Odour Management Plan (OMP)

Fornax (Northeast) Limited

Merchant Park
1 Millennium Way
Aycliffe Business Park
Newton Aycliffe
DL5 6UG

Olive Compliance Limited
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BASIS OF REPORT

This report has been prepared by Olive Compliance Ltd with all reasonable skill, care and diligence, and taking account of the manpower and resources devoted to it by agreement with the client. Information reported herein is based on the interpretation of data collected and has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of Fornax (Northeast) Limited (FNX); no warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from Olive Compliance Ltd.

Olive Compliance Ltd disclaims any responsibility to the client and others in respect of any matters outside the agreed scope of the work.

Information reported herein may be based on the interpretation of public domain data collected by Olive Compliance Ltd, information supplied by the Client and its other advisors and associates. The data has been accepted in good faith as being accurate and valid.

Issue and Revision Record

Revision	Date	Originator	Description of Changes
V0.1 Initial draft	November 2024	J Hudson Consultant	Drafted for Bespoke Permit Application

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1.0 Introduction

Fornax (Northeast) Limited (FNX) has instructed Olive Compliance Ltd (OLC) to prepare an application for a Bespoke Environmental Permit under the Environmental Permitting (England and Wales) Regulations 2016. As part of the application an Odour Management Plan (OMP) must be prepared in support of the application.

The application seeks to apply for a bespoke permit to incinerate hazardous waste for 10,450 tonnes of waste per annum.

This document has been produced to support the site Environmental Management System including the site Fire Prevention Plan and Dust and Emissions Management Plan.

1.1 Scope

The Environment Agency guidance for odour management is provided by Environment Agency Technical Guidance Note, H4 Odour Management: How to comply with your environmental permit.

This Odour Management Plan (OMP) has been prepared in accordance with the principles set out in this technical guidance document.

Appendices are included in line with recommended formats for odour reporting, complaints and an odour diary are included which are taken from the H4 document.

2.0 Site Location

The National Grid Reference for the site is NGR NZ 26706 22077 at Merchant Park, 1 Millennium Way, Aycliffe Business Park, Newton Aycliffe, DL5 6UG.

The site is principally bounded by commercial and industrial activities, as seen in **Image 1 – Site Location and immediate surroundings.** Stockton to Darlington railway shown in orange.

Image 1 – Site Location and Immediate Surroundings

3.0 Site Layout and Activities

3.1 Site Layout and Activities

The site is permitted to accept, store and treat clinical waste including hazardous wastes. The total quantity of waste that can be stored and subsequently treated at the site shall be no more than 10,450 tonnes per year.

The full list of wastes can be found in Table 3.1 of the Environmental Permit.

Waste will be delivered to the Installation by road. All incoming waste delivery vehicles will pass through an automated number plate recognition ("ANPR") system and be weighed on entry. Following weighing, delivery vehicles will be directed to the Waste Reception Building where it will enter and the waste will be transferred into the waste reception area where it will be checked in . All waste handling activities will be undertaken within the confines of the building.

Waste will be rejected should the following circumstances arise:

- the load is in an unauthorised vehicle
- the load is delivered with an incomplete duty-of-care waste transfer note ("WTN") or Hazardous Waste Consignment Note (HWCN); and
- the load contains waste which would breach the conditions of the Environmental Permit.

If prohibited materials are observed in the load, these materials will either be isolated within the Waste Reception Area or moved to the Quarantine Area which is to be located in the main process building adjacent vehicle unloading area and the Quarantine area within the main building warehousing area. The waste producer will be notified of the issue and will be required to work with the site to resolve the issue or the waste will be removed off-site to an appropriately licensed facility or installation.

In the very unlikely event where vehicles are identified to possess smoldering loads, the Operator shall implement a Hot Load Vehicle policy as part of the IMS. The load will be directed to a holding area in the yard. The Hot Load Quarantine Area is located a significant distance from any buildings and personnel. This area will be in an area where the drainage can be isolated. The waste will be removed off-site as soon as practicable.

The waste acceptance checks will continue to be undertaken during shutdown of the incinerator and the waste transfer station building is being utilised.
All waste accepted is offloaded within the building in sealed bins, barrels, carts or containers. into the specific dedicated receiving bay, where the waste is scanned in via a barcode system and placed in the dedicated storage area based on waste type to await processing.

Clinical waste received in sealed bins will be assessed and directed in accordance with the type of materials received. Non-combustible and combustible separated materials are then stored in bays and exported to specialist recyclers or disposers.

Storage capacities and durations are shown in Table 3 of this document. Waste treatment includes the sorting of mixed wastes into different streams, such as clinical waste, anatomical and cytotoxic / cytostatic materials will be stored in a designated locked area (or a refrigerated cold store) within the building. Chemically incompatible wastes are separated in accordance with HSG71 guidance. Flammables will usually be taken into site in a just in time principle however if they are stored it will

be within a flammable storage bay.

The other than the clinical waste the remaining waste types accepted are not generally known to be odorous, they predominantly arise from commercial and industrial activities.

The Installation is designed with a warehouse with racking. The warehouse has an annual capacity of approximately 10,450 tonnes, which, in turn, equates to approximately five to seven days storage capacity. The bunker is designed to be water-retaining.

The air from the bunker is continually extracted and used as combustion air (primary air) during normal operation. This produces a slight negative pressure in the bunker helping to prevent dust and odour being emitted to the external environment.

In the event of shutdown of one or both incinerator lines, the waste transfer station building will be utilised. This building will benefit from four waste storage bays with a total capacity of 706 tonnes which will enable the waste from refuse collection vehicles to be stored at the Installation once the bunker storage is at maximum capacity.

Waste Treatment

Waste will be delivered via sealed containers mainly euro bins directly into waste reception warehouse which has a capacity of approximately 10,4500 tonnes and fed into the rotary kiln by means of a feed hopper/feed chute arrangement where waste is incinerated at temperatures in excess of 850^{o}C or 1100^{o}C (for clinical) in line with IED requirements.

The HTI- comprises a waste reception hall with storage racking, as well as the following elements **per line**:

- feed hopper and feed chute;
- grate and combustion chamber;
- combustion air system;
- auxiliary burners;
- combustion air system;
- selective non-catalytic reduction (“SNCR”) denitrification system;
- boiler;
- water/steam system;
- turbine;
- condensate system;
- cooling system;
- boiler water treatment system;
- flue gas treatment system (reactor; hydrated lime and activated carbon injection system and bag filter);
- induced draught fan;
- emissions measuring devices; and
- discharge stack.

The plant is designed to operate continuously throughout the year, 7 days a week, 24 hours a day, except for plant shutdowns. Planned and unplanned shutdown time periods will vary from year to year. **Figure 1** illustrates the process activities in a flow chart.

