Ellgia
Scunthorpe

Winterton Road, Scunthorpe, DN17 0DH

Dust & Emission Management Plan (DEMP)

VERSION NUMBER: 1.0
DATE: 19/09/2023

Issue and Revision Record

Revision	Date	Originator	Checker	Company Approver	Description of Changes
1.0	19/09/2023	C Murdoch			First Draft for Permit Application

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1 Introduction

1.1 General

Ellgia Scunthorpe is a waste treatment and transfer facility, receiving non-hazardous municipal, commercial and industrial waste. Waste is mechanically treated to remove recyclable material which is transferred to other sites for further processing.

The residual waste is processed to produce refuse derived fuel (RDF) and solid Recovered fuel (SRF) which are sent to energy recovery facilities and for co-firing cement kilns in the UK and overseas.

The Scunthorpe processing facility includes a drying floor which is used to reduce moisture levels and increase calorific values in SRF. The drying floor uses air heated by a 0.99 MW biomass boiler. The site has 6 waste treatment operations as follows:

1. C&D waste pre-treatment
2. C&I waste pre-treatment
3. SRF preparation
4. SRF Drying
5. RDF Preparation
6. Inert Processing

Baled SRF and RDF is stored designated storage areas, recycled material will be stored in concrete bays or metal containers. The layout of the treatment and storage activities is shown in drawing Ell/SCU/FPP/010.

1.2 Site and Geology

The site is located at Winterton Road, Scunthorpe, DN17 0DH, the site entrance is located at grid reference SE 90134 12211 and is in the North Lincolnshire local authority. The site is not in an air quality management area. The roughly triangular site operates as a waste treatment and transfer facility for non-hazardous domestic, commercial, and industrial waste. The site is currently accessed via an estate road which leads eastwards from Winterton Road to the site entrance set in the centre of the site. The areas outside the site boundary are summarised as follows:

Historically, the site lies within an area of former ironstone workings associated with the Scunthorpe iron and steel industry. Anecdotal information indicates that prior to its use as a waste recycling depot the site was formerly used as a piggery.

From data obtained during other surveys taken in the area, together with information shown on the British Geological Survey no superficial deposits are likely and the solid geology is represented by the Frodingham ironstone formation, which is of Sinemurian age (Jurassic).

Boundary	Description
North	Appleby Frodingham Ponds, formerly owned by British Steel, land now in receivership
East	Bound by single track railway which forms the western perimeter of British Steel site
South	Unoccupied Scrubland, British steel drainage pond, TES Container Ltd, container storage
West	Bound by Winterton, BOC Warren Road, Mantank Environmental Services (industrial), Thompson Metals (industrial)

1.3 Site Activities

The site recycles material from non-hazardous municipal, commercial and industrial waste and produces SRF and RDF from the residual waste.

1.3.1 Installation Activities

Description of the Activity		Annex I (D codes) and Annex II (R codes) and descriptions
AR1	Recovery or a mix of recovery and disposal of non-hazardous waste with a capacity exceeding 75 tonnes per day involving pre-treatment of waste for incineration or co-incineration.	**R3**: Recycling/reclamation of organic substances which are not used as solvents. **D9**: Physico-chemical treatment resulting in final compounds or mixtures which are discarded by any of the operations numbered D1 to D12.
AR2	Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day involving pre-treatment of waste for incineration or co-incineration.	**R3**: Recycling/reclamation of organic substances which are not used as solvents. **D9**: Physico-chemical treatment resulting in final compounds or mixtures which are discarded by any of the operations numbered D1 to D12.

1.3.2 Directly associated Activities.

Name of DAA		Description of the activity
AR3	Storage of non-hazardous waste prior to treatment.	Storage of non-hazardous waste prior to submission to activity AR1 and AR2. Storage within a building or on impermeable concrete surface with contained drainage. Waste types as specified in section 3. **R13**: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where the waste is produced). **D15**: Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where the waste is produced).
AR4	Storage of non-hazardous waste following treatment.	Storage of SRF and RDF produced from activity AR1 and AR2 prior to dispatch off site. Storage within a building (except for wrapped bales of waste). Waste types as specified in section 3. **R13**: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where the waste is produced). **D15**: Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where the waste is produced).
AR5	Drying SRF feedstock material	Includes 1 x 999kW biomass boiler used to heat hot air type drying floor. System is used to dry certain SRF feedstock material prior to being transferred to installation activity: **AR1**

1.3.3 Waste Operations

Description of the waste operation		Annex I (D codes) and Annex II (R codes) and descriptions
AR5	Waste Transfer Station	**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 D13 **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
AR6	Materials Sorting and Materials Recovery Facility	**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) **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

1.4 Site layout and Infrastructure

The site has been used for waste management and recycling activities for over 30 years, during which it has been developed and evolved significantly. New developments such as the construction of new buildings and the installation of new processing equipment have been designed to reduce emissions and the environmental impact of the operation.

Other than the requirement to implement and maintain the approved drainage scheme, the site's current planning permission does not include any infrastructure or special controls to prevent dust and other emissions.

The biomass boiler is covered by a local authority Part B permit which sets out requirements for the operation, maintenance, and emissions limits for the boiler.

1.5 Potential for Dust and Emissions

Fugitive emissions include dust, volatile organic compounds (VOCs), mud, litter and fugitive releases to water and ground. Other emissions such as coarse dust, mud and litter may cause a localised nuisance.

Without any abatement controls the site has the potential for dust and other emissions to be generated. The main causes are vehicles movement, tipping, processing, and loading of waste.

However, all waste processing is carried out inside a building or enclosure and dust suppression

systems are employed when necessary, Waste is stored mostly inside buildings, baled and wrapped or within an container to minimise the risk of emissions.

The purpose of this document is to explain all the controls in place that will stop dust firstly being generated and secondly escaping from site. This DEMP will form part of the management system of the site, and will be available to all Staff, a copy will be kept in the Site Office along with the Environmental Management System

Potential sources of emissions from the site are:

- Vehicles entering and/or leaving the site with mud or debris on their wheels.
- The release of dust, particulate matter and debris from waste loads as they are delivered to the site
- The resuspension of dust and particulate matter on roads and site surfacing by vehicles.
- The release of particulate matter when waste loads are deposited or set down in stockpiles on the site
- Loading of stockpiled material on to lorries for transfer off site
- Particulate emissions from the exhausts of vehicles and plant on site
- Processing of waste
- Sampling activities
- Biomass Boiler
- Diesel Generators

1.6 About this document

This DEMP addresses the need to manage the potential for fugitive emissions from the operations at Ellgia Scunthorpe, it has been created in response to a request from EA permitting in relation to the permit application EPR/WP3397FZ/C008. It is based on the existing procedures contained in the site Environmental Management System (EMS) and the previously submitted document ELL/017, updated with additional details and converted into the template provided by the Environment Agency.

This document is based on existing site procedures in the current Environmental Management System (EMS) with enhancements designed to take account of the future operations and developments on site, the following procedures relate to this plan:

EMS Reference	Description
EM 01-001	Environmental Policy
EM 01-002	Fugitive Emissions Management Plan
EM 02-003	Waste Acceptance Procedure v2
EM 02-004	Waste Storage and Dispatch Procedure v2
EM 02-005	Odour Assessment Procedure
EM 02-009	Hazardous Materials Storage Procedure (2)
EM 02-013	Noise Assessment Procedure
EM 02-014	Dust Control Procedure V2
EM 02-015	Severe Weather Procedure

EM 03-003	Odour Monitoring Form
EM 03-004	Noise Monitoring Form
EM 03-005	Underground Vessel Inspection Form
EM 03-006	Daily Site Inspection Form v4
EM 03-007	Weekly Site Inspection Form
EM 05-006	Sensitive Receptor Schedules
EM 06-001	Sensitive Receptor Plan
EM 06-002	Odour and Noise Monitoring Location Plan

The DEMP provides information on the potential fugitive emissions impacts from the Installation and the mitigation measures to be implemented. These measures are linked to the Installation's EMS and will include operational and control measures for normal, as well as abnormal conditions.
The DEMP addresses the following issues:

- materials and/or activities which could produce fugitive emissions
- identification of potential sensitive receptors
- process controls and procedures
- potential corrective actions
- record keeping

The DEMP also provides a management framework comprising of proactive and reactive measures to manage and control potential fugitive releases from the Installation. This proactive approach will facilitate the ongoing development of operational procedures and controls as part of an on-going commitment to improving environmental performance as the site develops.

Reactive procedures will also be established within the DEMP for the recording, evaluating, and implementing of corrective actions in the event of any fugitive emission related complaints being received.

This DEMP is a working document and is designed to provide guidance to the operational staff at ELLGIA Scunthorpe. All senior managers are required to be familiar with it and electronic and hard copies will be stored in the site office at all times.

1.7 Future Site Development

The site continues to be developed and a further RDF processing building is planned for construction in 2024/25. The Fire Prevention plan (SCU/FPP/002) included with this application takes into the new building, and the permit variations detailed above.

This document gives a brief overview of the background and objectives of the permit application being made by Ellgia Ltd. Pre-application advice was sought prior to this application and the sequence of events being followed is in line with the guidance given in the Enhanced Pre-Application meeting (ELL/001)

2 Receptors

2.1 Personnel on Site

Personnel/operatives working on site are the closest receptors to any fugitive emissions produced on site, however due to consistent working conditions it may be unlikely that operatives would be particularly sensitive to fugitive emissions or to changes/fluctuations in fugitive emissions. All operatives shall be made aware of the issue of fugitive emissions on site and should be fully conversant with the contents of the EMS and the DEMP

2.2 Neighbours

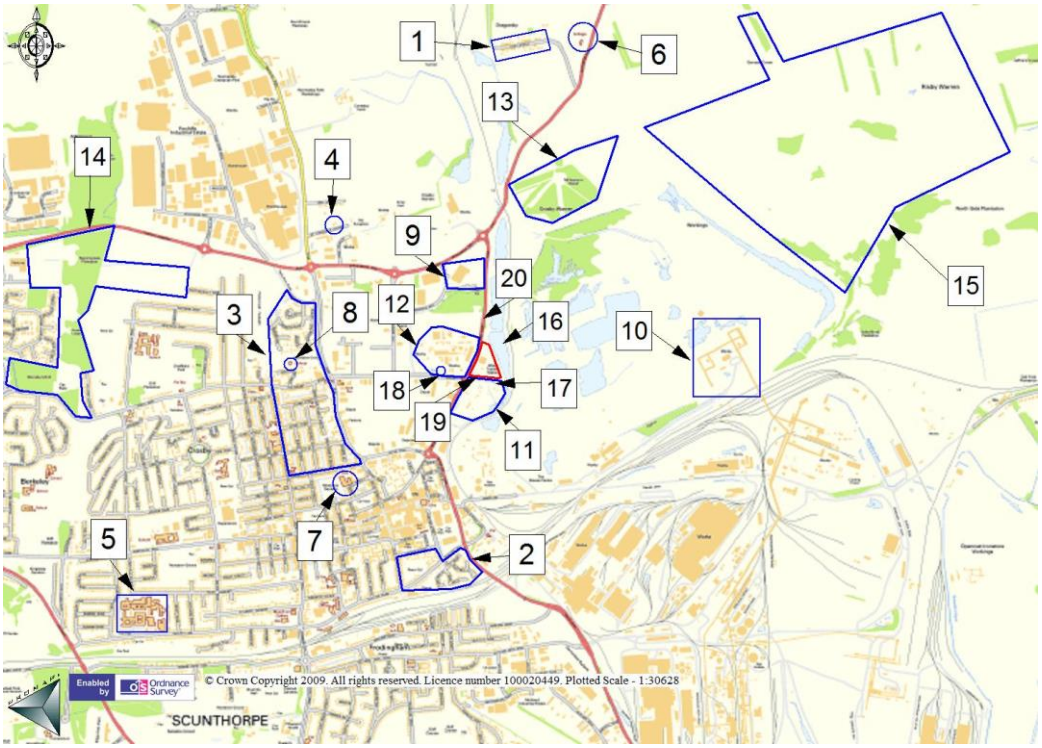
There are no residential buildings in the immediate vicinity of the site. Neighbouring businesses are most are the most likely recipients of any fugitive emission nuisances. Dust, fumes, and litter will be particularly noticeable to neighbouring activities.

2.3 Sensitive receptors

Sensitive receptors include, but are not limited to, environmental habitat site, hospitals, schools, protected species sites, childcare facilities, elderly housing and convalescent facilities. These are areas where the occupants are more susceptible to the adverse effects of exposure to high levels of dust and particulates.

