

ODOUR MANAGEMENT PLAN

101 Amington Road, Birmingham, B25 8EP

Kiely Bros Ltd

| | | | | | |
|-------------------|-----------|-------------------|-------------|-----------------|-----|
| Version: | 1.8 | Date: | 03 May 2024 | | |
| Doc. Ref: | AMI-918-I | Author(s): | CP | Checked: | KBL |
| Client No: | 918 | Job No: | 012 | | |



Oaktree Environmental Ltd
Waste, Planning & Environmental Consultants



Oaktree Environmental Ltd, Unit 5, Oasis Park, 19 Road One, Winsford, Cheshire, CW7 3RY
Tel: 01606 558833 | Fax: 01606 861183 | E-Mail: sales@oaktree-environmental.co.uk | Web: www.oaktree-environmental.co.uk
REGISTERED IN THE UK | COMPANY NO. 4850754

Document History:

| Version | Issue date | Author | Checked | Description |
|---------|------------|--------|---------|---|
| 1.0 | 22/08/2017 | CP | KBL | Document issue |
| 1.1 | 17/09/2019 | IA/CP | CP | Document Amendments |
| 1.2 | 11/11/2019 | IA/CP | CP | EA Sch 5 Notice comments; refer to notice response re. amended sections |
| 1.3 | 06/12/2019 | IA/CP | CP | EA Sch 5 Notice comments; amended Section 5.3.4 |
| 1.4 | 19/12/2019 | IA/CP | CP | Amended Site Layout & Fire Plan in Appendix I |
| 1.5 | 30/01/2023 | CP | CP | Updated following site infrastructure changes |
| 1.6 | 13/03/2023 | CP | KBL | IED application copy |
| 1.7 | 14/03/2024 | CP | | Updates to site plan in Appendix I |
| 1.8 | 03/05/2024 | CP | KBL | Update to Sections 1.3, 1.4 and site plan in Appendix I |
| | | | | |

CONTENTS

| | |
|---|------------|
| DOCUMENT HISTORY: | I |
| CONTENTS | II |
| LIST OF TABLES | III |
| LIST OF APPENDICES: | IV |
| 1 INTRODUCTION | 1 |
| 1.1 GENERAL | 1 |
| 1.2 SITE LOCATION | 1 |
| 1.3 WASTE FACILITY OVERVIEW..... | 2 |
| 1.4 WASTE TYPES..... | 2 |
| 1.5 SITE MANAGEMENT..... | 1 |
| 2 ODOUR RISK ASSESSMENT | 2 |
| 2.1 METHODOLOGY | 2 |
| 2.2 ODOUR INTENSITY..... | 2 |
| 2.3 RECEPTOR SENSITIVITY | 2 |
| 2.4 SENSITIVE RECEPTOR LOCATIONS | 2 |
| 2.5 RISK MATRIX..... | 3 |
| 3 POTENTIAL SOURCES OF ON-SITE ODOUR | 4 |
| 3.1 WASTE STORAGE AREAS | 4 |
| 3.2 FOUL SURFACE WATER | 4 |
| 3.3 BACKGROUND ODOUR SOURCES IN THE AREA..... | 4 |
| 4 ODOUR CONTROL | 6 |
| 4.1 SITE OPERATIONS..... | 6 |
| 4.2 RECEIVING WASTES | 6 |
| 4.3 STORAGE OF WASTES..... | 7 |
| 4.4 LOADING AND TRANSPORT OF GENERAL WASTES | 8 |
| 4.5 HOUSEKEEPING | 8 |
| 4.6 LIAISON WITH NEIGHBOURS | 8 |
| 4.7 TRAINING..... | 9 |
| 5 MONITORING (IF REQUIRED) | 10 |
| 5.1 MONITORING ODOROUS RELEASES | 10 |
| 5.2 OLFACTORY MONITORING..... | 10 |
| 5.3 ODOUR MONITORING PROCEDURE | 10 |
| 5.4 COMPLAINTS MONITORING | 11 |
| 5.5 ODOUR DIARIES..... | 11 |
| 6 CONTINGENCY PLANS | 12 |
| 6.1 CONTINGENCIES AND EMERGENCY PLANS..... | 12 |
| 6.2 CORRECTIVE ACTIONS FOR VARIOUS SITUATIONS..... | 13 |
| 6.3 STAFF SHORTAGES/HUMAN ERROR | 13 |
| 6.4 WEATHER CONDITIONS / EMERGENCY SITUATIONS | 14 |
| 6.5 OPERATIONAL FAILURE..... | 14 |
| 6.6 STOCK ROTATION AND SEASONAL VARIATIONS | 15 |
| 6.7 OMP MANAGEMENT | 16 |

List of Tables

| | |
|--|----|
| Table 1.1 - Combustible waste storage table | 1 |
| Table 2.1 - Odour Intensity Scale & Description..... | 2 |
| Table 2.2 - Receptor Sensitivity Criteria for odour | 2 |
| Table 2.3 - Potential Sensitive Odour Receptors within 300m of the site..... | 3 |
| Table 2.4 - Resultant Risk Matrix (Colour-Coded)..... | 3 |
| Table 6.1 - Corrective Actions..... | 13 |

List of Appendices:

Appendix I - Drawings

Appendix II - Record Keeping Forms (to be used if presented with odour problems)

Odour Complaints Report Form

Odour Diary

1 Introduction

1.1 General

1.1.1 Oaktree Environmental Ltd has been instructed by Kiely Bros Ltd to prepare an Odour Management Plan (“OMP”) for their waste transfer and treatment facility at 101 Amington Road, Birmingham, B25 8EP.

1.1.2 The registered address and contact details for Kiely Bros Ltd (i.e. the ‘site operator’) is:

Kiely Bros. Ltd
135 Cherrywood Road
Bordesley Green
Birmingham
B9 4XE

Contact: Mike Kiely
Position: Managing Director

1.1.3 The site is operated in accordance with an Environmental Management System (EMS) and Fire Prevention Plan (FPP) along with other documents targeted to specific environmental considerations including this OMP.

1.1.4 This OMP will allow Kiely Bros Ltd to implement an action plan should the site operatives detect an odour presence, receive complaints from local business or residents and if the EA suspects odour emissions from the site during an inspection.

