# ENVIRONMENTAL RISK ASSESSMENT

Moss Road, Lyon Road Industrial Estate, Kearsley, Bolton, Lancashire, BL4 8NB

**Circle Recycling Limited**

| | | | | | |
|---|---|---|---|---|---|
| **Version:** | 1.1 | **Date:** | 18 April 2023 | | |
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| **Client No:** | 2948 | **Job No:** | 001 | | |

Oaktree Environmental Ltd

Waste, Planning & Environmental Consultants

Oaktree Environmental Ltd, Lime House, Road Two, Winsford Industrial Estate, Winsford, Cheshire, CW7 3QZ
Tel: 01606 558833 | 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 | 12/10/2021 | CP | -- | Application copy |
| 1.1 | 18/04/2023 | CP | CRL | Operator name change & re-format |
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# 1 Introduction

## 1.1 General

1.1.1 This Environmental Risk Assessment considers the potential and actual risks associated with the use of the site at Moss Road, Lyon Road Industrial Estate, Kearsley, Bolton, Lancashire, BL4 8NB as a waste facility that will accept HIC and CDE wastes.

1.1.2 The site will be operated by Circle Recycling Limited in accordance with a fully comprehensive Environmental Management System (EMS) and Environmental Permit regulated by the Environment Agency (EA).

1.1.3 All site staff should be provided with a copy of this Environmental Risk Assessment and be aware of where it is located on site.

1.1.4 All environmental risks identified in this document should be acted upon accordingly by site management to ensure all environmental risks can be appropriately managed/controlled.

1.1.5 This document primarily considers environmental risks associated with the site. This does not aim to provide detailed Health and Safety risk assessments as required separately through the necessary legislation.

1.1.6 Specified waste management operations include waste disposal and waste recovery operations listed Annex IIA and IIB of The Waste Framework Directive 2008/98/EC and are listed in summary below:

D9: Physico-chemical treatment of waste for disposal.
D14: Repackaging of waste prior to disposal.
D15: Storage of waste pending disposal.
R3: Recycling or reclamation of organic substances.
R4: Recycling or reclamation of metals.
R5: Recycling or reclamation of other inorganic materials.

R13: Storage of waste pending recovery.

R12: Exchange of waste for submission to any of the operations numbered R 1 to R 11

1.1.7 The EP is required for the storage prior to removal and treatment of waste. Waste treatment processes on site may include the following:

- Compacting (by loading shovel/360° excavator)
- Sorting (with loading shovel/360° excavator or by hand)
- Screening (by using appropriate mechanical screening plant and equipment)
- Separation (by using appropriate mechanical screening plant and equipment)
- Shredding (by using appropriate plant and equipment)
- Baling (by using appropriate plant and equipment)
- Wrapping (by using appropriate plant and equipment)
- Magnetic separation of ferrous metals
- Cutting (using hand-held equipment)

# 2 Site Receptors

2.1.1 A Receptor Plan (Drawing No. LRIE/2948/04) has been provided to highlight all key receptors within 1 km of the site as is shown in Appendix I.

# 3 Environmental Risk Assessment Model

## 3.1 Fundamental considerations

3.1.1 **Source/Hazard:** A property or situation that in particular circumstances could lead to harm.

3.1.2 **Consequences:** The adverse effects or harm as the result of realising a hazard which causes the quality of human health or the environment to be impaired in the short or long term.

3.1.3 **Risk:** A combination of the probability of occurrence of a defined hazard and the magnitude of the consequences of the occurrence.

## 3.2 Pathway

3.2.1 Important in the assessment of a particular risk(s) and to inform the subsequent management of the risk(s) is the identification of the pathway(s) through which the risk may affect the identified receptor(s). The following are examples of pathways:

- Air
- Ground
- Water
- Direct contact / exposure

## 3.3 Consequences

3.3.1 The following table highlights the consequences of the hazard(s) identified and the abbreviations for each as used in the Risk Assessment Table in Section 3:

| Abbreviation | Consequences |
|---|---|
| A | MINOR INJURY |
| B | MAJOR INJURY |
| C | DEATH |
| D | AIR POLLUTION |
| E | WATER POLLUTION |
| F | POLLUTION OF LAND |

## 3.4 Effects of consequences

3.4.1 In order to quantify the level of risk and identify the appropriate management procedures, the potential effects must be considered, as outlined in the table below:

| Abbreviation | Effect of Consequences | Management Required? |
|---|---|---|
| S | SEVERE | In all cases |
| Mo | MODERATE | In most cases |
| Mi | MILD | Occasionally |
| N | NEGLIGIBLE | No |

