundary	Loose in a bay	4.8	6	4	115	<1 month

2.3 Principal Odour Sources – on site

There is the potential for odour emissions to arise from the operation of the facility as described above and detailed further in the fugitive risk assessment at the end of this document. The application of good management procedures would, however, be capable of eliminating and minimising emissions to an acceptable level. The main potential sources of odour within the facility are as follows:

Mixed C&I waste delivery, processing, storage and transfer – fresh feedstock odours, rogue malodorous loads.

Receipt of dry recyclable waste (timber, paper, card) – Limited odour potential.

3.0 Odour Control during normal operations

3.1 General

The application of good working practices and process control is of fundamental importance in eliminating and minimising the quantities of odours formed on site and their subsequent release to atmosphere.

This approach is preferred as it is much more difficult to reduce odour impact through improving atmospheric dispersion.

The overall aim in the operation is to:

- Reduce materials received at site that have the potential to release odour.
- Prevent the formation or emission of odorous compounds in the first place.
- Where this is not practicable, minimise the release of odour to abate excessive emissions.

The proposed inclusion of waste code 20 03 01 is derived from the known quantity and variety of recyclates within this waste stream and therefore it is crucial to the commercial viability of the facility to include this waste type.

This odour management plan has been precipitated by the proposed inclusion of waste code 20 03 01, the receipt and treatment of this waste type. The control and mitigation of potential odours derived from mixed waste, either commercial or industrial, is set out in the various sections and appendices of this management plan and when effectively implemented will enable the facility to operate in a manner that is not detrimental to local amenities.

3.2 Agreements with Feedstock Suppliers

A major factor affecting the potential for odour emissions at the waste delivery and acceptance stage is the content of and nature of the feedstock. The company will exercise rigorous control of delivered feedstock by pre-acceptance arrangements that outline what is considered acceptable by enquiry of the source of the waste.

3.3 Waste Composition

The type of waste composition has been set out previously but will usually be presented in the following condition.

- Single waste types in various state of cleanliness and condition
- Mixed waste types as above
- Age of waste varies but generally degradation is not evident.
- Water content varies according to the time of year and source of the waste.

3.4 Handling of Wastes on Site

All materials delivered to site are subject to the waste acceptance procedure detailed in the EMS and within the appendices of this document.

3.5 Handling of Mixed Wastes

Mixed waste streams will contain only trace quantities of putrescible material and will therefore have a low potential to generate odour. Staff will visually inspect the waste as it is delivered and remove items that have the potential to generate an odour, either immediately or at a later date. Such items will be removed to a separate area of the site, quarantine area, in readiness for off-site disposal.

3.6 Floatation Tank (proposed within the extant permit variation application)

The tank is only loaded with material that has already been subjected to the material acceptance procedure and has been through the main processing plant. Therefore, this material has already been checked to ensure that it is not malodorous. However, a process of cleaning the plant is required to identify and remove build-up of material in restricted parts of the plant. This type of waste treatment is not known to give rise to odour emissions and is therefore on the lower scale of an impact assessment.

3.7 Small Van Deliveries

This type of waste stream is subjected to the same scrutiny as all waste deliveries by visual and orfactory inspection at the time of deposit. Any potentially malodorous loads are re-loaded and the reject load procedure is followed.

3.8 WEEE Waste

WEE wastes are not accepted on site but may be present from time to time as small inclusions.

3.9 Handling of Residual Waste (Wastes having no further recoverable potential)

The facility provides a delivery and bulking-up point for residual wastes. Within the facility, waste will be temporarily stored before being loaded into articulated bulk carrier vehicles for onward transfer to recovery or disposal facilities.

During operations involving the handling of residual waste within the facility, the following odour control measures will be employed:

- Residual wastes will not be unnecessarily handled, in order to avoid disturbance which could result in further emissions of odours.
- Residual waste will be removed from site in bulk within sheeted waste transport vehicles.
- The time that residual material remains on site will be kept to a minimum, with loads removed as quickly as is practicable.
- Odour neutralising agents are not used or proposed, as this type of control method has been known to be counter intuitive by creating synthetic odours.

3.10 Removal of Materials from Site

All loading of materials destined for further recycling or disposal are loaded close to relevant stockpiles or bays to minimise the activity, reduce the potential for dust and odour release and promote economy of use of site plant. Waste will not be dropped from height but rather lowered into the waiting vehicle. Removal of waste from site is a constant process in order to maintain throughput, adherence to the limitations of the Fire Prevention Plan and promote good housekeeping.

3.11 Cleaning

Regular cleaning of machinery, wheeled loaders and operational areas on the site, roads and drainage channels will discourage the build-up of any residue that could become odorous. The operational area will be cleaned down at the end of the day and all waste secured in the appropriate bays and storage areas.

Consumable liquids used in the operation and maintenance of the facility will be returned to lockable containers at the end of the working day and followed by a check of the operational area to ensure items are not forgotten. All staff are responsible for cleaning their own working area both during and at the end of their shift.

Mobile plant will be cleaned as per the procedures contained in the Environmental Management Plan. The impermeable concrete pad shall be swept at a frequency dictated by the amount of use, but in all instances shall be maintained free of dust build up, fugitive litter and other deleterious material. Waste containers, RORO's, will be checked to ensure they remain secure and that coverings are fitted correctly. Olfactory surveys will be undertaken around the vicinity of the storage area by the site supervisor and any odour noted with the potential to leave site will be investigated and acted upon by removing the container from site at the earliest opportunity. Housekeeping duties shall be conducted daily or at a frequency as directed by the supervisor or manager according to the requirement to maintain the operational area fit for purpose.

4.0 Routine Monitoring, Recording and Reporting

4.1 General

This section of the OMP sets out the monitoring procedures that will be implemented, during normal operations, to assess the effectiveness of operational practices to prevent odours, and to assess the nature and extent of any odour problem should it arise.