Figure 1 Nearby Receptors

North Site



South Site

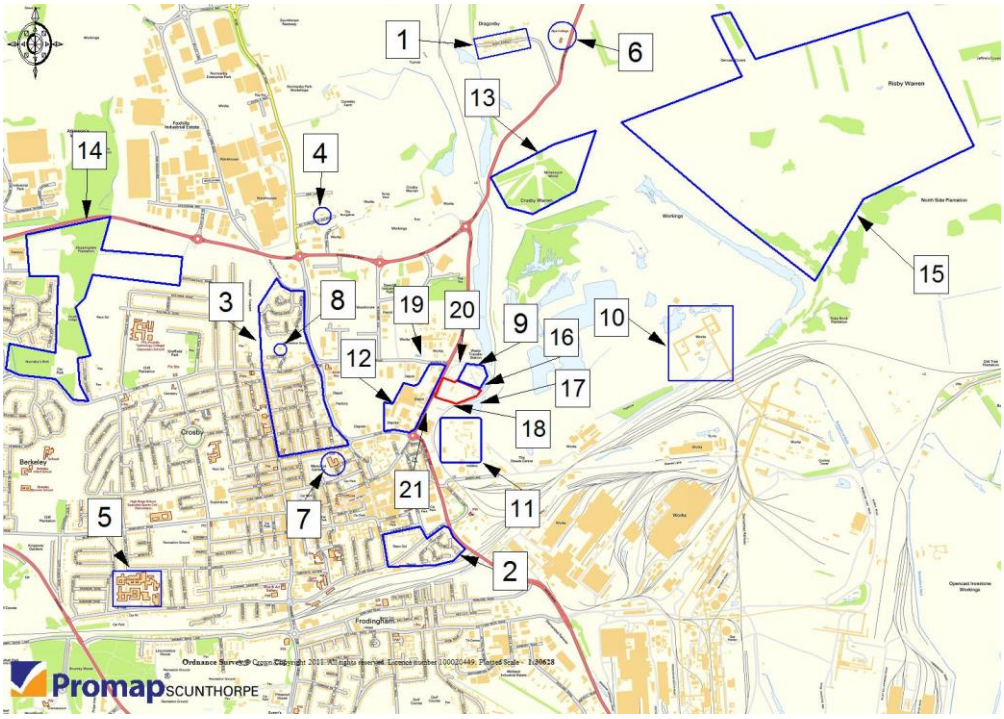
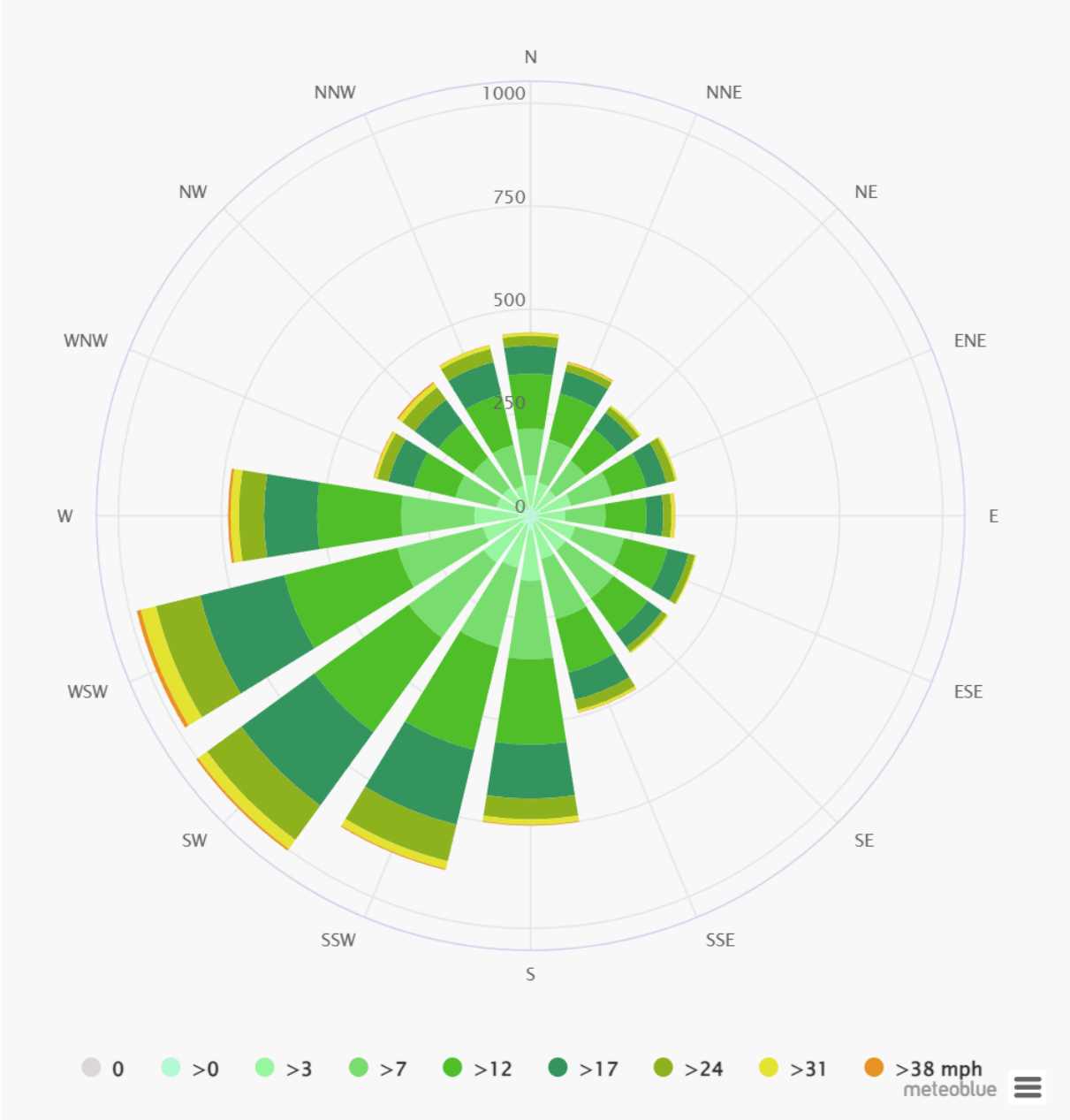


Figure 2 Wind Rose Scunthorpe



The Table below details the identified sensitive receptors for the Northern part of the site within a 2-kilometre radius (unless otherwise specified) of the facility. Only the closest receptor in each direction is listed. The EMS Sensitive Receptor Plans show the location of the receptors in line with the plan reference given below.

Table 1a. Distances to Selected Representative Receptors (North Site)

Nature of Receptor		Direction	Approximate Distance from Emission Points Associated with the Process[3]	Plan Reference
Residential*		NNE	1.6 km	1
		S	960 metres	2
		W	750 metres	3
		NW	1 km	4
Hospitals*		SW	2 km	5
Educational*		NNE	1.7 km	6
		SW	900 metres	7
		W	1 km	8
Industrial / Commercial / Offices*		N	300 metres	9
		E	1 km	10
		S	20 metres	11
		W	25 metres	12
Nature Conservation[5]	Sawcliffe LNR	NNE	750 metres	13
	Atkinson's Warren LNR	W	1.65 km	14
	Risby Warren SSSI	NE	1.6 km	15
Water Resources – Surface Waters		N	15 metres	16
		E	15 metres	16
		S	25 metres (site drainage ponds)	17
		W	155 metres (site drainage ditches)	18
Water Resources – Groundwater [1]		Site is not located within a Groundwater Source Protection Zone. It is anticipated the underlying geology will have a variable permeability.		
Highways and Transportation [2]		S	Adjacent	19
		W	Adjacent	20
Air Quality Management Zone [4]		Site lies within the Scunthorpe Air Quality Management Zone for breaches of the daily objective for PM10s.		

*: Closest receptor identified;
1:Groundwater Source Protection Zones identified using the 'What's in your backyard' section of the Environment Agency's website. Geology outlined using the Envirocheck Report Geology 1:50,000 Maps Referenced 29261326_1_1, 3-Nov-2009.
2: Closest local road network only;
3 Distance shown measured using Ordnance Survey data provided by Promap;
4 Air Quality Management Zone data assessed using www.airquality.co.uk/archive/laqm/laqm.php November 2009;
5 Nature and Conservation receptors established through the MAGIC and Nature on the Map websites October / November 2009

The Table below details the identified sensitive receptors for the southern part of the site within a 2-kilometre radius (unless otherwise specified) of the facility. Only the closest receptor in each direction is listed. The EMS Sensitive Receptor Plans show the location of the receptors in line with the plan reference given below.

Table 1b. Distances to Selected Representative Receptors (South Site)

Nature of Receptor		Direction	Approximate Distance from Emission Points Associated with the Process[3]	Plan Reference
Residential*		NNE	1.9 km	1
		S	720 metres	2
		W	685 metres	3
		NW	1.1 km	4
Hospitals*		SW	1.9 km	5
Educational*		NNE	2 km	6
		SW	640 metres	7
		W	915 km	8
Industrial / Commercial / Offices*		N	Adjacent	9
		E	1.1 km	10
		S	80 metres	11
		W	20 metres	12
Nature Conservation[5]	Sawcliffe LNR	NNE	1 km	13
	Atkinson's Warren LNR	W	1.6 km	14
	Risby Warren SSSI	NE	1.85 km	15
Water Resources – Surface Waters		Surface waters are present within the proposed site boundary. Dykes are present to the East, South and West and a pond is present on the North East corner of the site.		
		N	Adjacent	16
		E	30 metres	17
		S	60 metres	18
		W	190 metres	19
Water Resources – Groundwater [1]		Site is not located within a Groundwater Source Protection Zone. It is anticipated the underlying geology will have a variable permeability.		
Highways and Transportation [2]		N	100 metres	20
		W	Adjacent	21
Air Quality Management Zone [4]		Site lies within the Scunthorpe Air Quality Management Zone for breaches of the daily objective for PM10s		

Notes:
* : Closest receptor identified;
1:Groundwater Source Protection Zones identified using the 'What's in your backyard' section of the Environment Agency's website. Geology outlined using the Envirocheck Report Geology 1:50,000 Maps Referenced 29261326_1_1, 3-Nov-2009.
2: Closest local road network only;
3 Distance shown measured using Ordnance Survey data provided by Promap;
4 Air Quality Management Zone data assessed using http://aqma.defra.gov.uk/images/aqma_maps/Scunthorpe.pdf October 2010;
5 Nature and Conservation receptors established through the MAGIC and Nature on the Map websites October / November 2010

Table 2 Sources of Dust and/or other Emissions

Company	Address	Type of Business	Distance from Ellgia Scunthorpe site boundary (m)
British Steel	Brigg Rd Scunthorpe	Steel manufacturer	10m
BOC Gases	Warren Rd Scunthorpe	Gas supplier	10m
Mantank	Winterton Rd Scunthorpe	Tanker Services	50m
Omega Steel	Winterton Rd Scunthorpe	Steel Stockholders	50m
Appleby Frodingham Angling Club	c/o British Steel, Brigg Rd Scunthorpe	Angling Club	30m
Signman	Winterton Rd Scunthorpe	Signmakers and lettering	50m
Getcha	Winterton Rd Scunthorpe	UPVC Fascia Windows and doors	55m
MJS Car Parts and Tyres	Winterton Rd Scunthorpe	Car dismantlers and tyre supplier	60m
Mr Part worn Tyres	Winterton Rd Scunthorpe	Used tyre supplier and Van/Car sales	70m
Stoneacre	Winterton Rd Scunthorpe	New/Used car sales	90m
Buzz Bingo	Winterton Rd Scunthorpe	Leisure Bingo Club	90m
Roundbrand	Winterton Rd Scunthorpe	UPVC Windows & Door manufacturer	100m

3 Operations at Ellgia Scunthorpe

3.1 Waste Deliveries to Ellgia Scunthorpe

Waste is delivered to the site by road. The waste arrives in netted skips, sealed or netted roll-on-off containers and articulated ejector trailers, it is removed from site in netted roll-on-off lorries and articulated lorries. Lorries are either enclosed or covered with sheeting. The sheeting is high quality 270gsm close mesh sheet which is breathable and weatherproof.

Waste Transfer Notes are kept of all waste movements and customers and vehicle drivers are advised that dusty/powder waste is not accepted at the site. They are also advised of the site's 5mph speed limit and no idling policy.

During each waste delivery, the plant operator will, so far as is practicable, inspect the load for a detailed visual inspection to ensure compliance with the permitted waste streams in accordance with the site's permit. The plant operator will have been trained in waste handling and minimizing dust production.

