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WASTE RESOURCE MANAGEMENT



THE NWH GROUP

Waste Transfer Station, Factory Road

Odour Management Plan

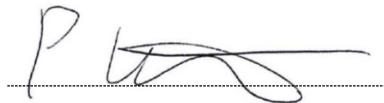
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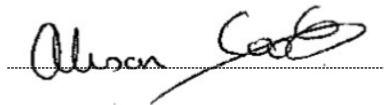
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1 ODOUR MANAGEMENT PLAN

1.1 Introduction

1.1.1 NWH Group proposes to operate a waste transfer station (WTS) at Factory Road, Gateshead. This odour management plan (OMP) outlines the odour management mitigation and controls for the operation of the WTS.

1.1.2 This OMP is part of the WTS's environmental permit documentation.

1.1.3 The purpose of this OMP is to provide detailed mitigation measures to ensure odour generation is controlled and mitigated to ensure there are no adverse environmental effects arising from the WTS. The plan is intended to cover the entire site and all odour-potential generating operations. The aim of the OMP is to ensure there are no adverse odour releases during operation of the WTS.

1.1.4 The OMP considers day-to-day operations and all foreseeable circumstances (e.g. adverse meteorological conditions) which may exacerbate odour conditions at the site.

1.1.5 The OMP has been prepared by qualified air quality professionals in Wardell Armstrong LLP, who are members of the Institute of Air Quality Management and Chartered Institute of Environmental Health. It is the responsibility of the NWH Group and the on-site WTS management team to ensure the WTS is operated in accordance with the OMP.

1.1.6 The OMP includes:

- Consideration and identification of all activities capable of generating odour at the site.
- Identification of sensitive receptors.
- Site- and activity-specific mitigation measures.
- Mitigation measures are sourced from the following documentation:
 - Environment Agency – Control and Monitor Emissions for your Environmental Permit
 - Environment Agency H4 Odour Management: How to Comply with your Environmental Permit.
 - In-house knowledge from registered members of the Institute of Air Quality Management who have extensive experience of preparing OMPs.

1.2 Site Description and Proposals

- 1.2.1 The WTS is located at Factory Road, Blaydon in an industrial estate. The site is bound to the north by a scrap yard, to the east by Factory Road and a metal sorting yard, to the south by industrial premises and to the west by the River Tyne.
- 1.2.2 The site is currently hard standing with an existing building present. The building would be retained, and a second building constructed in the north of the site for the waste sorting and offices. The site plan is outlined in Plate 1.

