ODOUR MANAGEMENT PLAN

albus environmental

212 KINGSNORTH INDUSTRIAL ESTATE, HOO, ROCHESTER, KENT

ECL Ref: ALBU.01.03/OMP
September 2026
Version: Issue 2

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ACRONYMS/TERMS USED IN THE TEXT

Albus Environmental	**Albus Environmental Limited**
AT	**Alternative Waste**
ATP	**Alternative Treatment Plant**
BAT	**Best Available Techniques**
EA	**Environment Agency**
EMS	**Environmental Management System**
EWC	**European Waste Catalogue**
FIDOR	**Frequency, Intensity, Duration, Offensiveness and Receptors**
GP	**General Practitioner**
HEPA	**High Efficiency Particulate Air**
HTM 07 01	**The Safe Management of Healthcare Waste**
IC	**Improvement Condition**
NGR	**National Grid Reference**
OMP	**Odour Management Plan**
OS	**Ordnance Survey**
OW	**Offensive Waste**
PPMR	**Planned Preventative Maintenance Regime**
RDF	**Refuse Derived Fuel**
The Installation	**Albus Environmental Limited Healthcare Waste Treatment Installation**

DOCUMENT HISTORY

Date	Version	Section	Description	Written by	Approved by
February 2022	Issue 1	All	All	ECL	SC & NC
September 2026	Issue 2	1	Introduction	ECL	NC
		2	Description of the Site and Processes		
		5	Operational Process Controls		
		6	Odour Monitoring		
		9	Maintenance of OMP		
		10	Declaration		

1. INTRODUCTION

1.1. Site Details

1.1.1. Site Name: Albus Environmental Waste Treatment Installation

1.1.2. Site Address: 212 Kingsnorth Industrial Estate, Hoo, Rochester, Kent, ME3 9NZ

1.1.3. Operator Name: Albus Environmental Limited

1.1.4. Permit Number: EPR/JB3604FF

1.1.5. Job Titles of Responsible Persons: Nick Clarke – Head of Operations / TCM, Andrew White - Director

1.2. Requirement for an Odour Management Plan

1.2.1. Albus Environmental Limited ("Albus Environmental") operate a Healthcare Waste Treatment Installation at 212 Kingsnorth Industrial Estate, Hoo, Rochester, Kent, ME3 9NZ, hereafter referred to as "The Installation".

1.2.2. As part of Albus Environmental's Environmental Permit EPR/JB3604EF, which was issued on the 15th December 2021, Improvement Condition ("IC") 2 required the preparation of an Odour Management Plan ("OMP"). The OMP (Issue 1, dated February 2022) was approved by the Environment Agency ("EA") as detailed in CAR 407177/0442985 (dated January 2023).

1.2.3. As part of the variation application to include clinical sharps container washing and shredding, as well as the acceptance of additional waste codes, the OMP has been updated accordingly. For ease of reference, amendments to the OMP are in red text.

1.2.4. This Odour Management Plan ("OMP") has been written to meet the EA general requirements for OMPs as described within the EA's online guidance, such as Odour management: comply with your environmental permit (Updated December 2025), EA online guidance 'Healthcare waste: appropriate measures for permitted facilities' (July 2020, updated December 2021). Version 3 of the EA's Odour Management Plan Template was also considered in the production of this OMP.

1.2.5. This OMP addresses the following issues:

- the materials and/or activity which could produce odour at the potential point(s) of odour release;
- identification of potential sensitive receptors;
- process controls and procedures;
- potential corrective actions; and
- record keeping.

1.2.6. This OMP provides information on the potential odour impacts from the Installation and the mitigation measures to be implemented. These measures are linked to the Facility's Environmental Management System ("EMS") and will include operational and control

measures for normal, as well as abnormal conditions.

1.2.7. This OMP also provides a management framework comprising of proactive and reactive measures to manage and control potentially odorous releases from the Facility. This proactive approach will facilitate the ongoing development of operational procedures and controls as part of an on-going commitment to improving environmental performance. Reactive procedures will also be established within the OMP for the logging, evaluation and implementation of corrective actions in the unlikely event of any odour related complaints being received.

2. DESCRIPTION OF THE SITE AND PROCESSES

2.1. Site Location and Setting

2.1.1. The Installation is located centrally within the Kingsnorth Industrial Estate in Rochester, Kent, and is centred on the Ordnance Survey ("OS") National Grid Reference ("NGR") TQ 80920 72953.

2.1.2. The Site Location Plan (ALBU.01.07-01) contained within Appendix I of this OMP details the Environmental Permit boundary (outlined in green) in the wider context of the surrounding land. As part of the variation application, Albus is proposing the expansion of the Permit boundary to the north and east.

2.1.3. An indicative location of the Installation within the context of the surrounding environment is provided in Figure 1 below.

Figure 1: Indicative Site Location



2.1.4. The Installation is located within a predominantly rural, former industrial setting with an active gas fuelled power station, Damhead Creek Power Station, immediately to the south of the EP boundary.

2.1.5. The Kingsnorth Industrial Estate on which the Installation is sited includes a Composting Facility, Vehicle Repair Shop and Recycling Centre among other industrial and commercial uses.

2.1.6. The large village of Hoo lies approximately 2km to the west of the Installation while the town of Rochester is located approximately 9.5km to the south west.

2.2. Description of the Processes Undertaken

2.2.1. The purpose of the Installation is to treat clinical waste to produce a refuse derived fuel ("RDF") which can be used in energy recovery facilities. The Installation is additionally permitted to accept waste for repackaging and storage, and shredding.

2.2.2. The regulated Installation comprises:

- pre-shredding and steam disinfection of infectious waste, compaction and storage of treatment residues;
- repackaging of hazardous waste;
- steam generation and container washing;
- shredding, compaction and storage of non-hazardous waste;
- temporary storage of hazardous and non-hazardous waste; and
- repackaging of non-hazardous waste.

2.2.3. The waste quantities the Installation is permitted to accept are detailed in Table 1.

Table 1:Waste Types and Quantities

Waste Type	Maximum Annual Tonnage
Hazardous waste for thermal treatment	22,995
Hazardous and Non-Hazardous waste for repacking and storage	31,000
Non-Hazardous waste for shredding	19,000

2.2.4. The Installation is permitted to accept up to a maximum of 22,995 tonnes per year of hazardous waste for thermal treatment. The European Waste Catalogue ("EWC") codes and descriptions for waste which is thermally treated are provided in Table 2 below.

Table 2: Waste Types Accepted at the Installation for Thermal Treatment

EWC	Description
18	**Wastes from human or animal health care and/or related research (except kitchen and restaurant wastes not arising from immediate healthcare)**
18 01	**Wastes from natal care, diagnosis, treatment or prevention of disease in humans**
18 01 03*	Infections waste, not contaminated with chemicals or medicines (Note 1)
18 02	**Wastes from research, diagnosis, treatment or prevention of disease involving animals**
18 02 02*	Infectious waste, not contaminated with chemicals or medicines (Note 1)
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 99	Infectious waste, not contaminated with chemicals or medicines – municipal, separately collected fractions, not from healthcare or research related sources (Note 1).

Notes to Table 1

- Excluding: sharps; anatomical waste; waste known or likely to contain ACDP Hazard Group 4 biological agents; any waste from a containment level 3 laboratory; all microbiological cultures from any source; and any potentially infected waste from pathology departments and other clinical or research laboratories.

2.2.5. The hazardous and non-hazardous waste types the Installation is permitted to accept for repackaging and storage are detailed in Table 3 below.

Table 3: Waste Types Accepted at the Installation for Repackaging and Storage

EWC	Description
09	**Wastes from the photographic industry**
09 0	**Wastes from the photographic industry**
09 01 01*	Water-based developer and activator solutions
09 01 02*	Water-based offset plate developer solutions
09 01 03*	Solvent based developer solutions
09 01 04*	Fixer solutions
09 01 05*	Bleach and fixer solutions
18	**Wastes from human or animal health care and/or related research (except kitchen and restaurant wastes not arising from immediate healthcare)**
18 01	**Wastes from natal care, diagnosis, treatment or prevention of disease in humans**
18 01 01	Non-infectious sharps, not contaminated with chemicals or medicines
18 01 01 and 18 01 09	Non-infectious sharps from vaccines delivered in mass vaccination centres, in the community and in care homes
18 01 02	Non-infectious anatomical waste, not chemically preserved.
18 01 02 and 18 01 06*	Non-infectious anatomical waste, chemically preserved, hazardous chemicals
18 01 02 and 18 01 07	Non-infectious anatomical waste, chemically preserved, non-hazardous chemicals
18 01 03*	Infectious waste, not contaminated with chemicals or medicines (may contain sharps) Infectious anatomical waste, not chemically preserved Infectious gypsum wastes (for example, plaster casts and moulds)
18 01 03* and 18 01 06* or 18 01 07	infectious waste, contaminated with chemicals infectious anatomical waste, chemically preserved
18 01 03* and 18 01 08* or 20 01 31*	infectious waste, contaminated with cytotoxic and cytostatic medicines – (may contain sharps)
18 01 02* and 18 01 09	infectious waste, medicinally contaminated (not cytotoxic or cytostatic) – (may contain sharps) sharps from vaccinations delivered in hospitals or GP surgeries
18 01 04	non-infectious offensive waste – human healthcare non-infectious gypsum wastes (for example, plaster casts and moulds)
18 01 06*	chemicals consisting of or containing hazardous substances
18 01 07	chemicals other than those mentioned in 18 01 06
18 01 08*	cytotoxic and cytostatic medicines
18 01 09	other waste medicines, excluding cytotoxic and cytostatic medicines – human healthcare
18 01 10*	amalgam waste from dental care

Table 3: Waste Types Accepted at the Installation for Repackaging and Storage (Cont.)

