ENVIRONMENTAL RISK ASSESSMENT

High Carr Recycling Centre, No 2, Talke Road, Chesterton, Newcastle Under Lyme, Staffordshire, ST5 7AL

Cherry Hill Waste Limited

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CONTENTS

DOCU	JMENT HISTORY:	
CONT	ENTS	
	OF APPENDICES:	
	INTRODUCTION	
2	SITE RECEPTORS	3
3	ENVIRONMENTAL RISK ASSESSMENT MODEL	4
	Fundamental Considerations	
	Pathway	
	Consequences	
3.4	EFFECTS OF CONSEQUENCES	5
3.5	RISK ESTIMATION AND EVALUATION (PROBABILITY/FREQUENCY OF OCCURRING HAZARD)	6
	RISK ASSESSMENT OUTCOME (COMBINATION OF PROBABILITY & CONSEQUENCE)	
4	RISK ASSESSMENT TABLE	8

List of Appendices:

Appendix I - Risk Assessment Table

Appendix II - Site Layout & Fire Plan and Receptor Plan

1 <u>Introduction</u>

- This Environmental Risk Assessment (ERA) considers the potential and actual risks associated with the use of the site at High Carr Recycling Centre, No 2, Talke Road, Chesterton, Newcastle Under Lyme, Staffordshire, ST5 7AL as a Household, Commercial & Industrial (HCI) Waste Transfer Station by Cherry Hill Waste Limited.
- 1.2 All site staff should be provided with a copy of this ERA and be aware of where it is located on site.
- 1.3 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.
- 1.4 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.
- 1.5 The Environmental Permit is required for the storage (keeping) prior to removal, and treatment (all types of handling/processing) of waste.

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- 1.6 Specified waste management operations include waste disposal and waste recovery operations listed Annex I and II of The Waste Framework Directive 2008/98/EC and are listed in summary below:
 - **D15**: Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where it is produced)
 - R13: Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)
 - D14: Repackaging prior to submission to any of the operations numbered D1 to 13
 - **D9**: Physico-chemical treatment not specified elsewhere in Annex IIA which results in final compounds or mixtures which are discarded by means of any of the operations numbered D1 to D8 and D10 to D12
 - R3: Recycling/reclamation of organic substances which are not used as solvents
 - R4: Recycling/reclamation of metals and metal compounds
 - **R5**: Recycling/reclamation of other inorganic materials

2 <u>Site Receptors</u>

2.1 A Sensitive Receptors Plan has been provided Appendix II of this document.

3 <u>Environmental Risk Assessment Model</u>

3.1 Fundamental Considerations

- 3.1.1 **Source/Hazard:** A property or situation that 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 (windblown dust etc.)
 - Ground (leaching of contaminants into underlying aquifers).
 - Water (hydrocarbon run off into surface waters)
 - 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
Α	Minor Injury
В	Major Injury
С	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	Consequences	Management Requirements	
S	SEVERE	In all cases	
Мо	MODERATE	In most cases	
Mi	MILD	Occasionally	
N	NEGLIGIBLE	No	

3.4.2 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 Occurring Hazard)

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

Abbreviation	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	Mi	N							
lity	1	High	High	Medium	Low						
lig	2	High	Medium	Low	Near-Zero						
robabil	3	Medium	Low	Near-Zero	N/A						
Pr	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 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.
- 4.2 The table also contains references to the appropriate section(s) of the site's EMS for additional management procedures.
- 4.3 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.

SEE TABLES OVERLEAF

Appendix I

RISK ASSESSMENT TABLES

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. Waste delivery vehicles depositing and collecting potentially dusty waste during dry and windy weather conditions Storage of potentially dusty/waste material externally (AREAS 1 - 4, 11, 12 and 21 - 23 Mechanical treatment of C&D wastes Crushing of inert wastes Settlement of dust of processing plant on both areas of the site. Breakdown of mobile suppression systems linked to treatment plants Droughts or water bans leading to a water shortage	Air	Site personnel/ visitors Surrounding site users/occupiers Surface waters Flora & fauna Residential receptors Highways/road networks Local Nature Reserves Deciduous Woodlands	A, B, D, E	Mo	3	Low	All areas with store and treat waste benefit from an impermeable concrete surface with sealed drainage system. Reference should be made to Section 2.6 of the operator's FPP in relation to preventative maintenance check to reduce the likelihood of fixed or mobile plant failure. Reference should be made to the site specific Dust Management Plan (Doc Ref. HCRC-2628-G) in terms of dust control but in summary, the site will implement the following measures to reduce the impact of dust: Keep drop heights to minimum Have a continuous monitoring regime during operational hours to identify any potential dust leaving the site boundary. Cleaning of any spillages using wet cleaning i.e. hoses. Keep any dusty wastes will be stored within the height of their storage bay or storage container and below the height of the perimeter infrastructure. Ensure any potential dust outlets from processing plants are covered and all conveyors/drop points are enclosed Use the complaint's procedure from the EMS (Section 4.10) to ensure any dust complaints are addressed and substantiated.