1.4 The Installation

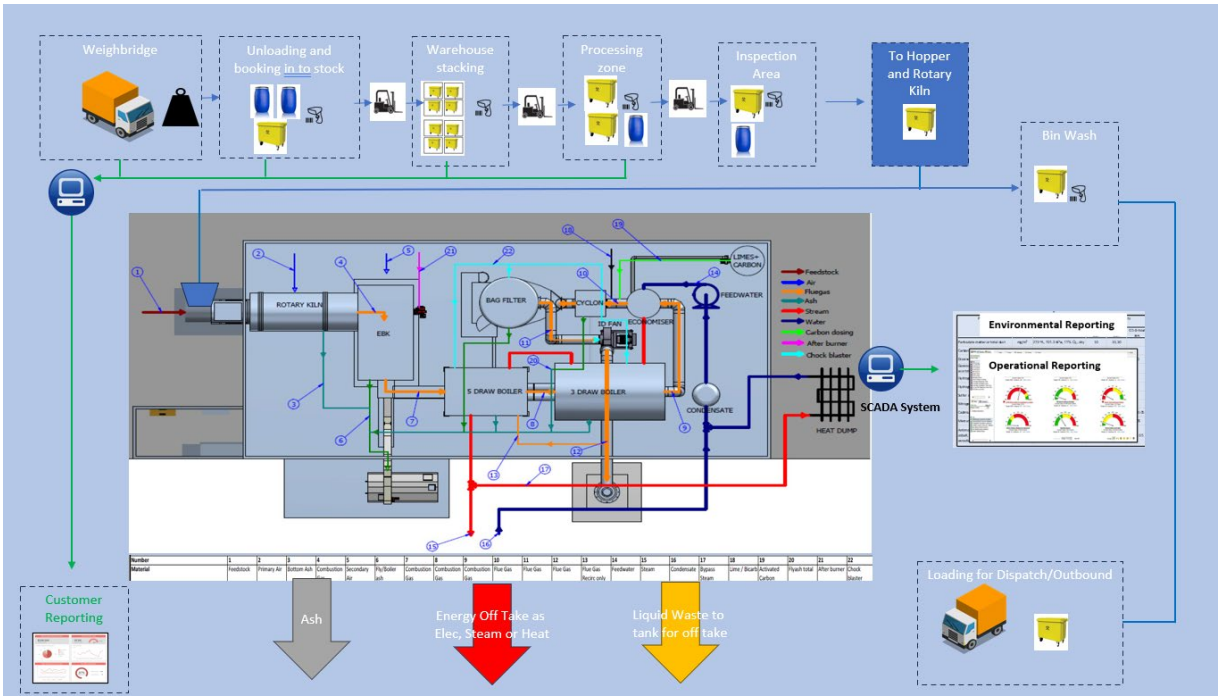
The main activities associated with the Installation will be the combustion of waste to raise hot water for export.

The installation will be based within 1 main buildings comprising the energy centre and boiler house, a waste reception and storage building. Other main features of the plant include a stack of approximately 30m in height and an air-cooled condenser with additional ancillary infrastructure including;

1. Weighstation;
2. Offices, control room and staff welfare facilities; (housed within main building)
3. Site fencing and security barrier;
4. External hard standing areas for vehicle manoeuvring/parking;
5. Internal access roads and car parking;
6. Cooling fans;
7. Waste Handling, Storage and Feeding System.
8. Thermal Waste Treatment – Rotary Kiln
9. Auxiliary Burners/Combustion Fans
10. Ash Conditioning and Removal
11. Waste Heat Recovery Boiler and Economiser
12. Selective Non-Catalytic Reduction (SNCR) of NOx
13. Flue Gas Treatment
14. Air Pollution Control Residues (APCRs)
15. Continuous Emissions Monitoring System (CEMs)
16. Steam & Water Circuit
17. Compressed air
18. Wastewater Management
19. Water treatment
20. Stack & Monitoring Station
21. Distribution Control System (DCS)
22. Uninterruptible Power Supply (UPS)
23. Heat Distribution Network Connection

The Installation has been designed for the export of hot water to local heat users

Figure 1 – Process Activities Flow Chart



3.2 Site Management

The site will be supervised overall by the Operations Manager and Site Chemist supported by the qualified Technically Competent Manager (TCM). They are responsible for the general management of the site including the acceptance and handling of any potentially odorous wastes. Support is provided by the addition of trained nominated site personnel.

The Standard Operating Procedures for the site include considerations of emissions to the environment in all site activities, and site employees are made aware of their responsibilities under the Environmental Permit and the consequences for compliance of any incidents or abnormal releases. HAZOP DSEAR, EMS,

Odour management training is provided for all operational employees via formal training sessions which are provided by internal trainers and external training companies as and when required.

Nominated employees will be trained on the odour scoring system and the monitoring point locations, to ensure that odour monitoring is scored on a consistent basis and trigger levels are understood.

The site management are committed to ensure that all relevant employees will be trained on the requirements of the OMP, and follow-up refresher toolbox talks will be held periodically, no later than annually. The individual training plans for employees on site must record all training on the aspects of the OMP.

Site Management will ensure that the normal operating conditions are adhered to ensuring that any potential odour is managed so as not to cause a problem

4.0 Odour Risk Assessment and Sensitive Receptors

4.1 Methodology

This OMP has been completed to identify where the likely risks are in relation to surrounding land uses. This assessment has been used to inform Section 5.0 of this OMP with regard to specific odour monitoring procedures.

Daily odour assessment will be carried out as part of the daily site inspections.

4.2 Receptor Sensitivity

The aim of the assessment is to identify any significant risks and demonstrate that the risk of pollution or harm will be acceptable by taking the appropriate measures to manage these risks.
The above guidance requires all receptors that are near the site and could reasonably be affected by the proposed activities to be identified and considered as part of the OMP.

Therefore:

- a 2km radius has been adopted in reviewing potentially sensitive receptors of ecological importance; and
- a radius of 1km from the proposed permit boundary has been adopted for all other potentially sensitive receptors (for example, residential, cultural heritage, commercial, industrial, agricultural and surface water receptors).

The site location and environmental site setting is shown on Drawing 001. Location Plan
A summary of the immediate environmental site setting is provided in Table 1 below.

Table 1
Surrounding Land Uses

Boundary	Description
North	Agricultural Land
East	Agricultural Land
South	Industrial/commercial
West	Agricultural Land

4.3 Sensitive Receptors

Table 2 below identifies key sensitive receptors within 1km of the site.

The nearest residential receptors are 100m from the western boundary of the site. Drawing 004 Site Receptor Plan2 identifies the site location and sensitive receptors.