*Note: "Management" is the action required to reduce the risk of a hazard causing a problem on site. Contingency measures are procedures which are in place to reduce the consequences of a hazard.*

## 3.5 Risk estimation and evaluation (probability/frequency of occurrence of hazard)

3.5.1 The following table allows the likelihood of an occurrence of an identified risk to be assessed:

| | **Probability** | **Evaluation** |
|---|---|---|
| 1 | Very likely | Could occur during any working day |
| 2 | Likely | Could occur regularly |
| 3 | Possible | Event possible |
| 4 | Unlikely | Event very unlikely |

## 3.6 Risk assessment outcome (combination of probability & consequence)

3.6.1 The following table shows the resultant risk of an identified hazard or potential situation. This uses the hierarchy of both probability and consequence to assess the level of risk. The level of risk determines what level of management would be required in order to reduce the risk of occurrence and/or scale.

| | | **Consequence** | | | |
|---|---|---|---|---|---|
| | | **S** | **Mo** | **Mi** | **N** |
| **Probability** | **1** | **High** | **High** | Medium | Low |
| | **2** | **High** | Medium | Low | Near-Zero |
| | **3** | Medium | Low | Near-Zero | N/A |
| | **4** | Low | Near-Zero | N/A | N/A |

3.6.2 Where the risk assessment outcome is high, first-level management of the risk is essential, i.e. removal of hazard, implementation of major infrastructure/structural design measures to contain the risk/hazard and company policy changes to incorporate the management of the risk. All risk management measures must be supplemented with detailed induction training, spot training and tool-box talks to ensure all site staff

and users are made fully aware of the risk/hazard, all potential consequences and necessary management and contingency procedures.

3.6.3 Where the risk assessment outcome is medium, the management of the risk should be tackled by management or delegates. If removal of the hazard is not possible, management will normally be met through implementing minor structural design measures or by imposing procedures for the prevention of occurrences which will be conveyed to all site staff through the appropriate training, including any contingency measures/procedures.

3.6.4 Where the risk assessment outcome is low, the management of the risk can be done wholly through appropriate training to site staff including any contingency measures/procedures.

3.6.5 Where the risk assessment outcome is near-zero, site staff should be made aware of the possibility of an occurrence and contingency measures should be readily available to all staff should they be required.

# 4 Risk assessment table

4.1.1 The following pages contain the site-specific risk assessment for the site with appropriate remedial actions, recommendations and comments included for each identified hazard, potential contaminant or situation. The table also contains references to the appropriate section(s) of the site's EMS for additional management procedures.

4.1.2 As discussed in Section 3.6 above, all situations which identify a risk from Low –High should be incorporated into the staff/visitor training schedule, where appropriate and acted on as required.

| Hazard / Potential Contaminant or Situation | Source(s) | Pathway | Receptor(s) | Consequences | Effect | Probability | Assessment Outcome | Remedial Action/ Recommendations/ Comments |
|---|---|---|---|---|---|---|---|---|
| Dust / particulates | Formation of dust on site surfaces during dry and windy weather on both areas of the site.<br><br>Waste delivery vehicles depositing and collecting potentially dusty waste during dry and windy weather conditions<br><br>Storage of potentially dusty/waste material externally (AREAS 1, 20 & 21)<br><br>Crushing of inert wastes<br><br>Settlement of dust of processing plant on both areas of the site.<br><br>Breakdown of mobile suppression systems linked to treatment plants<br><br>Droughts or water bans leading to a water shortage | Air | Site personnel/ visitors<br><br>Surrounding site users/occupiers<br><br>Surface water comprising watercourses to the east of the site and Blackleach Reservoir to the south-west<br><br>Flora & fauna<br><br>Residential receptors<br><br>Schools<br><br>M61 Motorway<br><br>Blackleach Country Park and Reservoir (LNR & LWS)<br>Protected species to | A, B, D, E | Mo | 3 | Low | Refer to standalone, site specific Dust Management Plan, document reference LRIE-2948-H. |