EWC	Description
18 02	**Wastes from animal research, diagnosis, treatment or prevention of disease involving animals**
18 02 01	Non-infectious sharps, not contaminated with chemicals or medicines
18 02 02*	infectious waste, not contaminated with chemicals or medicines (may contain sharps) infectious anatomical waste, not chemically preserved infectious gypsum wastes (for example, plaster casts and moulds)
18 02 02* and 18 02 05* or 18 02 06	infectious waste, contaminated with chemicals infectious anatomical waste, chemically preserved
18 02 02* and 18 02 07* or 20 01 31*	infectious waste, contaminated with cytotoxic and cytostatic medicines (may contain sharps)
18 02 02* and 18 02 08	infectious waste, medicinally contaminated (not cytotoxic or cytostatic) (may contain sharps)
18 02 03	non-infectious anatomical waste, not chemically preserved non-infectious offensive waste non-infectious gypsum wastes (for example, plaster casts and moulds)
18 02 03 and 18 02 05*	Non-infectious anatomical waste, chemically preserved, hazardous chemicals
18 02 03 and 18 02 06	Non-infectious anatomical waste, chemically preserved non-hazardous chemicals
18 02 05*	Chemicals consisting of or containing dangerous substances
18 02 06	Chemicals other than those mentioned in 18 02 05
18 02 07*	Cytotoxic and cytostatic medicines
18 02 08	Other waste medicines, excluding cytotoxic and cytostatic.
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 31*	Cytotoxic and cytostatic medicines – municipal, separately collected fractions not from healthcare or research related sources
20 01 32	Other waste medicines, excluding cytotoxic and cytostatic medicines – municipal separately collected fractions not from healthcare or research-related sources
20 01 99	non-infectious offensive waste – municipal, separately collected fractions not from healthcare or research-related sources non-infectious sharps, not contaminated with chemicals or medicines – not from healthcare or research-related sources infectious waste, not contaminated with chemicals or medicines – municipal, separately collected fractions, not from healthcare or research-related sources (may contain sharps)

2.2.6. In addition to the waste types accepted for thermal treatment and repackaging and storage, the Installation can accept the non-hazardous waste types detailed in Table 4 for shredding.

Table 4: Waste Types Accepted at the Installation for Shredding

EWC	Description
18	**Wastes from human or animal health care and/or related research (except kitchen and restaurant wastes not arising from immediate healthcare)**
18 01	**Wastes from natal care, diagnosis, treatment or prevention of disease in humans**
18 01 04	Non-infectious offensive waste – human healthcare
18 02	**Wastes from research, diagnosis, treatment or prevention of disease involving animals**
18 02 03	Non-infectious offensive waste
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 99	Non-infectious offensive waste -municipal, separately collected fractions not from healthcare or research-related sources

2.2.7. Prior to being accepted, all waste will undergo pre-acceptance and acceptance checks to ensure that it can be accepted for treatment, repackaging and storage, or shredding.

2.2.8. As part of the variation application, Albus is proposing a clinical sharps container treatment plant in which sharps shall be removed, containers washed for re-use and once at end of life, the containers shall be shredded for onward recycling. Albus are not proposing to treat the sharps waste itself but the container in which they are stored.

2.2.9. The waste types to be accepted at the Installation for treatment within the Sharps Treatment Plant are detailed in Table 5.

Table 5: Waste Types Accepted at the Installation for Sharps Container Treatment

Code	Description
18	**WASTES FROM HUMAN OR ANIMAL HEALTH CARE AND/OR RELATED RESEARCH**
18 01	**wastes from natal care, diagnosis, treatment or prevention of disease in humans**
18 01 01	sharps (except 18 01 03)
18 01 03*	wastes whose collection and disposal is subject to special requirements in order to prevent infection
18 01 08*	cytotoxic and cytostatic medicines
18 01 09*	medicines other than those mentioned in 18 01 08
18 02	**wastes from research, diagnosis, treatment or prevention of disease involving animals**
18 02 01	sharps (except 18 02 02)
18 02 02*	wastes whose collection and disposal is subject to special requirements in order to prevent infection

2.2.10. Additionally, Albus are proposing the acceptance of absorbents, filter materials, wiping cloths and protective clothing, as well as aerosols. The acceptance of these waste codes is for storage and bulking up only prior to removal offsite. No treatment is proposed for these waste streams. The waste types proposed to be accepted for this activity are detailed in Table 6.

Table 6: Waste Types Accepted at the Installation for Storage and Bulking Up Only

15	**WASTE PACKAGING, ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED**
15 02	**absorbents, filter materials, wiping cloths and protective clothing**
15 02 02	absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by hazardous substances
15 02 03	absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02
16	**WASTES NOT OTHERWISE SPECIFIED IN THE LIST**
16 05	gases in pressure containers and discarded chemicals
16 05 04*	gases in pressure containers (including halons) containing hazardous substances
16 05 05	gases in pressure containers other than those mentioned in 16 05 04

Hazardous Waste Accepted for Thermal Treatment

2.2.11. On arrival at the Facility, waste is unloaded into 770litre wheeled carts. Each 770litre cart is issued with a barcode enabling the waste to be tracked throughout the treatment process.

2.2.12. The cart is then emptied by means of a lifting tipper, into the shredder for pre-shredding.

2.2.13. A purpose built enclosed automatic unit has been installed to wash the carts following tipping to the shredder, this is undertaken with hot water and detergent, on impermeable concrete with drainage to a dedicated below ground storage tank.

2.2.14. Following pre-shredding, the waste is subject to thermal treatment. Thermal treatment comprises of a rotating screw system which moves the waste on a continuous basis with steam injected at a temperature of 122°C for 80 minutes to disinfect the waste and render it safe.

2.2.15. The output of the treatment process is a sterile material (a floc), EWC code (19 02 10), which can be used as a solid recovered fuel off site. This material is conveyed by belt through the front aspect of the main building into a sealed static compactor where waste is compacted. Once the enclosed 14 tonne container is full, it is transported off site to a suitably licensed facility for disposal/recovery.

2.2.16. It should be noted that, as a result of the steam treatment process, the RDF will not be odorous. Subsequently, it is deemed unlikely that sealed container storing the RDF will be a potential source of olfactory nuisance.

Hazardous and Non-Hazardous Waste Accepted for Repackaging and Storage

2.2.17. On arrival at the Facility, waste is unloaded into 770litre wheeled carts in the Hazardous waste treatment and transfer building identified on the Site Layout (ALBU.01.07-02) contained within Appendix I of this document.

2.2.18. The waste is then tipped from the carts into a bulk bin. Empty carts are washed as detailed

in Section 2.2.10. Once bulking of the waste is complete, the waste is consigned for onward transfer to an appropriately licensed facility for use as RDF.

2.2.19. 15 coded waste and aerosol waste shall also be bulked up on site. The waste shall be stored in bins and cages respectively within the main waste building as shown on ALBU.01.07-02 and the waste shall be sent offsite to an appropriately licenced facility or installation.

Non-Hazardous Waste Accepted for Shredding

2.2.20. On arrival at the site waste is unloaded into 770litre wheeled carts in the offensive tipping area identified on the Site Layout Plan (ALBU.01.7-02) contained within Appendix I of this OMP.

2.2.21. Waste will be tipped from the 770litre bins via lifting tipper into the offensive waste shredder and empty carts are washed as detailed in Section 2.2.10 above.

2.2.22. Following shredding, waste is transferred via enclosed conveyor, into a sealed static compactor where waste is compacted. Once the enclosed 14 tonne compactor bin is full, it is transported off site to a suitably licensed facility for disposal under EWC Code 19 12 10.

Sharps Container Treatment Plant

2.2.23. Sharps containers prior to washing and shredding (if at end of life) shall be stored on the mezzanine floor in sealed bins.

2.2.24. The sharps container treatment plant is an entirely enclosed and sealed system. All processing chambers are kept under negative pressure and air is subject to a three-stage abatement system; coarse dust filter, HEPA filter and activated carbon filter.

2.2.25. Sharps containers which can be reused shall enter the enclosed automated system, sharps will be tipped out into a sealed storage container whilst the container itself shall be washed with detergent ready for re-use offsite. The washed sharps containers will be stored in on the mezzanine floor.

2.2.26. Once at end of life, the container shall enter the same system but shall be washed and then shredded. The disinfected plastic shred shall then be sent offsite for recycling. The shredded plastic waste shall be stored in 1 tonne bags within the building.

3. POTENTIAL ODOUR SOURCES, MATERIALS AND PROCESSES

3.1. Levels of Odour

3.1.1. Individuals may have different responses to the same odorous compounds i.e. if they find it acceptable or objectionable and offensive. Perception of odour is also influenced by other senses such as sight and taste.

3.1.2. For the purposes of this OMP, the three levels of odour as illustrated in Figure 1 of the EA's Horizontal Guidance Note H4 (April 2011), will be used in the assessment. The description of each level, together with the action required in each case is provided in Table 7 below.

Table 7:Three Levels of Odour

Level of Odour	Action Required
Unreasonable odour amounting to serious pollution being, or is likely to be caused (regardless of whether appropriate mitigation measures are being used).	Further action must be taken
Odour pollution is, or is likely to be caused beyond the site boundary.	Implement appropriate measures to minimise the odour.
No odour arises beyond the site boundary, or is likely to arise	No further action required.

3.2. On-Site Odour Sources

3.2.1. Table 8 provides an odour inventory or the Installation detailing each of the activities which have the potential to give rise to odour.