1.2 Site location

1.2.1 The site is located on Land at 101 Amington Road, Birmingham, B25 8EP. The national grid reference for the site is SP 11878 84501.

1.2.2 The site is predominantly located in an industrial area bordering the Birmingham Canal to the south; immediately north of the site is Amington Road with industrial premises beyond; east is a car retailer and north-east is the sites nearest residential receptors and to the west is a large commercial premise with further industrial premises beyond.

1.3 Waste facility overview

- 1.3.1 Kiely Bros. Ltd hold and operate an Environmental Permit (EP); Ref. EPR/FB3403ZY which will be operated as a Section 5.4 (a)(iii) and b(ii) non-hazardous waste installation. The site will primarily be accepting residual waste under EWC codes 19 12 10 and 19 12 12 from their facility at Speedwell Road which will be treated to produce a solid recovery fuel (SRF) which will be sent for incineration.
- 1.3.2 The current EP allows for the acceptance, storage and treatment of mixed household, industrial and commercial (HIC) waste under an A11 activity, this activity is discussed in Section 3.6 of this EMS.
- 1.3.3 The EP also allows for acceptance, storage and treatment of construction, demolition and excavation (CDE) waste under an A16 activity but as this activity is not taking place at the site and will be relinquished from the EP.
- 1.3.4 The recycling centre comprises an impermeable concrete surface and sealed building for the recycling of the above residual wastes and further external areas used for plant/equipment storage, vehicle parking and manoeuvring.

1.4 Waste types

- 1.4.1 The main wastes accepted and stored on site which have been identified as having odorous potential are summarised in the table overleaf below which is also shown on Drawing No. AMI/918/03. It is considered all wastes accepted and stored could give rise to odour other than AREAS A & B.

Table 1.1 - Combustible waste storage table

| Storage Area Details Table | | | | | | | | | | | | |
|----------------------------|---|---------------------------|---|------------------------|--------------------------------|---------------------------------|-------------------|------------------------|-------------|------------------|----------------------|---|
| Plan Ref | Description | Storage form /containment | Height, width (m) & type of firewall | Max Length / Width (m) | Operational storage height (m) | Out-of-hours storage height (m) | Approx. Area (m2) | Conversion factor used | Volume (m3) | Tonnes (approx.) | Max storage duration | Comments |
| AREA 1 | Tipping / reception area for residual waste (RDF material) >150mm (EWC code 19 12 12) | Free standing / fire wall | 3.2m high, 0.8m thick interlocking concrete blocks | 20 | 3 | 2.2 | 120 | 0.75 | 270 | 135 | <24 hours | The entire pile would be processed during operational hours. |
| AREA 2 | Shredded residual (RDF) waste <300mm (EWC code 19 12 12) | Free standing / fire wall | 6, 0.15 / 0.8 & interlocking concrete blocks and concrete panel of building | 20 | 2 | 2 | 250 | 0.5 | 250 | 125 | <24 hours | The entire pile would be processed during operational hours. |
| AREA 3 | Mixed HIC waste reception and sorting area (EWC codes 17 09 04 or 20 03 01) | Free standing / fire wall | 3.2, 15 & 0.8 interlocking concrete blocks | 15 | 2 | 2 | 75 | 0.5 | 75 | 37.5 | <72 hours | The entire pile would normally be processed during operational hours, 72 hours based on contingency |
| AREA 4 | POPs/bulky waste (EWC code 20 03 07) | Free standing / fire wall | 3.2m high, 0.8m thick interlocking concrete blocks | 12 | 3 | 2 | 90 | 0.75 | 202.5 | 101.25 | <24 hours | POPs would be removed from AREA 3 or segregated from AREA 1 following visual inspections |
| AREAS 5 - 8 | Drying bays for SRF material awaiting removal from site (EWC code 19 12 10 or 19 12 12) | Free standing / fire wall | 4, 0.8m & interlocking concrete blocks | 14 | 4 | 3 | 50 | 0.75 | 150 | 75 | <7 days | The nature of waste may change the bay. If the waste in the bays is wet, it may be stored for up to 7 days so it can dry naturally. |
| AREA 9 | As above or either POPs / mixed HIC waste (EWC code 19 12 10, 19 12 12, 17 09 04, 20 03 01 or 20 03 07) | Free standing / fire wall | As above | 14 | 4 | 3 | 80 | 0.75 | 240 | 120 | <7 days | Overflow drying bay from AREAS 5 - 8 but may also be used as overflow for wastes in AREAS 3 & 4. |
| AREA 10 | Holding bay for processed SRF (EWC code 19 12 10 or 19 12 12) | Free standing / fire wall | As above | 12 | 4 | 3 | 90 | 0.75 | 270 | 135 | <7 days | Transferred to drying bays (AREAS 5-8) continuously. |
| AREAS A - B | Containers of non-ferrous metal removed via eddy current separator | 12-cubic yard skips | N/A | 3.7 | 1.86 | 1.86 | 10 | 1 | 20 | 10 | <7 days | Containers usually removed weekly. |
| AREA C | Sorted waste containers arising from AREA 3 | 12-cubic yard skips | N/A | 3.7 | 1.86 | 1.86 | 10 | 1 | 20 | 10 | <7 days | Containers usually removed weekly. |

1.4.2 No hazardous, clinical, liquid or putrescible wastes are to be accepted at the site.

1.4.3 If the maximum storage capacity is reached then no further waste will be accepted until waste can be removed from the site and taken to a suitably permitted or exempt site.

1.5 Site management

- 1.5.1 The site has an assigned a Technically Competent Manager (TCM) who will be responsible for the general management of the site including the acceptance and handling of any potentially odorous wastes.
- 1.5.2 The company, through the TCM, will ensure that a nominated deputy is sufficiently trained and familiar with all site management documentation (which includes this OMP) in addition to all relevant company procedures who, in the absence of the TCM, will act the competent person.

2 Odour risk assessment

2.1 Methodology

2.1.1 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.