| Hazard / Potential Contaminant or Situation | Source(s) | Pathway | Receptor(s) | Consequences | Effect | Probability | Assessment Outcome | Remedial Action/ Recommendations/ Comments |
|---|---|---|---|---|---|---|---|---|
| Odour | Stored biodegradable waste on site<br><br>Cracks in concrete leading to trapped waste in both areas of the site<br><br>Dry/hot weather conditions exceeding three dry days<br><br>Prevailing wind to towards residential receptor locations<br><br>Staff negligence leading to odour releases from unauthorised waste acceptance and treatment | Air | Site personnel/ visitors<br><br>Surrounding site users/occupiers<br><br>Residential receptors<br><br>Schools | A, D | Mi to Mo | 3 | Low | Refer to standalone, site specific Odour Management Plan, document reference LRIE-2948-F. |
| Litter | Vehicles delivering / removing and waste during dry and windy weather conditions including unsheeted / poorly sheeted skips on delivery / removal vehicles<br><br>Storage of light waste<br><br>Poor or faulty storage containment i.e. bays/skips<br><br>Poor housekeeping<br><br>Staff negligence leading to litter escaping off site | AIR | See dust receptors | A to C<br>E,F | Mi to Mo | 4 | Low | Any trade bins on site will be inspected weekly to ensure they are not overflowing.<br><br>All light waste which could be blown around is stored within a cage or within secure containment.<br><br>The greatest risk of litter would be during windy conditions. The site will be operated to a lesser degree during these conditions giving due regard to the potential effects of windblown litter.<br><br>Specific litter control section (4.6) in the EMS.<br><br>Use the complaint's procedure from the EMS (Section 4.9) to ensure any litter complaints are addressed and substantiated. |

| Hazard / Potential Contaminant or Situation | Source(s) | Pathway | Receptor(s) | Consequences | Effect | Probability | Assessment Outcome | Remedial Action/ Recommendations/ Comments |
|---|---|---|---|---|---|---|---|---|
| Noise/ vibration | Fixed and mobile plant and machinery breakdowns or malfunctions<br><br>Tipping / loading waste into vehicles, fixed and mobile plant in external areas of the site<br><br>Operating mechanical treatment plants in external areas of the site i.e. crusher<br><br>Operating fixed and mobile plant in all areas of the site during a Saturday | Air or ground by vibration | Site personnel/ visitors<br><br>Surrounding site users/occupiers<br><br>Residential receptors<br><br>Flora & fauna<br><br>Blackleach Country Park and Reservoir (LNR & LWS)<br><br>Protected species to the west of the site<br><br>Schools | A, D | Mo | 3 | Low | Refer to standalone, site specific Noise Impact Assessment and Noise & Vibration Management Plan, document references LRIE-2948-GA & LRIE-2948-GA . |
| Vermin causing leptospirosis and other respiratory diseases | Poor housekeeping<br><br>Staff negligence leading to acceptance of unauthorised waste giving rise to pests<br><br>Storing trade waste bins for excessive time periods | Water, direct contact with waste | Site personnel/ visitors<br><br>Surrounding site users/occupiers<br><br>Workers on adjacent sites<br><br>Residential receptors | A to C | Mi to Mo | 4 | Near zero | Wear PPE - gloves and masks as appropriate<br><br>Site inspections daily<br><br>Any waste which is rejected will be stored in a quarantine skip with a maximum capacity of and removed from the site the skip container is full. The location of this skip may vary as operating conditions permit (i.e. to permit the loading of rejected wastes but clear labelling and management control will ensure its use as specified).<br><br>Strict waste acceptance procedures at the site reducing the likelihood of non-conforming wastes being accepted.<br><br>All maintenance/housekeeping are listed on daily record/inspection forms. The inspection form will be completed by a person who is familiar with the requirements of the EMS and EP for the site. All details of defects, problems and repairs carried out will be recorded on the form on the day that each event occurs. Detailed comments may also be recorded in a site diary. All repairs will be carried out as soon as practically possible.<br><br>Pest controller called in the event of pests being present at the site or complaints received from receptors. |
| Fire/ smoke / particulates | See Section 2 of FPP | Air, direct contact | See dust receptors | A to F | Mi to S | 3 | Low | Refer to standalone, site specific Fire Prevention Plan, document reference LRIE-2948-B. |