Hazard / Potential Contaminant or Situation	Source(s)	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome	Remedial Action/ Recommendations/ Comments
Odour	Storage of potentially odorous waste material externally (AREAS 1 – 4 and 16 – 19. Cracks in concrete leading to trapped waste in both areas of the site Dry/hot weather conditions exceeding three dry days Prevailing wind to towards residential receptor locations Staff negligence leading to odour releases from unauthorised waste acceptance and treatment	Air	Site personnel/ visitors Surrounding site users/occupiers Residential receptors	A, D	Mi to Mo	3	Low	Strict waste acceptance procedures into both areas of the site to identify potentially odorous wastes and their containment. Reference should be made to the site specific Odour Management Plan (Doc Ref. HCRC-2628-F) in terms of dust control but in summary, the site will implement the following measures to reduce the impact of dust: Any rejected wastes found on site to be removed off site as soon as practicable. Reference should be made to Section 2.6 of the operator's Fire Prevention Plan [FPP (Doc. Ref. HCRC-2628-B)] in relation to preventative maintenance checks to reduce the likelihood of fixed or mobile plant failure. Reference should be made to Section 4.6 of EMS with regards to odour control. Use the complaint's procedure from the EMS (Section 4.10) to ensure any odour complaints are addressed and substantiated. Low residence times for all wastes The properties of the waste types included in the variation are very similar to those wastes which are already permitted for acceptance, storage and treatment at the site and therefore no additional risk associated with odour is expected.

Hazard / Potential Contaminant or Situation	Source(s)	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome	Remedial Action/ Recommendations/ Comments
Litter	Litter escaping from storage from external storage bays Vehicles delivering / removing and waste during dry and windy weather conditions including unsheeted / poorly sheeted skips on delivery / removal vehicles Poor or faulty storage containment i.e. bays Poor housekeeping Staff negligence leading to litter escaping off site	AIR	Site personnel/ visitors Surrounding site users/occupiers Flora & fauna Residential receptors Local Nature Reserves Deciduous Woodlands	A to C E,F	Mi to Mo	4	Low	Reference should be made to section 4.6 of the EMS which covers litter control at the site. Use the complaint's procedure from the EMS (Section 4.10) to ensure any odour 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 Tipping / loading waste into vehicles, fixed and mobile plant in external areas of the site Operating mechanical treatment plants in external areas of the site i.e. crusher Operating mobile plant in all areas of the site during a Saturday	Air or ground by vibration	Site personnel/ visitors Surrounding site users/occupiers Residential receptors Flora & fauna Local Nature Reserves Deciduous Woodlands	A, D	Mo	3	Low	Nearest residential receptors are approx. 380m to the south-west of the site. The site is also situated in a very low setting approx. 50mAOD below the nearest receptors. The site is already permitted to carry out mechanical treatment at the site and the noise is likely to be of a similar character and level of existing surrounding land uses i.e. industrial and commercial businesses It is considered the site is not creating any additional noise risk from the proposed permit variation Drop heights will be kept to a minimise noise / vibration. Management will ensure that all loading plant operated is functioning suitably i.e. moving parts to be regularly lubricated. Operatives will be informed to turn off engines when the plant is not in use and no revving of engines will be permitted at the site i.e. no idling policy Any malfunctions in plant i.e. missing screws/bolts which result in excessive noise will be decommissioned until an alternative loading plant sourced. If repairs to the site are required, the work is to be undertaken with due regard for the possible noise nuisance and during the normal working day. In the event of major repair work being undertaken which is likely to cause significant noise and disruption, neighboring residents and the EA will be notified in advance Any hot works i.e. welding/cutting takes place inside the designated workshop building Reference should be made to Section 2.6 of the operator's FPP in relation to preventative maintenance checks to reduce the likelihood of fixed or mobile plant failure. Use the complaint's procedure from the EMS (Section 4.10) to ensure any noise complaints are addressed and substantiated.

Hazard / Potential Contaminant or Situation	Source(s)	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome	Remedial Action/ Recommendations/ Comments
Vermin causing leptospirosis and other respiratory diseases	Poor housekeeping Staff negligence leading to acceptance of unauthorised waste giving rise to pests Storing trade waste bins for excessive time periods	Water, direct contact with waste	Site personnel/ visitors Surrounding site users/occupiers Workers on adjacent sites Residential receptors	A to C	Mi to Mo	4	Near zero	Wear PPE - gloves and masks as appropriate Site inspections daily Rejected waste procedures (Section 3.9 of EMS) Strict waste acceptance procedures (Sections 3.1 – 3.3 of EMS) Refer to Section 4.2 of EMS in terms of daily inspections Pest controller called in the event of pests being present at the site or complaints received from receptors
Fire/ smoke / particulates	Refer to Section 2.1 of operator's FPP	Air, direct contact	Site personnel/ visitors Surrounding site users/occupiers Surface waters Flora & fauna Residential receptors Highways/road networks Local Nature Reserves Deciduous Woodlands	A to F	Mi to S	3	Medium	Refer to Fire Prevention Plan HCRC-2628-B