4.2 Overview of Monitoring Plan

The monitoring of odour emissions from the facility will be undertaken in order to ensure releases do not result in a nuisance at sensitive receptors. This monitoring includes both emissions monitoring of odour and inspections of the processes, and equipment to check that emissions are being contained and controlled to meet the accepted standards of good practice in relevant guidance.

In order to evaluate the performance of control techniques and abatement processes in use at the facility, the company will monitor odour in the following ways:

- A daily programme of odour monitoring.
- Monitoring of weather forecasts.
- Taking note of third-party activities that have the potential to generate odours.
- Monitoring of complaints and other forms of community feedback.

The following parts of this section of the OMP give further detail on how this monitoring would be carried out.

4.3 Odour Monitoring

Monitoring of odour migration will be undertaken by the site manager / supervisor to record the attributes of the odour. This will be undertaken using sniff test method. This monitoring is sensory, in that the human nose is used as the detector.

Sniff Testing will be undertaken for the following reasons:

- as part of the daily site inspection undertaken and recorded by site management
- at the site boundary during periods of adverse meteorological conditions, breakdowns or during other abnormal events to evaluate the effectiveness of the control measures in place and the likelihood that odour complaints will be received; and
- in the event that complaints are received, at the locations of sensitive receptors as part of the complaint investigation procedure.
- Engage non-operational staff to attend external odour surveys as operational staff are likely to become desensitised over a period of time.

Monitoring Meteorological Data

The use of meteorological forecast data will be applied at the facility for the following reasons:

- to identify any occasions where the potential for odour to leave site is high.
- to identify times when operations may need to be adjusted to account for adverse conditions.
- during routine operations, to plan where boundary monitoring should be focused to assess odour impacts.
- at the time of abnormal events to predict where odour impacts could potentially occur; and
- in the investigation of odour complaints.

4.4 Contingency and Control Measures

The site manager / supervisor shall be aware of the types and source of waste streams expected that day and consider these against prevailing conditions, such as equipment availability, and weather conditions.

If an amalgamation of conditions suggests that circumstances are right for the potential for odour release beyond the boundary of the site and the sensitivity of nearby receptors are likely to be enhanced, the manager / supervisor shall implement all control measures stated in this plan to pre-empt a loss of control.

Off-site odour surveys will ensue down and up wind of the site to isolate the source of any odour, the intensity and type. The manager / supervisor may consider the aid of non-operational personnel to determine the factors associated with an odour and calibrate their findings.

Should an odour be detected that on a scale of 1 to 6 may be considered above 3, the following actions will be implemented:

- Return to the site to inspect the documentation of recent loads to ascertain which may have contributed to odour release.
- Speak with operational staff who may be aware of a particular odorous load.
- Check what treatment activities are taking place and whether these are the cause of the off-site odour release.
- Cease processing if the odour is identified from a certain waste. Remove waste to a location where it may be sprayed with neutralizing solution and arrange removal from site that day. (the use of neutralizing agents will only be used at the direction of the site manager)

- If the source of the odour cannot be identified it may have previously passed through the treatment process.
- Check the odour neutralizer dosage is correct and increase for a short duration.
- Repeat off-site odour survey to determine whether the odour still exists.
- If the intensity of the odour has not diminished escalate the contingency measures to the next level by cessation of treatment activities and removing waste from site without further treatment.
- Record response and remedial action taken; and
- Follow internal procedures to advise of possible complaints with details of the problem.

4.5 Communicating with Complainants

In the case of answer phone messages and complaints submitted by email or by letter, an acknowledgement and initial response will be given by telephone or by email within two working days, provided that telephone or email contact details have been given by the complainant.

Where complaints cannot be resolved on initial contact and further investigations are required, a written response will be made within 10 working days of submission of the complaint.

Odour Diaries and Community Surveys

The Company recognises that there is the potential for circumstances to arise where odour complaints from community members contradict the results of the daily sniff test monitoring programme.

Where it is found that this occurs over an extended period of time, consideration would be given to engaging members of the public in key locations to undertake a period of community monitoring in order to evaluate and optimise the performance of the routine odour monitoring programme.

The community monitoring programme would take the form of participation in off-site walkover surveys and the keeping of odour diaries.

4.6 Recording of Results

The company will maintain records of all monitoring carried out under this OMP. The records will be retained, as required by the Environmental Permit.

4.7 Reporting

In addition to implementing the reporting requirements for monitoring, as set out within the Environmental Permit.

5.0 Document Updates and Reviews / Management

5.1 General

This section of the OMP provides information on:

- staffing responsibilities;
- staff training;
- complaint management, investigation and resolution procedures;
- provision of a complaints telephone line; and communications with external stakeholders.

5.2 Roles and Responsibilities

The company is committed to effectively managing the off-site impacts of odour from the facility. This commitment extends from director level. This section describes the responsibility for the management and operation of the facility.

Further information on the role of staff members and responsibility for odour management is given below:

- The facility has a dedicated Site Manager who has overall responsibility for the operation of the site.
- Routine preventative maintenance and reactive breakdown maintenance is the responsibility of the site manager.
- The site manager is responsible for the duties of operatives.
- During night hours and weekends, full time security is present.
- Operational staff members are responsible for maintaining an awareness of general process performance during their day-to-day activities. Staff are instructed to note and observe any unusual odour occurrences and to report these to the site manager without delay.
- Site manager reports serious issues to the directors. Relevant instructions are then relayed to the site operatives through the site manager.

5.3 Training and Competency of Operational Staff at the Facility

All staff at the facility are made fully aware of the need to be constantly vigilant with regard to site odour control and management procedures. Staff responsible for the operation, maintenance or repair of odour control critical plant will be trained and competent.

Records will be maintained (documented training records) demonstrating compliance with this. In order to minimise risk of emissions, particular emphasis will be given during training to:

- general awareness of responsibilities for avoiding odour nuisance.
- actions to minimise emissions during abnormal conditions.