2.2 Odour intensity

2.2.1 Table 2.1 below highlights the intensity of the odour and provides a description by which to measure the intensity using the hedonic tone:

Table 2.1 - Odour Intensity Scale & Description

| Odour Intensity | Criteria |
|------------------------|---|
| Negligible | No detectable odour |
| Low | Faint odour(barely detectable) |
| Moderate | Moderate odour easily detected while walking, possible interference) |
| High | Strong odour (bearable, but offensive) |
| Severe | Very strong odour(this is when you really wish you were somewhere else) |

2.3 Receptor sensitivity

2.3.1 Table 2.2 below outlines the receptor sensitivity to odour which will be used when determining nearby odour sensitive receptors:

Table 2.2 - Receptor Sensitivity Criteria for odour

| Sensitivity of Receptor | Criteria |
|--------------------------------|--|
| Low | Industrial workplaces |
| Medium | Industrial workplaces / Residential >250 m |
| High | Residential areas <200m |

2.4 Sensitive receptor locations

2.4.1 The main potential sensitive odour receptors within 150m are listed in Table 2.3 below:

Table 2.3 - Potential Sensitive Odour Receptors within 300m of the site

| Receptor name | Type | Distance and direction from nearest site boundary (approx.. in m) | Receptor sensitivity to odour |
|-----------------------------|-------------|---|-------------------------------|
| Various housing estates | Residential | 25 - 300 N, E & S | Medium |
| Various industrial premises | Industrial | 25 - 300 , N, SE, S, W, NW | High |
| Various commercial premises | Industrial | 25 - 300 , N, SE, S, W, NW E | High |

2.4.2 Total distances are from the boundary of the waste facility closest to the nearest receptor point. In reality distances to the waste storage/treatment areas may be greater.

2.5 Risk matrix

2.5.1 The odour risk in any particular event can be established using the risk assessment matrix given in Table 4 below.

Table 2.4 - Resultant Risk Matrix (Colour-Coded)

| | | <i>Sensitivity</i> | | |
|-----------|------------|--------------------|--------|-----------|
| | | Low | Medium | High |
| INTENSITY | Negligible | NEGLIGIBLE | LOW | LOW |
| | Low | LOW | LOW | MEDIUM |
| | Moderate | LOW | MEDIUM | MEDIUM |
| | High | MEDIUM | MEDIUM | HIGH |
| | Severe | MEDIUM | HIGH | VERY HIGH |

3 Potential sources of on-site odour

3.1 Waste storage areas

3.1.1 These areas are clearly shown on Drawing No. AMI/918/03 and would consist of 19 12 12 (residual/light) waste pre and post treatment.

3.1.2 Whilst these wastes are not commonly associated with odorous emissions, they could contain some fine organic materials (particularly wood sawdust and shavings) which can, in some cases, be attributed to a general “musty” odour. This smell is exacerbated following ingress of rainwater which occurs predominantly whilst the wastes are resident in skips/containers at the sites of production and prior to receipt at the site.

3.1.3 Whilst not common, these wastes have the potential to contain materials of a putrescible nature which are not identifiable until the load has been tipped at the site.

3.2 Foul surface water

3.2.1 The drainage system shown on AMI/918/03 will be monitored regularly to ensure it is functioning correctly. However, periodically skips which have stood on producers sites for a long time often contain foul smelling water which can cause problems when tipped.

3.3 Background odour sources in the area

3.3.1 Potential local off-site sources of odour would be associated with the Birmingham Canal or other industrial activities which are prevalent in the immediate area and the wider areas surrounding the site.

3.3.2 Odour release could also be the result of abnormal weather conditions, machinery breakdowns and human error.

- 3.3.3 In order to determine whether complaints are the result of activities from the site or from other nearby sites an odour complaints form will need to be completed in line with the company's complaints procedure which is attached in Appendix II.

4 Odour control

4.1 Site operations

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

4.2 Receiving wastes

4.2.1 Rigorous control of wastes delivered to the site is required, with contaminated or odorous wastes (stored too long) rejected in line with the procedures in the EMS and EP. Trained competent staff are in place to recognize odorous material and to inspect incoming wastes as it is deposited at the site. Malodorous waste will be returned to the producer or sent to another authorised facility for treatment.

4.2.2 If the site reaches capacity and/or operational difficulties occur, incoming wastes will be diverted to another authorised treatment facility.

4.2.3 Incoming waste will be processed as soon as practicably possible to ensure that any other malodorous (or potentially malodorous) wastes contained within the incoming mixed waste which were not identified during deposit can be identified, isolated and rejected without delay.

4.2.4 Wastes are only accepted from the Speedwell Road site where it will have already undergone sorting, processing etc. and there will be no receipt of any unacceptable wastes. In the unlikely event that there are unacceptable wastes found within an incoming waste; it will be immediately moved to the quarantine area and dealt with in accordance with the rejected waste procedure outlined in the EMS.

4.2.5 **Age of wastes** - Kiely Bros Ltd hire out skips to customers for a maximum of 2 weeks and the processed material is exported from Speedwell Road daily meaning the waste will have not stagnated prior to being accepted at the site. Any food, putrescible, green wastes etc..

will have been identified and quarantined meaning there is a negligible risk this site will accept such waste.

4.3 Storage of wastes

- 4.3.1 Low storage volumes and strict turnaround of all wastes on site in accordance with **Error! Reference source not found.** will be observed. Stock rotation procedures as detailed in the site's FPP will be observed to ensure the maximum duration of storage times are not exceeded.
- 4.3.2 All waste storage areas with the potential for odour are stored inside the transfer building as shown on Drawing No. AMI/918/03. The baled waste consisting of hard rigid plastic is not considered to be odorous.
- 4.3.3 **Waste reception and storage areas** – The waste reception/tipping area and storage locations are situated within an enclosed area to the annex of the building or inside the building. The building and lean to are considered to act as wind barrier and considered a suitable measure to reduce the potential for odour escaping beyond the site.
- 4.3.4 In addition to the above, all other waste storage areas are stored within dedicated storage bays. All waste which has undergone waste sorting/separation are stored in dedicated bays with a suitable freeboard to prevent the waste exceeding the height of the bay. When waste is stored out-of-hours, there will be a minimum freeboard of 1m between the waste storage and top of the bay. As the waste is continually moved and stored throughout the, the freeboard is likely to reduced due to the type of material. The freeboard can be monitored as each interlocking block as 0.8m high and the interlocks are easily viewable by staff.
- 4.3.5 The site has a flocculent suppression system and during warm/windy weather conditions will keep the waste cool and wet and stop it blowing around the site.

4.4 Loading and transport of general wastes

- 4.4.1 All waste vehicles leaving the site containing light and/or potentially malodorous wastes will be securely sheeted or enclosed at all times.
- 4.4.2 The roller shutter doors are activated electronically by push button and only open during waste deliveries/removals.