The waste for processing is tipped in the reception area of either the SRF or RDF building, in the drying building or at the tipping area for the C&D line or C&I line. The tipped load is gently spread out to allow the waste to be inspected for any non-permitted waste. Large items (including metal, cardboard, wood, UPVC window frames) are picked out by hand and by the grab machine and placed in their respective containers or storge bays for onward recycling. The waste acceptance and storage procedures are contained in the EMS ref: BW EM 02-003 and BW EM 02-004 in summary the procedure is as follows:

- All delivery drivers bringing waste on to site will drive onto the weighbridge and report to the Site Office and present the relevant waste documentation;
- The WTN / CN of the load will be inspected against the sites accepted list of wastes and the weight of the load noted;
- Where necessary loads will be visually inspected using the CCTV system at the weighbridge or a by a member of staff;
- The WTN / CN will be inspected to ensure they have been fully completed and the load will be logged onto the electronic storage system; (for non-conforming loads see section below)
- All records are kept electronically;
- The load will then be directed to the appropriate tipping point on site;
- Once unloaded waste will be inspected visually by banksmen to ensure that it complies with the sites accepted list of waste.
- Once the waste has been unloaded, the driver will then proceed back over the weighbridge to be weighed in order to establish the exact volume of waste received on site;
- Any misdescribed wastes within a load which can be accepted under the permit (such as small WEEE, fire extinguishers etc) will be moved to the appropriate storage location on site and the weighbridge office informed.
- A weighbridge ticket / receipt will be issued to the driver for public / non-scheduled waste deliveries.

3.1.1 Non-Conforming Loads (rejection)

- Non-conforming loads intercepted at the weighbridge and those identified during unloading will be sent to the site isolation area for quarantine;
- Loads made up entirely of suspected non-conforming waste will placed to one side, inspected and a decision made by Site Management as to whether the load is to be directed back to the sender. Where loads are returned to the sender the supplier of the waste will be informed in writing and asked to provide results of their investigation into the circumstances of the delivery.
- Loads containing permitted materials that are identified as odorous upon arrival with the potential to impact on sensitive receptors will be treated and removed from site as a matter of priority;
- Loads identified following tipping which are odorous with the potential to impact on sensitive receptors will be treated and removed from site as a matter of priority;
- If waste streams arrive on site which the facility is not licensed to accept and are not returned to sender, site will send the waste to an appropriate facility for disposal or recovery.
- Records of non-conforming waste received / identified at site and the action taken to remove the waste from site, will be detailed using the internal Waste Rejection System for loads identified after tipping or on Incident and Corrective Action Report Forms for all other non-conformities.

3.2 Overview of Waste Processing, Dust and Other Emission Controls

There are 6 treatment operations as follows:

1. C&D waste pre-treatment
2. C&I waste pre-treatment
3. SRF preparation
4. SRF Drying
5. RDF Preparation 1
6. Inert Processing

The storage and treatment activities at the site are materials recycling and the preparation of RDF and SRF. Associated activities include drying waste prior to processing in the SRF using a biomass boiler and hot air dying floor and the processing of grade A wood for use as biomass fuel. The site activities as defined in the Waste Framework Directive are set below. The material flow out on site is shown below in Figure 3.

The site Layout Plan is shown in Appendix 5

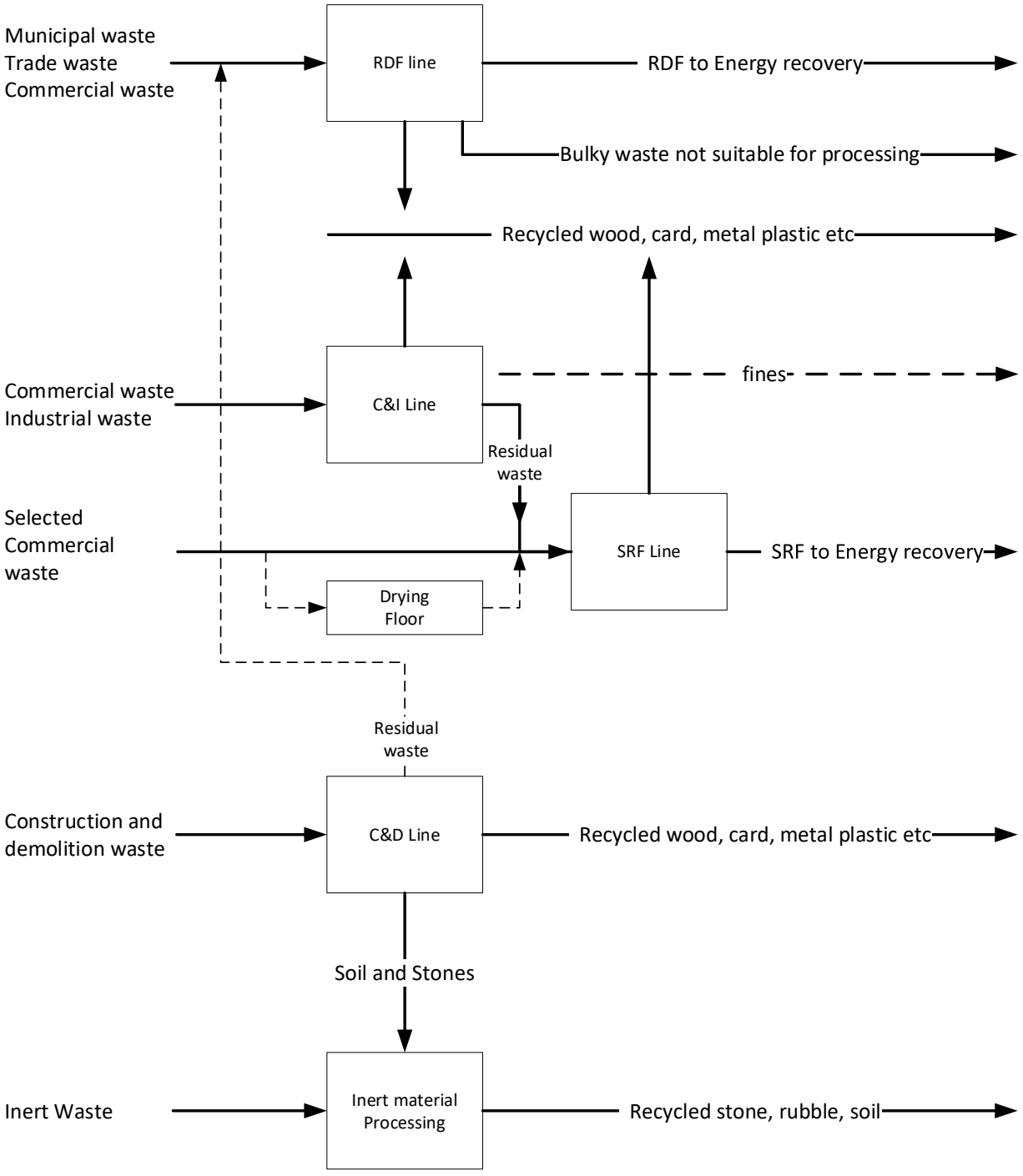
Table 3 Most Common Waste Types Brought to Ellgia Scunthorpe and Designated Process Area (subject to waste acceptance procedure)

EWC Code	Product Description	SRF	RDF	Drying Floor	C&I Line	C&D Line	Inert	Transfer
20 03 01	mixed municipal waste	1	1					
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11		1		1			
20 01 38	wood other than that mentioned in 20 01 37				1			
20 01 01	paper and cardboard	1						1
17 09 04	mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03				1	1		
17 01 07	mixture of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06						1	
15 01 03	wooden packaging				1			
17 02 03	plastic		1			1		
16 01 19	plastic		1					1
17 04 07	mixed metals							1
15 01 01	paper and cardboard packading	1	1					1
15 01 06	mixed packaging	1	1					
20 03 07	bulky waste		1		1			
20 01 39	plastics	1	1					
20 02 01	biodegradable waste	1	1		1			
10 09 03	furnace slag					1		1
15 01 02	plastic packaging	1	1					
17 08 02	gypsum based construction materials other than those mentioned in 17 08 01							1
17 06 04	insulation materials other than those mentioned in 17 06 01 and 17 06 03							1
20 01 40	metals							1
19 12 04	plastic and rubber	1	1					
17 05 04	soil and stones other than those mentioned in 17 05 03					1	1	1
20 01 02	glass		1					1
02 03 04	materials unsuitable for consumption or processing							1

17 02 01	wood					1		
17 06 05*	construction materials containing asbestos							1
20 01 36	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35							1
17 01 01	concrete					1	1	

Appendix 5 shows the allocation of all waste types accepted at Ellgia Scunthorpe and indicates the typical designated processing or tipping area, subject to waste acceptance procedures.

Figure 3. Ellgia Scunthorpe Site Process Schematic



Waste treatment at the site consists of the following processes and equipment:

Process	Equipment
sorting and separating waste types mechanically;	4 x shredders 2 x screeners (1 x vibrating, 1x trommel)
recycling	1 x density separator 8 x magnets 1 x eddy current separator
drying waste (SRF feedstock) to improve fuel quality	1 x 999kW biomass boiler 1 x air draught drying floor

3.2.1 Storage of non-hazardous waste prior to treatment

Wherever possible storage of combustible material on site is minimised, however for operational and processing reasons it is necessary store material temporarily prior to processing in one of the process lines on the site.

Waste is processed in a manner to ensure prompt turnaround to reduce any possible emissions to air and / or heat build-up. Waste is normally be processed in the order delivered, unless wastes have been delivered with a higher odour potential which need to be processed first. Shovel and grab operators manage the input and output areas and bays so that waste can be treated on a first in first out basis.

Where municipal wastes have been received that have been assessed as containing higher levels of potentially odorous materials, consideration will be given to prioritising the processing of these wastes where necessary.

Any incorrectly declared deliveries will be quarantined immediately and dealt with in line with local procedures and guidance as detailed in the permit and management system.

Pre-acceptance and waste acceptance procedures are in place for all waste accepted at the site to ensure that incompatible or reactive wastes are not accepted at the site.

WFD Annex I and II operations	**R13**: Storage of waste pending any of the operations numbered R1 to R12 **D15**: Storage pending any of the operations numbered D1 to D14
Equipment used	Loading shovels 360 grabs Telehandler Clamp truck
Location	SRF Building North Site RDF Building South Site Post-Drying Store North Site C&D line input area South Site C&I line input area South Site

The following types of waste are routinely stored on the site:

Description	Fire Prevention Designation	Fraction size mm
RDF Feedstock material (pre-processing)	RDF	>300
RDF – processed	RDF	<300
SRF - Feedstock material (pre-processing)	SRF	>300
SRF – processed loose	SRF	<50
SRF – processed baled	SRF	baled
Grade A wood	wood	>150
Grade C wood	wood	>150
Chipped wood Biomass fuel	wood	50-120
Green waste	Compost and green waste	>150
Mattresses	Textiles	>150
Metal	Metal other than WEE	>10
Cardboard loose	Paper and cardboard	>150
Cardboard baled	Paper and cardboard	baled
Plastic loose	Plastic	>150
Plastic baled	Plastic	baled
Soils and Stones	N/A	

All other waste is stored in open or sealed containers in line with the EMS, Hazardous Waste Storage Procedure (**EL EM 02 009)** and Waste Storage and Dispatch Procedure **(EL EM 04 004)** See Storage plan (ELL/SCU/FPP/010)

3.2.2 Preparation of RDF

The RDF building receives mainly municipal and commercial waste. Material is tipped in the reception area where it undergoes a pre-pick to remove recyclable and bulky material. It is then shredded, and metals removed by magnets. Processed material is loaded onto bulk haulage vehicles for transport to energy recovery facilities. See drawing: Ell/SC/FPP/010.

WFD Annex I and II operations	**R4**: Recycling / reclamation of metals and metal compounds. **R5**: Recycling / reclamation of other inorganic materials. **D9**: Physico-chemical treatment resulting in final compounds or mixtures which are discarded by any of the operations numbered D1 to D12.
Equipment used	Lindner Jupiter Shredder Eriez magnet Loading shovel 360 grab
Location	RDF Building South Site

3.2.3 Preparation of SRF

The SRF building receives selected commercial waste. Material is tipped in the reception area where it undergoes a pre-pick, inspection and mixing to remove recyclable material and provide suitably blended material for processing. It is then fed into the SRF production line with the following stages: primary shredding to reduce fraction size to sub 300mm; magnet 1 and magnet 2 to remove ferrous metals, eddy current separator to remove nonferrous metals; air density separator to remove any remaining heavy material; secondary shredding to sub 50mm; magnet

3 to remove any remaining ferrous metal. The processed SRF is either stored within the SRF building or baled in a Dicom vertical baler passed through a Cross Wrap machine and moved to the SRF storage area outside the building or loaded into bulk haulage vehicle for transport to energy recovery facilities or cement kilns. See drawing reference See drawing: Ell/SC/FPP/010.