Management will maintain a statement of training requirements for each operational post and keep a record of the training received by each person whose actions may have an impact on the environment.

The staff will receive regular refresher training.

5.4 Complaints Handling and Communications

Complaint data is recognised by the Environment Agency as the single most important tool for assessing the overall level of odour impacts experienced by members of the public at locations outside the site boundary. It is therefore vital to record and act upon complaints received and communicate the outcome of investigations to complainants.

The company will implement a system of complaints monitoring and analysis. Complaints will be collected, registered and validated as described in Complaint Procedure detailed in the EMS.

5.5 Publicising Contact Details for Odour Complaints

Members of the public are able to contact the company with any complaints about the facility by the following means:

- By telephone – the contact number will normally be manned from Monday to Friday between the hours of 07:00 and 18:00, Saturday operating hours are 07:00 to 14:00. Outside of these hours, and on infrequent occasions during the above hours when an immediate reply cannot be made, there will be an answer phone service.

5.6 Collecting the Relevant Complaint Details

Wherever possible, the following minimum information will be collected for each complaint:

- the time and date when the offensive odour was detected.
- the location where the offensive odour was detected, e.g. postal address, grid reference) and its sensitivity.
- the complainant`s description of the odour. This should include a subjective description of all the factors necessary to make an assessment of the impact of the odour, including intensity, character, frequency and duration.
- the identity of the complainant, if possible, to assess the repeated nature of complaints.
- the residential address of the complainant; and
- any other information the complainant can offer on activities at the alleged odour source.

It is also necessary to collect (by observation or further investigation) the following additional information to allow subsequent analysis and collation of complaints:

- wind direction and speed, and at the time of complaint; and any process incidents at the time.
- other off-site activities ongoing at the time, such as associated with the adjoining sites.

A standardised form used both for odour and dust, (based on that used by the Environment Agency in its consultation) will be used.

Further investigation of the complaint

If the initial screening concludes that the facility could be the source of the odour complaint, then further investigation will be carried out, which will either 'confirm' and 'further characterise' the incident is due to the site, or it will 'fail to confirm' the incident.

Further investigation will be by means of a graded response, designed to answer the questions:

- can the source of the episode be linked to the facility? and
- What is the scale of the impact?

The company may use odour monitoring to provide supporting data to answer these questions or provide additional confirmation.

The monitoring effort is increased in a graduated way until the data generated is sufficient to answer the relevant questions being asked. If the level of monitoring being carried out at a particular stage in the graded response cannot answer the question (either at all, or with sufficient confidence to satisfy stakeholders) then monitoring should move to the next level.

5.7 OMP Update and Review

The periodic review and update of the OMP will be in line with the recommendations of the EA Odour Guidance, and this will take place on an annual basis, as a minimum.

However, the OMP is intended to be a live document which serves as a reference during day to- day operations, and as such would be updated on a more frequent basis should the following occur:

- significant changes made to the plant or operational practices.
- there is a change to the management structure, designation of responsibility or training provision.
- the Environment Agency requests that the OMP is updated, in their role as regulator; or
- complaints are received, which on subsequent investigation result in the identification of further control measures or remedial action, in addition to those set out within this OMP.
- All updates to the OMP will be recorded on page 2 of the OMP.

6.0 Housekeeping

The site manager / supervisor shall be responsible for the implementation of housekeeping duties by detailing site operatives with tasks designed to maintain the visual standard expected of a modern waste management facility. It follows that a clean and tidy site negates the potential for a build-up of odorous waste especially in remote locations. The list presented below should not be considered exhaustive but judged as a minimum.

- Daily collection of fugitive litter, especially in locations not often frequented
- Daily cleaning of plant and waste handling equipment to prevent a build-up of waste material.
- Visual inspection of surfaces and detail cleaning parties if necessary
- Inspection and cleaning of drain gullies for accumulated silts
- Ensure chemicals are returned to lockable containers and lids are secure.
- Impermeable surfaces should be kept clean and free of waste.
- As waste storage bays become free between batches of waste, detail work parties to sweep the area before more waste is added.
- Ensure plant maintenance is carried out in accordance with the requirements stated in the fire prevention plan and environmental management system document.
- Monitor weather forecast for adverse conditions that may affect operations and create entrainment of waste.
- Water storage containers should be checked to ensure water does not become stagnant.
- Site plant and delivery vehicles should be instructed to switch off engines when not in use.
- Wastes that have the potential to become anaerobic if left should be a priority for removing from site.

7.0 Gypsum

From the variety of waste types accepted and stored on site plasterboard containing Gypsum is perhaps the most likely to cause odour - if the conditions pertaining to its storage are not carefully managed.

Gypsum is a naturally occurring mineral found and mined in various locations around the world.

Following the cessation of co-disposal at landfill sites Gypsum based products are either sent for recycling or to specific categories of landfill having a mono disposal cell. The very small quantity accepted and stored at Skipaway Limited proves uneconomical to send direct to landfill, assuming a suitable category site were nearby. Instead, this waste stream is sent to third party facilities who handle much larger quantities and inevitably have agreements with plasterboard manufacturers to recycle the material.

Plasterboard containing Gypsum becomes problematical when it gets wet and begins to degrade and anaerobic decay occurs. The microbes in these conditions biologically convert the sulphate in the Gypsum into hydrogen sulphide (H_2S) by using organic wastes and water attached to the plasterboard. This reaction creates the foul-smelling gas often associated to rotten eggs and once generated can easily disperse into atmosphere where it can be detected as low as 200 ppm.

8.0 Sources, Pathways and Receptors of Potential Odour Emissions

Black bag waste is normally associated to the generation of odour from waste treatment facilities. Black bag waste will not be accepted on site and personnel shall be aware that waste of this type has the potential to cause a nuisance off site. It is planned to concentrate waste inputs firmly on construction and demolition waste types as these traditionally contain a high percentage of recyclable material. However, waste code 20 03 01 must now be considered as the viability of the facility depends on recyclate rich waste loads.