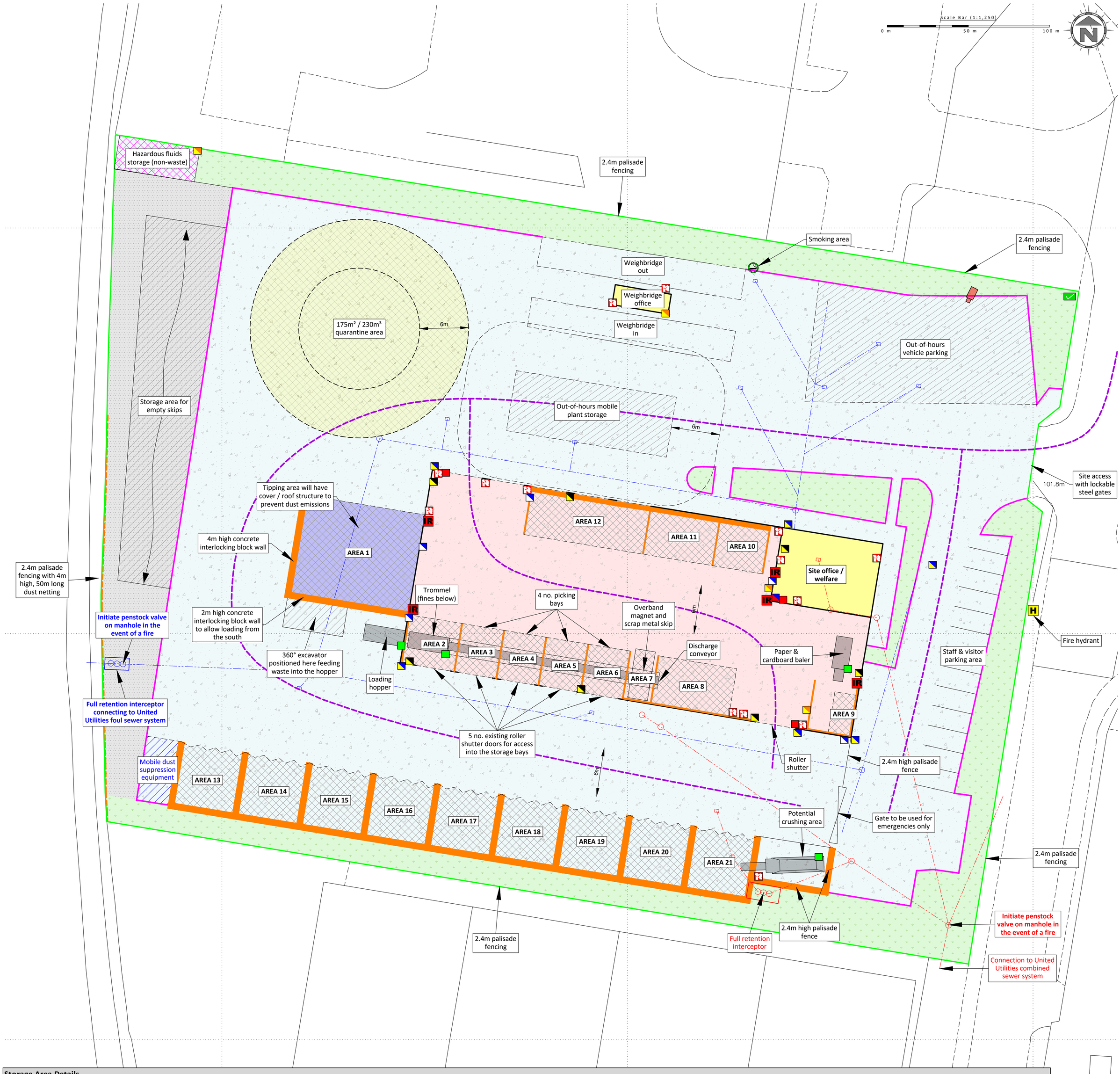
| Hazard / Potential Contaminant or Situation | Source(s) | Pathway | Receptor(s) | Consequences | Effect | Probability | Assessment Outcome | Remedial Action/ Recommendations/ Comments |
|---|---|---|---|---|---|---|---|---|
| Vehicle collision/ accidents including impacts and injury | Poor visibility<br><br>Spillages of oils/fluids causing vehicles to skid<br><br>Lack of PPE worn by staff Staff negligence i.e. mobile plant operators<br><br>Excessive waste storage causing collapse of stored materials / falling materials and reducing accessibility around the site | Direct contact | Site personnel / visitors<br><br>Vehicle users<br><br>Pedestrians | A to F | Mi to S | 3 | Low | All maintenance/housekeeping are listed on daily record/inspection forms. The inspection form will be completed by a person who is familiar with the requirements of the EMS and EP for the site. All details of defects, problems and repairs carried out will be recorded on the form on the day that each event occurs. Detailed comments may also be recorded in a site diary. All repairs will be carried out as soon as practically possible.<br><br>All repairs to site security will take place as soon as practically possible and the site will be made secure until the repair has been carried out. Any major defects found during the daily site inspection will be repaired as soon as practically possible.<br><br>Vehicles will be visually inspected before exit to check that loads are safe and that no mud is carried up the access track which could spill off site from the wheels or bodies of HGVs. Visual inspections of the vehicle running surfaces at the site will also be carried out daily and staff will report any problems with mud or debris on the site roads immediately to the site manager.<br><br>Ensure all free-standing waste storage areas are in the correct locations and access areas are kept clear as shown on Drawing No. LRIE/2948/03.<br><br>An accident logbook is kept in the site office so all new and existing staff members can review previous accidents.<br><br>Encouragement for staff for greater number of “accident-free days” to encourage a safer working environment.<br><br>All new and existing site staff are subject to a specific training regime based on their responsibilities to ensure all operations are carried out without harm to the environment or amenity of the surrounding area. Training in all aspects of the site and waste operations at the site with regard to the individual responsibilities of the site staff will help to prevent incidents occurring which may have an adverse impact on the environment and/or the employees and their co-workers.<br><br>Appropriate signage throughout the site and vehicle movements on site restricted to 5mph.<br><br>All staff have radio’s and use horns / alarms on equipment to alert them of their presence. The operator has trained staff who control vehicle movements throughout the site.<br><br>Dedicated staff & visitor parking areas as shown on Drawing No. LRIE/2948/03. |