WFD Annex I and II operations	**R4**: Recycling / reclamation of metals and metal compounds. **R5**: Recycling / reclamation of other inorganic materials. **D9**: Physico-chemical treatment resulting in final compounds or mixtures which are discarded by any of the operations numbered D1 to D12
Equipment used	Lindner Jupiter Shredder 3 x magnets Eddy current separator ADSS Air Density Separator Lindner Komet shredder Dicom vertical baler CrossWrap bale wrapping machine Loading shovel 360 grab Telehandler Clamp truck
Location	SRF Building North Site

3.2.4 Drying SRF feedstock material

Material suitable for SRF production but with high moisture content can be dried on the air heated drying floor prior to be transferred to the SRF line. Specifically identified incoming loads are tipped directly on the drying floor for periods of 12-24 hours to reduce moisture levels to within those specified in the SRF supply agreement. When the material is sufficiently dried it is transferred in 40-yard containers to the SRF reception area or subject to operational requirements stored temporarily in the store building adjacent to the drying floor. See drawing: Ell/SC/FPP/011.

WFD Annex I and II operations	**D9**: Physico-chemical treatment resulting in final compounds or mixtures which are discarded by any of the operations numbered D1 to D12 **D15:** Storage of non-hazardous waste prior to treatment **R13**: Storage of waste pending any of the operations numbered R1 to R12
Equipment used	999kW Ariterm Biomass Boiler Drying Floor Loading shovel
Location	Drying Floor North Site Post Drying Store North Site

3.2.5 Processing of Construction and Demolition Waste (C&D)

The C&D line receives construction and demolition waste primarily in skips and roll-on-off containers. Material is tipped at the material pre-sort area where it undergoes a pre-pick to remove bulky recyclable material. The material then passes through a trommel to remove soil and fines and then on to a picking line with a Dual action Blower and Suction system to remove light material such as plastic, paper, foam, and cardboard. Wood, hard plastic and nonferrous metals are removed on the picking section and an over-band magnet removes ferrous metal. Heavy material consisting of mainly inert material passes through the line and is collected for further processing or recycling. See drawing: Ell/SC/FPP/010.

WFD Annex I and II operations	**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. **R12** Sorting of wastes before any recovery operation R1 to R10 (other than R3 to R5 **D9**: Physio-chemical treatment not specified elsewhere which results in final compounds or mixtures which are discarded by means of any of the operations numbered D1 to D12. **D15**: Temporary Storage pending any of the operations numbered D1 to D14
Equipment used	Loading shovels 360 grabs Picking line Vacuum / fan density separator Magnet
Location	South Site

3.2.6 Processing Commercial and industrial Waste

The C&I line receives commercial and industrial waste that is not suitable for direct feed to the SRF line. Material passes through a trommel to remove fines (<20mm). It then passes over a 6-bay picking line to remove recyclable materials and inert / heavy materials. Ferrous metals are removed by an overbend magnet, and the residual material is moved to the SRF line for further processing.

See drawing: Ell/SC/FPP/010.

WFD Annex I and II operations	**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.

	D9: Physio-chemical treatment not specified elsewhere which results in final compounds or mixtures which are discarded by means of any of the operations numbered D1 to D12. **D15**: Temporary Storage pending any of the operations numbered D1 to D14
Equipment used	Loading shovel 360 grab Tana mobile shedder Tana mobile trommel Magnet Picking line
Location	South Site

3.2.7 Inert Material Processing

The inert yard receives direct loads of incoming waste which consist entirely of soil, stones, rubble, sand, or other inert material. It also receives inert material from the C&D processing line. The material is screened using a

WFD Annex I and II operations	**R5**: Recycling / reclamation of other inorganic materials. R12 (excluding temporary storage, pending collection, on the site where the waste is produced). **D9**: Physio-chemical treatment not specified elsewhere which results in final compounds or mixtures which are discarded by means of any of the operations numbered D1 to D12. **D15**: Temporary Storage pending any of the operations numbered D1 to D14
Equipment used	Loading shovels Excavator Power Screen Warrior 3-way screener
Location	South Site

3.2.8 Site Infrastructure and Waste Storage

As with storage prior to treatment, wherever possible storage of combustible material on site is minimised and the primary objective is to remove all processed material from site as soon as possible. However, for operational and logistical reasons it is sometimes necessary to store processed material temporarily prior to removal from site or transfer to another activity on site. Particularly baled SRF which forms part of bulk shipping consignments. Supervisors manage process output areas and bays so minimise storage time and pile sizes.

WFD Annex I and II operations	**R13**: Storage of waste pending any of the operations numbered R1 to R12 **D15**: Storage pending any of the operations numbered D1 to D14
Equipment used	Loading shovels 360 grabs Telehandler Clamp truck
Location	SRF Building North Site RDF Building South Site Post-Drying Store North Site C&I line output area South Site

The site layout and storage plan is shown in drawing ELL/SCU/FPP/010

The surface inside buildings is constructed of an impermeable concrete surface with 4m concrete push walls. All buildings and operational areas are located on impermeable concrete with sealed drainage.

Storage bays are constructed of concrete blocks and all storage bays and bins/containers allow for a freeboard space of 0.5m. Recyclables (wood, metal, UPVC, cardboard)

No wastes consisting solely or mainly of dusts, powders or loose fibres will be accepted at the site.

The site layout is designed to limit double handling as much as possible and minimise disturbance of the wastes.

The SRF building is fitted with a fixed mist-air dust suppression system and mobile misting dust suppression equipment is deployed as and when necessary to any area of the site. Handheld hoses are also available in all operational areas and can be used as an when needed.

The external part of the site also has an impermeable concrete surface and is kept clear of dust and debris by using a site-based road sweeper.

A water bowser is available and used to dampen any area of the site where dust could arise.

The northeastern perimeter of the site bordering the Appleby Frodingham ponds is fitted with a 6m catch fence to prevent litter escaping from the site.

3.3 Mobile Plant and Equipment

The mobile plant and equipment is detailed by application above.

The site has a Planned Preventative Maintenance Programme to ensure all machinery and components continue to remain effective. There is a programme of routine planned maintenance for each item of plant and machinery to manufacturers specifications, as well as the processing equipment to prevent breakdown and faults which may pose a fire risk or give rise to emission issues.

To reduce emissions there is an anti-Idling policy, all Drivers and visitors to site are informed of this.

4 Dust and Particulate Management

4.1 Responsibility for Implementation of this Plan

Who is responsible for the DEMP and making sure it works	General Manager - Operations
Who is this person's deputy	Operations Supervisor
How often is it reviewed?	12 months or when significant operational changes take place
How are the staff competent to implement the DMP and review it	Staff hold numerous COTC's, have over 20 years' experience managing permitted waste facilities certified to ISO14001 EMS standards
Have they been given any special training for this job?	Yes, on site by external training organisation
Who delivered the training?	Technical Director/Murdoch Consulting
Is there any refresher training given? If so, how often?	Yes, every 12 months

4.2 Sources and Control of Fugitive Dust & Other Emissions

4.2.1 Aerial Emissions of Dusts, Fibres and Particulates

There are few activities on-site that may create dust which could possibly drift off-site and cause an amenity nuisance. Such activities include:

- Vehicle movements (vehicles may kick up dust during dry weather).
- The reception and pre-treatment of the waste which will occur on a concrete pad or in a building

Site staff supervising individual waste handling operations shall, during the carrying out of those operations, undertake visual monitoring of aerial emissions. On detection or notification of visible aerial emissions that are likely to be transported beyond the site boundary, immediate action shall be taken to spray the source of the dust emission with additional water or stop the waste handling operations giving rise to the emission and suppress the aerial emission from the waste. The incident and the remedial action shall be recorded in the site diary.

The actions which will be taken to prevent or minimise dust emissions in the first instance are as follows[1]

- During shredding operations, an exclusion zone will be maintained around the shredding equipment to ensure that site operatives and waste vehicle drivers are

[1] Environment Agency. Guidance for the Recovery and Disposal of Hazardous and Non-Hazardous Waste. Sector Guidance Note S5.06

outside the area where airborne dusts would be concentrated. Operatives needing to work inside this zone will wear an appropriate face mask.

- Composting materials as well as wastes in the stockpiles will be kept at a suitable moisture content, using water sprays when necessary.
- The cabs of mobile plant should be provided with P111 air filtration and will be kept under positive air pressure.
- The screening operations will be monitored (as per shredding) and if found necessary, water sprays will be provided on the screening equipment.
- Bioaerosol and dust generation attributable to vehicle movements will be controlled by the maintenance and sweeping of the site access road. During dry weather, action will be taken to spray the roads using a water bowser.
- The Site Manager will carry out a daily visual assessment of dust emission within the site and at the downwind site boundaries (see OP05 – Monitoring Schedule). In the event of a potential or actual dust nuisance being identified, then appropriate remedial actions will be implemented as stated in the paragraph above.
- The results of the daily inspections and any remedial work will be recorded in the Site Diary. Any complaint which is received, will be reported to the Environment Agency.

Concrete bays shall be covered with suitable ZappShelter enclosures to prevent dust and litter escaping during loading or unload or during periods of high winds.

4.2.2 Odour

Odour has been identified and accounted for separately within the site-specific Odour Management Plan EM-02-005

4.2.3 Bioaerosols

Bioaerosols are defined as aerosols, aeroallergens, or particulate matter of microbiological, plant or animal origin. Bioaerosols can interact with living systems through infective, allergenic and/or toxic mechanisms. The biological agents that have been examined in relation to bioaerosol exposures associated with waste handling and treatment processes include pathogenic or non-pathogenic spores, live (viable) or dead (non-viable) bacteria, fungi, viruses, bacterial endotoxins, mycotoxins, and peptidoglycans. Although other types of biological component may also be present as airborne particles such as algal fragments, protozoa and nematodes, these have not been considered in studies of bioaerosols emitted by the waste industry.

As the proportion of organic waste received on site is very low and the turnaround time of such waste is generally within 24 hours, the risk of bioaerosol emissions is considered to be very low at present. Should proportion of organic waste or processing change, a risk assessment of bioaerosol emissions shall be undertaken.

4.2.4 Control of Pest Infestations

Measures shall be implemented and maintained throughout the operational life of the site to control and monitor the presence of pests on the site. An inspection of the facility for pest infestations shall be carried out at least at weekly intervals by the site manager (EM-05-005) and shall be recorded in the site diary.

On detection or notification of pest infestations, or evidence of such, immediate action shall be taken to secure the attendance of a professional pest control contractor, to eliminate the pest infestation. The incident and the remedial action shall be recorded in the site diary.

4.2.5 Control of Scavenging Birds and Other Scavengers

Measures shall be implemented and maintained throughout the operational life of the site to control and monitor the presence of scavenging birds and other scavengers.

On detection or notification of scavenging animals or flocks of scavenging birds, immediate action shall be taken to remove or deter them from the site. The incident and the remedial action shall be recorded in the site diary.

4.2.6 Control of Litter

All waste inputs will be deposited in their relative reception areas. This will reduce the potential problem of windblown litter from the site. Staff will inspect the site daily and remove any litter which has accumulated. Details of site inspections and actions will be recorded in the site diary. If litter does escape from the site, it shall be retrieved as soon as is practicable, and no later than one hour after the end of the working day.

Netting is installed in areas susceptible to windblown litter emissions and barriers, cages and nets are used wherever practicable on processing equipment. The site infrastructure is monitored and reviewed by the management team on a continuous basis, and should it be deemed necessary to install any further measures at any time in the future this shall be implemented.

4.2.7 Surface Water Control

All surface water and process water is contained within the constructed drainage system, all impermeable surfaces drain to interceptors. Clean water passes to the site drainage pond, tank residues are removed to licensed facilities as appropriate.

4.2.8 Mud on the Road

Whenever the site is receiving or dispatching wastes, measures shall be provided, operated and maintained with the objective of preventing the deposit or tracking of mud or debris arising from the site onto public areas outside the site, which shall include public highways and areas of public access.

All vehicles leaving areas of the site which are operational or upon which engineering works are being carried out shall, before leaving the site, be cleaned as necessary and shall be checked to ensure that they are clear of loose waste and that any waste is secure.

The site has a dedicated road sweeper which is employed daily to clean site roads and impermeable surfaces thereby minimising the potential for vehicles to leave site with mud on wheels.

In the event that mud, debris or waste arising from the site is deposited onto public areas outside the site, the following remedial measures shall be implemented immediately:

- The affected public areas outside the site shall be cleaned.
- The cause of the mud/debris escape investigated.
- Traffic shall be isolated from sources of mud and debris within the site to prevent further tracking of mud and debris, and measures shall be taken to clear any such sources as soon as practicable.

4.2.9 Emissions to air

Emissions to air are generated by a single 999kW Ariterm Biomass Boiler and 6 diesel generators, which provide electrical power to the RDF and SRF processing lines, the C&I processing line, and the welding workshop. The generator at the C&I line is due to be removed and replaced by a mains power supply due to the reduced power requirement of the line.