Table8: Potential Odour Sources and Pathways

Ref	Activity	Location	Type of Emission
1	Storage of clinical hazardous and non-hazardous waste prior to treatment/repackaging/shredding	Interior within site buildings	Diffuse
2	Storage of shredded/ steam treated non-hazardous waste (19 12 10 & 19 02 10)	Exterior to site buildings in an enclosed compactor bins	Diffuse
3	Storage of sharps waste	Interior within site building	Diffuse
A2	Point Source Emission from Shredder Filter	Discharge external to site buildings	Point
A3	Point Source Emission from Condensate	Discharge external to site buildings	Point
A4	Point Source Emission from Shredder	Discharge external to site buildings	Point
A5	Point source Emission from Sharps Container Treatment Plant (washing and shredding)	Discharge external to site buildings	Point

3.3. Off Site Odour Sources

3.3.1. As the Installation is sited within the context of the wider Kingsnorth Industrial Estate, it should be noted that there are other operators in adjacent and nearby units of the industrial estate with the potential to generate odour. This includes but is not limited to:

- a composting facility (immediately opposite the Installation);
- recycling centre;
- several vehicle repair shops; and
- steel fabricators.

3.3.2. In the event that an odour complaint is received at the Installation, as detailed in Section 9.2, the source of the odour will be substantiated by reviewing the site activities at the time of the complaint and the site odour monitoring findings and also cross referencing the source of the complaint with the wind direction, and distance of the complaint to the Installation.

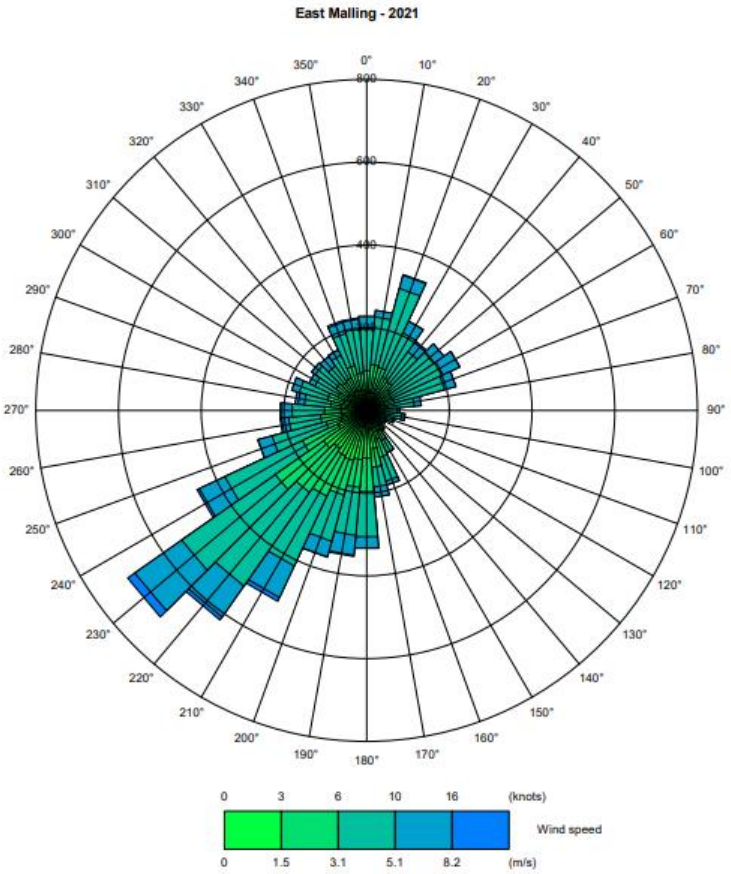
4. POTENTIAL RECEPTORS

4.1. Considerations for Identifying Sensitive Receptors

4.1.1. For each of the odour sources identified above in Table 5, potentially sensitive receptor locations for odour are where people spend a reasonable amount of time and expect a reasonable level of amenity.

4.1.2. The odour source is linked through the atmosphere acting as the pathway to the receptor. There will be an increased likelihood of odour being detected when wind is blowing in the direction of the receptors. The wind rose presented in Figure 2 shows that the prevailing wind direction is from the south west.

Figure 2: Wind Rose for East Malling for 2021



4.1.3. The nearest sensitive human receptors to the Installation are staff and visitors to adjacent units within the Kingsnorth Industrial Estate. Table 9 provides the distances of the nearest sensitive human receptors within 1km of the Installation. This is illustrated in Figure 3 (Installation shown as red outline).

Table 9:Nearest Sensitive Human Receptors to the Installation

Ref	Name	Easting Coordinate (X)	Northing Coordinate (Y)	Approximate Distance from the Installation (m)	Direction
H1	Staff and Visitors at adjacent Industrial Estate Units	-	-	Adjacent to the Site Boundary	N, S, E, W
H2	Damhead Creek Power Station	580889	172837	40	S
H3	Kingsnorth Power Station (decommissioned)	580856	172385	475	S
H4	Burnt House Cottages	580333	172864	502	W
H5	Burnt House Farm	580289	172394	725	SW
H6	Lances Farm	579987	172817	847	N
H7	Beluncle Farm Cottages	580106	173385	886	NW
H8	White Hall Farm House	580865	173932	998	N

Figure 3: Sensitive Human Receptors within 1km of the Installation



4.1.4. To determine the level of odour impact (See Table 5), which may arise from the Facility, the sensitivity of the receiving environment and potential receptors must be considered.

4.1.5. The degree of sensitivity in a particular location is based on the characteristic of the land use, including the time of day and reason why people are at the particular location (e.g. for work, recreation or residence).

4.1.6. The **F**requency, **I**ntensity, **D**uration, **O**ffensiveness, **R**eceptor ("FIDOR") approach provides an objective methodology for determining the level of odour impact that could arise. This methodology is outlined in Table 10 below.

Table 10: Three Levels of Odour

FIDOR Element	Data Required
Frequency of detection	Process control data, wind direction, complaints, odour diary etc.
Intensity as perceived	Sniff testing, complaints, odour diary.
Duration of Exposure	Process control data, wind direction, complaints, odour diary etc, evidence of similar operations

4.1.7. Different combinations of these factors can result in adverse effects, e.g. odours may occur frequently in short bursts, or for longer, less frequent periods. Depending on the severity of the odour event, one single occurrence may be sufficient to cause a significant adverse effect. However, in other situations, the duration may be sufficiently low and the impact on neighbours sufficiently minor that the frequency of events would need to be higher before an adverse effect would be deemed to have occurred.

4.1.8. Other non-meteorological factors which influence odour concentrations include:

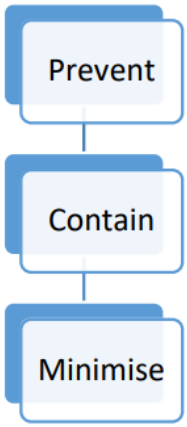
- distance from odour source – the closer the receptor is to an odour source the higher the odour concentration will be at that location;
- the height of the release, generally the higher the point of release the lower the odour concentration in the vicinity of the odour source; and
- emission characteristics – stronger odour sources will affect a wider area than weaker sources.

5. OPERATIONAL PROCESS CONTROLS

5.1. Odour Management Strategy

5.1.1. Albus Environmental's OMP strategy is to minimise any releases through good working practices and the use of suitable process control measures, which represent Best Available Techniques ("BAT") and healthcare waste appropriate measures. A strategy based on the hierarchical structure shown in Figure 3 will be used at the Facility.

Figure 4: OMP Strategy



5.2. General Odour Control Measures

5.2.1. The techniques for odour control have taken into consideration the relevant indicative BAT requirements detailed in the EA's online guidance 'Healthcare waste: appropriate measures for permitted facilities' (July 2020), Odour Management Plans for Waste Handling Facilities (November 2021) and Horizontal Guidance Note H4 Odour Management – How to comply with your environmental permit (April 2011).

5.2.2. The following general management techniques are employed at the Facility:

- good housekeeping regimes are implemented throughout the site buildings, storage areas and yard. This includes regular inspection and cleaning of all waste storage and treatment areas, equipment and waste containers;
- maintenance and cleaning of machines and plant to avoid large scale decontamination activities;
- waste is inspected on arrival for any obvious signs of exceptional or problematic malodours;
- waste types for acceptance are controlled by the Environmental Permit conditions and the manual inspections of waste will confirm acceptance;
- all wastes are stored in colour coded bags within sealed lidded waste carts reducing the risk of leakage or spillage of odorous wastes;
- staff are suitably trained in the conditions of the Environmental Permit and EMS;
- non-conforming materials would be segregated and stored at a designated area prior to removal off site to an appropriately permitted Installation as soon as practicable; and
- the Installation is managed in accordance with an EMS which is reviewed regularly to ensure it remains appropriate and up to date.

5.3. Plant and Equipment Design

Shredder and Steam Auger System

5.3.1. The Challenger shredder units and Challenger steam auger system are fully enclosed by design.

5.3.2. The air extraction system maintains a negative pressure in the pre-shredder, shredder, and steam auger systems. The pre-shredder is served by a High Efficiency Particulate Air ("HEPA") filter and carbon filter. Steam released by the auger is condensed in a condenser and any remaining gases are passed through a carbon filter. The HEPA and carbon filters are designed to remove any infectious bio-aerosols, excess moisture and residual organic compounds and odours from the off gases prior to their release to atmosphere.

5.3.3. Maintenance of these air extraction systems, including safe removal and disposal of HEPA filters, is incorporated into the Planned Preventative Maintenance Regime ("PPMR").

5.3.4. The offensive waste shredder is served by a biofilter of mixed species softwood/hardwood. The designed flow rate is 458m^3 per hour with pressure suction of 102Pa and delivery pressure of 721Pa.The suction rate will be checked on a weekly basis from the shredder hopper. The biofilter product specification sheet is provided in Appendix II of this OMP.