4.5 Housekeeping

- 4.5.1 Daily cleaning of operational areas such as roads, drainage channels will be carried out to discourage odour generation from old degrading materials. The interceptor is fitted with an alarm and where near capacity, a suitable drainage contractor is employed to pump out and clean the interceptor. The duration of this depends on the amount of rainfall the site has.
- 4.5.2 Equipment that has been in contact with odours materials would be cleaned weekly or daily during periods of heavy rainfall using brushes and power hoses where odorous material could stagnate i.e. in the bottom of skips or mobile plant loading parts. The cleaning will be documented and recorded in the site diary.
- 4.5.3 The transfer building is checked daily for the presence of any damage and smoke tests of the building are carried out every 3-6 months in line with the sites Fire Prevention Plan.

4.6 Liaison with neighbours

- 4.6.1 In the event of temporary odour releases outside normal operations, neighbours will be contacted to advise them of what is occurring and the action being taken. The EA will also be notified.
- 4.6.2 An open-door policy will be encouraged by the operator to enable any complaints from neighbouring premises (if received) to be dealt with immediately. The complainant will then be supplied with remedial actions taken and any procedures or measures put in place by the operator to reduce or ideally eradicate the likelihood of a subsequent complaint.

- 4.6.3 If any odour complaints are received, the complaint will be assigned to an operative familiar with the sites operation who will complete a 'complaints and events log' and detailed individually on the complaints form (in Appendix II), both of which will be kept for inspection on request by the EA. Details of information to be completed are dates, nature of the complaint, weather conditions at the time of complaint, investigation details, action taken and a signature (as a minimum). Odour complaints will be investigated and responded to within 24 hours and suitable reviewed by the site manager who is ultimately responsible.
- 4.6.4 The operator would also be required to make a note of any unavoidable events plant/equipment malfunctions in the site diary, rather than just actual complaints received. This will ensure that if complaints are received retrospectively from either the Council/EA or directly, any circumstances which led to that complaint as a result of elements outside of the operator's control would be able to be attributed to the cause of the complaint. If there are significant odour releases outside normal operations, the operator will cease operation, investigate and resolve the issue before continuing.

4.7 Training

- 4.7.1 All employees and sub-contractors of Kiely Bros Ltd involved with potentially odorous materials and their handling will receive training in Sniff testing (including office/admin workers allocated to undertake the Sniff test) and complaint reporting (management and operations staff).
- 4.7.2 Training will be given to all relevant persons to make sure they are competent in completing olfactory assessment survey forms, odour complaint report forms and the odour diary to ensure sufficient monitoring of odours can be carried out and

5 Monitoring (if required)

5.1 Monitoring odorous releases

5.1.1 Kiely Bros Ltd will use the following techniques to monitor odorous releases:

- a) Olfactory Monitoring
- b) Complaints Monitoring
- c) Odour Diaries (when necessary)

5.2 Olfactory monitoring

5.2.1 Odour will be monitored daily during normal weather conditions and 3 hourly intervals during periods of dry, warm, windy weather conditions at the points shown on Drawing No. AMI/918/03 and an Odour Diary will be completed (Appendix II). Meteorological conditions such as the wind speed and direction at time of monitoring and external monitoring locations will be taken into account.

5.3 Odour monitoring procedure

5.3.1 Sniff testing will be carried out by trained; competent staff weekly or as necessary (please see Section 4.7 for information on training). Assessments will be carried out both routinely and in response to specific complaints.

5.3.2 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.

5.3.3 Starting points of assessments should be downwind of the site, progressing towards the site boundary and then away from the site in an upwind direction. The person carrying out the assessment should walk slowly and breathe as normal.

5.3.4 To ensure odour adaptation / blindness does not affect the results of the outcome, an additional employee who is not exposed to odour throughout the day will take an additional assessment. In addition to this and prior to carrying out a routine odour check, the relevant member of staff will vacate the site for a period of 30 minutes (in addition to 5.3.2 below) and then carry out the assessment on their return to ensure they are not desensitised to the odour.

5.4 Complaints monitoring

5.4.1 All odour complaints will be investigated promptly and appropriate remedial action will be taken if the complaint is validated e.g. remove odorous materials off site as soon as reasonably possible. Complaints will be recorded on the form found in Appendix II.

5.4.2 Complaints to the Local Authority / Environment Agency will also be recorded and taken into account. An olfactory assessment survey will be carried out from where the complaint was made and from any convenient locations between the complainant/receptor and the site so that the complaint can be validated or rejected.

5.5 Odour diaries

5.5.1 If members of the local community are frequently reporting odour issues in the vicinity, then they will be asked (if agreeable) to keep an odour diary. This will help to build up an account of when the odour occurs, their location and the site operations that were being carried out at the time, as well as the duration of the activities taking place. Any obvious problems can then be addressed.

6 Contingency plans

6.1 Contingencies and emergency plans

6.1.1 In accordance with the Environment Agency'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'.

6.1.2 If excessive odours are detected at the site boundary, other monitoring point or a complaint is received, the following remedial procedures will be taken and the contingency measures shown in sections 6.3 – 6.7 will be implemented:

- a) Firstly identify the odour source; is it from:
 - i) Site operations; or,
 - ii) An off-site source (e.g. agricultural spreading operation)

- b) If on site:
 - i) Report incidence to the site or technically competent manager;
 - ii) Identify the point of release of the odour;
 - iii) Identify the cause if the release i.e. machine breakdown, leakage, etc.;
 - iv) Identify a solution;
 - v) Implement a solution;
 - vi) Carry out olfactory tests to check if fix is working;
 - vii) Record actions taken on relevant forms and site diary as required by this plan

6.1.3 Then actions taken if odour is being produced on site will be:

- a) Normal Operations: The offending odour will be traced and the reason for the cause of the problem will be investigated. Once solutions are in place, olfactory monitoring will be carried out to ensure the solutions put in place are having the desired effect.

- b) **Abnormal Conditions:** Adverse weather conditions can promote generation of odour and inhibit its effective dispersion e.g. hot weather with little wind, resulting in increased risk of odour to receptor locations. If this happens odour causing operations will be minimized until more favourable meteorological conditions return.