The Biomass boiler was installed in 2017 and currently subject to a Part B permit, regulated by North Lincolnshire Council. The boiler is fired with BSL certified woodchip and is therefore not currently subject to the Environmental Permitting Regulations. A detailed emissions impact assessment has been carried out as part of the existing Part B permit application shows that impacts from the boiler will not be significant, the boiler is therefore not likely to pose a significant risk to the environment or human health and no further assessment of emissions is required at this stage.

Based on the above audit results together with the controls in place at the installation, the consultation responses received, and the Emission Limit Values (ELVs) set in the permit; we are satisfied that the point source emissions to air arising from the installation will not have a significant adverse impact upon amenity or public health.

Generators are shown on the site layout and storage plan and technical details are provided in Appendix 2. All generators are subject to daily and weekly inspections and are included in the site planned preventative maintenance programme. Wherever possible generators are run at near full load to maximize operating efficiency.

As the diesel generators may fall under the MCP directive they are being assessed for the following parameters:

1. Exhaust stack/flue location
2. Exhaust stack/flue height from ground level (m)
3. Exhaust stack/flue inner diameter at discharge point (m)
4. Exhaust flow rate (m^3/s)
5. Exhaust efflux temperature (K)
6. Exhaust moisture content (vol/vol, %)
7. Exhaust oxygen content (vol/vol, %)
8. Exhaust absolute pressure (kPa)
9. Emissions data for NOx, dust and SO_2.

Emissions dispersion modelling will be carried out as part of the current permit application and a full report shall be submitted to the Environment Agency by 20th October 2023.

This DEMP shall be updated in accordance with any stipulations in relation to the diesel generators arising for the permitting process.

4.3 Emissions to sewer, surface water and groundwater

There are minimal discharges of water from the processes operated on site. Emissions are generated only from rainfall.

The site is not connected to the public sewer network. All water discharge is via full retention separators, this in conjunction with good housekeeping measures, including daily road and yard sweeping, ensures that water emissions to ground and watercourse are very unlikely to be contaminated.

Water from full retention separators drain to a site drainage pond and from there to Frodingham Ponds via 450mm culvert. The site drainage pond can be isolated from the watercourse by penstock valve, see ELL/006c.

There are no relevant hazardous substances released to groundwater from the installation. The EMS and risk assessment identify any further potential risk to groundwater and how these are prevented.

The site drainage scheme has been in operation for many years and there is no evidence of any ground water contamination. Extensive ground and water investigations undertaken for planning consent showed no signs of water contamination including in the main site drainage pond.

4.4 Adverse Weather Conditions

Fugitive emissions are unlikely to be affected by rainfall, high temperatures or ice and snow. Strong winds are likely to increase the risk of dust and or litter emissions and a specific Severe weather procedure is included in the EMS, which includes provision for cessation of operations under certain conditions see (EM-02-015).

4.5 MONITORING

4.5.1 Biomass Boiler

The Part B Permit requires biannual emissions monitoring, the emission requirements and methods and frequency of monitoring are as follows:

Ref	Substance	Emissions limits /provisions	Type of Monitoring	Monitoring Frequency
1.	Carbon Monoxide	250mg/m^3	Manual Extractive Testing	Bi-Annually
2.	Total Particulate Matter	60mg/m^3	Manual Extractive testing	Bi-Annually
3.	Oxides of Nitrogen	400mg/m^3	Demonstrable upon commissioning and after any subsequent substantial change to the installation	
4.	Organic Compounds	20mg/m^3	Manual Extractive Testing	Annual

Sampling shall be representative.

4.5.2 Diesel Generators

The diesel generators emissions are being assessed as part of the current permit application process and this plan shall be updated to reflect any monitoring requirements arising from the application process or required by the permit.

4.5.3 Management System

Detailed monitoring of fugitive emissions and recording of incidents and corrective actions will be carried out as part of the Environmental Management System and the various monitoring and recording procedures therein. Ellgia will ensure that fugitive emissions from the site are limited and where possible stopped and that by effective mitigation the impacts of any fugitive emissions shall be reduced. The monitoring of fugitive emissions shall include:

- Thorough site inspection daily and weekly
- End of day litter checks/picks; and
- Prompt response to any complaints.

Operatives shall be fully conversant with the contents of the Permit, the Management System and the DEMP and will be relied upon to remain observant and to draw attention to any non-conformances, adverse operating conditions and any mitigation or management failure.

4.5.4 CCTV

Ellgia Scunthorpe has a fully monitored CCTV system with 32 camaras covering all areas of the site during operational and non-operational hours. The system is used to make continuous observations of operations by the management team in addition to formal site inspections, and all camera feed are recorded for use in any investigation.

4.5.5 Windsock

A windsock is installed at approximately 40m on the neighbouring BOC industrial plant and this is used by site management to make observations of wind speed and direction on a daily basis.

4.5.6 Monitoring Records and Site Diary

Ellgia shall keep records of any site inspections/monitoring carried out. Any adverse operating conditions, non-conformances, complaints and mitigation/management failure resulting in an accident or non-compliance with the Permit shall be recorded in the site diary and the EMS.

A Site diary will be held on site to record Site activities, compliance with the Environmental Permit and health and safety issues. The Site diary will be completed each operational day and be made available for the Environment Agency officer to view on request.

The Site diary will be used to make a note of any unavoidable events, such as bad weather, rather than just actual visible dust emissions. This will ensure that if any complaints are received retrospectively, any circumstances which led to that complaint because of elements outside of the operator's control would be able to be attributed (or, at least, in part) to the cause of the complaint.

A formal inspection for dust and particulate emissions shall be made at least twice daily when the Site is open. The results of the inspections shall be recorded within the Site diary.

4.5.7 Complaints Procedure

In the event of receiving a complaint regarding dust emissions, the flow chart below will be followed.

Senior management will review all dust complaints received and consider whether additional dust abatement measures are required.

In the event of more than three dust complaints being received within one week of each other, this will be escalated to the company directors. All relevant operations will be ceased until revised abatement measures or operational procedures are implemented.

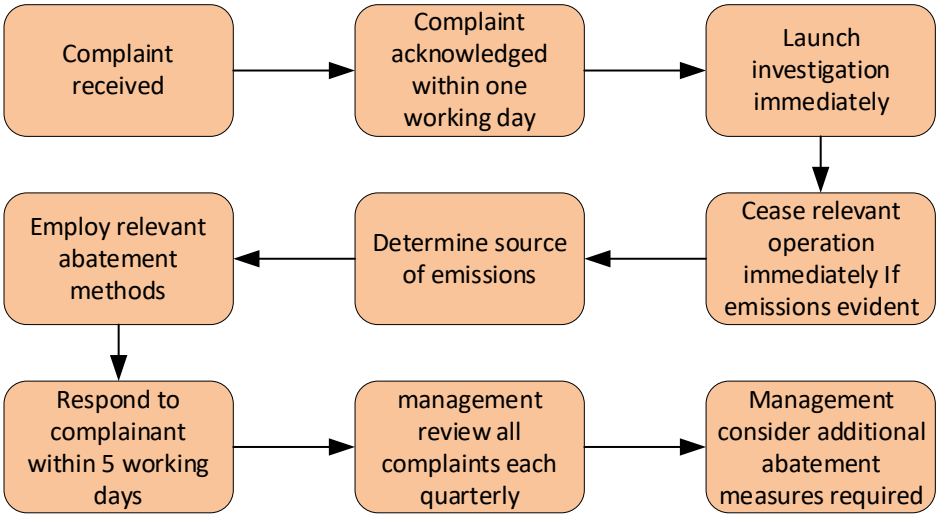


Table 4 Storage Schedule and Waste Pile Specifications

Waste Type	Location	Storage Type	Max. length m	Max. width m	Max. height m	Max Volume m^3	Max. time it will be stored
SRF - Feedstock material (pre-processing)	1	pile inside building	10.6	10.6	4	450	72 hours
SRF – processed loose	2	pile inside building	10.6	10.6	4	450	72 hours
SRF – processed baled and wrapped	3	baled	10.6	10.6	4	450	3-6 months
Baled Plastic	4	baled	10.6	10.6	4	450	2-4 weeks
Asbestos	5	Sealed Container	6.2	2.4	4	40	2 weeks
Cardboard loose	6	concrete bay	14.2	15.6	4	750	4 weeks
Cardboard cores	6	concrete bay	14.2	6.8	4	386	4 weeks
SRF Feedstock - from drying floor	6	concrete bay	14.2	6.2	4	352	weeks
Scrap metal	6	concrete bay	11.4	5.3	4	242	1 weeks
Chipped wood Biomass fuel	6	concrete bay	11.4	5.3	4	242	72 hours
Plastic loose	6	concrete bay	10	5.8	4	232	2 weeks
G30 Wood chip for biomass startup	6	concrete bay	7.2	5.8	4	167	3 weeks
Cardboard baled	7	bales in building	13.7	13.7	4	750	2 weeks
Metal	8	pile	13.7	13.7	4	750	1 week
RDF Feedstock material (pre-processing)	9	pile	10.6	10.6	4	450	72 hours
RDF - processed	10	pile	10.6	10.6	4	450	72 hours
Grade C wood	11	concrete bay	13.7	13.7	4	750	4 weeks
Tipping pile for C&D line	12	concrete bay	10.6	10.6	4	450	24 hrs
Rubble and Stone	13	concrete bay	NA	NA	NA	NA	NA
Tipping pile for C&I line	14	concrete bay	10.6	10.6	4	450	24 hrs
Mattresses	16	Sealed Container	6.2	2.4	4	40	2 weeks
Green waste	17	Sealed Container	6	2.4	3	160	1 week
Gas cylinders, paint, fire extinguishers, batteries	17	Sealed Container	2	2	2	8	3-6 months
Tyres	18	Sealed Container	6.2	2.4	4	40	2 weeks

Table 3.1: Source-Pathway-Receptor Routes

Source	Pathway	Receptor	Type of impact	Where relationship can be interrupted
Mud	tracking dust on wheels and vehicles, then mud dropping off wheels/vehicles when dry	Local highway and local business	Visual soiling, also consequent resuspension as airborne particulates	All roads are impermeable concrete, a road sweeper is used to sweep the site and keep it clear of mud, dust and litter If necessary, Mud will be removed from vehicles before leaving site with the use of jet wash if necessary. A water bowser is used to keep the site surface damped down if the conditions require it and handheld hoses are available throughout the site to dampen any localised or specific dust issues.
Debris	falling off lorries	Local highway and local business	Visual soiling, also consequent resuspension as airborne particulates	Lorries are covered with netting before leaving site. The site is regularly swept using the road sweeper to keep the site surface clear of mud, dust, and litter. Litter picking will be carried out when necessary.
Tipping, storage and sorting of wastes in the open	Atmospheric dispersion	Local highway and local business, adjacent land / ponds	Visual soiling and airborne particulates	90% of unprocessed waste is tipped inside enclosed buildings, the remainder is tipped in concrete bays where misting dust suppression is available if required. Source strength is minimised by means of low drop heights and the avoidance of double handling. Severe weather processes are in place to cease operations in high winds.
Vehicle exhaust emissions	Atmospheric dispersion	Local business	Airborne particulates	Regulatory controls, meaning that the vehicles meet the required emissions limits and best-practice measures meaning vehicles are not left idling this will help minimise emissions and fuel consumption monitored to help detect any issues early on.
Non road going machinery exhaust emissions	Atmospheric dispersion	Local business	Airborne particulates	Regulatory controls meaning that the vehicles meet the required emissions limits and best-practice measures meaning vehicles are not left idling this will help minimise emissions and fuel consumption monitored to help detect any issues early on.

Table 3.2: Measures that will be used on site to control dust/particulates (PM_{10}) and other emissions

Preventative Measures			
Abatement Measure	**Description / Effect**	**Overall consideration and implementation**	**Trigger for implementation**
Site / process layout in relation to receptors	Locating particulate emitting activities at a greater distance and downwind from receptors may reduce receptor exposure, if emissions from the source are not dispersed over significant distances.	All particulate emitting operations are carried out inside a building and covered either by dust suppression or dust extraction systems. Non-sensitive Receptors are adjacent to the site on all sides.	Best Available Technique BAT waste operations are within a building with dust suppression is used.
Site speed limit, 'no idling' policy and minimisation of vehicle movements on site	Reducing vehicle movements and idling should reduce emissions from vehicles. Procurement policy to only purchase clean burn road vehicles and non-road going mobile machinery. Enforcement of a speed limit may reduce re-suspension of particulates by vehicle wheels.	Easy to implement as part of good practice. Should be identified clearly in the site management system and implemented as appropriate measures.	Vehicle movements, speed and idling will be reduced as far as possible. The speed limit on site is 5mph and there is a no idling policy for vehicles on site. This is written in the Management System and all Drivers and visitors to site are informed of this.