5.3.5. The biofilter will be monitored as per designs specifications to ensure that optimal operational parameters are met. The biofilter will also be subject to the monitoring as required in Table S3.4 of Installation's Environmental Permit reproduced in Table 11 below.

Table 11: Biofilter Monitoring Requirements

Parameter	Monitoring Frequency	Monitoring Standard or Method	Other Specifications
Surface conditions (signs of vegetation and channelling or bypass)	Daily	Visual assessment	Biofilter shall be monitored as per design specifications to ensure that optimal operational parameters are met. Equipment shall be calibrated on a 4 monthly basis or as agreed in writing by the Environment Agency. Records will be made available on request. Emission assessment may be more frequent to ensure optimum emission abatement (Note1)
Inlet and outlet temperature	Continuous	Temperature probe	
Moisture	Daily	Grab test as a minimum of drying oven (Note 1)	
Thatching/Compaction	Weekly	Back pressure	
pH (biofilter, drainage effluent)	Weekly	pH meter/litmus paper	

Notes to Table 9:

- The frequency of odour abatement efficiency testing as agreed with the Environment Agency in writing. If there are significant substantiated odour complaints the operator may be required to investigate the cause of these and the frequency of monitoring may be increased. This is detailed in Section 8.

5.3.6. Bin washing operations are undertaken in a dedicated purpose built enclosed automatic bin washer which incorporates a water recycling system. Both the internal and external surfaces of the bin are washed during the cleaning cycle.

5.3.7. The bin washing system is an aqueous temperature-controlled washing system which requires approved disinfectant. These combined features are used to assist with the elimination of common bacteria and pathogens during the cleaning process.

5.3.8. Effluent from the bin washing system is discharged to a dedicated below surface sealed storage tank. This tank is emptied periodically via a sealed tanker and the effluent transported by registered waste carrier to an appropriately licenced facility or installation.

5.3.9. Following cleaning of each bin, it is inspected to ensure it has been suitably cleaned, disinfected, and is undamaged i.e. fit for purpose and re-use. This comprehensive bin cleaning process prevents any odour resulting from the clinical waste storage bins.

Sharps Container Washing and Shredding System

5.3.10. The treatment of the clinical waste containers, such as sharps bins and rigid clinical tubs, will be undertaken by removal of the lid, emptying the contents for onward disposal, and then subsequent washing and disinfecting of the containers for reuse. If the containers are at end of life, they will be shredded for onward recycling.

5.3.11. The entire process is fully enclosed and automated. All chambers operate under negative pressure and the air is continuously filtered and the wash water is within a sealed system until being discharged to foul sewer.

5.3.12. Operators place the sealed clinical containers onto the clamping conveyor and an air lock chamber under negative pressure and heavy duty rubber curtains will ensure all air is contained and does not enter the loading area. The cutting chamber is also under negative pressure and is fully enclosed whereby the lid is removed and is disinfected and dropped directly into the shredder hopper. All liquids are captured in the sealed drainage troughs.

5.3.13. The conveyor transports the container into a sealed tipping hopper under negative pressure and the tub is rotated to remove its contents. An internal air pulse dislodges any material. The sharps waste shall fall into a lined, sealed bin for off-site clinical waste treatment and disposal. A camera monitoring system will also be in place to ensure all waste is removed.

5.3.14. The first wash chamber is entirely enclosed and disinfectant is used. All wash water is captured, filtered and reused. The washed container then passes through sealed curtains into a drying chamber to remove moisture. Negative pressure airflow ensures complete containment and no residual disinfectant or moisture is transferred to the shredding area.

5.3.15. Any solid residues from the washing process, such as labels, will be discharged into a sealed bin for off-site treatment.

5.3.16. Full solution replacement occurs at predetermined intervals. The effluent will be discharged into the same drainage line as the bin wash and disposed of to an appropriately licenced facility/installation offsite via tanker.

5.3.17. After washing and drying, the containers enter the shredder hopper. Only disinfected containers can enter this stage and the shredder hopper operates under negative pressure. The shredded plastic is then submerged into disinfectant and drying blowers then remove the moisture. The clean, dry plastic is then deposited into bulk bags for recycling.

5.3.18. All treatment plant air is subject to a three stage filtration process prior to release to the stack. This consists of the following:

- Coarse dust filter (5 micron);
  - removes dust and larger particulates; and
  - conforms to BS EN 779 / ISO 16890.
- HEPA H14 Filter
  - removes 99.995% of particles ≥0.3µm;
  - captures batiera, viral aerolsa and spores; and
  - conforms to BS EN 1822-1: 2019
- Activated carbon filter
  - removes volatile organic compounds ("VOCs"), odours and chlorine vapours; and
  - conforms to BS EN 15009 performance criteria.

5.4. Waste Pre-Acceptance Arrangements

Documentation of the Waste Pre-Acceptance Procedure

5.4.1. A fully documented waste pre-acceptance procedure is in place at the Facility, the purpose of which will be to ensure that wastes are subject to appropriate technical appraisal prior to acceptance. In turn, this ensures that unsuitable wastes are not accepted. These checks are carried out before any decision is made to accept a waste.

Colour Coding for Clinical Waste

5.4.2. The waste producers are required to follow the guidance set out in the Department of Health's Health Technical Memorandum 07 01, The Safe Management of Healthcare waste ("HTM 07 01"). All clinical waste to be treated is within colour coded bags. The colour coding used for all wastes to be treated at the Installation is shown in Table 12 below.

Table 52: Clinical Waste Bag Colour Coding

Colour	Description
	Hazardous/Alternative Treatment ("AT") Waste
Orange	Waste which may be 'treated' – indicative treatment/disposal required to be 'rendered safe' in a suitably permitted or licensed facility, usually alternative treatment plants("ATP"). However, this waste may also be disposed of by incineration.
	Non-Hazardous/Offensive Waste ("OW")
Yellow/Black	Offensive/hygiene waste – indicative treatment/disposal required is landfill or municipal incineration/energy from waste ("EFW") at a suitable permitted or licensed facility.

Initial Enquiry

5.4.3. When a waste disposal enquiry is received, the following information must be provided in writing by the waste producer:

- the full details of the waste producer including the address and contact details;
- the specific process from which the waste derives (e.g. primary care, laboratory etc.); and
- an indication of the waste streams produced, their quantity, physical form, composition, properties, classification and description.

5.4.4. Pre-acceptance checks and subsequent assessments will be undertaken.

Representative Audit

5.4.5. The waste producer must also provide representative audit analysis of the waste they have produced. The audit data must be provided and assessed before the delivery of the first batch of waste and then at a frequency of not more than twelve months. Repeat audits must also be undertaken significant changes are made to the waste segregation arrangements.

5.4.6. The information to be contained in the waste audit will include:

- a list (or diagram) of the different wards, departments, or functional areas that exist within the practice, e,g, pharmacy, primary care, dental acute or laboratory. The wards, departments or functional areas which are included in the audit must be clearly identified;
- the start and end date of the audit;
- description of the audit;
- the procedures employed;
- the auditors and their affiliation;
- for each unit or area subject to audit, identification of the waste items produced, the type (including colour), size and labelling of containers in use, the segregation practices, contents of a representative number of each container, and therefore waste composition identified;
- the hazardous properties associated with the waste and its components (medicines, chemicals etc);
- where relevant, the audit must include examination of the segregation of waste containers placed in departmental and main storage areas, and bulk containers (e.g. 770 litre bins), this would usually be by visual observation of contents and questioning of staff to establish practice; and
- a summary report indicating the findings for each area in the producer premises, each waste stream produced there, highlighting any issues identified, including proposed waste descriptions and classifications derived from the audit findings for each waste stream.

5.4.7. The audit report will also include the following:

- any preservation techniques used (e.g, cold storge, or freezing);
- any changes implemented as a result of issues identified with confirmatory evidence to demonstrate that this has occurred; and
- information on waste policies, staff training, internal audit regimes, and environmental management systems.

5.4.8. The compositional audit will, as a minimum, identify which of the following are produced by the unit/department, what container type they are placed in, whether they were present in each container examined, and a comparison to the proposed waste classification and description:

- pharmaceuticals or pharmaceutically contaminated material (for example medicinally contaminated syringes, I.V. bags, tubing, bottles vials and ampoules, etc.) (note: this excludes cytotoxic or cytostatic contaminated material which will not be accepted/treated at the Facility);
- waste chemicals (for example laboratory reagents, auto analyser bottles, diagnostic kits, disinfectant hand gels, etc.);
- human or animal tissue, and associated chemical preservatives;
- sharps, and whether they are contaminated with medicines (even if fully discharged);
- other infectious wastes;
- dental amalgam;
- non-hazardous wastes including municipal wastes (paper, magazines, food wrappers, hand towels etc.), offensive wastes, and autoclaved laboratory wastes; and
- gypsum wastes (plaster casts, dental and podiatry moulds) other than the small proportion that can correctly be described as infectious.

5.4.9. Each element of the audit will include each of the following techniques for each unit, area or department:

- observation and recording of practice, including examination of raw materials, equipment and stores to help identify what waste items may be produced;
- observation of in use waste receptacle contents; and
- questioning of staff (e.g. nursing staff) who produce the waste, that considers the waste items and types produced, the container types these are placed in, and elements of practice.

Technical Assessment

5.4.10. Following characterisation of the waste, a technical assessment of the waste will be undertaken with regards to its suitability for treatment at the Facility, this will include a physical audit of the practice.

5.4.11. The Site Manager will assess the waste producer's audit report. They will keep a record of the assessment, its conclusions, and any actions taken (for example advising the producer that they must implement an offensive hygiene waste stream).

5.4.12. Where the audit report is partially incomplete or inadequate it is the responsibility of the Site Manager to request and obtain the required information (or another audit report) prior to accepting the waste.