6.2 Corrective actions for various situations

6.2.1 Table 6.1 below summarises the various problems likely at the site and the standard responses available, which will assist in reducing odour potential.

Table 6.1 - Corrective Actions

| Process | Problem | Corrective Action |
|-----------------------------------|----------------------------|---|
| Waste Delivery (Tipping) | Deposit of odorous load | Isolate material. Reject material giving rise to odour. |
| Waste storage and treatment areas | Odorous emissions detected | Olfactory/SNIFF test required to pinpoint source. Ensure procedures outlined in Section 5 are adhered to in full. Implement liaison programme if risk deemed HIGH or VERY HIGH. |

6.3 Staff shortages/human error

6.3.1 In the event of unforeseen staff shortages arising from illness, suspension or no shows, the operator will make a judgement whether to reduce the number of incoming loads, thus reducing processing frequency and storage of potentially odorous wastes. The operator will then seek further employment within a timely manner to ensure the site can continue to operate at its required capacity.

6.3.2 All staff are trained and undergo toolbox talks every 6 months (or sooner if operations change) to reduce the impact of human error. In instances where a human error has caused to an odour issue, the site may suspend operations until the issue has been rectified and the member of staff will be warned and re-trained accordingly.

6.4 Weather conditions / emergency situations

6.4.1 The site will set up a notification alert system with the Met Office to receive updated weather information for the following weather conditions which could cause a potential on or off-site odour issue:

- High winds >30mph which could exaggerate an odour
- Droughts or periods of hot weather exceeding 3 major dry days which could lead to water shortages, hosepipe bans and excessive odour
- Flooding

6.4.2 The site would install the following preventative/contingency measures (in addition to control measures in Section 4) to avoid serious odour issues as a result of the above weather conditions or fire incident:

- Stockpiles containing any odorous waste may be covered with tarpaulin in the event ongoing procedures are not considered effective.
- Contact an additional haulier to help remove the waste on site.
- Suspend any further waste deliveries to the site.
- Contact the Environment Agency to agree a suitable course of action
- Contact members of the public or any other persons who could be affected by the odour and advise of the contingency measures the site has employed and timescales when the odour is likely to be reduced.

6.5 Operational failure

6.5.1 The manager will be contacted by staff in the event of any operational failure such as the breakdown of plant, systems or equipment and will decide whether operations are to continue or be suspended prior to corrective action being taken. Serious operational failures, which result in the closure of the site, will be recorded in the site diary.

- 6.5.2 All repairs to site security will be made within on the discovery of the damage if possible and the site will be made secure until the repair has been carried out.
- 6.5.3 Any major defects found during the daily site inspection which are likely to lead to a breach of permit conditions will be repaired by the end of the working day in which they are found, where possible. If a repair is not possible by the end of the working day and a potential breach of permit conditions may occur, the EA will be contacted to agree a suitable timescale for repair.
- 6.5.4 All defects and problems likely to give rise to odour will be recorded on the form KBL/RF/4 or the operators own recording procedures with repairs/solutions being carried out immediately; neighbours will be alerted if the problem cannot be rectified immediately and provided a timescale when the problem will cease.

6.6 Stock rotation and seasonal variations

- 6.6.1 In the event of destination site closures or seasonal demands for wastes leading to a longer storage duration, the operator can divert incoming waste and send stored waste to two of their alternative sites situated at the following locations:
- EPR/ EB3102XH - 135, Cherrywood Road, Bordesley Green, Birmingham, West Midlands, B9 4XE (10-minute journey).
 - EPR/ NP3092FC - 198, Speedwell Road, Hay Mills, Birmingham, West Midlands, B25 8HH.
This site is situated about 500m to the west of this site.
- 6.6.2 The operator also has at least three no. diversion/alternative sites who could take this material including a contract set up with a Waste-to-Energy company who incinerate the SRF produced at the site.
- 6.6.3 This reduces the need to over stockpile waste leading to longer storage durations.

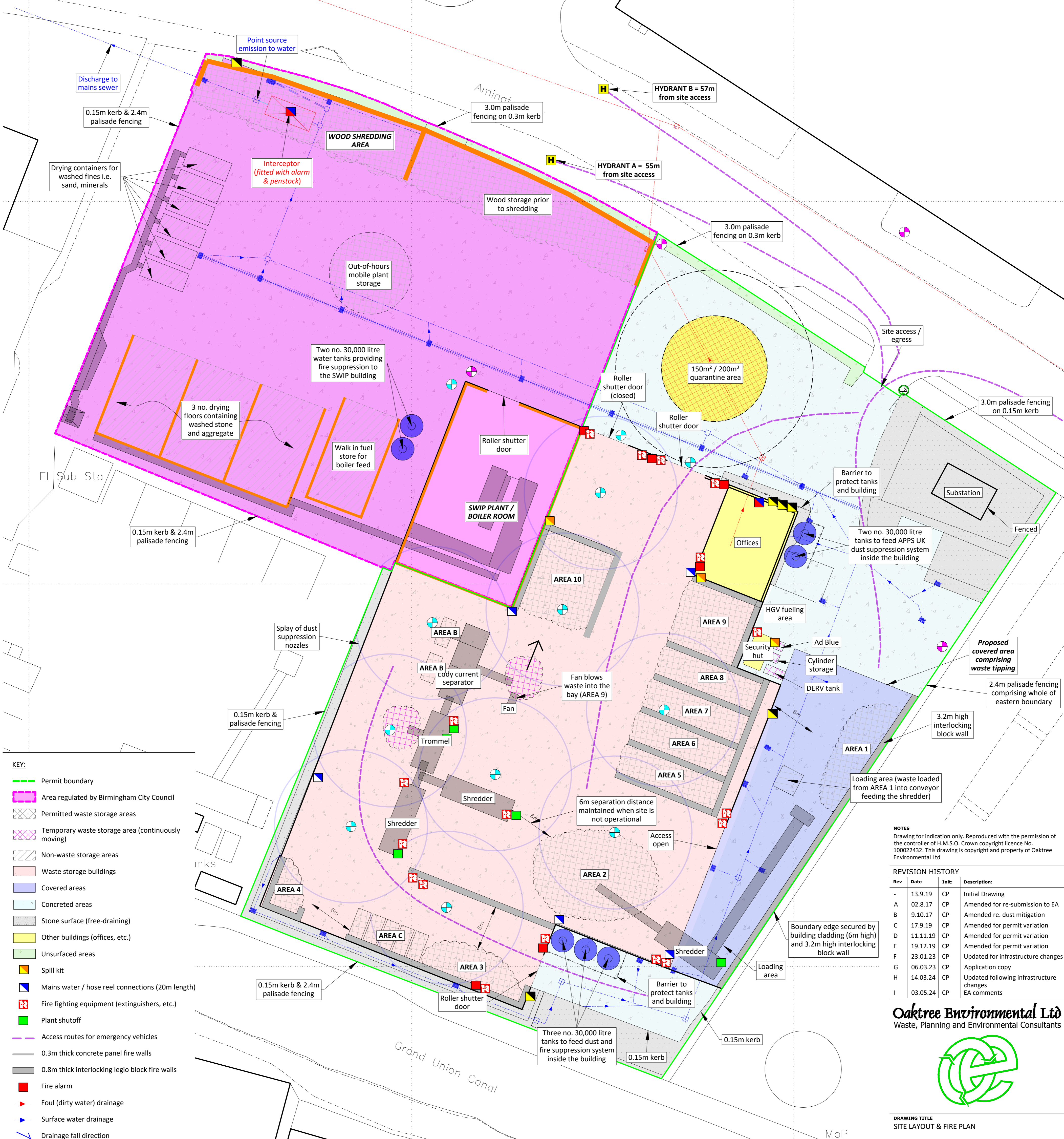
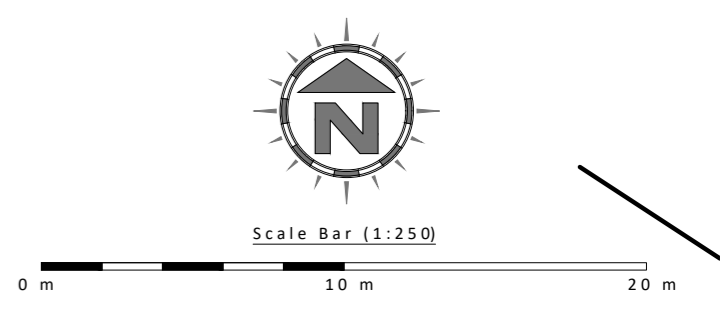
6.7 OMP management