Table 2 – Local Sensitive Receptors

Receptor	Distance	Receptor Assessment	Advice
Little Cubs Day Nursery	660m	Due to the proximity of site, there is risk of impact from site activities.	Staff to contact the nursey 01325312288 to advise staff of any incidents that may have any impact.
UTC South Durham	611m	Due to the proximity of site, there is risk of impact from site activities.	Staff to contact the school 01325430250 to advise staff of any incidents that may have any impact.
Locomotion One Clay Target Shooting Club	340m	Due to the proximity of site, there is risk of impact from site activities.	Staff to contact the club 07760283151 to advise staff of any incidents that may have any impact.
Glow Church	680m	Due to the proximity of site, there is risk of impact from site activities.	Staff to contact the church 08454505871 to advise staff of any incidents that may have any impact.
Moordale Park	880m	Due to the proximity of site, there is risk of impact from site activities.	Await further instruction from Emergency Services.
A1 (M) – Transport Link	1.42km	Due to the proximity of site, there is a small risk of impact from site activities. In the event of fire, it could be difficult to drive in due to short-term poor visibility from smoke and damage to vehicles from ash, which could result in short-term commercial impact and traffic disruption.	Await further instruction from Emergency Services. Contact Highways Agency 0300 123 5000 Police 999

Hitachi Rail	200m	Due to the proximity of site, there is a risk of impact from site activities. Dust, Nosie, and Fire Controls in place to prevent impact to the neighbouring businesses. Constant boundary monitoring of noise and dust also identifies any possible emissions from site to allow the site to cease activities and undertake any remedial action.	Staff to contact 01325 621 6531 to advise staff of any incidents that may have any impact.

4.6 Other Receptors

4.6.1 European/International Sites

Searches on the Multi Agency Geographical Information for the Countryside (MAGIC)[iii] website confirm there are no Sites of Special Scientific Interest (SSSI), a special area of conservation (SAC), special protection areas (SPA) or RAMSAR sites within 1km of the site boundary.

None of the following receptors have been identified within 1km of the proposed permit boundary.

- National Nature Reserves
- World Heritage Sites
- Registered Parks and Gardens
- Area of Outstanding Natural Beauty
- Woodland Trust Sites
- National Forest

4.6.2 Major Roads and Transport Links

- The site is accessed from Millennium Way from the A167
- The A1 (M) runs approximately 2km southeast of the site.
- There is a rail link that runs 430m east of site, with Northern Railway, Heighington train station being situated 425m northeast of site.
- There are no motorways within 1km of the site boundary.

5.0 Review of potential sources of odour

The following have been considered as potential causes and sources of odour arising on site.

- Loading, unloading, and handling of wastes
- Waste acceptance
- Vehicle/Plant operations
- Waste processing turnaround
- Excessive volumes of waste
- Waste processing practice
- Poor housekeeping
- Inadequate site management or auditing
- Meteorological
- Release Points

Odours from the acceptance and storage of waste

- Specific controls odorous wastes such as booking in and immediately covering such loads.
- Strict waste acceptance procedures will be adhered to, to ensure only permitted wastes are accepted on site.
- In the event that odours are detected, investigations will be undertaken to determine the cause and appropriate remedial action taken.
- The Site Manager will be responsible for implementing risk management measures.

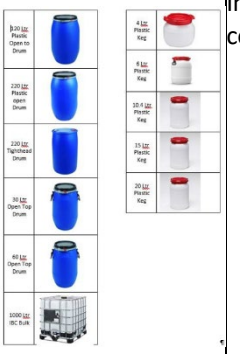
5.1 Waste types and storage timescales

Drawing Fornax006A shows the location and storage of waste.
The below table (Table 3) provides information relating to all incoming waste streams, with corresponding storage locations, storage timescales and method of storage.

Storage locations correspond with the Site Layout Plan for consistency between the other key management documents such as the Fire Prevention Plan, Dust Management Plan and the EMS.

Table 3 – Incoming Wastes and Controls

Location	Waste Types	Form	Storage Method	Storage Dimension s volume	Storage Restrictions MAX
Building	 Clinical Waste Bins	Individual container	Racking	Maximum 1100L 1350mm (H) x 1360mm (W) x 1080mm (D)	Upto 14 days in building for: • infectious clinical waste • offensive waste • treated waste from alternative treatment plant (for example, autoclave floc) You can store the following waste types for up to 6 months:

					• cytotoxic and cytostatic drugs • other medicines or drugs • dental amalgam • other chemicals or other wastes
Building/ Refrigerator	Amatomical Waste	Individual containers	Secure area or locked fridge	Max 360l bin 1090mm (H) x 1370mm (W) x 780mm (D)	Refrigerated anatomical waste for up to 14 days. You can store unrefrigerated anatomical waste for up to 24 hours, or up to 72 hours if over a weekend.
Building	 Contanerised chemical	Individual container	Racking	Maximum 3m3 for a IBC container	6 Months

5.2 Potentially Odorous Wastes

An assessment of all incoming waste types and odour risk has been conducted with the below management controls in place to reduce and mitigate against the risk of odour arising.

Table 4 – Potentially Odorous Waste Steams

Waste type	Site controls
Clinical Waste Bins **Low Risk**	Waste acceptance monitoring. Duty of care paperwork inspection. Material kept dry and contained within a building. Clinical waste is delivered in sealed Eurobin and chemical robust combustible containers that are never opened throughout storage and handling operations. If needles and sharps are disposed of in them, the containers are puncture-proof. Clinical wastes are unloaded from the vehicle to the storage area using a manual system. Reusable waste containers are cleaned in a designated cleaning area and disinfected in a facility specifically designed for disinfection. Any leftovers from the cleaning operations are incinerated. Daily visual checks. Daily monitoring for volumes not to be exceeded and contained within the racking. Record bay capacity in bay records sheets. Duty of care paperwork inspection. Ensure adequate rotation (FIFO). All bins to be washed out using automated bin washer using surfactants
Amatomical Waste **Low Risk**	Waste acceptance monitoring. Duty of care paperwork inspection. Material kept dry and contained within a building in locked area or withing a fridge. Strict processing timescales adhered to
Light Waste Metal/Plastic/Paper/ Cardboard/Mixed Non Recyclable **Medium Risk – Contaminated metal/plastics/paper and cardboard only**	Monitor waste acceptance and waste quality inc duty of care. Received daily. Daily monitoring for volumes not to be exceeded and contained within the bay. Record capacity in bay records sheets. Ensure adequate rotation. Keep material at designated stockpile capacity. Neutraliser to be used when necessary. Remove any contaminates if found during inspections.