5.4.13. Should the Technical Assessment be undertaken by a third party, Albus Environmental will:

- ensure that all details of the content of any audit tools or methodologies and assessment criteria used by the third party are provided to Albus Environmental;
- ensure that the methodology used by the third party meets Albus Environmental's own procedures in regards to pre-acceptance;
- keep a summary report from the third party demonstrating that pre-acceptance and assessment has been conducted on waste from the relevant producer with regard to the Installation which contains the following and that will be updated should any information contained within it change;
  - confirmation of the producer types, waste types, containers etc;
  - certification that the methodology has been completed, and what has been done where this is not the case;
  - confirm a composite waste classification, description, composition, and properties for each waste stream and container type destined for the Facility, derived from each of the pre-acceptance audits and with reference to the permitted wastes for the site.
  - confirmation of any issues that have been identified and what action has been taken with regard to the producers and wastes affected;
- annually audit a random and representative cross-section of the other party's pre-acceptance checks to ensure both the quality of pre-acceptance checks, subsequent assessments, waste classifications and descriptions;
- keep records of all audits; and
- keep electronic records of the pre-acceptance report and assessment for any individual waste producer on-site and, where relevant, keep hard copies at Albus Environmental's site office.

Records

5.4.14. All records relating to pre-acceptance at the site will be kept at Albus Environmental's Site Office. Electronic copies will be held on site to ensure direct access to those records for cross-reference and verification at the waste acceptance stage.

5.4.15. All records will be kept for a minimum of three years.

5.5. Waste Acceptance Arrangements

5.5.1. A fully documented incoming waste acceptance procedure is in place at the Facility, the primary purpose of which is to confirm that the characteristics of the incoming waste match the information provided at the pre-acceptance stage. All electronic information generated during the waste acceptance stage will be backed up.

5.5.2. On arrival, bins are issued with a bar code allowing tracking through the treatment process. This tracking system meets the requirements of the Hazardous Waste Regulations and contains the following information:

- weight;
- date of arrival on-site;
- time;
- original producer details (or unique identifier);
- a unique reference number; and
- package type and size.

5.5.3. This information incorporated into the waste tracking system will:

- allow accurate records of the nature and quantity of wastes held on site, including all hazards and identification of primary hazards;
- identify where the waste is physically located in relation to a site plan;
- identify where the waste is in the designated disposal route;
- identify staff that have taken any decisions re acceptance or rejection of waste streams and decided upon recovery/disposal options.;
- link each clinical waste container accepted to its consignment or transfer note;
- breakdown by type of waste quantities being stored pending treatment;
- compare the total quantity of waste on site against total permitted; and
- log the time the waste has been on site.

5.5.4. Waste will only be accepted when there is sufficient treatment capacity within the Facility.

5.5.5. All documentation will be checked by the Site Supervisor prior to the waste being accepted. All bins will be checked to confirm waste quantities against accompanying paperwork and that they are clearly labelled and equipped with well-fitting lids.

5.5.6. All bins will be visually checked prior to acceptance to ensure that the waste has been packaged and transported correctly. As the waste will be delivered in 770l bins, it may not be possible to check at the waste acceptance stage the entire contents of the bin. Additional visual checks will, therefore be undertaken when the waste is emptied prior to treatment.

5.5.7. Waste which is delivered to the Installation in bulk will be inspected on tipping prior to loading to shredder/steam auger system.

5.5.8. It is the responsibility of the Site Manager to ensure any non-conforming waste observed will be removed as soon as possible. Depending on the waste provider, any non-conforming waste will be returned to the waste provider site. If this is not possible, the Quarantine Area as identified in the Site Layout Plan (ALBU.01.7-02) contained within Appendix I of this document, will be utilised. Waste stored in the Quarantine Area will be held on site no longer than 5 working days, however, the Site Manager will arrange for removal as soon as possible with the intention of not exceeding 24 hours. The waste provider will be contacted without delay to inform them of the non-conforming waste and identify measures that can be implemented to prevent recurrence.

5.5.9. Non-conforming waste is described as any waste that:

- the Installation is not authorised to accept;
- is not recorded on the accompanying waste documentation; or
- would not be expected, for any other reason, to be present.

5.5.10. Clinical waste bags will not be opened prior to treatment. Their contents are determined by pre-acceptance checks. At the waste acceptance stage, the operatives will be looking for non-conforming, unknown, undocumented or unexpected container types, for example a cytotoxic or cytostatic sharps box or rigid yellow bin of unknown content, buried in a wheeled cart under clinical waste bags.

5.5.11. Waste delivered to the site must:

- be accompanied by a written description of the waste describing its composition, hazard characteristics and handling precautions, compatibility issues, and information specifying the original waste producer and process where required;
- in the case of non-hazardous waste, a waste transfer note will be used and Albus Environmental will ensure that the waste composition and source has not changed from that provided in the pre-acceptance stage by means of visual checks; and
- in the case of hazardous waste, a hazardous waste consignment note will be used and Albus Environmental will ensure that the waste composition and source has not changed from that provided in the pre acceptance stage by means of visual checks.

Risk Rated Inspections

5.5.12. Waste received at the Installation shall be inspected prior to treatment. The frequency of inspection will be determined through a risk assessment-based approach, assessing the risk of receiving non-confirming waste from the producer.

5.5.13. Waste producers will be allocated one of the following colours:

- Red – high risk category – every bin or bulk container is decanted for inspection;
- Amber – medium risk category – every 10th bin or bulk container is decanted for inspection; and
- Green – low risk category – no further checks following initial waste acceptance checks.

5.5.14. When waste is received at the Installation from a new waste producer the producer will be assessed Red, placing them in the high-risk category. A producer will remain a high-risk producer until a period of 13 weeks (or 6 waste deliveries) have passed without receiving a non-conformance. Once this initial period has passed, the Site Manager will re-asses the risk and authorise the producer to be allocated Amber.

5.5.15. When a producer is assessed as Amber, every 10th load received for treatment will be decanted prior to processing. A producer will remain Amber so long as no non-conformance has been identified. Should a non-conformance occur, the producer will be re-assessed as Red.

5.5.16. Where waste is accepted from a producer in bulk and tipped into the tipping area the producer will be assessed as green as all waste can be visually inspected and does not require further decanting.

5.5.17. A record of the inspection regime for each load and waste producer will be maintained on site.

5.5.18. All offloading and inspection areas have an impermeable surface with self-contained drainage to prevent any spillage escaping offsite. All surfaces are inspected and maintained to allow effective disinfection.

5.5.19. Albus Environmental have developed a procedure containing clear and unambiguous criteria for the rejection of wastes, together with a written procedure for tracking and reporting such non-conformance. The Ste manager will notify the waste producer.

5.5.20. Table 13 below details the environmental risk assessment undertaken for fugitive emissions to air from odour arising from the Facility. It can be observed that the control measures implemented reduce the overall risk to not significant.

Table 63: Risk Assessment and Control Measures

Potential Odour, Source or Pathway	Identified Receptors	Pathway	Control Measures	Probability of Exposures	Consequence	Overall Risk
Storage of hazardous and non-hazardous clinical waste prior to treatment / repackaging /shredding	Human population in the surrounding area	Release to air – Wind Blown	Waste pre-acceptance and acceptance procedures are enforced and waste will only be accepted when there is sufficient storage and treatment / repackaging / shredding capacity within the Installation. All incoming clinical waste will arrive within sealed bags which, in turn, will be contained within lidded, rigid, lockable 770litre bins (or a refuse collection vehicle) to prevent the escape of any odour. The lids will remain closed when containers are not being loaded or unloaded. Prior to treatment / repackaging / shredding, waste is stored internally to the site buildings to contain any odours which may arise from the waste. Waste will be treated on a first in first out basis with particular reference to wastes with the potential to generate odour. This will minimise storage times and reduce the odour potential of waste stored at the Installation. Good housekeeping and good working practices specifically relating to the control of odour are incorporated into the Installation's EMS to ensure that the appropriate standard of cleanliness and tidiness is maintained. Housekeeping techniques include routine site inspections to check for pests, vermin, litter, odour, breached containers and spillages within the permitted area and the immediate surroundings. These inspections are undertaken daily and recorded by the Site Manager or authorised deputy. Records are kept to detail time, place, nature, cause and remedial action and the site has suitable procedures and equipment to deal with any spillages which may arise	Unlikely. Control measures should prevent any fugitive odour releases from reaching the identified receptors.	Odour nuisance	Not significant

Table 13: Risk Assessment and Control Measures (Cont.)

Potential Odour, Source or Pathway	Identified Receptors	Pathway	Control Measures	Probability of Exposures	Consequence	Overall Risk
Shredding and steam treatment of clinical waste	Human population in the surrounding area	Release to air – Wind Blown	Waste pre-acceptance and acceptance procedures will be enforced ensuring that only permitted waste types are accepted for shredding and steam treatment. All waste unloading, processing and treatment activities will be undertaken within the confines of the Installation buildings. The shredding and steam systems are enclosed by design. Waste is shredded under negative pressure prior to transfer to the treatment system providing additional containment of any odours which may arise. Emissions from the shredding and treatment systems are treated prior to their discharge to the atmosphere (see below 'Point Source Emissions from Shredder Filters' and 'Point Source Emission from Condensate'). Routine efficacy monitoring will be carried out monthly for the first 6 months of operation, reducing to quarterly following the initial monitoring period. This will ensure that steam treatment is successful, the waste is rendered safe and consequently odourless.	Unlikely. Control measures should prevent any fugitive odour releases from reaching the identified receptors.	Odour nuisance	Not significant
Storage of shredded/steam treated non-hazardous waste (19 12 10 and 19 02 10)	Human population in the surrounding area	Release to air – Wind Blown	Steam treated / shredded wastes will be stored within enclosed compactor bins in the site yard. Treated waste is deemed unlikely to be a source of odour at the Installation. Provision of enclosed compactor bins will provide containment of any odours.	Unlikely. Control measures should prevent any fugitive odour releases from reaching the identified receptors.	Odour nuisance	Not significant

Table 13: Risk Assessment and Control Measures (Cont.)