| Hazard / Potential Contaminant or Situation | Source(s) | Pathway | Receptor(s) | Consequences | Effect | Probability | Assessment Outcome | Remedial Action/ Recommendations/ Comments |
|---|---|---|---|---|---|---|---|---|
| Leachate | Poor housekeeping<br><br>Staff negligence leading to acceptance of unauthorised waste giving rise to leachate<br><br>Overflowing trade waste bins<br><br>Defects to the concrete surfaces storing waste | Ground | See dust receptors | E, F | Mi to S | 3 | Low | Waste storage/treatment is undertaken on an impermeable concrete surface with sealed drainage and refer to Section 4.2 of the EMS in terms of daily inspections.<br><br>The site does not receive waste types which are liable to give rise to contamination and Section 6.5 of the EMS details staff training procedures in recognition of accepted waste types.<br><br>Regular (minimum daily) checks of site surface infrastructure (as above).<br><br>Any spillages identified will be dealt with in accordance with the spillage procedures outlined in section 5.3 of the EMS.<br><br>Dedicated mobile quarantine skip for intercepted leachable wastes found during initial inspections ensuring isolation and quick removal off site. The skip may be positioned in various positions of the site depending how operations permit (see Section 3.9 of EMS).<br><br>Any wastes which are liable to give rise to contamination will be removed from site or placed into the quarantine skip/area (see Section 3.9 of EMS).<br><br>Fuel storage procedures shown in Section 2.7 of the EMS and stored in double bunded tanks as shown on Drawing No. LRIE/2948/03. |
| Hydrocarbons including release of gases/fumes/ vapours/ volatiles | Spills from fuel tanks<br><br>Drips when refuelling<br><br>During delivery Leakage from stored drums<br><br>Fixed and mobile plant malfunction<br><br>Mixing of waste/ chemicals<br><br>Spillage of chemicals<br><br>Overturned vehicle plant/plant failure | Ground - direct contact, ingestion<br><br>Inhalation (of volatiles) | See dust receptors | A, B, D, E, F | Mi to S | 3 | Low | Fuel and liquid storage on site is stored with 110% containment but any spillages identified will be dealt with in accordance with the spillage procedures.<br><br>Where plant is operated, spill kits will be available to ensure that fuel spillages are cleared.<br><br>Spill kits kept close to source(s) of hazards as shown on Drawing No. LRIE/2948/03.<br><br>All repairs to site security will take place as soon as practically possible and the site will be made secure until the repair has been carried out. Any major defects found during the daily site inspection will be repaired as soon as practically possible.<br><br>Vehicles will be visually inspected before exit to check that loads are safe and that no mud is carried up the access track which could spill off site from the wheels or bodies of HGVs. Visual inspections of the vehicle running surfaces at the site will also be carried out daily and staff will |