The following procedures will reduce the potential of odour being generated from waste treatment activities.

- Vehicles will only be un-sheeted when ready to discharge.
- Daily cleaning of the site to prevent any waste accumulation.
- Continuous waste processing and export to prevent waste remaining on site for prolonged periods. In the event of breakdown, arrangements will be made to remove the waste from the site and divert waste directly to alternative facilities.
- Any waste that is particular odorous will be placed into a container and covered with soil. Arrangements will be made to remove the load within 24 hours.
- The site is located on an industrial estate and adjoins many potentially odour generating businesses. There is a lack of sensitive receptors located down-wind of the facility.

There are a number of potentially odour generating waste treatment facilities in the immediate vicinity of the site,

- Waste management company to the immediate south.
- Vehicle dismantlers to the immediate east and north
- Sewage treatment facility some 50m due west
- Household waste amenity site 100m due west

See appendix A for 1Km radius of sensitive receptors and wind rose.

Table 2 below highlights the potential sources of odour generation, pathways, receptors and corresponding elements of mitigation and control.

Table 2.

Activity	Receptor	Pathway	Probability of exposure	Management techniques	Consequences	Overall risk
Waste entering site .	Commercial properties surrounding the site	Air – windblown	Odour could easily reach commercial premisses located to all aspects surrounding the site. Especially those downwind and therefore susceptible.	Enforce the site waste acceptance procedures. Identify odorous loads before they are accepted to site.	Nuisance of odour to immediate commercial premisses effecting the quality of life of people working there.	Low when all management techniques are in place.
Tipping of waste.	Residential and commercial	Air – windblown	Odour could reach nearby properties	As above but also ensure odour control systems are operational. Off-site odour surveys to be undertaken.	Negative effect on local amenities.	Low
Waste handling equipment transferring segregated waste.	Commercial premisses located immediately around the borders of the site	Air – windblown.	Odour could reach the commercial premisses located immediately adjacent to the site.	Cease activity causing odour. Investigation into the source of the odour. Any odorous material will be removed from site within 24 hours.	Nuisance of odour within properties to the detriment of residents. Negative effect on people working in the adjoining premisses.	Good control measures in place and tried and tested equipment available.
Treatment of waste	Commercial premisses located immediately around the borders of the site Residential premisses further afield to the south	Air-windblown Air-windblown	Odour could reach the commercial premisses located immediately adjacent to the site. Strong odour could reach these places.	As above Continue off-site odour surveys if malodorous waste identified.	Severe effect on the general function of the amenities within the vicinity. Loss of amenity.	Good control measures will prevent fugitive emissions.

Activity	Receptor	Pathway	Probability of exposure	Management techniques	Consequences	Overall risks
Treatment of dry waste.	As stated above.	Air-windblown	Very unlikely as the waste is saturated by the water separation process.	Most waste is passed through the floatation tanks to separate waste types for recovery.	None.	No odour will be emitted from the water treatment process.
Baling of separated materials	As above	Air	Very low as the activity doesn't generate significant odour	Olfactory monitoring and implementation of the techniques stated in this plan.	If emitted, odour could potentially reach nearby premisses but only in very low quantities.	Extremely low considering the process and containment.
Separating of ferrous and non-ferrous metals	As above	Air	Very low as traditionally this type of waste is not odorous.	General management techniques in place that control the treatment and movement of this material.	None...	Very Low.
Activity	Receptor	Pathway	Probability of exposure	Management techniques	Consequences	Overall risks
Loading of waste materials after sorting and segregation	All of the above.	Airborne	Odour could reach the nearby premisses and nearby industrial properties.	Increase frequency of off-site monitoring if wind emanates from the east and malodorous waste has been noted.	Complaints from nearby commercial premises Health concerns for personnel of neighbouring businesses.	Overall risk is minimal when all of the management techniques and equipment available to the operator are employed.
Shredding waste	All of the above.	Airborne.	Potentially the highest odour generating activity and therefore chance of odour reaching neighbouring sensitive areas is high.	Prevailing weather conditions must be taken into account when processing material. Processing equipment is fitted with internal sprinkler systems and when odour neutralizer is introduced would have a positive effect	All of the above but with perhaps greater impact and consequences.	Minimal when all management techniques are employed.

				on odour neutralization. If control measures are ineffective, then the activity should cease until favourable conditions resume.		

9.0 Summary.

From production of this odour management plan has arisen a greater understanding of the potential sources of odour generation, likelihood of fugitive emissions entrainment and local receptors.

With this knowledge, coupled with past experience of mitigating odour generation and controlling its movement, comes the ability to conduct waste treatment activities without posing a nuisance to local amenities and the environment, a claim validated by the total absence of odour complaints received at the site and area Environment Agency office.

Pre-operational planning is essential to ensure the day's activities are controlled and managed in such a way as to negate the sites impact on the locality and immediate workforce. Understanding the potential for individual activities to generate odour, mitigate the likelihood before it occurs, rearrange procedures to correspond to prevailing conditions serves as a primary means of control.

The waste acceptance procedure presented in the EMS outlines the requirements of duty of care and iterates the protocols that are in place to prevent non-conforming wastes and those that may have the potential to be odorous.

It must be noted that the location of the waste treatment and transfer facility, being central within a predominantly commercial area has the potential to be influenced by third party activities and by virtue of their business, also have the potential to generate odour.

It has been identified that plasterboard waste under certain conditions has the potential to cause odour and therefore this plan makes mention of its control and management.

The acceptance of putrescible waste is by far the greatest cause of odour release and will lead in time to odour complaints. Therefore, special measures are in place to prevent this waste entering site by.

- Communication between weighbridge and operational staff to provide forewarning of potentially odorous loads.
- Staff training and understanding of the possibilities that certain waste streams have the potential to cause odour.
- Expedite the removal from site within the specified 24-hour period.
- Prevent unnecessary disturbance of the waste once tipped.
- Under no circumstances allow the waste to be treated in any form

- Carry out pre-acceptance checks of odour control measures to ensure all equipment is operating as desired.