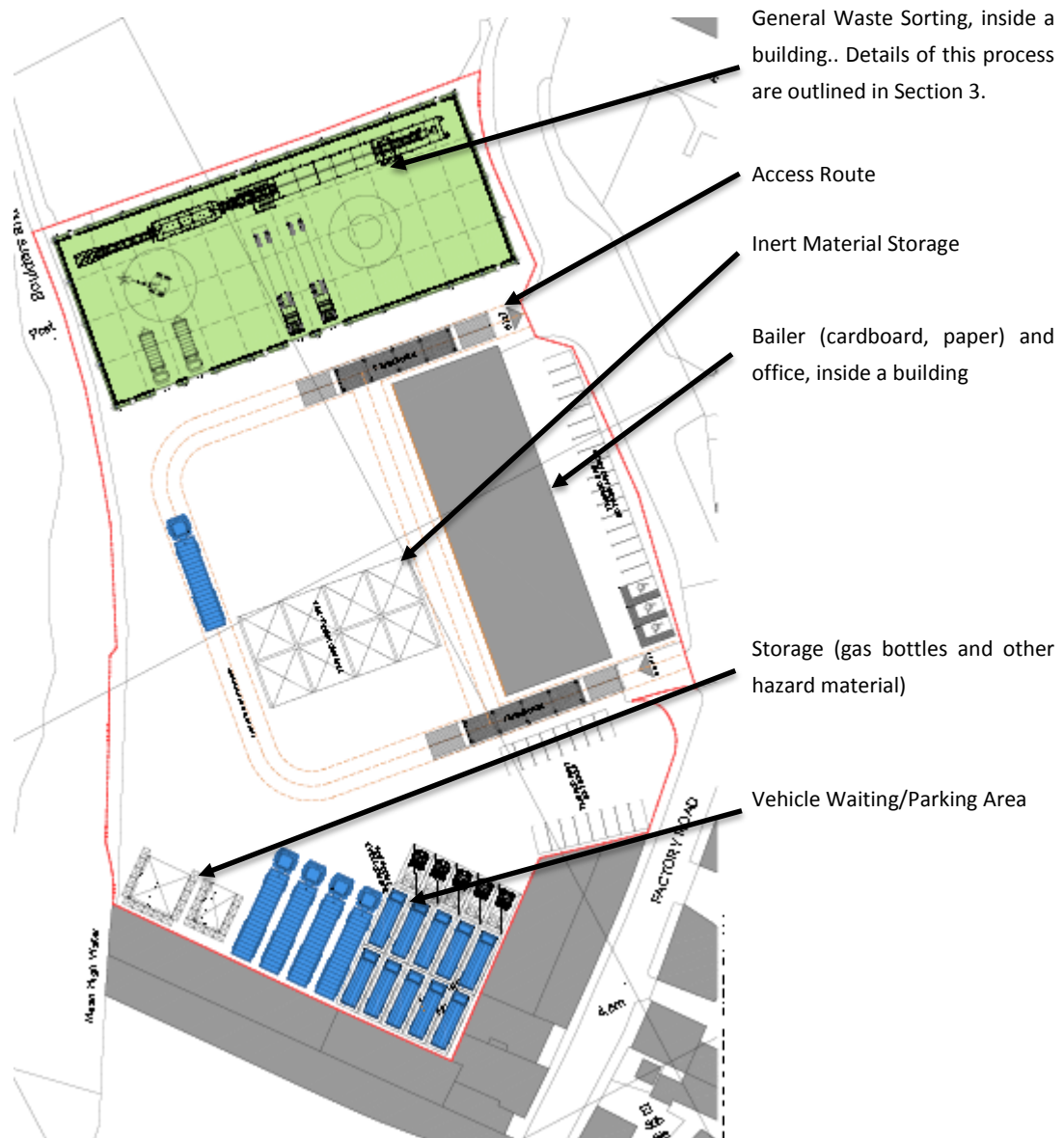


Plate 1: WTS Site Plan and Potential Odour Sources

1.3 Meteorology

1.3.1 The prevailing wind direction is from a westerly direction and would therefore pass across the WTS. However, the orientation of the buildings ensures most of the odour would remain trapped in the building during these prevailing wind conditions. The sensitive receptors are located to the south east, south and north west of the WTS waste building. Therefore, the effect of meteorology to cause odour dispersion and effect is low.

2 POTENTIALLY SENSITIVE RECEPTORS

2.1.1 The area surrounding the WTS is commercial and industrial in nature. The only exception to this, is the presence of a commercial office to the south east of the WTS waste building. Office employees are not present for an extended period, therefore they are considered to be a medium sensitivity receptor and have a higher tolerance before an odour impact would occur.

2.1.2 The nearest highly sensitive receptors (residential dwellings) are located up to 500m from the WTS, to the south west (i.e. upwind).

2.1.3 Commercial offices are present to the north west of the WTS, on the opposite bank of the River Tyne. Retail units are present approximately 370m to the south of the WTS and are considered to be a low sensitivity receptor.

2.1.4 The sensitive receptors considered for odour are outlined in Table 1.

Receptor	Type of receptor	Approximate distance from facility (site boundary)
Blaydon Communications Ltd	Commercial (Office)	25m
Commercial Offices at Goldcrest Way	Commercial (Offices)	260m
Retail Units	Commercial (Retail)	370m
Existing Residential Properties at Shibdon Road	Residential Dwellings	517m

3 POTENTIAL ODOUR SOURCES

3.1.1 The WTS will handle general waste and inert material. These include; general waste, hardcore (brick, concrete, stones), mixed wood and greenery, plasterboard and gypsum product, scrap metal, soils and UPVC.