Potential Odour, Source or Pathway	Identified Receptors	Pathway	Control Measures	Probability of Exposures	Consequence	Overall Risk
Storage of sharps containers	Human population in the surrounding area	Release to air – Wind Blown	Waste pre-acceptance and acceptance procedures are enforced and waste will only be accepted when there is sufficient storage and treatment capacity within the Installation. All incoming sharps will arrive within dedicated sharps containers which, in turn, will be contained within lidded, rigid, lockable 770litre bins or on pallets in segregated sizes on the mezzanine floor within the building to prevent the escape of any odour. Waste will be treated on a first in first out basis with particular reference to wastes with the potential to generate odour. This will minimise storage times and reduce the odour potential of waste stored at the Installation. No treatment of sharps will be undertaken, only washing and shredding of the sharps containers. The sharps themselves are tipped within an enclosed system into a dedicated 80 micron lined 770 litre lidded bin prior to removal offsite every 3 days. Good housekeeping and good working practices specifically relating to the control of odour are incorporated into the Installation's EMS to ensure that the appropriate standard of cleanliness and tidiness is maintained. Housekeeping techniques include routine site inspections to check for pests, vermin, litter, odour, breached containers and spillages within the permitted area and the immediate surroundings. These inspections are undertaken daily and recorded by the Site Manager or authorised deputy.	Unlikely. Control measures should prevent any fugitive odour releases from reaching the identified receptors.	Odour nuisance	Not significant

Table 13: Risk Assessment and Control Measures (Cont.)

Potential Odour, Source or Pathway	Identified Receptors	Pathway	Control Measures	Probability of Exposures	Consequence	Overall Risk
Storage of sharps containers	Human population in the surrounding area	Release to air – Wind Blown	Records are kept to detail time, place, nature, cause and remedial action and the site has suitable procedures and equipment to deal with any spillages which may arise	Unlikely. Control measures should prevent any fugitive odour releases from reaching the identified receptors.	Odour nuisance	Not significant
Shredding and Washing of Sharps Containers and Point Source Emission to Air	Human population in the surrounding area	Release to air – Wind Blown	Shredding and washing of the sharps containers is undertaken in an enclosed fully sealed system kept under negative pressure. Emissions to air are abated through a three step filtration process; coarse dust filter, HEPA filter and activated carbon filter prior to emitting to atmosphere. The waste water from washing is contained and recycled with pre-determined intervals of water replenishing of the system being undertaken. The effluent will be discharged into the same drainage line as the bin wash effluent and tankered offsite. The equipment including the abatement filters will be subject to routine maintenance and inspection with replacement undertaken in accordance with manufacturer recommendations. Alarms and monitoring controls including cameras will ensure that the process is operating effectively and all sharps have been removed from the container prior to washing and shredding. Only trained operator will be able to operate the system and in the event of any malfunction, immediate stops buttons can be pressed and issues rectified prior to recommencing operations.	Unlikely. Control measures should prevent any fugitive odour releases from reaching the identified receptors.	Odour nuisance	Not significant

Table 13: Risk Assessment and Control Measures (Cont.)

Potential Odour, Source or Pathway	Identified Receptors	Pathway	Control Measures	Probability of Exposures	Consequence	Overall Risk
Storage of 15 coded waste	Human population in the surrounding area	Release to air – Wind Blown	Waste pre-acceptance and acceptance procedures are enforced and waste will only be accepted when there is sufficient storage capacity within the Installation. Minimal quantities shall be stored (1 770l bin for each waste code, therefore, 2 bins in total). All incoming 15 coded waste will arrive within lidded, rigid, lockable 770litre bins and stored within the building to prevent the escape of any odour. No treatment of 15 coded waste will be undertaken nor tipping of the waste. The waste shall be stored and bulked up for incineration offsite. Good housekeeping and good working practices specifically relating to the control of odour are incorporated into the Installation's EMS to ensure that the appropriate standard of cleanliness and tidiness is maintained. Housekeeping techniques include routine site inspections to check for pests, vermin, litter, odour, breached containers and spillages within the permitted area and the immediate surroundings. These inspections are undertaken daily and recorded by the Site Manager or authorised deputy.	Unlikely. Control measures should prevent any fugitive odour releases from reaching the identified receptors.	Odour nuisance	Not significant
Point Source Emission from Shredder Filters	Human population in the surrounding area	Release to air – Wind Blown	The pre-treatment shredder odour abatement system includes both a HEPA and carbon filter. These will be inspected and maintained at the frequency identified within the Installation's PPMR to ensure they are kept in optimal operational condition. The offensive waste shredder odour abatement system incorporates a biofilter to remove odours. The biofilter will be maintained as required in the design specifications to ensure that it is in optimal operational condition.	Unlikely. Control measures should prevent any fugitive odour releases from reaching the identified receptors.	Odour nuisance	Not significant

Table 13: Risk Assessment and Control Measures (Cont.)

Potential Odour, Source or Pathway	Identified Receptors	Pathway	Control Measures	Probability of Exposures	Consequence	Overall Risk
Point Source Emission from Shredder Filters	Human population in the surrounding area	Release to air – Wind Blown	The biofilter will be subject to the monitoring detailed in Table S3.4 of the Installation's Environmental Permit and Table 9 of this OMP. The monitoring includes: ○ continuous monitoring of the inlet and outlet temperature; ○ daily monitoring of the biofilters surface condition and moisture levels; and ○ weekly monitoring of pH from biofilter drainage effluent and thatching/compaction. The emission points for the shredder filters will additionally be subject to the monitoring required in Table S3.1 of the Installation's permit EPR/JB3604EF. This includes monitoring of Bacillus spores, total volatile organic compounds and particulate matter.	Unlikely. Control measures should prevent any fugitive odour releases from reaching the identified receptors.	Odour nuisance	Not significant
Point Source Emission from Condensate	Human population in the surrounding area	Release to air – Wind Blown	Steam released from the steam treatment process is captured and condensed in a condenser with remaining gases subject to a carbon filter. This ensure any infectious bio-aerosols, excess moisture and any residual organic compounds and odours are removed from the off-gases prior to their release to atmosphere. The carbon filter will be inspected and maintained at the frequency identified in the Installation's PPMR to ensure it is kept in optimal operational condition. The emission point for the condensate gasses will additionally be subject to the monitoring required as part of the Installation's permit EPR/JB3604EF. This includes monitoring of Bacillus spores and total volatile organic compounds.	Unlikely. Control measures should prevent any fugitive odour releases from reaching the identified receptors.	Odour nuisance	Not significant

6. ODOUR MONITORING

6.1. Monitoring Schedule

6.1.1. Routine olfactory monitoring at the Installation is undertaken twice daily in order to assess whether any odours are detectable externally or internally to the Installation buildings.

6.1.2. Further olfactory monitoring will be undertaken if the routine monitoring highlights that odour is, or is likely to be caused, beyond the Installation's Environmental Permit boundary.

6.1.3. There is the potential for Site Operators to become desensitised so that they may not be able to assess the odour level objectively. Consequently, as an additional measure, the Managing Director and/or Head of Operations will also attend site periodically to undertake sniff testing.

6.1.4. A sniff test consists of the assessor standing at the monitoring position for a specific period of time and recording any odour experienced at the survey location during this time. Notes on odour frequency, intensity, duration and offensiveness are recorded, as well as the prevailing meteorological conditions. The test is then repeated at a number of monitoring points around the site to determine the extent of odour impact. The results can be analysed in association with operating conditions during the survey in order to consider the most significant odour sources and how these might affect sensitive receptors.

6.1.5. In relation to the three levels of odour indicated in Table 6 (see Section 3 of this document), there are three levels of odour assessment that will be undertaken. The rationale associated with each of these is detailed below in Table 14.

Table 74: Odour Assessment

Level of Odour	Assessment Required	Description
No Odour	Level 1 – Site Odour Assessment	Routine daily olfactory checks are undertaken within the Installation in the vicinity of the activities that have the potential to generate odour (see Table 6), and up to the Installation's Environmental Permit boundary. If odour is detected, undertake a Level 2 Assessment
Odour Pollution	Level 2 – Sensitive Receptor	If odour is being caused or is likely to be caused, olfactory monitoring is undertaken at sensitive receptors. If unreasonable odour is detected, a Level 3 Assessment is undertaken.
Unreasonable Odour	Level 3 – Detailed Odour Assessment	If unreasonable odour is generated, further detailed odour assessment, as described in H4 will be required.

6.1.6. The offensiveness of any odour will be recorded in accordance with the categories detailed in Table 15 below.

Table 85: Odour Scoring System

Category	Offensive Description
1	Potentially offensive
2	Moderately offensive
3	Very offensive

6.1.7. Meteorological conditions during the survey, including wind speed and direction, cloud cover, temperature and precipitation will be noted, as well as assessor name, process conditions and quantities and type of materials received.

6.1.8. The surveys will be undertaken as far as practicable to minimise errors when comparing results. Consideration will also be provided to the sensitivity of the assessor, with anyone with a poor sense of smell excluded from the monitoring.

6.1.9. The locations for daily olfactory assessments are illustrated below in Figure 5, the results of all olfactory assessments are recorded in the Site Diary and reviewed by the Site Manager.

Figure 5: Odour Monitoring Locations



7. EMERGENCY PLANS AND CONTINGENCY MEASURES

7.1. Overview

7.1.1. The extensive odour control measures outlined in Section 5 of this OMP should prevent any fugitive odour releases from reaching the identified receptors. However, this section considers the potential for accidents (or incidents) which would result in the loss of control of odorous substances and could have an unacceptable short-term impact on the nearby sensitive receptors.