The Environment Agencies guidance H4- Odour Management has been consulted when compiling the actions of this management plan and where required using the acronym “FIDOR” as the basis to formulate the plan.

The level of engagement required with the local community is considered minimal at present but will change if adverse trends develop to the point of becoming a nuisance.

Odour diaries are not considered necessary taking into account the types, quantities, and past experience of operating the site, but records of odour surveys shall be made in the site diary, to include what actions were taken if applicable. The Environment Agency odour report form presented in document H4 Odour Management is given in appendix C and shall be used to record the presence of odour if off-site surveys identify a rising trend.

This odour management plan should be reviewed in conjunction with prevailing conditions at the site, personnel change over and prolonged abnormal conditions. It should also be read in conjunction with the EMS, FPP and other supporting management plans.

Should odours be detected off-site and found to be as a direct result of operations, then it must be considered that failure to adhere to this plan has occurred.

Hedonic tones have not been considered because of the factors stated previously but suffice it to say that hydrogen sulphide would score negatively were it present and released into the local community.

The measure used to determine the range of the hedonic tone sites +4 as a pleasant smell, typically fresh baked bread and -4 for foul smells such as rotting flesh. The hedonic score of an odour emission may be reduced by introduction at source by chemicals that positively affect some compounds to diminish their odorous nature. Odour neutralizers and masking agents work in this way by introduction into a suppression system.

The overall effectiveness of this odour management plan is founded by the numerous elements presented within the plan that have identified the potential to generate odour, and the measures implemented to manage, mitigate and control the potential. The operator must also be aware that the effectiveness of olfactory surveys may be compromised by a number of factors, but predominantly by staff becoming desensitised by prolonged exposure to a certain type of odour.

The greater the exposure to an odour the more a person will become desensitised to it in terms of intensity and specific identification.

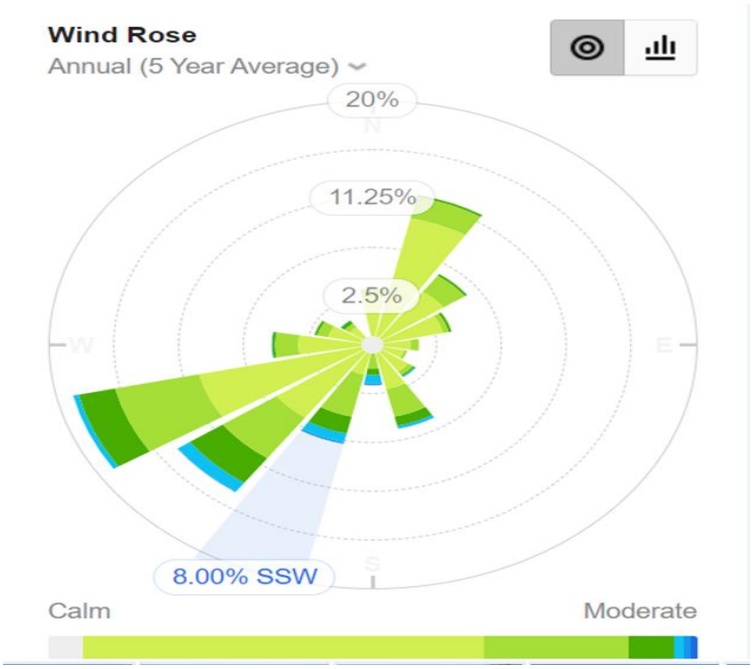
Recovery in someone who works in close proximity to an odour slows over time resulting in their perception of given circumstances varying widely from another person experiencing the same odour.

Cold drainage has not been considered in any length, primarily because the facility has not experienced odour complaints and is unlikely to when the conditions of this odour management plan are implemented. The next scheduled review of this management plan shall consider the relevance of cold drainage against site records pertaining to complaints and the site manager shall consider, based on the number of complaints, whether the detailed study of cold drainage is required.