Good house-keeping	Having a consistent, regular housekeeping regime that is supported by management, will ensure site is regularly checked and issues remedied to prevent and remove dust and particulate build up.	The site is regularly cleared of debris and dust by Staff members on a daily basis.	Cleaning, clearing, and checking are constantly carried out by site operatives throughout the day. A thorough check is made at the end of every working day by supervisors and managers to ensure there is no particulate build up. Staff will be instructed to clear any particulate build up found by either manual sweeping, hosing down or using plant depending on the size of the build-up and the area in question. In addition to daily cleaning, all process lines and thoroughly cleaned down and maintained on a weekly basis.
Sheeting of vehicles	Prevents the escape of debris, dust, and particulates from vehicles as they travel.	Relatively easy to implement at many sites. Should be identified clearly in the site management system and implemented as appropriate measures.	Vehicles are sheeted with robust sheeting material entering and exiting the site all the time the site is operational.
Hosing of vehicles on exit	May remove some dirt, dust, and particulates from the lower parts of vehicles although likely to be less effective than a more powerful wheel wash.	May be worthwhile where wheel wash installation is not feasible, or where the wheel wash does not achieve the desired outcome. This should be in the site procedures and training.	Vehicles are hosed down by the drivers with the jet wash when they are dirty, muddy, or dusty prior to leaving the site. A site banksman checks all vehicles leaving the site and will instruct the driver to use the jet wash if mud or dust is present.

Ceasing operation during high winds and/or prevailing wind direction	Mobilisation of dust and particulates is likely to be greater during periods of strong winds and hence ceasing operation at these times may reduce peak pollution events.	Likely to reduce dust and particulate emissions, however, not a long-term solution. Procedures should be in place to identify when operations will cease.	Waste processing operation is within a building with dust suppression and dust extraction it is unlikely that any dust emissions will escape the building especially to a point where complaints are received. For loading and unloading in external bays, particularly adjacent to the northeastern boundary, supervisors will monitor wind conditions and implement severe weather process when necessary.
Easy to clean concrete impermeable surfaces	Creating an easy to clean impermeable surface, using materials such as concrete as opposed to unmade (rocky or muddy) ground within the site and on-site haul roads. This should reduce the amount of dust and particulate generated at ground level by vehicles and site activities.	Considered good overall based on dust and particulate reduction but potentially costly and disruptive to retrofit. For sites that have concrete surfaces ensure there are maintenance and cleaning procedures in the management system, and they are implemented.	The site surface is made entirely of impermeable concrete which are maintained and cleaned on a regular daily basis.

Remedial Measures			
Abatement Measure	**Description / Effect**	**Overall consideration and implementation**	**Trigger for implementation**
On-site sweeping	Sweeping could be effective in managing larger debris, dust and particulates but may also cause the mobilisation of smaller particles. Road sweepers damp down dust/particulates whilst collecting dust/particulates from the road surface, particularly at the kerbside.	Easy to apply but less effective than other measures. Should be covered in the management system and procedures and implemented thoroughly.	A road sweeper has been purchased to keep the site clean and clear of dust and debris as part of general housekeeping. This is done throughout the day.
Water suppression with hoses & water jets	Damping down of site areas using hoses can reduce dust and particulate re-suspension and may assist in the cleaning of the site if combined with sweeping.	Quite water intensive. Can reduce the calorific value of the material which should be considered if sent for energy recovery/biomass type operations. Maintenance should be covered in the management system and procedures.	Water suppression with hoses/jet wash may be used occasionally in the external yard i.e. in dry or windy weather to help prevent resuspension of dust, however this will generally kept clean by the road sweeper.
Application of CMA / chemical suppressant	Diluted Calcium Magnesium Acetate (CMA) or other chemical based dust suppressant is regularly applied by spraying using a back-pack applicator for small areas or by road sweeper to cover larger areas. CMA acts as a suppressant with the aim of reducing dust and particulate re-suspension and hence ambient concentrations.	Trials indicate this can be an effective process. It shouldn't be applied during rain and once applied it needs to be re-applied regularly. Works best when applied to clean surfaces and can also be applied to stockpiles to form a 'crust' and reduce wind- whipping. Price and efficacy vary depending on the brand selected. Maintenance should be covered in the management system and procedures.	Use of CMA will be considered during a drought if necessary. It could be sprayed on processed stored stockpiles of waste and recyclables to form a 'crust' which may otherwise give rise to dust. It may also be used on the site surface to help stop dust being re-dispersed by vehicle movement, however this is generally kept clean by the road sweeper. This DEMP will be reviewed within 12 months of operating under the proposed changes (or sooner if required). The outcome of this review will identify any new measures required.

4.6 Other considerations

4.6.1 Water usage and availability:

The dust suppression systems and hose pipes on site are supplied from a standard mains water supply the dust suppression system requires only 20-30 litres per minute.

There are a further two domestic mains water supplies and four 25,000 litre tanks in the external yard.

There are several hand-held hoses and a jet wash facility which automatically refills via a ball-cock filling system so there is a continuous and sufficient supply of water from the tanks.

4.6.2 In the event of a drought:

The site has several water storage tanks which can be utilised with approximate total volume 70,000 litres and water for bowsers can be extracted from the main site drainage pond.

The use of Calcium Magnesium Acetate (CMA) dust binding agent will be considered for use on the site, which has been proven in test to be as effective as water in suppressing dust.

4.7 Enclosure of Waste Processing & Storage Areas

All SRF and RDF processing is carried out inside a building and 90% of all waste delivered and removed from site is tipped or loaded inside a building.

The C&I and C&D preparation lines are outside a building but are contained within enclosures and have mobile dust suppression systems in place. The location of these lines is also arranged to be as far away from potential receptors as possible.

The concrete bays near the northeastern boundary of the site bordering the Appleby Frodingham ponds are subject to continuous observation and are protected by a 6m catch fence to prevent litter escaping from the site. A severe weather procedure is in place to cease operations in any area of the site if high winds pose a risk of generating fugitive emissions.

Appendix 1 DAILY SITE MONITORING CHECK SHEET

Parameter	Comments	Action Taken	Person Responsible
Meteorological Conditions			
Details of Operations			
Visual Observations			
Presence of Dust & Details of Suppression Systems in Place			
Presence of Odour			
Presence of Pests/Litter or Mud			
Presence of Noise and/or Vibration			
Any Other Comments:			

Name	Signature	Date

Appendix 2 Diesel Generator Technical Data

Asset Number	Serial Number	Location	Make	Model	NGR	Prime Output kW	Prime Output kVA	Power Factor	Year of Manufacture
P193	FGWPES27VPCA00220	RDF	FG Wilson	P500P1	SE 90098 11988	440	550	0.8	2012
P194	FGWREPS4TPWC00886	RDF	FG Wilson	P500P2	SE 90098 11988	400	500	0.8	2012
P183	WC00795	SRF Line	FG Wilson	P500P2	SE 90218 12329	400	500	0.8	2011
P182	FGWRPE4TPWC00791	SRF Line	FG Wilson	P500P2	SE 90218 12329	400	500	0.8	2011
Hired Unit	FGWGS956CXP600129	Construction Line	FG Wilson	PR0275-2	SE 90224 11997	220	275	0.8	2017
P179	170585/11	Welding Bay	Bruno	GX160FE	SE 90283 12084	83.2	104	0.8	2017

Asset Number	Installation date	Duty	Run hours per year	Fuel	Avg Density l.te	Net Calorific Value* GJ/te	Full Load Fuel Consumption/hr	m_k (kg/hr)	Thermal input at full Load (kW)
P193	Mar-21	Primary Power	3380	Diesel	1193	42.6	114.2	95.73	1,133
P194	Mar-21	Backup	3380	Diesel	1193	42.6	102.4	85.83	1,016
P183	Sep-18	Primary Power	2730	Diesel	1193	42.6	102.4	85.83	1,016
P182	Sep-18	Primary Power	2730	Diesel	1193	42.6	102.4	85.83	1,016
Hired Unit	Hired Unit	Primary Power	2860	Diesel	1193	42.6	62.5	52.39	620
P179	Mar-21	Primary Power	2080	Diesel	1193	42.6	23	19.28	228

** National statistics: Digest of UK Energy Statistics (DUKES): calorific values and density of fuels: https://www.gov.uk/government/statistics/dukes-calorific-values*

Appendix 3 – Severe Weather Procedure EM 02-015

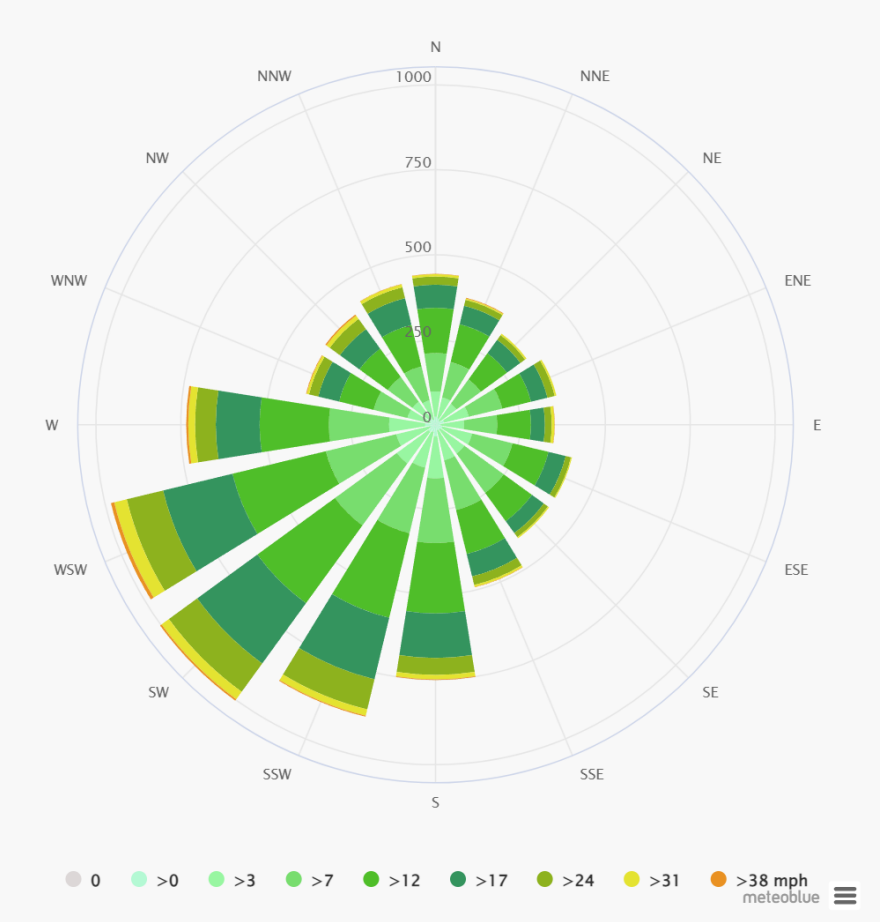
1. Purpose:

To monitor the effects of severe weather on site operations and take corrective actions to prevent fugitive emissions due to high winds.

2. Definitions:

PPC / EP: Environmental Permit

High winds: Any winds at or above number 4 on the Beaufort scale (moderate breeze, 13-17 mph, land condition dust and loose paper raised. Small branches begin to move. (see Beaufort Scale in Annex A)



3. Procedure:

The wind conditions on site shall be recorded at least once per day in the site diary, noting the time of observation, wind direction and speed and any observable wind impact in the area.

Senior managers and operations supervisors shall subscribe to the Met Office Weather alert email system; https://service.govdelivery.com/accounts/UKMETOFFICE/subscriber/new

If strong winds are observed or are known to be forecast the following process shall be invoked

- Inform site supervisor or a member of the site management team
- Site managers shall conduct site inspections to assess any the impact of weather conditions and the conditions of boundary and catch fences
- If possible, operations can be maintained with mitigating actions such as dust suppression or moving loading operations away from boundaries
- If necessary, cease any operations generating dust or giving rise to windborne fugitive emissions.
- Operations shall be immediately ceased if:
  - Wind speed exceeds number 7, 31-38 mph

    Or
  - Litter is observed being blown off site

If operations are ceased the senior manager on site shall inform the Environment Agency and review site conditions regularly until it is safe to recommence.

The senior manager on site shall inform the Environment Agency when operation recommence after a stoppage due to severe weather.

If severe weather is forecast to last for more than one day, the relevant managers shall agree and implement any operational requirements to mitigate the operational and environmental impact such as diverting material before reaching site or using alternative processes.