7.1.2. As the site is operational 24/7, the Site Manager or nominated deputy are always on site and can address any issues immediately should they occur.

7.2. Abnormal Meteorological Conditions

7.2.1. Abnormal meteorological conditions, such as low wind strength, low pressure and high temperatures, may promote elevated levels of odour either on the site or at nearby sensitive receptors. A wind direction towards sensitive receptors may increase odour levels. Conversely, very low wind strength and temperature inversions may minimise dispersion and potentially create a build-up of odour. High temperatures may also increase emissions.

7.2.2. The mitigation measures to be undertaken in the event of abnormal meteorological conditions will be dependent on the levels of odour detected (as outlined in Tables 10 and 11 of Section 6). Mitigation measures in response to abnormal conditions will include:

- an increase in the frequency of sniff testing undertaken at the Installation to four times daily;
- waste types may be temporarily restricted (i.e. those with the highest odour potential); and
- wase throughput may be reduced or treatment halted temporarily, incoming waste may be directed to an alternative suitably licensed facility to prevent the accumulation of waste which may cause odour, until abnormal conditions abate.

7.3. Breakdown of Process Equipment

7.3.1. The breakdown of the waste treatment process equipment may cause elevated levels of odour to be created due to the build-up of waste or the failure of control equipment. The mitigation measures to be undertaken in the event of a process breakdown will include:

- stopping process equipment which is not working or which may be partially malfunctioning;
- specialist engineers/contractors will be brought in if the breakdown cannot be fixed by site staff, or they are not qualified to do so;
- waste types may be temporarily restricted (i.e. those requiring the use of broken down equipment) until the problem is resolved; and
- waste throughput may be reduced or treatment halted temporarily, incoming waste may be directed to an alternative suitably licensed facility to prevent the accumulation of waste which may cause odour, until the breakdown can be fixed.

7.4. Staffing Issues

7.4.1. Human error and accidents may cause elevated levels of odour to be created either through stoppage or breakdown of the operational process or the failure or malfunction of control equipment.

7.4.2. All staff are trained in the operational processes to control odour and in the correct control of plant and equipment.

7.4.3. In the event that the required personnel are unavailable (e.g. the Site Manager), allocated deputies will be responsible for managing odour at the site.

8. ODOUR CONTINGENCY MEASURES

8.1. Introduction

8.1.1. Elevated levels of odour may be identified either by receipt of an odour complaint from a third party suggesting that there is an odour arising from the Installation and/or detection of odour as a result of the monitoring procedures detailed in Section 6. If elevated levels of odour are identified, an investigation will be undertaken as soon as possible or within a maximum of 24 hours by the Site Supervisor. A copy of the Company Organogram is provided in Appendix III of this OMP.

8.2. Response to Complaints

8.2.1. Any complaints relating to odour shall be dealt with in accordance with Albus Environmental' Complaints Procedure which forms part of the Installation's EMS. This procedure ensures that when a complaint is received, the circumstances are investigated and appropriate short term and long term actions are taken and followed up.

8.2.2. Information regarding the nature of the complaint will be used to assess the offensiveness of the odour. Subsequent investigation of the complaints will either confirm, fail to confirm, or further characterise the odour incident.

8.2.3. In the first instance, the complaint will be screened, taking into account the following information.

- the quality and source of the complaint;
- the number of complaints against the alleged odour;
- the frequency of complaints e.g. is it a one-off event of a regular occurrence?; and a knowledge of potential sources within the site (cross referenced with details of any abnormal operating conditions, the wind direction relative to where the complaint was received from and distance of the complaint to the site).

8.2.4. It should be noted that as detailed in Section 3.3, Albus Environmental's Installation is opposite a composting facility while the wider industrial estate also comprises of industrial and commercial units with the potential to generate odour. As such, this will be taken into account when identifying potential sources other than the Albus Environmental's Installation (cross reference with the wind direction, where the complaint was received from and distance of the complaint to the site).

8.3. Investigation and Contingency Mitigation Measures

8.3.1. In the event of any elevated levels of odour identified by the monitoring programme, or on receipt of substantiated complaint(s), the following mitigation measures will be implemented:

- the Head of Operations will notify the EA Site Inspector;
- the Site Supervisor will inform the complainant(s) of the steps which will be undertaken to mitigate the odour;

- the Site Supervisor will carry out a range of checks at the identified source of the elevated odour levels in accordance with the Complaints Record Form, a blank copy if provided in Appendix III. This will be undertaken within 24 hours, however, the Site Supervisor will endeavour to complete the checks as soon as possible on receipt of substantiated complaint or when elevated levels are recorded during the daily monitoring regime;
- these checks shall be done to certify if the Installation is being operated to the manufacturer's specification and operating effectively including the abatement including the biofilter, the strict control measures detailed in this OMP are being adhered to, and to ensure that any improvements required to minimise the odour levels are identified and implemented;
- the Site Supervisor will review the daily site checks to assess if any elevated odour levels were identified within the complaint period;
- the improvements may include the cleaning of all stockpiled waste either through processing or transportation offsite to a suitably permitted facility for disposal. This will be undertaken within 1-2 working days;
- the Site Supervisor will maintain community engagement throughout the mitigation process. This should ensure there is clear transparency in regards to the corrective and preventative measures taken to reduce the odour; and
- the results of this investigation shall be submitted to the EA Site Inspector for their records.

8.3.2. To further mitigate the elevated odour levels, the following actions will also be considered in collaboration with the EA Site Inspector if substantiated odour complaints are received on a daily basis for 7 days and the previously implemented mitigation measures have not resulted in a reduction in odour levels at the Facility:

- the Installation could temporarily restrict the waste types accepted at the site (i.e. those with the highest potential to cause odour) to see if the odour issues continue; and/or
- the waste throughputs could be reduced or waste processing could be temporarily halted. In such an event, incoming waste can be re-directed to an alternative suitably licensed facility to prevent the accumulation of waste on site.

8.3.3. In the event of a serious incident requiring the complete shutdown of the Installation for an extended period, waste that will otherwise have been processed at the Installation will be diverted to alternative suitably licensed facilities.

8.3.4. Once the odour source has been identified and corrective and preventative measures have been implemented, the Site Supervisor will commission a further odour assessment to ensure that the improvements have addressed the source of the elevated levels. If the elevated levels are still present then the Site Supervisor will repeat the request for improvements and subsequent assessments by a specialist odour consultant until the odour levels are deemed satisfactory (i.e. minimal to no odour detected).

8.3.5. If operational failings are identified, the re-training of all employees will take place within 5 working days to ensure that all employees operate to the required standards.

8.3.6. If machinery failings are identified, a full review of the PPMR which is contained in the Installation's EMS will be undertaken within 5 working days. If deemed necessary, additional inspections and associated maintenance work will be included in accordance

with note detailed in Table 9 and will be agreed with the EA.

8.4. Records

8.4.1. OMP records are kept in accordance with the procedures established as part of the EMS.

8.4.2. The type of information that will be recorded relates to:

- sensitive receptors, in particular the type of receptors and the location relative to the odour sources;
- the types and source of odorous substances used/ generated and release points;
- odour monitoring survey findings;
- an overview of any complaints received, what they relate to (source/operation) and any remedial action taken;
- a description of the indicative BAT requirements being considered;
- identification of any circumstances or conditions, which compromise the ability to prevent or minimise odour annoyance;
- a description of the actions that will be taken to minimise the impact; and
- the outcomes of the follow-up odour monitoring and close out of the actions.

8.4.3. Any external/internal non-conformances raised against the requirements of the Environmental Permit or other relevant legislation, will be recorded on Complaints Record Form. A blank example of which is provided in Appendix IV. These will then be followed up by the Site Supervisor, as appropriate, to address the concern identified and to prevent occurrence or re-occurrence. Details will be recorded on the improvement action report to ensure they are effectively closed out. These will be reported/reviewed as part of Management Review meetings.

9. MAINTENANCE OF OMP

9.1. Review of OMP

9.1.1. The OMP shall be reviewed annually, if there is a significant change in site operations, or if we are notified that there is odour pollution report in the vicinity of the Installation, which is attributable to the activities. If changes are required, then a revised OMP will be promptly submitted to the EA for approval.

10. DECLARATION

10.1. Responsibility

10.1.1. We have carefully considered all aspects of our permitted activity and identified those materials, activities and conditions which may pose a risk of odour pollution. Any historic odour pollution incidents attributed to this Installation have been thoroughly considered as part of our risk assessment. These risks are documented in section 3 of this OMP.

10.1.2. We commit to implementing the control measures specified in section 5 of this OMP. These are all the measures which we currently believe are necessary, proportionate, and adequate for the control of odour pollution, but we will keep this under review.

10.1.3. If there are any changes to our activities which impact the risks identified in section 3, the effectiveness of measures specified in section 5, or if odour pollution occurs, we will reassess the adequacy of our odour control measures.

10.1.4. If the activities at the site cause off-site odour pollution and all appropriate measures have not been used to prevent or where that is not practicable, to minimise the odour, including those specified in this plan, then we understand we may be subject to enforcement action.

10.1.5. Considering the risks identified and control measures specified, we have concluded that it is unlikely that our activities will cause serious off-site odour pollution. If activities at the site do cause serious odour pollution off-site, then we understand that we may be subject to enforcement action even if we can demonstrate that we are using all appropriate measures.