| Hazard / Potential Contaminant or Situation | Source(s) | Pathway | Receptor(s) | Consequences | Effect | Probability | Assessment Outcome | Remedial Action/ Recommendations/ Comments |
|---|---|---|---|---|---|---|---|---|
| | Reaction between stored wastes | | | | | | | report any problems with mud or debris on the site roads immediately to the site manager.<br><br>If any oil and vehicle maintenance chemicals are kept on site, they will be stored securely. In the event of a spillage a spill containment kit (absorbent pads, booms or granules) will be used to prevent further spillage and the contaminated absorbents placed in a skip for disposal to a suitably permitted facility.<br><br>Any wastes which would be classified as having the potential to cause polluting runoff will be stored on an impermeable surface with sealed drainage.<br><br>All site surfaces will be inspected daily for the presence of spillages when the site is in operation. Debris will be swept as required and placed in a skip for further processing on site and sent to a suitably permitted site.<br><br>All wastes liable to give rise to contamination will be removed from the site within an agreed timescale with the EA.<br><br>Dedicated mobile quarantine skip for intercepted if wastes found during initial inspections ensuring isolation and quick removal off site. The skip may be positioned in various positions of the site depending how operations permit.<br><br>Very little potential for hydrocarbons to be released from site given the wastes accepted and stored.<br><br>Ensure all waste storage areas are stored as per the waste storage table and locations shown on Drawing No. LRIE/2948/03 to reduce the risk reactions of stored waste, fire and collisions between plant causing release of fumes.<br><br>No gas is stored at the site. |

# Appendix I

# Drawings




**Storage Area Details**

| Plan Ref | Description | Storage type | Containment / type | Height of firewall (m) | Max width of pile (m) | Max length of pile (m) | Max height of pile (m) | Approx. area (m2) | Conversion factor used | Approx. volume (m3) | Average storage time | Max storage time | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AREA 1 | Mixed waste reception area (HCI waste) | Unprocessed | Free standing pile / three-sided concrete interlocking block fire wall | 4 | 15 | 12.5 | 3 | 187.5 | 0.75 | 422 | <2 hours | <48 hours | 48 hours is based on Sat - Mon; storage time likely to be less as the pile will continually move throughout the day |
| AREA 2 | Trommel fines | Sorted by trommel screen | Free standing pile / two-sided concrete panel fire wall | 3 | 6.5 | 6 | 2 | 39 | 0.75 | 59 | <2 hours | <48 hours | As above |
| AREAS 3 -6 | Hand picked wastes from picking line comprising wood, residual, plastic, paper & cardboard | Processed (by hand) | As above | 3 | 6.5 | 6 | 2 | 39 | 0.75 | 59 | <2 hours | <48 hours | As above and volume is based on each storage bay. Once bays are full the waste will be transferred to the external overflow bays (AREAS 13 - 19) |
| AREA 7 | Scrap metal | Processed (magnet) | 40 cubic yard skip | 3 | 2.5 | 6.1 | 2.62 | 15.25 | 1 | 40 | <12 hours | 1 week | Skip removed when full and replaced with empty skip; timescale dependent on metal content in waste |
| AREA 8 | Hardcore / rubble | Sorted via treatment plant | Free standing pile / two-sided concrete panel fire wall | 3 | 10 | 6 | 2 | 60 | 0.75 | 90 | <2 hours | <48 hours | See AREA 1 comments |
| AREA 9 | Baled paper & cardboard | Processed, sorted & baled | Bales within three-sided concrete panel fire wall | 3 | 2.5 | 5 | 2 | 12.5 | 0.75 | 19 | <2 hours | <48 hours | See AREA 3 - 6 comments |
| AREA 10 | Miscellaneous bay i.e. non-conforming waste | Unprocessed (hand sorted) | Free standing pile / three-sided concrete panel & interlocking block fire wall | 3 | 6 | 6 | 2 | 36 | 0.75 | 54 | <48 hours | <48 hours | See AREA 1 comments |
| AREA 11 | Plasterboard | Unprocessed (hand sorted) | As above | 3 | 6 | 6 | 2 | 36 | 0.75 | 54 | <2 hours | <48 hours | See AREA 1 comments |
| AREA 12 | Residual waste | Processed, hand sorted by treatment plant | As above | N/A | 15 | 6 | 2 | 90 | 1 | 180 | <48 hours | <48 hours | Acting as overflow bay from AREAS 3 - 6; pile removed sooner if full |
| AREAs 13 - 18 | Overflow storage bays from wastes recycled inside the building | Processed, hand sorted by treatment plant | Free standing pile / three-sided concrete interlocking block fire wall | 4 | 8 | 8 | 3 | 64 | 0.75 | 144 | <48 hours | <1 week | As above and pile size based on each bay |
| AREA 19 | Soils & stone | As above | As above | 4 | 8 | 8 | 3 | 64 | 0.75 | 144 | <48 hours | <1 week | As above |
| AREAs 20 & 21 | Hardcore & crushed stone | As above and crushed | As above | 4 | 8 | 8 | 3 | 64 | 0.75 | 144 | <48 hours | <1 week | As above |