4. Responsibilities:

Site Manager

- Responsible for ensuring that all members of staff are aware of the need to observe weather conditions and report any observable impact on site.
- Responsible for determining which processes should be ceased due to potential for fugitive emissions
- Responsible for ceasing operations based on the criteria given above and informing the Environment Agency of cessation and recommencement of operations
- Responsible for ensuring that corrective actions required following a weather issue are implemented, such as catchfence repairs or enhancements

All Site Operatives

- Responsible for being vigilant and reporting any observable impacts of severe weather conditions to management team
- Using dust controlling equipment provided to prevent escape of material where possible and available
- Complete the relevant sections of the incident / corrective action report forms are required

5. Equipment / Control Measures

Wind direction and speed shall be recorded using the BOC windsock and Met Office official data:

https://www.windfinder.com/#11/53.6310/-0.6736

https://www.metoffice.gov.uk/weather/warnings-and-advice/uk-warnings

- The dust control procedure shall always be observed
- Wherever practicable; all operations which potentially generate fugitive emissions shall be carried out inside a suitable building or in areas enclosed with suitable windbreaks or screens.

6. Records:

- Records of any complaints will be kept as part of the site's procedures
- All records related to the Environmental Permit must be held for 6 years or the permit lifetime for records in relation to off-site environmental effects.

7. Monitoring:

Fugitive Emissions Monitoring inspections shall be carried out at least every two years and shall include all related equipment such as dust suppression systems, road sweeper, catchfences, site litter picking schedules etc.

Any corrective actions identified during this review shall be implemented with 2 months of the inspection and signed off by the site manager.

8. Correction of Non-Conformity:

Any significant fugitive emissions incidents will be documented in the corrective action report, and the General Manager shall ensure that any corrective actions are completed.

9. Training Need and Updating Mechanisms:

All site staff will routinely receive training in the correct procedures for monitoring weather conditions and reporting observable impacts of wind.

Annex A - Beaufort Wind Force Scale

Number	Wind speed		Description	Land Conditions
	mph	kts		
0	<1	<1	Calm	Calm. Smoke rises vertically.
1	1-3	1-2	Light air	Wind motion visible in smoke.
2	3-7	3-6	Light breeze	Wind felt on exposed skin. Leaves rustle.
3	8-12	7-10	Gentle breeze	Leaves and smaller twigs in constant motion.
4	13-17	11-15	Moderate breeze	Dust and loose paper raised. Small branches begin to move.
5	18-24	16-20	Fresh breeze	Branches of a moderate size move. Small trees begin to sway.
6	25-30	21-26	Strong breeze	Large branches in motion. Whistling heard in overhead wires. Umbrella use becomes difficult. Empty plastic bins and cans tip over.
7	31-38	27-33	High wind, moderate gale, near gale	Whole trees in motion. Effort needed to walk against the wind. Swaying of skyscrapers may be felt, especially by people on upper floors.
8	39-46	34-40	Fresh gale	Twigs broken from trees. Cars veer on road.
9	47-54	41-47	Strong gale	Larger branches break off trees, and some small trees blow over. Construction/temporary signs and barricades blow over. Damage to circus tents and canopies.
10	55-63	48-55	Whole gale, storm	Trees are broken off or uprooted, saplings bent and deformed, poorly attached asphalt shingles and shingles in poor condition peel off roofs.
11	64-72	56-63	Violent storm	Widespread vegetation damage. More damage to most roofing surfaces, asphalt tiles that have curled up and/or fractured due to age may break away completely.
12	≥73	≥64	Hurricane force	Considerable and widespread damage to vegetation, a few windows broken, structural damage to mobile homes and poorly constructed sheds and barns. Debris may be hurled about.

Appendix 4 Dust Control Procedure

1. Purpose:

To prevent the emissions of dust from site and to control workplace dust exposure levels

2. Definitions:

PPC / EP: Environmental Permit

3. Procedure:

If abnormal dust emissions from any part of the site or process are observed:

- Inform site supervisor or a member of the site management team
- Activate the internal building Mist Air System
- Activate mobile misting systems in areas of concern
- If necessary, cease operations generating dust such as trommel, shredding, loading etc.
- If necessary, hose down any wastes that are likely to cause dust upon tipping.
- Note the type of material involved to assess for future occurrences
- Site Management will where necessarily notify the waste producer to discuss methods of containment i.e. bagged or damped prior to removal from customer sites
- Site management will ensure that an incident / corrective action report form has been completed and the site manager will ensure that the corrective actions have been instigated.
- Site management will determine if dust control equipment requires refurbishment.

4. Responsibilities:

Site Manager

- Responsible for ensuring that all members of staff are aware of the need to control dust.
- Responsible for determining which materials will need specific treatment.
- Responsible for ensuring that dust control equipment is available to staff, that it is effective, replaced when necessary and that staff are trained in its use.
- Responsible for ensuring that corrective actions required following a dust issue are implemented.

All Site Operatives

- Responsible for using dust controlling equipment provided to prevent escape of materials.
- Responsible for dealing with dust issues as directed in the procedure.
- Responsible for reporting dust issues to the site manager and completing the relevant sections of the incident / corrective action report form.

5. Equipment / Control Measures

The following dust control systems shall be used and properly maintained at all times.

- Road sweeper - at least three site rounds per day
- Water Bowser
- Mobile Mist air Systems
- Dust Suppression Equipment (SRF)
- Sprinkler on trommel system
- Sheeting System on vehicles
- 5 mph Speed limit

Wherever practicable; all operations which potentially generate dust shall be carried out inside a suitable building or in areas enclosed with suitable windbreaks or screens to prevent dust emissions from site.

6. Records:

- Records of any complaints will be kept as part of the site's procedures
- All records related to the Environmental Permit must be held for 6 years or the permit lifetime for records in relation to off-site environmental effects.

7. Monitoring:

Dust control equipment will be checked as part of the Fugitive Emissions Monitoring Programme inspections.

A dust monitoring exercise shall be carried out at least every two years.

8. Correction of Non-Conformity:

Any significant dust emissions incidents will be documented in the corrective action report, and the General Manager shall ensure that any corrective actions are completed.

9. Training Need and Updating Mechanisms:

All site staff will routinely receive training in the correct procedures for monitoring and using dust control equipment. Training records will be held on site for the duration of the permit.

Appendix 5 – Allocation of permissible waste types at Ellgia Scunthorpe

EWC Code	Product Description	SRF	RDF	Drying Floor	C&I Line	C&D Line	Inert	Transfer
01 01 01	Waste from mineral metalliferous excavation						1	
01 01 02	wastes from mineral non-metalliferous excavation						1	
01 03 06	tailings other than those mentioned in 01 03 04 and 01 03 05						1	
01 03 09	red mud from alumnia production other than the wastes mentioned in 01 03 10						1	
01 04 08	waste gravel and crushed rocks other than those mentioned in 01 04 07						1	
01 04 09	waste sand and clays						1	
01 04 10	dusty and powdery wastes other than those mentioned in 01 04 07							1
01 04 11	wastes from potash and rock salt processing other than those mentioned in 01 04 07						1	
01 04 12	tailings and other wastes from washing and cleaning of minetals other than those mentioned in 01 04 07 and 01 04 11						1	
01 04 13	wastes from stone cutting and sawing other than those mentioned in 01 04 07						1	
01 05 04	freshwater drilling muds and wastes						1	
02 01 03	plant-tissue waste		1					1
02 01 04	waste plastics (except packaging)	1	1					1
02 01 07	waste from forestry		1			1		1
02 01 10	waste metal							1
02 02 03	materials unsuitable for consumption and processing		1					1
02 03 01	sludges from washing, cleaning, peeling, centrifuging and seperation							1
02 03 04	materials unsuitablefor consumption or processing							1
02 04 01	soil from cleaning and washing beet						1	
02 04 01	soil from cleaning and washing beet						1	
02 04 02	off-specification calcium carbonate							1
02 05 01	materials unsuitable for consumption or processing		1					1
02 06 02	wastes from preserving agents							1
02 07 01	wastes from washing, cleaning and mechanincal reduction of raw materials		1					
02 07 02	wastes from spirits disillation							1
02 07 04	materials unsuitable for consumption or processing							1
03 01 01	waste bark or cork					1		1
03 01 05	sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04					1		1
03 03 01	waste bark and wood					1		1
03 03 02	green liquor sludge (from recovery of cooking liquor)							1
03 03 05	de-inking sludges from paper recycling							1
03 03 07	mechanically seperated rejects from pulping of waste paper and cardboard	1	1	1				
03 03 08	wastes from sorting of paper and cardboard destined for recycling	1	1					
03 03 10	fibre rejects, fibre-,filler- and coating-sludges from mechanical seperation							1

04 01 08	waste tanned leather (blue sheeting, shavings, cuttings, buffing dust) containing chlorium							1
04 01 09	wastes from dressing and finishing							1
04 02 09	wastes from composite materials (impregnated textile, elastomer, plastomer)		1					1
04 02 21	wastes from unprocessed textile fibres		1					
04 02 22	wastes from processed textile fibres		1					
04 02 99	wastes not otherwise specified		1					1
06 09 02	phosphorous slag							1
06 09 04	calcium-based reaction wastes other tha those mentioned in 06 09 03							1
06 10 02*	wastes containing hazardous substances							1
06 11 01	calcium-based reaction wastes from titanium dioxide production							1
07 02 13	waste plastics (except packaging)		1					1
07 02 13	waste plastic		1					1
08 01 12	waste paint and varnish other than those mentioned in 08 01 11							1
08 01 21*	waste paint or varnish remover							1
08 01 99	wastes not otherwise specified							1
08 02 02	aqueous sludges containing ceramic materials						1	
08 02 03	aqueous suspensions containing ceramic materials							1
08 03 12	waste ink containing hazardous substances							1
08 03 13	waste ink ither than those mentioned in 08 03 12							1
08 03 99	wastes not otherwise specified							1
08 05 01*	waste isocyanates							1
09 01 07	photographic film and paper containing siler or silver compounds	1	1					
09 01 08	photographic film and paper free of silver or silver compounds	1	1					
09 01 10	single us cameras without batteries		1					
10 01 01	bottom ash, slag and boiler dust						1	
10 01 05	calcium based reaction wastes from flue-gas desulphurisation in solid form							1
10 01 15	bottom ash, slag and boiler dust form co-incineration other than those mentioned in 10 01 14							1
10 01 19	wastes from gas cleaning other than those mentioned in 10 01 05, 10 01 07 and 10 01 18							1
10 01 23	aqueous sludges from boiler cleansing other than those mentoned in 10 01 22							1
10 01 24	sands from fluidised beds						1	
10 02 01	wastes from the processing of slag						1	
10 02 02	unprocessed slag						1	
10 02 08	solid wastes from gas treatment other than those mentioned in 10 02 07							1
10 02 10	mill scales						1	
10 02 12	wastes from cooling-water treatment other than those mentioned in 10 02 11						1	
10 02 14	sludges and filter cakes from gas treatment other than those mentioned in 10 02 13							1
10 02 15	other sludges and filter cakes							1
10 03 02	anode scraps							1
10 03 05	waste alumina							1
10 03 18	carbon-containing wastes from anode manufacture other than those mentioned in 10 03 17							1
10 03 24	solid wastes from gas treatment other than those mentioned in 10 03 25							1

10 03 28	wastes from cooling- water treament other than those mentioned in 10 03 27							1
10 03 30	wastes from treatment of salt slags and black drosses other than those mentioned in 10 03 29							1
10 04 10	wastes from cooling-water treatment other than those mentioned in 10 04 09							1
10 05 01	slags from primary and secondary production							1
10 05 09	wastes from cooling-water treatment other than those mentioned in 10 05 08							1
10 05 11	dross and skimming other than those menioned in 10 05 10							1
10 06 01	slags from primary and secondary production							1
10 06 02	dross and skimming s from primary and secondary production							1
10 06 10	wastes from cooling-water treatment other than those mentioned in 10 06 09							1
10 07 01	slags from primary and secondary production							1
10 07 02	dross and skimmings from primary and secondary production							1
10 07 03	solid wastes from gas treatment							1
10 07 05	sludges ad filter cakes from gas treatment							1
10 07 08	wastes from cooling-water treatment other than those mentioned in 10 07 07							1
10 08 09	other slags							1
10 08 11	dross and skimmings other than those mentioned in 10 08 10							1
10 08 13	carbon-containing wastes from anode manufacture other than those mentione in 10 08 12							1
10 08 14	anode scraps							1
10 08 18	sludges and filter cakes from flue-gas treatment other than those mentioned in 10 08 17							1
10 08 20	wastes from colling-water treatment other than those mentioned in 10 08 19							1
10 09 03	furnace slag					1		1
10 09 06	casting cores and moulds which have not undergone pouring other than those mentioned in 10 09 05					1		
10 09 14	waste binders other than those mentoned in 10 09 13							1
10 09 16	waste crack-indicating agent other than those mentioned in 10 09 15							1
10 10 03	furnace slag							1
10 10 06	casting cores and moulds which have undergone pourin, other than those mentioned in 10 10 05					1		
10 10 14	waste binder other than those mentioned in 10 10 13							1
10 10 16	waste crack-indicating agent other than those mentioned in 10 10 15							1
10 11 03	waste glass based fibrous materials		1					1
10 11 05	particulates and dust							1
10 11 10	waste preparation mixture before thermal processing, other than those mentioned in 10 11 09		1					1
10 11 12	waste glass other than those mentioned in 10 11 11							1
10 11 14	glass-polishing and grinding sludge other than those mentioned in 10 11 13							1
10 11 16	solid wastes from flue-gas treatment other than those mentioned in 10 11 15							1
10 11 18	sludges and filter cakes from flue-gas treatment other than those mentioned in 10 11 17							1
10 12 01	waste preperation mixture before thermal processing, other than those mentioned in 10 11 09							1
10 12 03	particulates and dust							1
10 12 05	sludges and filter cakes from gas treatment							1
10 12 06	discared moulds				1			