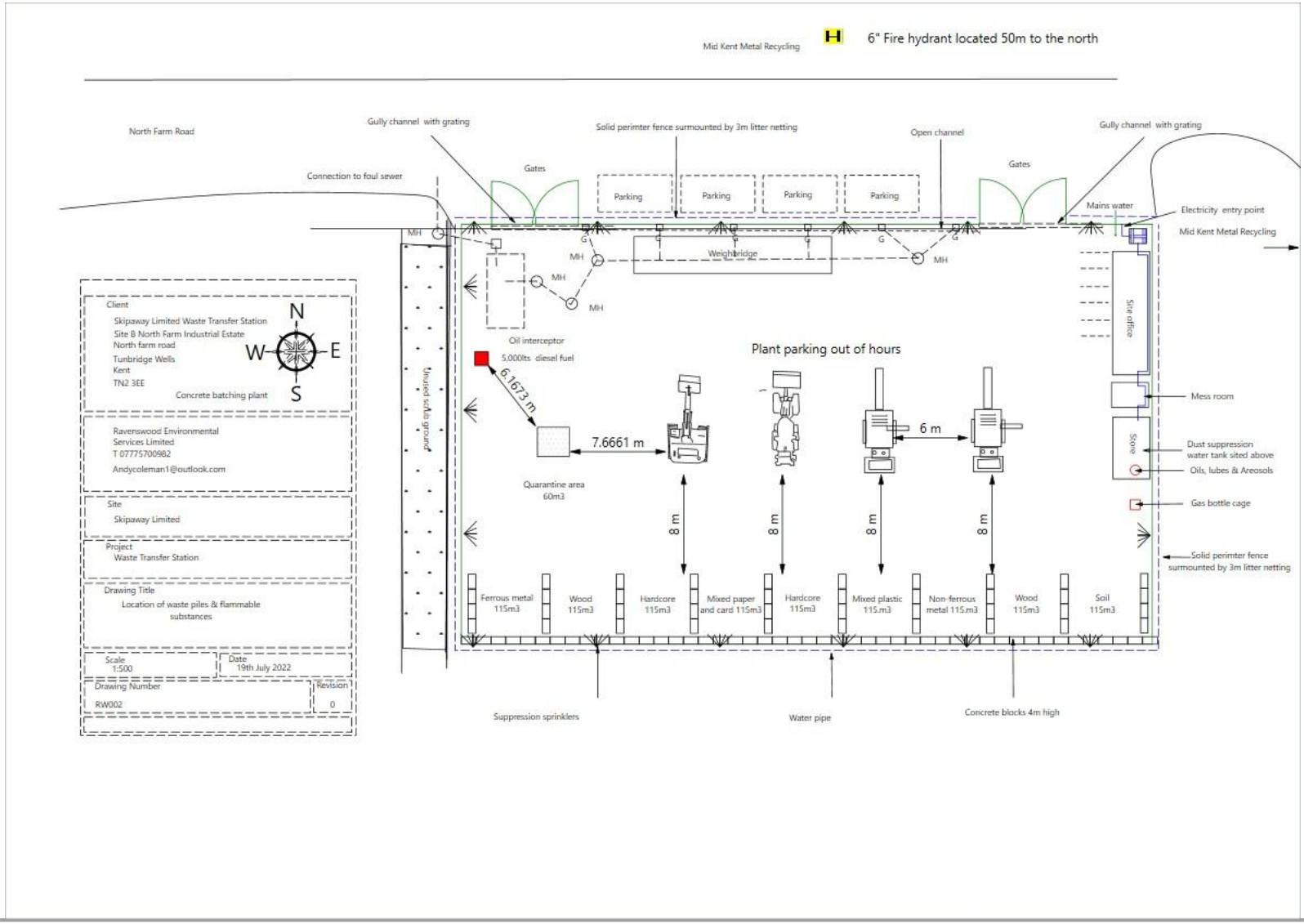
Appendix

Appendix A – Wind Rose and Sensitive Receptors

Wind rose and sensitive points relative to the location of Skipaway Limited



Appendix B – Waste Pile Locations Within the Site



Appendix C – Odour Report Form

Odour report form				Date	
Time of test					
Location of test e.g. street name etc					
Weather conditions (dry, rain, fog, snow etc):					
Temperature (very warm, warm, mild, cold, or degrees if known)					
Wind strength (none, light, steady, strong, gusting) Use Beaufort scale if known					
Wind direction (e.g. from NE)					
Intensity (see below)					
Duration (of test)					
Constant or intermittent in this period or persistence					
What does it smell like?					
Receptor sensitivity (see below)					
Is the source evident?					
Any other comments or observations					

Sketch a plan of where the tests were taken, the potential source(s).

Intensity		**Receptor sensitivity**
0 No odour	4 Strong odour	Low (e.g footpath, road)
1 Very faint odour	5 Very strong odour	Medium (e.g. industrial or commercial workplaces)
2 Faint odour	6 Extremely strong odour	High (e.g. housing, pub/hotel etc)
3 Distinct odour	Ref: German Standard VDI 3882, Part 14	

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Appendix D – Complaints Form

Site:	**Operator:**
Complaint Ref:	**Date:**
Name and Address of Complainant:	
Tel. No. of complainant:	
Time and Date of complaint:	
Date, time and duration of offending dust:	
Location of dust, if not at above address:	
Weather conditions (i.e. dry, rain, fog, snow)	
Wind Strength and Direction (light, steady, strong, gusting):	
Complainants' description of dust (colour, origin)	
Intensity of Dust (light, moderate, strong, persistent)	
Has complainant made any other comments about the dust?	
For Completion by Site Manager:	
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:	
On-site activities at time the dust occurred (e.g., stock-pile movement):	
Operating condition at time dust occurred (e.g., normal, abnormal, maintenance/special):	
Remedial action taken:	
Corrective action planned:	
Corrective action completed:	
Form completed by:	Signed: Date:

Appendix E – Table of responsible persons

Activity	Position
Coordinating odour mitigation Measures	*Site Manager, Site Supervisor*
Overseeing Maintenance of odour Suppression System	*Site Manager, Site Supervisor*
Completing odour event forms	*Site supervisor, Site Manager*
Liaison with Public and Regulator	*Site Manager*
Updating of odour Management Plan	*Site Manager*
Ensuring maintenance of internal and external roads	*Site Manager, Site Supervisor*
Co-ordinating machinery / equipment servicing	*Site Manager, Site Supervisor*
Odour Monitoring surveys	*Site supervisor*
Review of odour management plan performance	*Site Manager, Compliance Manager, Site Supervisor*

Appendix F – Waste Acceptance procedure

Waste Acceptance / Duty of Care

All waste materials that enter the facility are subject to this waste acceptance procedure.

1. Waste Carriers Licence

1.1 Vehicles entering the site will do so via the weighbridge office, the vehicle will enter the weighbridge, and the driver will report to the weighbridge operator.

1.2 All customers using the site will hold a valid waste carriers' licence should they be required to do so. A copy of waste carrier's details will be retained on site for future reference.

1.3 Companies failing to produce a valid waste carriers' licence will be allowed entry for disposal to prevent the potential for unlicensed disposal if rejected from site. The EA will be contacted and advised of the company's details. Further entry to site will be refused until such time that they are registered.

1.4 The site will keep a copy of the licence of regular customers for reference. Occasional customers will have to prove that they hold a valid waste carriers' licence before tipping.

1.5 All companies making waste deliveries to site must hold a relevant waste carriers' licence, operating under the auspices of another carrier is **not** permitted and, in this instance, vehicles will be refused entry.

2. Duty of Care Waste Transfer Note

2.1 All customers will have to show a copy of their duty of care document to the weighbridge staff unless an annual transfer note is in place. A list of the approved annual waste transfer note holders will be recorded and displayed at the weighbridge.