Mixed Recyclables **Medium Risk**	Waste acceptance monitoring. Received daily. Duty of care paperwork inspection. Daily visual checks. Daily monitoring for volumes not to be exceeded and contained within the bay. Record racking capacity in daily records sheets.
Chemical Wastes **Low Risk**	Waste acceptance monitoring. Received daily. Duty of care paperwork inspection. Daily visual checks. Daily monitoring for volumes not to be exceeded and contained within the racks/bays. Record racking capacity in daily records sheets.

6.0 Other considerations

6.1 Meteorological

Fugitive odour releases are minimised by effective odour management procedures to lower the risk of significant nuisance at receptor locations in the vicinity of the site. However, certain circumstances (as discussed elsewhere in this plan) can cause an increase in the intensity, offensiveness, frequency, and duration of any odorous release. The risk of such releases causing a nuisance to local receptors can be increased where local atmospheric conditions fail to dilute and disperse the emissions.

Extreme meteorological conditions that can promote the generation of odour and inhibit its effective dispersion (i.e., high temperatures and stable conditions) may result in an increased risk of impact at receptor locations.

6.1.1 Prevailing Wind Direction

Using the Willy Weather application, meteorological forecast information is available for over 45000 British locations. The available data includes Met Office weather radar, satellite images and synoptic charts. The application also provides current conditions and warnings.

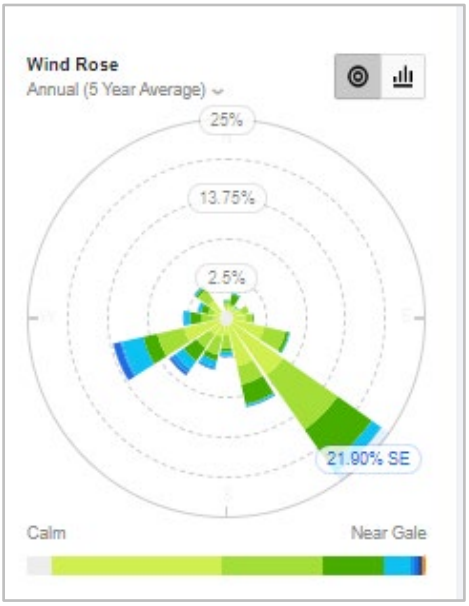
Upon reviewing the historic wind data, the prevailing wind directions are predominately west south westerly in respect of the site.

Given the prevailing wind, the receptors that could principally be affected by odour at the site would be the rural areas situated directly to the west north westerly of the site and would not affect highlighted residential areas or sensitive receptors.

Aycliffe Wind Forecast, Durham DL5 6 - WillyWeather accessed 26th April 2023.

The below rose diagram below shows the prevailing wind direction.

Diagram 1
Wind Direction Average 5-year data Aycliffe



Atmospheric conditions are unlikely to result in an odour occurring at the receptor locations due to atmospheric dispersion and in conjunction with strict waste acceptance controls. However, odour will be monitored in accordance with this OMP.

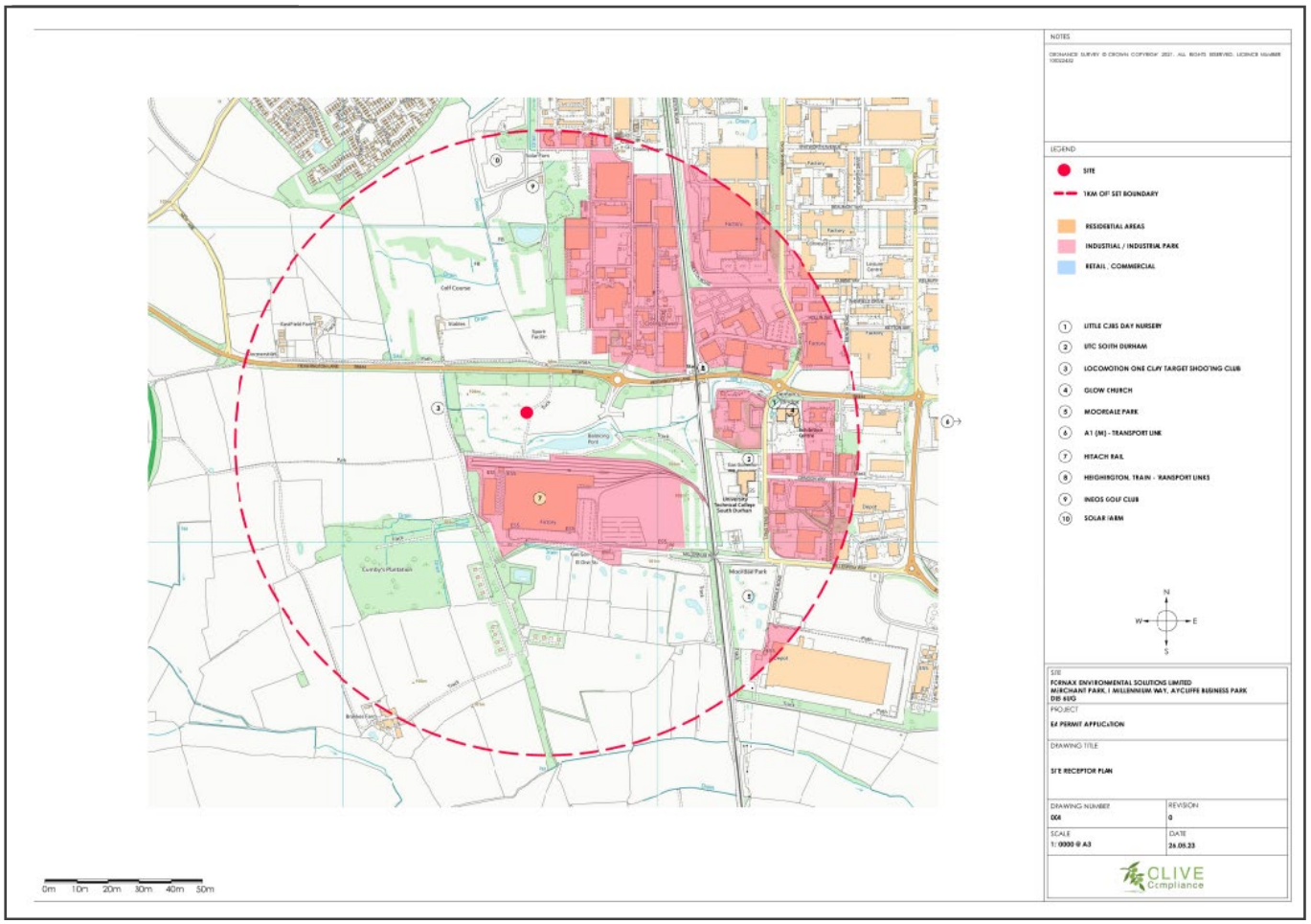
6.2 External local odour sources

There are other potential odour sources outside and within 1km radius of the site, which can produce unpleasant odours, which could be detectable within the vicinity of the site and the surrounding industrial estate.