**CONVERSION FACTORS**

Conversion factors for waste piles are worked out using the following methods set out by The Environment Agency

The maximum length width pile is based on the largest dimension – the volume of the pile has been calculated using the area x height x relevant conversion factor

Conversion of 1 for materials stored within containers, area of storage in stackable containers and waste/bale stacks

Conversion of 0.75 for waste stored within a bay based on volume of pyramid x rectangle x height

Conversion of 0.333 for waste stored in a free-standing stockpile

For areas containing skips, conversion is calculated by volume of each skip x number of skips


Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

Lime House, Road Two, Winsford, Cheshire, CW7 3QZ
t: 01606 558833 | e: sales@oaktree-environmental.co.uk


**DRAWING TITLE**
SITE LAYOUT & FIRE PLAN

**CLIENT**
Circle Recycling Ltd

**PROJECT/SITE**
Lyon Road Industrial Estate, Kearsley, Bolton, Lancashire BL4 8NB

| SCALE @ A1 | CLIENT NO | JOB NO |
|---|---|---|
| 1:250 | 2948 | 001 |

| DRAWING NUMBER | REV | STATUS |
|---|---|---|
| LRIE/2498/03 | C | Issued |

| DRAWN BY | CHECKED | DATE |
|---|---|---|
| CP | -- | 18.04.23 |

**KEY:**

- Permit boundary
- Waste storage areas
- Non-waste hazardous fluid storage i.e. diesel, AdBlue etc..
- Waste recycling building (concrete floor with sealed drainage
- Other buildings i.e. workshops/offices
- Impermeable concrete with sealed drainage
- 0.15m high concrete kerb
- 0.6m - 0.8m thick concrete interlocking block firewall
- 0.15m wide concrete panel firewall
- Surface water gully's & manholes
- Foul water gully's & manholes
- Underground surface water drainage
- Underground foul water drainage
- Quarantine area
- Fire water containment equipment
- Fire extinguisher locations
- Plant shut off points
- Fire alarms
- Spill kits
- Water points
- Access route for emergency services Surface water gully's
- Fire hydrant
- Fire assembly point
- Flame/heat detection cameras
- CCTV cameras (internal & external)
- Pan, tilt & zoom camera (50m coverage)