2.2 A member of staff will check the material description and EWC code and confirm that this material is acceptable within the permit conditions. Should the transfer note be deemed incorrect, then the site checker will make the appropriate communications to the customer to rectify and clarify the right EWC code. Written confirmation is required from the customer when changing the original details of a transfer note.

2.3 It is the producer's responsibility to correctly describe the waste being carried and any subsequent alterations to delivery details will be carried out by the vehicle driver under instruction from the customer / waste producer. Any such changes will be noted in the site diary, recording details of the transaction. The site manager / TCM will be informed of such occurrences.

2.4 In the scenario mentioned above the vehicle delivering the waste will be singled out for closer inspection at the weighbridge and at the disposal point to ensure the waste has not been miss-described. Any failure at this point, the vehicle will be subject to the rejected load procedure (see section 5.)

2.5 A copy of the site permit and in particular schedule 2, table 2.2, will be displayed in a prominent position in the weighbridge office for reference when required. The site manager or TCM will hold "toolbox talks" at regular intervals to discuss such matters as waste acceptance procedures and attendance records will be kept for future reference.

3. Issuing the Ticket

3.1 A weighbridge ticket will be issued by the site checker, and this will detail the following:

- Customer
- Haulier
- Material Description / EWC Code
- Producer location
- SIC Code
- Volume / material weight
- Date
- Site Weighbridge Operator & Drivers signature

3.2 When all checks are complete, and the site checker is satisfied that accepting the waste conforms to the conditions of the site permit, a weighbridge ticket will be issued and signed by both parties. The waste delivery driver will retain a copy, likewise the site checker who will append the transfer note accompanying the load to the weighbridge ticket.

3.3 The waste will be rejected if the documentation is incorrectly filled out, required entries missing or the waste description does not match the requirements of the site permit.

3.4 Waste rejection procedures will apply in all instances in this regard. (The waste carrier / producer will be given the opportunity to rectify errors on the waste transfer note by demonstrating the authenticity of the waste and correct paperwork)

4. Visual Inspection of the Load

1.1 When waste materials arrive at the site, they will be assessed against the details stated on the accompanying transfer note.

1.2 A visual and olfactory assessment will then be conducted by the site checker if the type of container allows this action.

4.3 The waste will be visually checked at the point of disposal by the site operative designated to undertake this role. The operative will be familiar with the conditions of the site permit and in particular table 2.2. Any waste that are not listed in table 2.2 will not be accepted for disposal.

4.4 The operative will inform the site manager and customer if the load is non-compliant.

4.5 If the load is non-compliant with the permit conditions, then the rejected load procedure will be followed.

4.6 Where there is uncertainty regarding the conformity of the load or where the vehicle has already left the site the quarantine area will be utilised for temporary holding of the waste. The quarantine area will be located on the impermeable base only.

4.6 All materials received at the site which require treatment under the permit will be deposited within the waste reception areas on the impermeable base.

5. Non-conforming waste

5.1 Rejected Load Procedure

5.2 Any loads identified as unacceptable *prior to disposal* shall be isolated, prevented from tipping, the driver, customer and site manager / TCM informed, and the most appropriate course of action agreed between all parties.

5.3 If the non-conforming waste is hazardous the Environment Agency will be consulted on the best course of action, which may result with the vehicle being redirected to another, suitably permitted waste facility or returned to the waste producer.

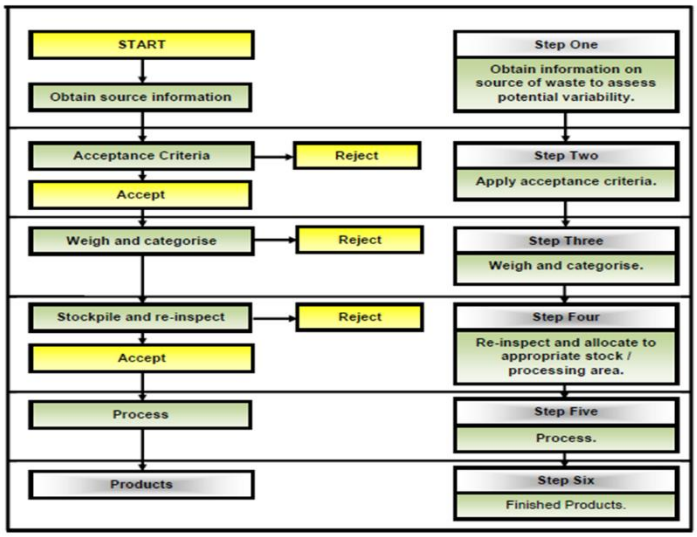
5.4 Any load or part load identified as non-conforming waste at the point of *discharge* shall be reported to the vehicle driver prior to leaving the site and the site manager / TCM informed. Photographic evidence shall be obtained. Appropriate action will then be decided upon in accordance with 5.3 above.

5.5 Details of rejected waste will be kept on site; this will include time and date, haulier and vehicle registration number, producer details, type of waste and reason for rejection.

5.6 In the event of a waste being rejected discussions will be held between Skipaway Limited and the customer/haulier to determine why the waste was rejected and what measures must be put into place prior to the acceptance of any further waste loads from the same source.

5.7 Such events as those mentioned above will be noted in the site diary and form the topic of the next scheduled Toolbox Talk to evaluate the performance of site procedures pertaining to waste acceptance.