APPENDIX I
DRAWINGS



LEGEND

ENVIRONMENTAL PERMIT BOUNDARY

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Environmental Compliance Ltd.
Unit G1
The Willowford
Main Avenue
Treforest Industrial Estate
Pontypridd.
CF37 5BF

Tel: 01443 801215
Email: info@ecl.world
Web: www.ecl.world

Client
albus environmental

Project Title
ENVIRONMENTAL PERMIT
VARIATION APPLICATION
ALBUS ENVIRONMENTAL LIMITED
212 KINGSNORTH INDUSTRIAL ESTATE
HOO, ROCHESTER. KENT. ME3 9NZ

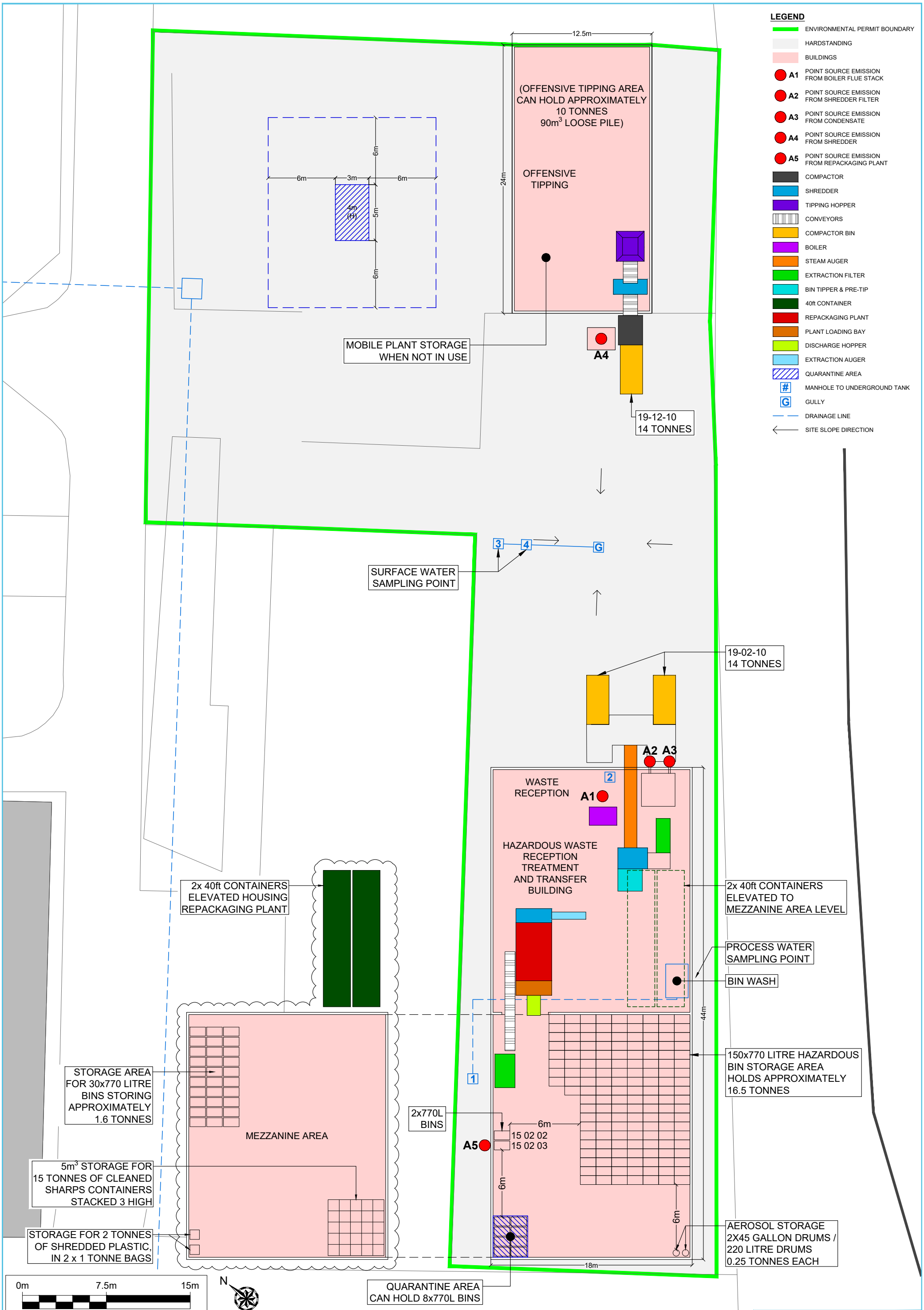
Drawing Title
SITE LOCATION PLAN

Rev	Date	Details	Chkd

Date	Scale	Drawn by	Checked by	Approved by
21/08/2026	1:10K @ A4	GTB	SM	SM

Drawing Status
FINAL

Drawing Number	Rev
ALBU.01.07-01	-



Environmental Compliance Ltd.
Unit G1
The Willowford
Main Avenue
Treforest Industrial Estate
Pontypridd.
CF37 5BF
Tel: 01443 801215
Email: info@ecl.world
Web: www.ecl.world

Client: albus environmental

Project Title: ENVIRONMENTAL PERMIT VARIATION APPLICATION
ALBUS ENVIRONMENTAL LIMITED
212 KINGSNORTH INDUSTRIAL ESTATE
HOO, ROCHESTER
KENT. ME3 9NZ

Drawing Title: SITE LAYOUT PLAN

Rev	Date	Details	Chkd

Date	Scale	Drawn by	Checked by	Approved by
21/08/2026	1:300 @ A3	GTB	SM	SM

Drawing Status: FINAL

Drawing Number: ALBU.01.07-02

Rev: -

APPENDIX II
BIOFILTER PRODUCT SPECIFICATION SHEET

tmabark

A Sustainable Future
A New Future

PRODUCT SPECIFICATION SHEET

Product:	**Biofilter**
Species:	Mixed Species Softwood/Hardwood
Size:	30-100mm
Wood Content:	100%
Dust & Fines:	Minimum
BS EN 1177: 2008 Compliant	No
FSC Certified:	No
Other:	The product shall be pest, disease and weed free and not have been treated with Methyl Bromide or any additives, colourants or dyes.

Mill Farm Bungalow,
Mill Street Elsing,
Dereham, Norfolk, NR20 3EQ

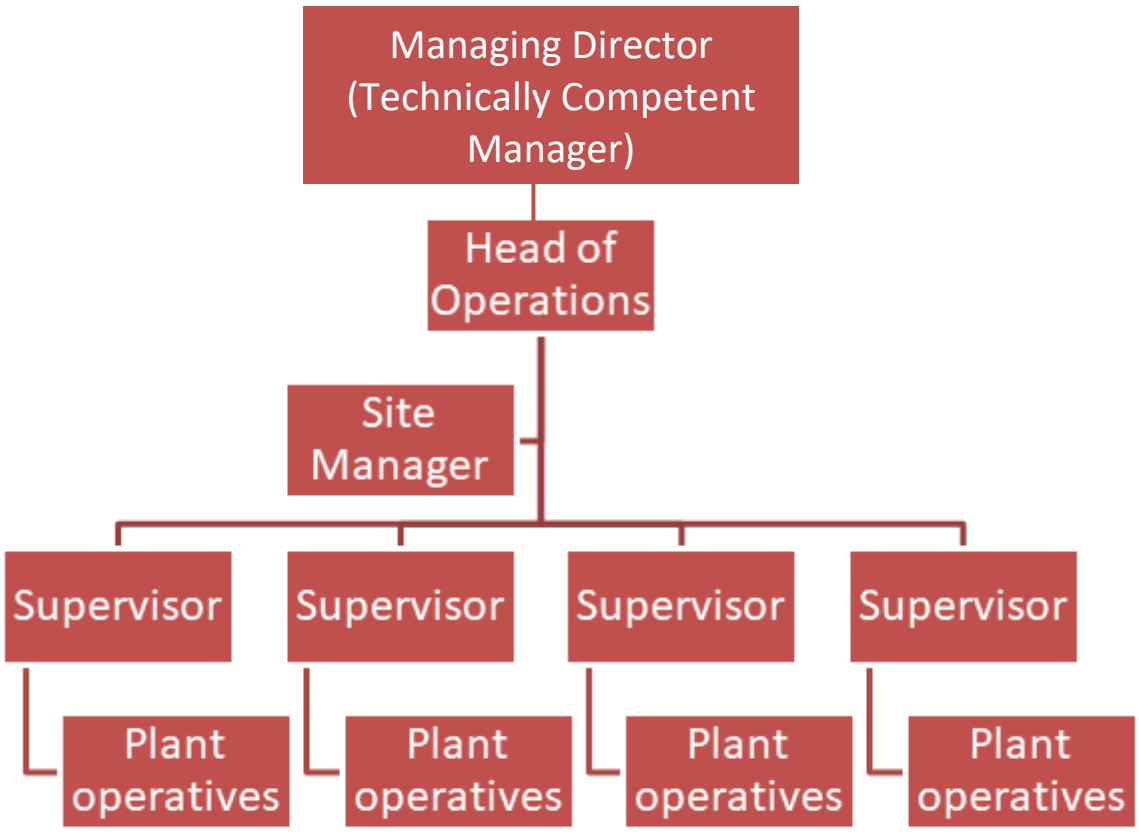
01362 638441
info@tmabark.co.uk

www.tmabark.co.uk

TMA Bark Supplies Limited. Registered in England & Wales. Company Number: 04597067
Registered Office: Bankside 300, Peachman Way, Broadland Business Park, Norwich, NR7 0LB

APPENDIX III
COMPANY ORGANOGRAM

Albus Environmental Limited
Company Organogram



APPENDIX IV
COMPLAINTS RECORD FORM

Appendix 6
Complaints Record

Date Received:	**Time Received:**

Complainant:

Complainant Contact Details:

Details of Complaint:

Details of Investigations:

Was the Complaint Justified?

Action Taken:

Response Given to Complainant:

Form Completed By: **Date:**