- **Other waste management facilities** surrounding the site have a high potential to produce strong fouling odour which could potentially be detected on or around the site through poor operational practices.
- **Commercial industries** surrounding the site have a high potential to produce strong odour which could be detected on or around the site through poor operational practices, manufacturing processes or poor housekeeping.

Within 1km of the site there are an additional two (2) regulated permitted waste sites and five (5) sites registered with waste exemptions. An assessment of these activities has been made, identifying potential odour sources from the activities carried out on these sites.

Drawing 001 - Site Receptor Plan



6.2.1 Permitted Sites

Permitted sites within 1k of the site are listed below in **Table 5.**

Table 5 – Permitted sites within 1km

Site Name	Address	Permit	Distance (m)
H W Martin Waste Limited	Heighington H W R C, Heighington Lane, Newton Aycliffe, County Durham, DL5 6AP	PB3831AZ	0.7
Durham County Council	Heighington Lane Waste Transfer Station, Heighington Lane, Aycliffe, County Durham, DL5 6AP	AB3209CB	0.8

6.2.2 Exemptions

Waste exemptions registered within 1k of the site are listed below in **Table 6**.

Table 6 – Registered Waste Exemptions within 1km

Site Name	Address	Exemption	Registration Number	Distance (m)
Hitachi Rail Limited	Merchant Park, Millennium Way, Aycliffe Business Park, Newton Aycliffe, DL5 6UG	T4, T6	WEX361433	0.0
H.W Martin Waste Ltd	H.W Martin Waste Ltd, Heighington Lane, Newton Aycliffe, DL5 6AP	S2	WEX240984	0.7
Durham County Council	Durham County Council, Heighington Lane Waste Transfer Station, Long Tens Way, Newton Aycliffe Business Park, Newton Aycliffe, DL5 6AP	S1, S2	WEX304301	0.7
Lidl GB Ltd	Moordale Road, Aycliffe Business Park, Newton Aycliffe, DL5 6BA	S2, T13, T17, T4	WEX245621	0.9
Lidl GB Ltd	Moordale Road, Aycliffe Business Park, Newton Aycliffe, DL5 6BA	T10	WEX282647	0.9

Offensive odours arising from external sources will be noted in the site diary. If a significant odour is noted as coming from any external facility, a decision will be made by the Technically Competent Manager or Operations Manager whether to report the odour to the Environment Agency and/or local authority.

7.0 Odour management and control measures

7.1 Site Operations

Limiting odour from the waste facility can best be achieved through employing effective site management and good general practice. It is much easier minimising odours in the first instance than dealing with problems once they occur.

This section addresses the general site management guidelines and identifies specific procedures to mitigate against odorous emissions.

7.2 Site infrastructure

The site has one building and no external storage areas.

Building 1 is is used for the reception of wastes, with incoming reception storage areas for various clinical and chemical, industrial wastes, with processing line and into a rotary kiln for high temperature incineration

Wastes will not be stored externally.

Waste reception and storage areas are covered in impermeable concrete with a sealed drainage system. Should any concrete repairs be needed they are scheduled in at the most appropriate time.

The site has a comprehensive drainage system which is regularly checked and maintained. Cleaning of drainage channels and interceptors is conducted to discourage odour generation from old degrading materials. The site drainage layout information can be located in the onsite EMS system and within the FPP.

Healthcare waste is bagged and contained within carts and stored in racking prior to being loaded into the hopper as feedstock.

7.3 Housekeeping

Daily inspections of plant and equipment are made as part of the daily checks, ensuring that they are kept free of any wastes and litter. Vehicle operatives will clean up such material on identification, placing material in the correctly designated storage containment/area. Daily plant inspection forms are used to record these checks.

Daily site inspections and general housekeeping of the site is also undertaken in order to minimise the potential for the build-up of waste and litter. These checks are recorded in the site inspection record.

At the end of each working day a full clean down and blowout is conducted on all internal fixed

plant. This is recorded on the daily cleaning checklist, signed off by the site Operations Manager or Facility Manager.

Jet-washing the racking and warehouse floors may be necessary depending on the nature and amount of residues.

Bays and surfaces can be checked and cleaned easily to prevent historic waste and odours building up. All waste storage areas in Building 1 are accessible, with a separation gap to allow visual inspection and cleaning.

Frequent site cleaning takes place on site covering essential daily housekeeping, monthly tasks and deep cleans of site infrastructure and drainage system.

7.4 Odour abatement

As the storage and handling of clinical and Hazardous Waste will introduce a potential for odour, an odour abatement system will be installed to extract the potentially odorous air from the reception and storage building. The extracted air from the enclosed reception and storage building will be fed into the kiln to regulate temps or passed through a carbon filter system prior to release to atmosphere via a dedicated stack. There is not expected to be an off site impact caused by odour from the facility.
The waste types and quantities on site will be strictly controlled.

7.5 Waste acceptance, handling and storage

7.5.1 Pre-acceptance criteria

Waste pre-acceptance checks are in place in order to prevent the acceptance of unsuitable wastes which may lead to adverse reactions or uncontrolled emissions. This ensures their suitability for the site.

Waste must be properly characterised. This may involve a review of data sheets and/or targeted chemical analysis.

It should be remembered that waste may have been stored on the producer's site for some time. This may cause changes in physical/handling and chemical characteristics, and these in turn may affect handling and processing requirements. These may make the waste difficult to handle, or unacceptable, due to:

- Packaging having deteriorated to a point where there is a risk of spillage during handling,
- Baled material may have moved in transit to care must be taken when accepted.
- Waste becoming waterlogged, which will increase the weight of containers, and may produce a liquid (and hence unacceptable) fraction,
- Water-sensitive materials (e.g. plasterboard or cement powders) having significantly changed in character,
- Degradable wastes becoming malodorous and possibly infested with flies or rats.
- Total miss description of the material.

All incoming loads are booked in daily to ensure that storage limitations are not exceeded.

The potential supplier for the following information will be requested:

- The source and types of waste;
- Composition & the quantity of the waste;
- Any pre-treatment that was carried out before the waste is dispatched;
- How long the waste can be held by the client before it is delivered to our facility;
- Transport conditions (types and size of vehicles can be used);
- Special handling requirements for the waste;
- Hazards of the waste; and
- EWC code of the waste.

This process will allow the company to determine the suitability of incoming waste prior to agree to accept any waste.

7.5.2 Incoming waste procedures

Site waste acceptance procedures are in place to ensure that only wastes that are specified within the permit are allowed into the site. Wastes that are not permitted at the facility will be refused entry.

Due to the nature and source of waste types accepted, odorous wastes should not be accepted onto site.