Waste Acceptance Flow Chart



Appendix G – Emergency contact information

Name	/Service	Address	Contact details	Status	Distance	Time (approx.)
Kent fire services	Kent fire and rescue service	Grove Hill Rd, Tunbridge Wells TN1 1SD, UK	999	Wholetime and retained	3 miles	< 10 minutes
Tunbridge Wells Hospital,	Hospital	Pembury, Tunbridge Wells, Kent, TN2 4QJ	01622 224960 Or 999	A and E	1.1 miles	5 minutes
Tonbridge Cottage Hospital	Hospital	Vauxhall Lane, Tonbridge, Kent, TN11 0NE	01732 353653	Non- A and E	1.4 miles	5 minutes
Tunbridge Wells Borough Council	Council	Town Hall Mount Pleasant Road Royal Tunbridge Wells Kent TN1 1RS	01892526121	Multi departmental	3 Miles	>10 minutes
Environment Agency	Waste regulation	Orchard House Endeavour Park London Road Addington West Malling Kent ME19 5SH	03708 506 506	Manned from 8 to 6. Out of hours contact 24 /7	15.5 miles	30 minutes
Southern Water Services Limited	Water supply	Southern House, Yeoman Road, Worthing, West Sussex, BN13 3NX.	0800-820-999	Remote contact	70 miles	1.2 hours
Site manager	N/A	Site B, North Farm Industrial Estate, North Farm Lane, Tunbridge Wells, TN2 3EE		Available on mobile 24/7	N/A	30 minutes
Site security	Out of hours security	TBC	TBC	Remote surveillance	N/A	N/A

Appendix H – Waste Types Accepted on site.

Table S2.1 Permitted waste types and quantities for household, commercial and industrial waste transfer station	
Maximum quantity	The total quantity of waste accepted at the site for the above activity shall be less than 75,000 tonnes a year.
Exclusions	wastes having any of the following characteristics shall not be accepted: • Consisting solely or mainly of dusts, powders or loose fibres • Wastes that are in a form which is either sludge or liquid.
Waste code	Description
15	Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified
15 01	packaging (including separately collected municipal packaging waste)
15 01 01	paper and cardboard packaging
15 01 02	plastic packaging
15 01 03	wooden packaging
15 01 04	metallic packaging
15 01 05	composite packaging
15 01 06	mixed packaging
15 01 07	glass packaging
15 01 09	textile packaging
16	wastes not otherwise specified in the list
16.01	end-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08)
16 01 17	ferrous metal
16 01 18	non-ferrous metal
16 01 19	plastic
16 01 20	glass
17	construction and demolition wastes (including excavated soil from contaminated sites)
17 01	concrete, bricks, tiles and ceramics
17 01 01	concrete
17 01 02	bricks
17 01 03	tiles and ceramics
17 01 07	mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
17 02	wood, glass and plastic
17 02 01	wood
17 02 02	glass
17 02 03	plastic
17 03	bituminous mixtures, coal tar and tarred products
17 03 02	bituminous mixtures other than those mentioned in 17 03 01
17 04	metals (including their alloys)
17 04 01	copper, bronze, brass
17 04 02	aluminium
17 04 03	lead
17 04 04	zinc
17 04 05	iron and steel

17 04 06	tin
17 04 07	mixed metals
17 04 11	cables other than those mentioned in 17 04 10
17 05	soil (including excavated soil from contaminated sites), stones and dredging spoil
17 05 04	soil and stones other than those mentioned in 17 05 03
17 05 08	track ballast other than those mentioned in 17 05 07
17 06	Insulation materials and asbestos – containing construction materials
17 06 04	insulation materials other than those mentioned in 17 06 01 and 17 06 03
17 08	gypsum-based construction material
17 08 02	gypsum-based construction materials other than those mentioned in 17 08 01
17 09	other construction and demolition wastes
17 09 04	mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 0902 and 17 09 03
19	Wastes from waste management facilities, off-Site waste water treatment plants and the preparation of water intended for human consumption and waster for industrial use.
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11
20	municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions
20 01	separately collected fractions (except 15 01)
20 01 01	paper and cardboard
20 01 02	glass
20 01 10	clothes
20 01 11	textiles
20 01 38	wood other than that mentioned in 20 01 37
20 01 39	plastics
20 01 40	metals
20 02	garden and park wastes (including cemetery waste)
20 02 01	biodegradable waste
20 02 02	Soil and stone
20 02 03	other non-biodegradable wastes
20 03 01	mixed municipal waste

It is proposed to include EWC 19 12 12 within the list of wastes accepted at the site in recognition of waste emanating from waste transfer stations with minimal treatment capabilities.

19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11*

It is also proposed by the operator to add EWC 20 03 01 to the approved list of wastes because this waste type is known to be recyclate rich and widely available. In addition, the company are now operating their own collection vehicles and due to the absence of this waste code on their permit, waste deliveries are diverted to third party facilities, and the result is detrimental to their business model.

EWC 20 03 01 consists if the following items:

- Paper and cardboard
- Wood
- Plastic
- Film
- Mixed metal
- Occasional brick pieces and soil

This waste type shall be accepted pursuant to existing Waste Acceptance Procedures which is stated in this document and other supporting documents and segregated in the manner described throughout the supporting management plans. But for the purpose of completeness, a brief description is given here:

Following conformity of the waste and documentation at the weighbridge the vehicle will be directed to the tipping point which is in the location of the waste handling grab. This allows the waste load to be broken for visual inspection and large recyclates to be removed mechanically and the remainder manually sorted into individual waste types.

The treatment consists of:

Manual pre-sorting to remove waste types such as cardboard, paper, wood and metal. Then the waste will pass through a screener to segregate hardcore type material and soil leaving the smaller fractions of wood, metal and those items that have no further use.

The application to vary the existing permit submitted to the National Permitting Service on 22nd July 2022 includes the proposal to operate a sink float tank whereby waste is passed through the water bath to separate heavy and light fraction particles. This process has a greater recovery rate than traditional screening and combining the two activities renders a high rate of recovery.

The potential for odour release from this waste type has been identified and controls established in the Odour Management Plan submitted in support of the permit variation.

Once segregated, individual waste types recovered from EWC 20 03 01 are stored locally in bays awaiting transport from site. The manner in which the waste is stored, location and duration on site in mentioned in the Fire Prevention Plan.