- 6.7.1 This OMP will be reviewed at least annually unless it becomes apparent that the activities are giving rise to pollution outside the site due to odour, in which case it will be revised within 7 days and a copy forwarded to the Environment Agency for approval before implementation.

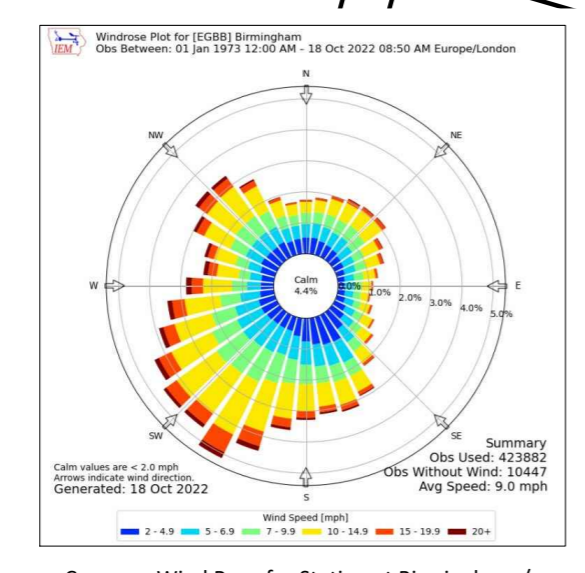
Appendix I

Drawings

| Plan Ref | Description | Storage form/containment | Height, width (m) & type of fire wall | Max Length / Width (m) | Operational storage height (m) | Out-of-hours storage height (m) | Approx. Area (m ²) | Conversion factor used | Volume (m ³) | Tonnes (approx.) | Max storage duration | Comments |
|-------------|--|---------------------------|---|------------------------|--------------------------------|---------------------------------|--------------------------------|------------------------|--------------------------|------------------|----------------------|---|
| AREA 1 | Tipping / reception area for residual waste (RDF material) >150mm | Free standing / fire wall | 3.2m high, 0.8m thick interlocking concrete blocks | 20 | 3 | 2.2 | 120 | 0.75 | 270 | 135 | <24 hours | The entire pile would be processed during operational hours. |
| AREA 2 | Shredded residual (RDF) waste <300mm | Free standing / fire wall | 6, 0.15 / 0.8 & interlocking concrete blocks and concrete panel of building | 20 | 2 | 2 | 250 | 0.5 | 250 | 125 | <24 hours | The entire pile would be processed during operational hours. |
| AREA 3 | Mixed HIC waste reception and sorting area | Free standing / fire wall | 3.2, 1.5 & 0.8 interlocking concrete blocks | 15 | 2 | 2 | 75 | 0.5 | 75 | 37.5 | <72 hours | The entire pile would normally be processed during operational hours, 72 hours based on contingency |
| AREA 4 | POPs/bulky waste | Free standing / fire wall | 3.2m high, 0.8m thick interlocking concrete blocks | 12 | 3 | 2 | 90 | 0.75 | 202.5 | 101.25 | <24 hours | POPs would be removed from AREA 3 or segregated from AREA 1 following visual inspections |
| AREAS 5 - 8 | Drying bays for SRF material awaiting removal from site | Free standing / fire wall | 4, 0.8m & interlocking concrete blocks | 14 | 4 | 3 | 50 | 0.75 | 150 | 75 | <7 days | The nature of waste may change the bay. If the waste in the bays is wet, it may be stored for up to 7 days so it can dry naturally. |
| AREA 9 | As above or either POPs / mixed HIC waste | Free standing / fire wall | As above | 14 | 4 | 3 | 80 | 0.75 | 240 | 120 | <7 days | Overflow drying bay from AREAS 5 - 8 but may also be used as overflow for wastes in AREAS 3 & 4. |
| AREA 10 | Holding bay for processed SRF | Free standing / fire wall | As above | 12 | 4 | 3 | 90 | 0.75 | 270 | 135 | <7 days | Transferred to drying bays (AREAS 5-8) continuously. |
| AREAS A - B | Containers of non-ferrous metal removed via eddy current separator | 12-cubic yard skips | N/A | 3.7 | 1.86 | 1.86 | 10 | 1 | 20 | 10 | <7 days | Containers usually removed weekly. |
| AREA C | Sorted waste containers arising from AREA 3 | 12-cubic yard skips | N/A | 3.7 | 1.86 | 1.86 | 10 | 1 | 20 | 10 | <7 days | Containers usually removed weekly. |