3.1.2 All potentially odorous activities will occur in the proposed building in the northern footprint of the site (see green highlight in Plate 1).

- 3.1.3 The WTS will accept up to 1,000 tonnes of general waste. All wastes would be processed within 48 hours and removed from site within 4 days of arrival.
- 3.1.4 The building itself is enclosed and includes two doorways. Each doorway includes a roller door.
- 3.1.5 Refuse vehicles will enter the site and tip their loads in the western part of the waste station building. Front-loaders will manage and organise the tipped loads. A pick excavator would then pick up the waste and deposit the material into a hopper. A conveyor belt then transports these materials through the waste sorting equipment.
- 3.1.6 From the hopper, the material is transported first to the trommel where material separation occurs. A trommel is both beneficial and adverse for odour. Odour may be generated during the mixing and turbulence process. However, the injection of air into the refuse can lower moisture contents and limit the odour generation potential later.
- 3.1.7 Materials are separated in the trommel. Cardboard and other such materials are removed and transported to the other building for bailing. The remainder of the waste is transported onward by conveyor belt into the sorting office.
- 3.1.8 The sorting office comprises of a rectangular structure, a central conveyor system and employees separating the waste products onto various conveyor belt streams. The wastes are separated, and each material type drops into a stockpile below the sorting office. Numerous stockpiles are present, and each is separated by concrete walls. The sorting office is an enclosed building.
- 3.1.9 Stockpiled waste is transferred into the heavy-duty vehicles by either pick excavators or front-loading shovels. The heavy-duty vehicles transport the waste to designation locations e.g. a landfill.
- 3.1.10 In summary, odour generation is fugitive and may arise from:
- Refuse trucks and unloading.
 - Pick excavators and front-loading shovels.
 - Conveyor system and trommel.
 - Sorting office.
 - Stockpiles.
 - Loading activities.

4 ODOUR MITIGATION MEASURES

4.1 Introduction

4.1.1 All activities capable of generating odour are contained within the building. The site has been designed to ensure waste stockpiles are stored in locations furthest away from the doorways.

4.2 Site Odour Management

4.2.1 All waste received at the WTS is reviewed by the weighbridge operator to ensure it meets the description and permitted waste type allowed for the facility. Waste not meeting the permitted types and/or waste which is overly odorous will be rejected.

4.2.2 Any windblown waste or litter shall be picked up and deposited back into the building.

4.2.3 The roller bay doors shall be checked regularly to ensure the seals are sufficient. Maintenance and repairs shall be carried out as soon as possible.

4.2.4 When the situation allows (i.e. outside of deliveries), the roller bays doors shall be lowered to limit the potential for fugitive odours escaping the building. During periods of prolonged hot weather, the roller bay doors shall be lowered to limit the potential for odour generation and transport.

4.2.5 No waste shall be stored outside of the building (with the exception of inert materials) and all general waste shall be sealed within the building outside of operational hours.

4.2.6 The volume of waste received and stored in stockpiles will be managed in order to keep stockpile volume and heights to a minimum. All waste shall be processed on a first in first out basis and transported from site within 4 days of arrival.

4.2.7 Identification of highly odorous material (i.e. after tipping) shall be fast tracked and processed to ensure this waste is removed from site promptly.

4.2.8 Waste shall be managed to ensure a steady processing system. Untreated wastes shall not be left to stockpile for extended periods.

4.2.9 Regular inspection and daily cleaning of the operational area will be carried out.

4.2.10 Generation of odour will be limited as far as possible by minimising temperatures and maintaining aerobic conditions. For example, by tipping material promptly and not allowing prolonged waiting of waste laden vehicles.