All waste arriving on site will enter the site via the weighbridge, where the load will be visually checked by the weighbridge operator. As it is not always possible to inspect waste due to vehicles being sheeted or enclosed, most of the waste inspection is carried out upon discharge against the accompanying Controlled Waste Transfer Notes.

Malodorous wastes that are detected within in the incoming wastes at the weighbridge, will be either rejected and the weighbridge operator will advise the carrier of the reasons for the rejection, and
will record the details of the load and the reason for rejection in the Site Diary and with a Rejection Note produced. Or be directed for immediate destruction.

Once the Weighbridge operator is satisfied that all documentation has been processed correctly, he will instruct the vehicle driver to enter the site to meet with a site operative.

All incoming and outgoing loads are covered and secure to prevent any potential odours arising during the transport of wastes.

Waste will not be accepted into site unless sufficient storage capacity exists and the site is adequately manned to receive waste. If plant and equipment are out of action due to any unforeseen circumstances for prolonged period, then the site will not accept any incoming materials.

Any non-permitted wastes (including malodorous wastes), which are found following deposit or during subsequent storage and treatment operations, will be directed for immediate destruction.

The facility operates FIFO principle for the acceptance, sorting and removal of waste off site. The site FPP specifies and controls all waste storage timescales.

The site may accept waste from other transfer stations so it is difficult to provide an average age of waste but upon reception of waste after visual checks, any loads which contain significant amounts of odorous waste will be rejected as above. As detailed within the EMS procedure Emergency Preparedness.

Toolbox talks on waste acceptance to prevent odour issues will be given to staff by the Operations Manager and any issues will be raised with either the Facility Supervisor, or the Operations Manager.

Waste quantities will be continually monitored.

7.5.3 Waste rejection

Rejected wastes will be deposited in the quarantine area provided for non-conforming wastes. In respect to significant loads, an investigation will be conducted and recorded in the site diary. Problem odorous wastes will be stored for no longer than 48 hours pending removal to a suitably permitted site.

The EA will be contacted in the event of significant loads to agree a course of action where necessary.

7.5.4 Waste processing and treatment

Incoming wastes are, visually inspected where possible if not infectious clinical waste. Chemical waste will undergo on site verification testing All treatment in relation to repackaging /bulking is carried out internally. Operatives can identify odorous waste immediately, which will enable them to quarantine and direct for immediate destruction of these wastes.

Wastes are then processed via the High Temperature Incinerator.

7.5.5 Waste storage

Low storage volumes and strict turnaround of wastes stored in accordance with the FPP and EMS will be observed.

Should contaminated or odorous wastes be identified these will be immediately quarantined.

Quarantined odorous wastes are removed within 48hrs.

Short waste retention time as defined within this document reduce the risk of any odours arising from general waste activities and storage.

The Odour control system, system provides application of a fine mist spray with chemical Airborne5 as an odour control chemical. This is on a timer set hourly.

7.5.6 Tipping, loading and transport of wastes

Waste is received by vehicle and off loaded within the waste reception warehouse. Wastes are stored in carts within racking. They are then tipped into the hopper for HTI.

7.5.7 Emergency and contingency measures

In accordance with the EA's guidance on OMPs, contingency plans have been prepared to react to situations 'where monitoring indicates that a potential odour source is not completely under control, meteorological conditions are unfavourable or that adverse impact has occurred'.

These further control measures are detailed in Table 5 below.

Table 5: Scenarios involving odorous issues, emergency and remedial actions

Problem / Scenario	Issue	Action
Odorous load arrives last thing at night after all export has ceased for the day.	Potential for overnight complaint	• Reload onto vehicle if possible. • If not possible carry out heavy odour treatment and disinfect with neat product, cover with clean material to seal and remove next day first load.
Exhaustion of odour treatment stock	Unable to operate odour suppression	• Ensure stocks are monitored daily. • Always ensure there is 10lt in stock, which is 8 weeks requirement. • Lead in time is 1 working day for deliveries.
Damage identified in bay structures	Holes can cause uncontrolled odour release points	• Ensure daily structural inspections are carried out. • Maintenance is reactive with planned maintenance programmes in place. • Call maintenance contractor and repair.
Fire on Site	Access for emergency equipment Management of the fire is the priority	• Raise alarm as per fire plan and contact fire marshall. • Inform weighbridge to cease import of waste. • All non-essential operatives to leave waste building and report to muster point. • Weighbridge to inform all incoming hauliers of redirection to ensure site congestion is minimised for Emergency Services attendance. • Ensure all office/fire doors are closed where possible. • If localised small fire attack with fire equipment, only if deemed safe to do so.
Failure of waste handling/processing equipment	Plant breakdowns Staff absence	• Cease import of waste to activities affected by failure until extent of the breakdown is known. • Wastes are stored internally to contain the risk of odour leaving the building. • Divert wastes to the quarantine bay as an overflow measure. • Monitor import volumes to ensure site storage capacity is not exceeded, allow import of waste only if confident of handling capacity, to ensure we can balance import / export ratio. • Cease import when storage capacity is reached. • Weighbridge to inform all incoming hauliers of redirection to alternative site to keep stock waste to a minimum. • Service agreement with plant/equipment supplier to support with repair requirements. • Utilise alternative equipment to carry out loading of existing waste.
Haulage issues	Site storage capacity reached	• Cease import of waste until extent of the haulage problem is known and evaluated.

Problem / Scenario	Issue	Action
	Incoming loads require redirection	• Weighbridge to inform all incoming hauliers of redirection to alternative site to keep stock waste to a minimum. • If traffic based issues re-route vehicles to minimise impact prioritising older / odorous waste. • Carefully monitor incoming waste capacity, to ensure the balance of import / export ratio. • The company has relationships with an extensive network of waste management companies and suppliers. These contacts can also be drawn upon to temporary redirect wastes.
Employees issues	Shortage of responsible employees to deal with odour	• Implement holiday booking procedures to ensure that a trained member of employees responsible for odour issues is always on site during working hours. • Training for nominated employees on odour issues to allow for stand-in, in the event of sickness of a designated odour controller. • Provide a call-out register so that employees are aware of who will be on stand-by in the event of sickness or emergency. • Implement agency support for long term staff absences.

8.0 Monitoring

8.1 Operational monitoring

The operator will monitor the emissions at source (on site) to ensure releases do not result in odour nuisance at sensitive receptors.

Monitoring includes both emissions monitoring, monitoring of odour and inspections of the process, to check that any potential odour emissions are being contained and controlled to meet the accepted standards of good practice in relevant guidance.

Monitoring can include the following:

- Proactive inspections and maintenance of plant equipment
- Process monitoring
- Daily sniff test
- Meteorological data monitoring
- Complaints monitoring & follow up
- Odour diaries from local residents

8.2 Olfactory Monitoring

A site odour assessment is made daily to assess odours at the perimeter boundary and recorded in the Site Inspection Checklist.