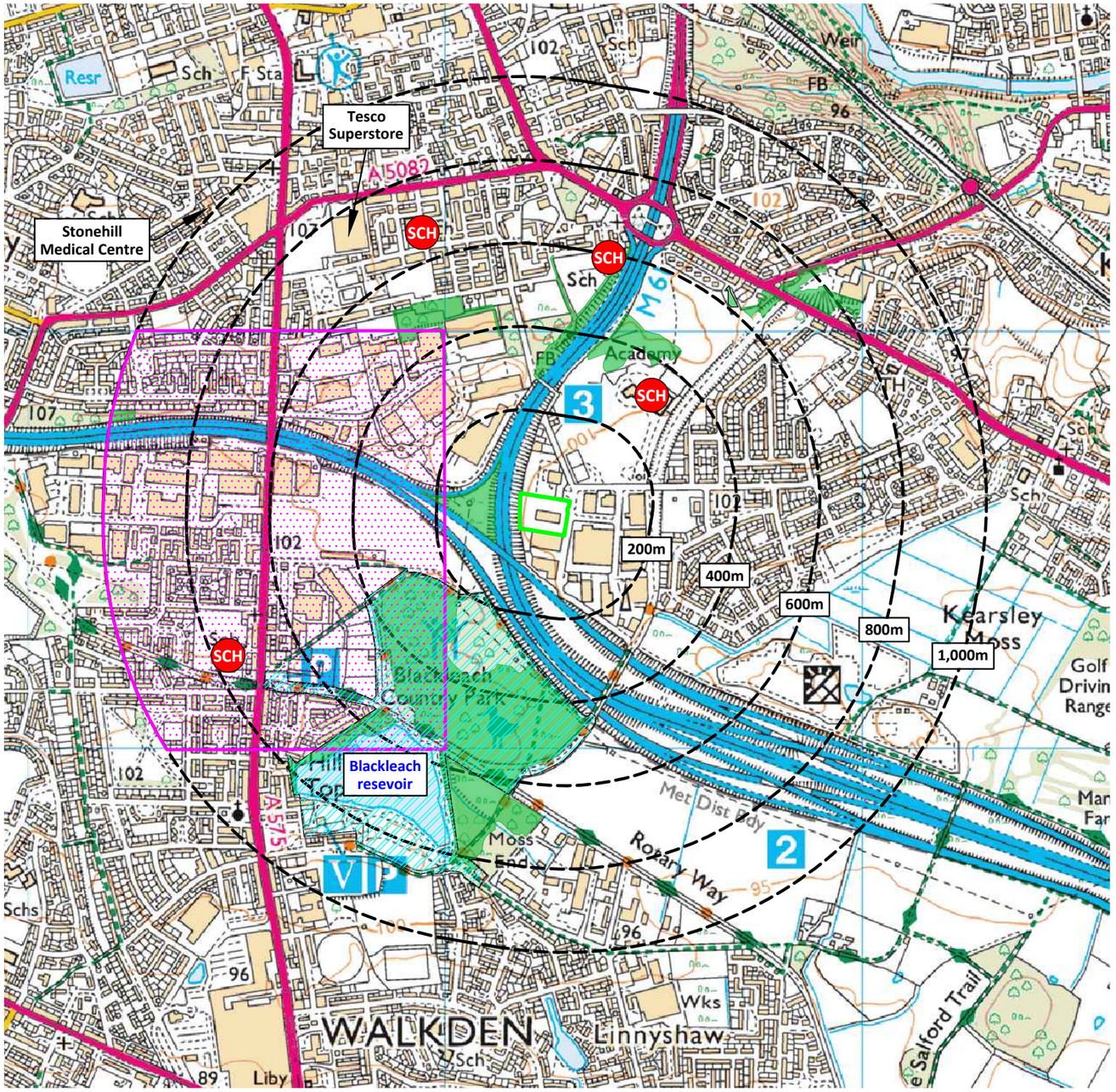
**NOTES**



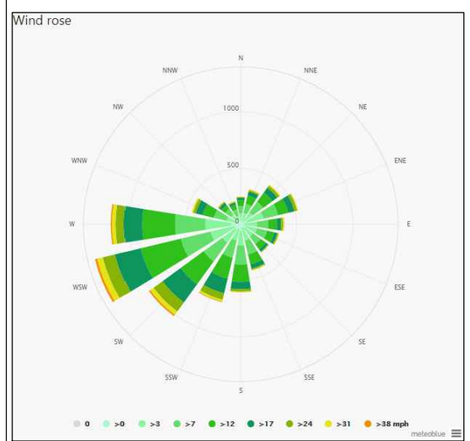
REVISION HISTORY

| Rev: | Date: | Init: | Description: |
|---|---|---|---|
| - | 06.10.21 | CP | Initial drawing |
| A | 07.10.21 | CP | Client comments |
| B | 12.10.21 | CP | Client comments |
| C | 18.04.23 | CP | Operator name change |

- Permit boundary
- Surface water body ( pond / pool / lake)
- Stream, river, beck
- Buildings includes Agricultural, industry, commerce and retail - could also include small houses)
- Residential blocks
- Class A roads
- Class B roads
- Class C roads
- Local nature reserve / local wildlife site
- Protected species
- Priority Habitat - Deciduous Woodland
- Other woodland areas (non-habitat)
- SCH — Schools including primary, high, colleges and Universities
- Care homes
- Places of worship
- H — Fire hydrants (indicative)




Wind rose




Compass Wind Rose for Bolton sourced on 21/09/2021
*- source: Meteoblue*

Scale Bar (1:12,500)

0 km 500 m 1 km

**NOTES**



REVISION HISTORY

| Rev: | Date: | Init: | Description: |
|---|---|---|---|
| - | 07.10.21 | CP | Initial drawing |
| A | 18.04.23 | CP | Operator name change |

Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

**DRAWING TITLE**
PERMIT BOUNDARY PLAN

**CLIENT**
Circle Recycling Ltd

**PROJECT/SITE**
Lyon Road Industrial Estate, Kearsley, Bolton, Lancashire BL4 8NB

| SCALE @ A3 | CLIENT NO | JOB NO |
|---|---|---|
| 1:12,500 | 2948 | 001 |

| DRAWING NUMBER | REV | STATUS |
|---|---|---|
| LRIE/2948/04 | A | Issued |

| DRAWN BY | CHECKED | DATE |
|---|---|---|
| CP | -- | 18.04.23 |

**Lime House, Road Two, Winsford, Cheshire, CW7 3QZ**
**t: 01606 558833 | e: sales@oaktree-environmental.co.uk**