4.2.11 During adverse odour conditions or if a complaint occurs, the management shall implement a strategy to reduce the odour in the shortest time possible. This may

include ceasing all inbound deliveries until the existing waste has been processed and removed from site.

4.3 Vehicles

4.3.1 All inbound and outbound vehicles will be covered and/or sheeted prior to entering and leaving the WTS.

4.3.2 The building has been designed to ensure there is adequate movement space to allow refuse vehicles to tip all waste content into the building footprint.

4.3.3 General waste will be stockpiled, and the area of tipping cleared before any further tipping occurs. This will ensure there is no tipping outside of the designated building tipping location.

4.3.4 Loading capacities of the mobile plant will not be exceeded. This will reduce the potential for windblown material and litter outside of the building.

4.4 Odour Survey

4.4.1 The WTS manager (or an appointed employee) will carry out a daily odour survey. The survey will consider a downwind path based on the prevailing wind direction of that day. The survey shall consider the site, boundary and offsite locations to ensure adverse odours are not escaping the boundary.

4.4.2 Odour fatigue is the effect of an assessor being less affected by odour i.e. due to continued exposure to the odour. The survey assessor should ideally be isolated from the odour for a period of time before the survey is undertaken. The assessor shall ideally be desk-based and not exposed to long durations of odour, as this may limit their potential to detect odour during the survey. Assessors exposed to odour will cleanse their sense of smell by removing themselves from the odour at least 15 minutes before conducting the odour survey.

4.4.3 The results of the survey shall be recorded in an Environmental Logbook which will be kept on site at all times. The logbook will be made available to the Environment Agency (or other regulatory body) upon request.

4.4.4 Information which will be recorded in the Logbook includes quality assurance details (date, time, signature of completion and inspector), meteorological conditions and the results of the survey & actions taken if necessary, and any information relating to odour management implemented that differs from day-to-day operation.

4.4.5 During operational hours, an awareness of meteorological conditions will be maintained. Low wind speeds and those in a westerly direction could be capable of transporting odour to sensitive receptors.

4.4.6 In the event of equipment failure that is vital to the odour suppression, replacement equipment will be sourced promptly, and maintained on site until such time that the equipment is repaired or replaced.

4.5 Complaints

4.5.1 In the event that any complaints are received, details of the complaint will be recorded in the Environmental Logbook using the complaint form provided at Appendix A.

4.5.2 On receipt of an odour complaint, an assessor from the WTS shall conduct an odour survey at or in the vicinity of the odour complainant location. Results of the survey shall be recorded, and any additional mitigation actions deemed necessary shall be conducted immediately. The complainant will be informed of the odour investigation outcome unless they have requested to be anonymous or not to receive feedback.

4.5.3 The results of the complaint investigation and the measures taken to resolve the complaint will be made available to the Regulator upon request.

4.5.4 Additional mitigation will be employed as and when necessary to resolve the complaint(s).

4.5.5 Any complaints received will be recorded and investigated in accordance with the company's ISO 14001 Environmental Management System (EMS).

4.6 Distribution & Training

4.6.1 A physical copy of the OMP must be kept on site at all times and made available to employees. It is also advised that a digital copy is held at the head office. The OMP shall be made available to the Regulator on request.

4.6.2 The site manager will ensure each employee and subcontractor at or arriving to the site are familiar with the control measures and procedures outlined in this plan and are aware of their individual role in reducing odour emissions.

4.6.3 Upon arrival at the site and/or beginning of employment the employee will be trained and familiarised to carry out the mitigation actions required of their role. The training will make the employee aware of the wider odour control and minimisation processes. Suitable training may include a site-specific toolbox talk.

4.7 Review and Responsibility

- 4.7.1 The OMP will be reviewed by the site manager annually. New versions of this OMP will be issued as and when necessary with mitigation and/or operational changes outlined. The version history shall be updated each time.
- 4.7.2 It is the responsibility of the operator and the site manager to ensure the OMP is enforced and that all employees are suitably trained. Failure to do so could result in adverse environmental conditions and enforcement by the Environment Agency.

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