Sniff testing will be carried out by trained competent staff.

The assessor should not: a) Smoke or consume strongly flavoured food or drink for at least 30 minutes before the assessment. b) Consume confectionary or soft drinks immediately before the assessment. c) Apply scented toiletries, such as perfumes or aftershave immediately before an assessment.

Should the monitoring conclude that a certain activity/waste is giving rise to odour which may migrate offsite, steps will be made to reduce the impact of this activity, which may include but is not limited to:

- quarantine and removal offsite to a suitably licensed facility or send for immediate destruction via HTI.;
- removal of waste to a more suitable area of the site prior to incineration.

8.3 Weather conditions

Meteorological forecasts and conditions are monitored using most recent information from the met-office website, to enable remedial actions to be taken, such as increased monitoring.

Meteorological data will be recorded in the daily diary as per the table below.

Table 6 - Meteorological data

Monitoring Requirements	Frequency
Observed description of conditions: precipitation, drizzle, rain, sleet, snow, temperature, winds, etc.	Recorded daily
Wind direction	Recorded daily

Additional monitoring will be conducted in the event the following weather conditions which could cause a potential on or off-site odour issue.

- High winds >30mph which could exaggerate an odour and wind direction South East;
- Periods of hot weather exceeding 3 major dry days which could lead to water shortages, hosepipe bans and excessive odour;
- Flooding.

8.3.1 Investigation and monitoring records

Daily records shall be maintained and include the following detail if applicable:

- Results of inspections and odour monitoring carried out by site personnel
- If odour is identified what is the extent of odour – how long has it been apparent? Is it arising from site operations
- Weather conditions including wind speed and wind direction
- Operational problems including date, time, duration, prevailing weather conditions and problem loads
- Complaints received including address of complainant (if available)
- Details of corrective action taken, and any subsequent changes to operational procedures; and
- An evaluation of the effectiveness of control and abatement techniques used.

8.4 Trigger level actions

All odour complaints will be investigated promptly, and appropriate remedial action will be taken if the complaint is substantiated e.g., remove or destroy via HTI odorous materials off site as soon as reasonably possible. Complaints will be recorded on the form found in the Appendices – Appendix 1.

Complaints to the EA will also be recorded and investigated. An olfactory assessment survey will be carried out from where the complaint was made and from any locations between the complainant/receptor and the site so that the complaint can be validated or rejected.

If odour is detected during routine olfactory monitoring and is judged to be moderate (Odour Intensity Rank 3) then the Technically Competent Manager (TCM), or nominated representative, is notified immediately and the olfactory survey will continue in an attempt to determine the scope and extent of the odour, as follows:

- A suitable location downwind of the facility and potentially sensitive receptor at which the odour plume is unlikely to extend will be selected for assessment.

- The survey continues toward the site until an unpleasant odour is perceived; and
- Where odour is detected, this point is recorded, and reported to the TCM, who must take steps to reduce or prevent the odour spreading.
- If the source of the odour is anticipated to be from an external source, the survey will also progress away from the site boundary towards the potential source until an unpleasant odour is perceived (this will be carried out if the odour detected is unusual for the site e.g., an agricultural foul odour or smells from adjacent sites burning waste.

This will involve as necessary:

- A review of the site activities at the time of the olfactory survey.
- A review of the meteorological conditions at the time of the olfactory survey; and
- A review of the effectiveness of process operations and odour control procedures.

8.4.1 Complaint investigation procedure

Once a complaint has been received and the details collected the matter will be reported to the appointed-on site odour controller, either the TCM on duty or Operations Manager/or nominated site personnel.

The odour controller will carry out an investigation in accordance with the trigger level actions in section 8.4 to identify potential sources, where sources are identified, will request a rectification.

The site would normally consider the following as part of an incident investigation:

- Is the process under control? (Have we received exceptionally odorous wastes, for example? Have we had any breakdowns? Is housekeeping satisfactory on site?)
- Have odour containment measures failed? (Has a door been left open, for example? Is the waste containment (carts, bins, boxes etc.) clean and fit for purpose? Have odorous materials been stored outside a containment area? Have adverse conditions, such as weather, overwhelmed containment structures?)
- Have atmospheric conditions concentrated an odorous plume?

The odour complaint data will then be reviewed to assess the magnitude of exposure, to identify any patterns, which may help to identify likely cause of the problem.

8.5 Review

After the complaint has been resolved, there will be a review to identify whether the site procedures and OMP were effective in dealing with the issue.

Where there are any improvements to be made, these will be identified to the Environment Agency and the any relevant procedures and OMP will be updated accordingly.

9.0 Complaints and External Liaison

The company recognises the importance of engaging with the people who may be affected by site activities. If an issue occurred where neighbours were affected by the activities, then the company would like to propose to use the following community outreach activities to engage with the local

community in order to understand the issues and provide detailed information about actions taken to mitigate any problems.

9.1 Our community outreach activities

9.1.1 Newsletter/leaflet

We may from time to time publish a leaflet providing an explanation about the site activities, remedial actions and information about complaint procedures. The company may choose to communicate with residents regarding any incidents or issues via this media.

9.1.2 Website Information

Website update explaining about site activities, remedial actions and information about complaint procedures. The company may choose to communicate with residents regarding any incidents or issues via this media.

9.1.3 Meeting with residents

In the event of a major incident or an issue which may lead to complaints regarding odour, the company will carry out a formal letter drop to inform local residents about the OMP and future improvements to the site. In this instance, the company may invite residents to directly contact them through the appropriate methods and/or to attend a public meeting regarding the issues on site.

This OMP will be updated to include actions and outcomes from any community engagement meetings.

The company will issue the odour diary form to residents who wish to participate in recording odour issues. A copy of the odour diary is provided in Appendix 3. This information will be used to form the basis of discussion at community group meetings. Copies of the completed forms will be retained in the site records. A list of scores from residents participating in odour diaries will be summarised in future revisions of the OMP.