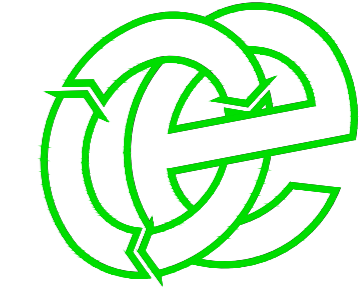
- KEY:**
- Permit boundary
 - Area regulated by Birmingham City Council
 - Permitted waste storage areas
 - Temporary waste storage area (continuously moving)
 - Non-waste storage areas
 - Waste storage buildings
 - Covered areas
 - Concreted areas
 - Stone surface (free-draining)
 - Other buildings (offices, etc.)
 - Unsurfaced areas
 - Spill kit
 - Mains water / hose reel connections (20m length)
 - Fire fighting equipment (extinguishers, etc.)
 - Plant shutoff
 - Access routes for emergency vehicles
 - 0.3m thick concrete panel fire walls
 - 0.8m thick interlocking legio block fire walls
 - Fire alarm
 - Foul (dirty water) drainage
 - Surface water drainage
 - Drainage fall direction
 - Designated smoking area
 - Fire water containment equipment
 - CCTV camera locations (locations indicative)
 - Smoke detection camera points
 - Dust & odour monitoring points
 - Dust suppression nozzles
 - Suppression system coverage/splay (indicative)
 - H Fire hydrant locations (indicative)



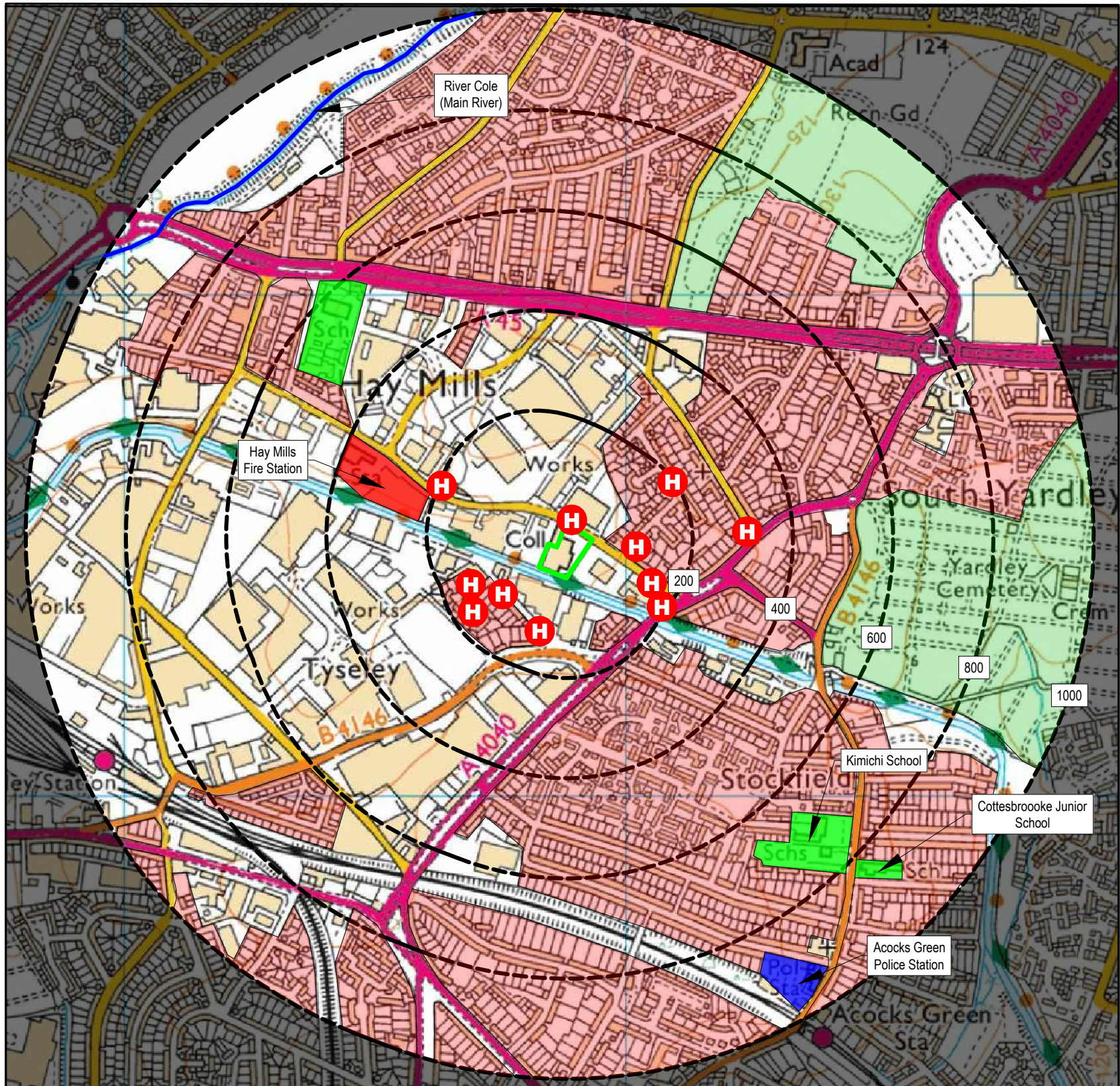
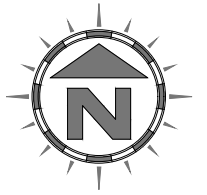
NOTES
Drawing for indication only. Reproduced with the permission of the controller of H.M.S.O. Crown copyright licence No. 100022432. This drawing is copyright and property of Oaktree Environmental Ltd

| Rev | Date | Init | Description |
|-----|----------|------|--|
| - | 13.9.19 | CP | Initial Drawing |
| A | 02.8.17 | CP | Amended for re-submission to EA |
| B | 9.10.17 | CP | Amended re. dust mitigation |
| C | 17.9.19 | CP | Amended for permit variation |
| D | 11.11.19 | CP | Amended for permit variation |
| E | 19.12.19 | CP | Amended for permit variation |
| F | 23.01.23 | CP | Updated for infrastructure changes |
| G | 06.03.23 | CP | Application copy |
| H | 14.03.24 | CP | Updated following infrastructure changes |
| I | 03.05.24 | CP | EA comments |

Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

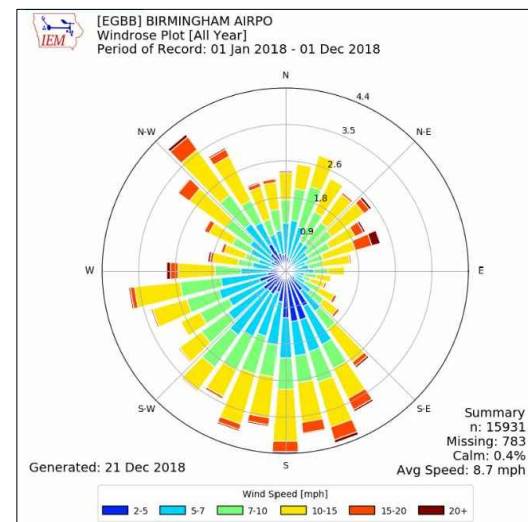


| | | |
|--|-----------------------|-------------------------|
| DRAWING TITLE SITE LAYOUT & FIRE PLAN | | |
| CLIENT Kieley Bros. Ltd | | |
| PROJECT/SITE 101 Amington Road, Birmingham B25 8EP | | |
| SCALE @ A1 1:250 | JOB NO 012 | CLIENT NO 918 |
| DRAWING NUMBER AMI/918/03 | REV 1 | STATUS Issued |
| DRAWN CP | CHECKED --- | DATE 03.05.24 |



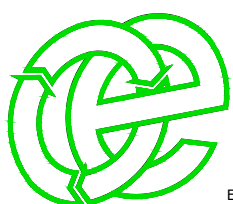
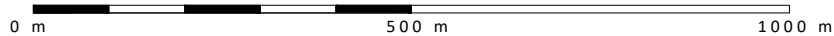
KEY:

- Permit boundary
- Surface water body (river / stream / pond / pool / lake)
- Residential blocks / workplaces
- Woodland habitats
- H Fire hydrant minimum 100mm bore
- Main river (River Cole)
- Mixture of retail, commercial, and industrial premises
- Recreational / green areas
- Mixture of A, B, C roads
- Railway line



Compass Wind Rose for Station at Birmingham / Airport (EGBB) Period 2018

Scale Bar (1:10,000)



Oaktree Environmental Ltd
Waste Management and Environmental Consultants
 Unit 5, Oasis Park, Road One
 Winsford Industrial Estate
 Winsford, Cheshire CW7 3RY
 Tel: 01606 558833 Fax: 01606 861182
 E-mail: sales@oaktree-environmental.co.uk

| | | | |
|------------|---------------------------------------|-------------|------|
| Client: | Kiely Bros. Ltd | | |
| Site: | 101 Amington Road, Birmingham B25 8EP | | |
| NGR: | SP 11878 84501 | | |
| Date: | 19 September 2019 | Printed At: | A3 |
| Scale: | 1:10,000 | Revision: | A |
| Client No: | 918 | Job No: | 4146 |
| Drawn By: | CP | Checked: | |

Notes:

- (1) Boundaries of designated sites (habitats and protected sites) are shown indicatively.
- (2) Wind rose data shows the prevailing wind direction from the south.

Revision Details:

| Rev: | Description: | Date: |
|------|------------------------------|----------|
| - | Initial drawing | 19/06/17 |
| A | Updated for permit variation | 17/09/19 |

Title: RECEPTOR PLAN

Drawing No: AMI/918/04

Appendix II

Record Forms

| Odour Diary | | | Sheet No | |
|---|--|----------|----------|--|
| Name: | | Address: | | |
| Telephone Number: | | | | |
| Date of odour: | | | | |
| Time of odour: | | | | |
| Location of odour, if not at above address: | | | | |
| 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): | | | | |
| 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 (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)

KIELY BROS LTD
COMPLAINTS REPORT FORM (KBL/RF/7)

| | |
|--|--------------------------|
| Date Recorded: | Reference Number: |
| Name and address of caller | |
| Telephone number of caller | |
| Time and Date of call | |
| Nature of complaint (noise, odour, dust, other) (date, time, duration) | |
| Weather at the time of complaint (rain, snow, fog, etc.) | |
| Wind (strength, direction) | |
| Any other complaints relating to this report | |
| Any other relevant information | |
| Potential reasons for complaint | |
| The operations being carried out on site at the time of the complaint | |
| Follow Up | |
| Actions taken | |
| Date of call back to complainant | |
| Summary of call back conversation | |
| Recommendations | |
| Change in procedures | |
| Changes to Environmental Management System (EMS) | |
| Date changes implemented | |
| Form completed by | |
| Signed | |
| Date completed | |

COMPLAINT RECORDING PROCEDURE:

Any complaints received will be recorded on form KBL/RF/7. This form will normally be completed, signed and dated by the Site Manager; if they are not available the Office Manager will complete the form.

- 1) The name, address and telephone number of the caller will be requested.
- 2) Each complaint will be given a reference number.
- 3) The caller will be asked to give details of:
 - a) the nature of the complaint;
 - b) the time;
 - c) how long it lasted;
 - d) how often it occurs;
 - e) Is this the first time the problem has been noticed; and
 - f) what prompted them to complain.
- 4) The person completing the form will then, if possible, make a note of:
 - a) the weather conditions at the time of the problem (rain, snow, fog etc.);
 - b) strength and direction of the wind; and
 - c) the activity or activities taken place on the site at the time the noise was detected, particularly anything unusual.
- 5) The reason for the complaint will be investigated and a note of the findings added to the report.
- 6) The caller will then be contacted with an explanation of the source of the complaint if identified and the action taken to prevent a recurrence of the problem in future.
- 7) If the caller is unhappy about the outcome or unwilling to identify themselves the caller will be invited to contact the Environment Agency and or the Local Authority.

Note: Following any complaint the relevant management plan(s) will be reviewed to ensure appropriate actions are in place to counter any problems.