Hazard / Source(s) Pathway Receptor(s) Consequences Effect Probability Assessment Outcome or Situation	emedial Action/ Recommendations/ Comments
collision/ accidents Spillages of oils/fluids causing vehicles to skid injury Lack of PPE worn by staff Good open collisions Staff negligence i.e. mobile plant operators Excessive waste storage causing collapse of stored materials / falling materials and reducing accessibility around the site Enc. App All sthere The three Collisions Collapse C	ood housekeeping (Refer to Section 4.2 of EMS) in terms of daily spections. July storage procedures shown in Section 2.7 of the EMS and ored in double bunded tanks as shown on Drawing No. CRC/2628/03. Jood vehicle management and refer to Section 2.6 of the preventative maintenance check to reduce the likelihood of fixed or mobile plant failure. Joseph Sections and access areas are kept clear as shown on Drawing No. CRC/2628/03. Joseph Sections and access areas are kept clear as shown on Drawing No. CRC/2628/03. Joseph Sections and access areas are kept clear as shown on Drawing No. CRC/2628/03. Joseph Sections and existing aff members can review previous accidents. Joseph Sections and existing aff members can review previous accidents. Joseph Sections and ISO 14001 EMS systems for all the activities to identify situations which may lead to harm for site seers (employees, visitors, and management) Joseph Sections and use horns / alarms on equipment to alert them of their presence Joseph Sections and use horns / alarms on equipment to alert them of their presence Joseph Sections and S

Hazard / Potential Contaminant or Situation	Source(s)	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome	Remedial Action/ Recommendations/ Comments
Leachate	Staff negligence leading to acceptance of unauthorised waste giving rise to leachate Overflowing trade waste bins Defects to the concrete surfaces storing waste	Ground	Site personnel/ visitors Surrounding site users/occupiers Surface water comprising watercourses to the north-east Flora & fauna Residential receptors Local Nature Reserves Deciduous Woodlands	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. 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. Regular (minimum daily) checks of site surface infrastructure (as above). Any spillages identified will be dealt with in accordance with the spillage procedures outlined in section 5.3 of the EMS. 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). 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). Fuel storage procedures shown in Section 2.7 of the EMS and stored in double bunded tanks as shown on Drawing No. HCRC/2628/03.

Hazard / Potential Contaminant or Situation	Source(s)	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome	Remedial Action/ Recommendations/ Comments
Hydrocarbons including release of gases/fumes/ vapours/ volatiles	Spills from fuel tanks Drips when refueling During delivery Leakage from stored drums Fixed and mobile plant malfunction Mixing of waste/ chemicals Spillage of chemicals Overturned vehicle plant/plant failure Reaction between stored wastes	Ground - direct contact, ingestion Inhalation (of volatiles)	Site personnel/ visitors Surrounding site users/occupiers Surface waters Flora & fauna Residential receptors Schools Local Nature Reserves Deciduous Woodlands	A, B, D, E, F	Mi to S	3	Low	Fuel storage procedures shown in Section 2.7 of the EMS and stored in double bunded tanks as shown on Drawing No. HCRC/2628/03. All plant manoeuvring takes place on an impermeable concrete surface with sealed drainage and refer to Section 4.2 of the EMS in terms of daily inspections. The site is surfaced with concrete and has a sealed drainage system. Where plant is operated; drip trays will be available to ensure that fuels are contained. Spill kits kept close to source(s) of hazards as shown on Drawing No. HCRC/2628/03. Reference should be made to Section 2.6 of the FPP in relation to preventative maintenance checks to reduce the likelihood of fixed or mobile plant failure which is source of most fires from waste sites. Any spillages identified will be dealt with in accordance with the spillage procedures outlined in section 5.3 of the EMS. Dedicated mobile quarantine skip for intercepted I 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). Very little potential for hydrocarbons to be released from site given the wastes accepted and stored i.e. no ELVs Ensure all waste storage areas are stored as per the waste storage table and locations shown on Drawing No. HCRC/2628/03 to reduce the risk reactions of stored waste, fire and collisions between plant causing release of fumes. No gas is stored at the site.

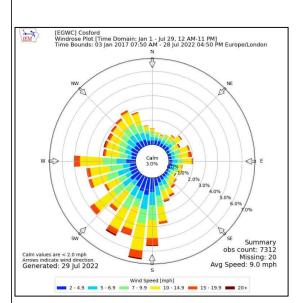
Appendix II

SITE LAYOUT & FIRE PLAN AND RECEPTOR PLAN



REY: 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 Places of worship Public footpath Sch Schools Priority Habitat - Deciduous Woodland

Local Nature Reserves



Compass Wind Rose for Cosford (EGWC) Period 2017-2022 - source: Iowa State University



NOTES

- 1. Boundaries are shown indicatively.
- 2. Wind rose data shows the prevailing wind direction to be blowing North from the South.

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Rev:	Date:	Init:	Description:	
-	29.07.22	СР	Initial drawing	

Oaktree Environmental Ltd





DRAWING TITLE
RECEPTOR PLAN

CLIENT Cherry Hill Waste Ltd

DOJECT (CITE

500 m

High Carr Recycling Centre, High Carr Farm, No 2, Talke Road, Chesterton, Newcastle Under Lyme, __Staffordshire_ST5_7AL

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