9.2 Site contact

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

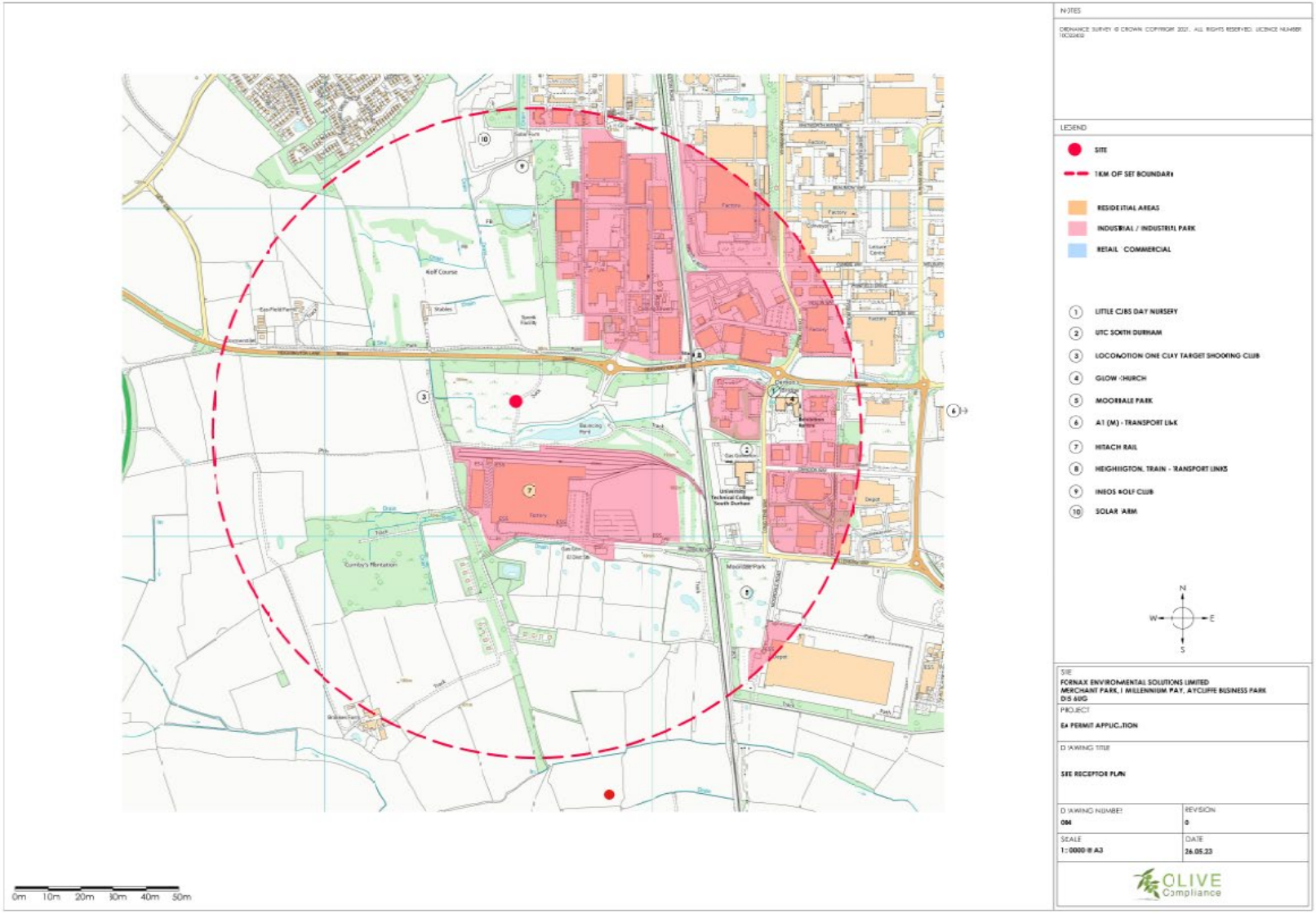
These methods of contacting the site are displayed at the site entrance and on the company's website Fornax (Northeast) Limited.

10.0 Closure

This report has been prepared by Olive Compliance Limited (OCL) with all reasonable skill, care and diligence, and taking account of the manpower and resources devoted to it by agreement with the client. Information reported herein is based on the interpretation of data collected and has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of Fornax (Northeast) Limited, no warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from OCL.

OCL disclaims any responsibility to the client and others in respect of any matters outside the agreed scope of the work.


NOTES
LEGEND
SITE
1KM OFF SET BOUNDARY
RESIDENTIAL AREAS
INDUSTRIAL / INDUSTRIAL PARK
RETAIL / COMMERCIAL
1 LITTLE CUBS DAY NURSERY
2 UTC SOUTH DURHAM
3 LOCOMOTION ONE CLAY TARGET SHOOTING CLUB
4 GLOW CHURCH
5 MOORDALE PARK
6 A1 (M) - TRANSPORT LINK
7 HITACH RAIL
8 HEIGHINGTON, TRAIN - TRANSPORT LINKS
9 INEOS GOLF CLUB
10 SOLAR FARM
N
W
E
S
SITE
FORNAX ENVIRONMENTAL SOLUTIONS LIMITED
MERCHANT PARK, 1 MILLENNIUM PAY, AYCLIFFE BUSINESS PARK
DL5 6UG
PROJECT
EA PERMIT APPLICATION
DRAWING TITLE
SITE RECEPTOR PLAN
DRAWING NUMBER
006
REVISION
0
SCALE
1:10000 @ A3
DATE
26.05.23
CLIVE Compliance
0m 10m 20m 30m 40m 50m

APPENDICIES

APPENDIX 1 ODOUR REPORT FORM

APPENDIX 2 ODOUR COMPLAINT REPORT FORM

APPENDIX 3 ODOUR DIARY

APPENDIX 1 ODOUR MONITORING 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)					
Wind direction (e.g., from NE)					
Intensity (see below)					
Duration (of test)					
Constant or intermittent in this period					
What does it smell like?					
Location sensitivity (see below)					
Is the source evident?					
Any other comments or observations					

Intensity (Detectability)
1 No detectable odour
2 Faint odour (barely detectable, need to stand still and inhale facing into the wind)
3 Moderate odour (odour easily detected while walking & breathing normally)
4 Strong odour
5 Very strong odour (possibly causing nausea depending on the type of odour)
6 Extremely strong odour (likely to induce vomiting due to strength)

Location sensitivity (where odour detected)

Low (e.g., footpath, road)
Medium (e.g., industrial or commercial workplaces)
High (e.g., housing, pub/hotel etc.

Appendix 2 – ODOUR COMPLAINT FORM

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

Appendix 3 – ODOUR DIARY

Odour Diary					Form version 110319	Sheet No
Name: Telephone Number:	Address:					
Date of odour:						
Time of odour:						
Location of odour, if not at above address (indoors, outside):						
Weather conditions (dry, rain, fog, snow etc):						
Temperature (very warm, warm, mild, cold or degrees if known):						
Wind strength (none, light, steady, strong, gusting):						
Wind direction (eg from NE):						
What does it smell like? How unpleasant is it? Do you consider this smell offensive?						
Intensity – How strong was it? (see below 1-5):						
How long did go on for? (time):						
Was it constant or intermittent in this period:						
What do believe the source/cause to be?						
Any actions taken or other comments:						

Intensity

0 No odour
1 Very faint odour
2 Faint odour
3 Distinct odour
4 Strong odour
5 Very strong odour
6 Extremely strong odour