10 12 08	waste ceramics, bricks, tiles and construcion products (after thermal processing)						1	
10 12 10	solid waste from gas treatment other than those mentioned in 10 12 09							1
10 12 12	wastes from glazing other than those mentioned in 10 12 11						1	1
10 13 01	waste preperation mixture before thermal processing						1	1
10 13 04	wastes from calcination and hydration of lime							1
10 13 06	particulates and dust (except 10 13 12 and 10 13 13)							1
10 13 07	sludges and filter cakes from gas treatment							1
10 13 10	wastes from asbestos-cement manufacture other than those mentioned in 10 13 09							1
10 13 11	wastes from cement-based composite materials other than those mentioned in 10 13 09 and 10 13 10						1	1
10 13 13	solid wastes from gas treatment other than those mentioned in 10 13 12							1
10 13 14	waste concrete and concrete sludge						1	1
11 01 10	sludges and filter cakes other than those mentioned in 11 01 09							1
11 01 12	aqueous rinsing liqids other than those mentioned in 11 01 11							1
11 01 14	degreasing wastes other than those mentuoned in 11 01 13							1
11 02 03	wastes from production of anodes for aqueous electrytical processes							1
11 02 06	wastes from copper hydrometallurgical processes other than those mentioned in 11 02 05							1
11 05 01	hard zinc							1
11 05 02	zinc ash							1
12 0 1 01	ferrous metal filings and turnings							1
12 01 02	ferrous metal dust and particles							1
12 01 03	non-ferrous metal filings and turnings							1
12 01 04	non-ferrous metal dust and particles							1
12 01 05	plastic shavings and turnings	1	1					
12 01 13	welding wastes							1
12 01 17	waste blasting material other than those mentioned in 12 01 16							1
12 01 21	spent grinding bodies and grinding materials other than those mentioned in 12 01 20							1
14 04 06	tin							1
15 01 0	glass packaging		1					1
15 01 01	paper and cardboard packaging	1	1					1
15 01 02	plastic packaging	1	1					1
15 01 03	wooden packaging				1			
15 01 03	wooden packaging				1			
15 01 04	metallic packaging							1
15 01 05	composite packaging	1	1					1
15 01 06	mixed packaging	1	1					1
15 01 07	glass packaging		1					1
15 01 09	textile packaging		1					
15 02 02*	absorbents, filer materials, wiping cloths, protective clothing contaminated by hazardous subsances							1
15 02 03	absorbents, filter materials, wiping clothers and protective clothing other than those mentioned in 15 02 02							1
16 01 03	end of life tyres				1			
16 01 17	ferrous metal							1
16 01 18	non-ferrous metal							1

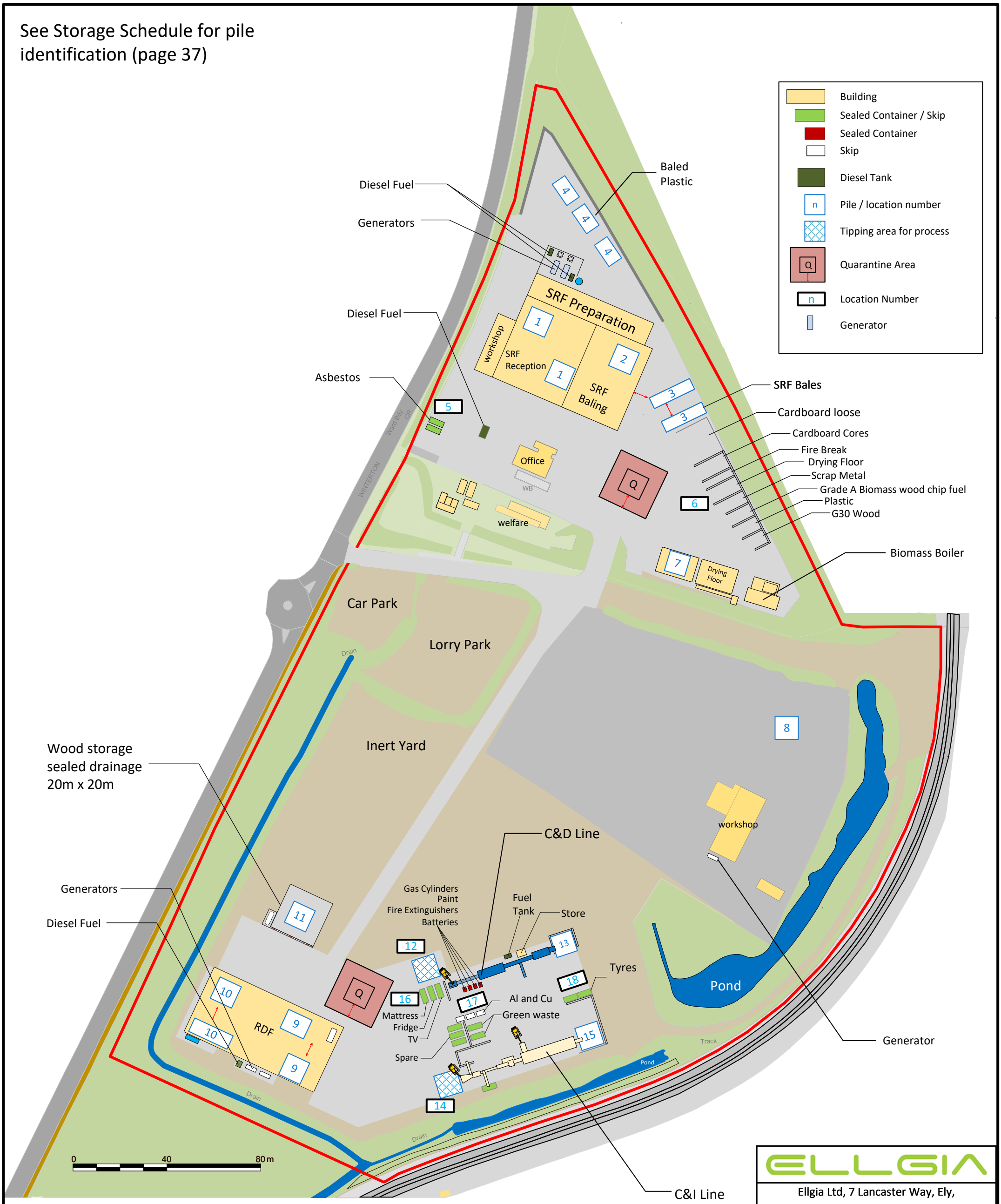
16 01 19	plastic		1					1
16 01 20	glass							1
16 01 22	components not otherwise specified							1
16 01 99	wastes not otherwise specified							1
16 02 13*	discarded equipment containing hazardous components other than those mentioned in 16 02 09 and 16 02 12							1
16 02 14	discarded equipment other than those mentioned in 16 02 09 to 16 02 13							1
16 02 15*	hazardous components removed from discarded equipment							1
16 02 16	components remoed from discarded equipment other than those mentioned in 16 02 15							1
16 03 04	inorganic wastes other than those mentioned in 16 03 03		1					
16 03 06	organic wastes other than those mentioned in 16 03 05		1					
16 06 02*	Ni-Cd batteries							1
16 06 03*	mercury-containing batteries							1
16 06 04	alkaline batteries except 16 06 03							1
16 06 05	other batteries and acculuators							1
16 16 01*	lead batteries							1
17 01 01	concrete					1	1	
17 01 02	bricks						1	
17 01 03	tiles and ceramics						1	
17 01 06*	mixtures of, or separate fractions of concrete, bricks, tiles and cermaics containing hazardous substances							1
17 01 07	mixture of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06						1	
17 02 01	wood					1		1
17 02 02	glass							1
17 02 03	plastic		1		1	1		
17 02 04*	glass, plastic and wood containing or contaminated with hazardous substances							1
17 03 02	bituminous mixtures other than those mentuoned in 17 03 01							1
17 04 01	copper, bronze, brass							1
17 04 02	aluminium							1
17 04 03	lead							1
17 04 04	zinc							1
17 04 05	iron and steel							1
17 04 06	tin							1
17 04 07	mixed metals							1
17 04 11	cables other than those mentioned in 17 04 10							1
17 05 04	soil and stones other than those mentioned in 17 05 03					1	1	
17 05 05*	dredging spoil containing hazardous substances							1
17 05 06	dredging spoil other than those mentioned in 17 05 05							1
17 05 07*	track ballast containing hazardous substamces							1
17 05 08	track ballast other than those mentioned in 17 05 07							1
17 05 09	soil, stones and dredging spoil, wastes from management facilities rtc						1	
17 06 01*	insulation materials containing asbestos							1
17 06 04	insulation materials other than thse mentioned in 17 06 01 and 17 06 03							1
17 06 04	insulation materials other than those mentioned in 17 06 01 and 17 06 03							1
17 06 05*	construction materials containing asbestos							1

17 08 02	gypsum-based construction materials other than those mentioned in 17 08 01							1
17 09 04	mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03				1	1		
19 01 02	ferrous materials removed from bottom ash							1
19 01 12	bottom ash and slag other than those mentuoned in 19 01 11							1
19 01 18	pyrolsis wastes other than those mentioned in 19 01 17							1
19 01 19	sands from fluidised beds						1	1
19 02 03	premixed wasted composed only of non hazardous wastes		1					
19 04 01	vitrified waste							1
19 04 04	aqueous liquid wastes from vitrified waste tampering							1
19 05 01	non-composted fraction of municipal and similar wastes		1					
19 05 02	non-composted fraction of animal and vegetable waste		1					1
19 05 03	off-specification compost							1
19 08 02	waste from desanding							1
19 10 01	iron and steel waste							1
19 10 02	non-ferrous waste							1
19 12 01	paper and cardboard							1
19 12 02	ferrous metal							1
19 12 03	non-ferrous metal							1
19 12 04	plastic and rubber	1	1					1
19 12 05	glass							1
19 12 07	wood other than that mentioned in 19 12 06				1			1
19 12 08	textiles		1					1
19 12 09	minerals (for example sand, stones)						1	
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	1	1		1			
20 01 36	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35							1
20 01 01	paper and cardboard	1						1
20 01 08	biodegradable kitchen and canteen waste							1
20 01 10	clothes		1					
20 01 11	textiles		1					
20 01 21*	fluorescent tubes and other mercury containing wastes							1
20 01 23*	discarded equipment containing chlorofluorocarbons							1
20 01 27*	paint, inks, adhesives and resins containing hazardous substances							1
20 01 28	paint, inks, adhesives and resins other than those mentioned in 20 01 27							1
20 01 30	detergents other than those mentioned in 20 01 29							1
20 01 33*	batteries and accumulators included in 16 06 01, 16 0 602 or 16 06 03 and unsorted batteries and accumulators containing these batteries							1
20 01 34*	batteries and accumulators other than those mentioned in 20 01 33							1
20 01 35*	discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components							1
20 01 38	wood other than that mentioned in 20 01 37				1			1
20 01 39	plastics	1	1					1
20 01 40	metals							1
20 01 40	metals							1
20 02 01	biodegradable waste	1	1					
20 02 02	soil and stones						1	

20 02 02	soil and stones						1	
20 02 03	other non-biodegradable wastes	1	1					
20 03 01	mixed municipal waste	1	1					
20 03 02	waste from markets		1					
20 03 03	street cleaning residues							1
20 03 06	waste from sewage cleaning							1
20 03 07	bulky waste		1		1			
20 03 99	municipal wastes not otherwise specified		1					

Appendix 5 Site Plan for DEMP

See Storage Schedule for pile identification (page 37)



ELLGIA		
Ellgia Ltd, 7 Lancaster Way, Ely, Cambridgeshire, CB6 3NW		
Title	Storage Plan	
Drawing No.	ELL/SCU/FPP/010a	
Date	Revision	Scale
Aug 23	D	1:1500 at A3