



Draft Fire Prevention Plan

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Date of Plan:	August2023
Site Name:	Scunthorpe
Site Address:	Winterton Road Scunthorpe North Lincolnshire DN15 0DH
Operator Name:	Ellgia Ltd

Who is this plan for

This Fire Prevention Plan sets out the measures in place to reduce the risk of a fire breaking out on site. It identifies all the possible causes of a fire and sets out the plans in place to address those fire risks. This plan must be kept on site at the Scunthorpe Facility in hard copy and electronically and must be read fully and understood by **the site management team**.

The management team shall be responsible for ensuring that the FPP or any appropriate section of the FPP are read and understood by **staff members, fire officers, contractors working on site or any other person as necessary and appropriate**.

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F	Depot Maintenance Schedule
G	Daily and Weekly Inspection sheets
H	Safety Data Sheets

Version Control

Version	Date	Reason
FPP/SCU/002 - V3.2	01/088/22	Draft for submission to EA Permitting
FPP/SCU/002 - V3.4	21/02/23	Update to include make and specification of fire suppression systems installed in SRF and RDF buildings
FPP/SCU/002 - V3.5	10/08/23	Update to address EA Schedule 5 request dated 21 July 2023. Amendments to plan references and updating annexes

1 Introduction

1.1 Site Location and Description

The Ellgia Scunthorpe site occupies approximately 7.8 hectares to the East of Winterton Road, Scunthorpe.

Postcode: DN15 0DH
NGR: SE9013512207

The site operates as a materials recycling and waste processing facility and produces RDF and SRF. The site has a total permitted waste processing capacity of 237,000 tonnes per year.

The site location and boundary information are shown in Appendix A.

2 Types of Combustible material

2.1 Combustible Waste

Some of the waste types to be received at the Facility will be combustible. The FPP guidance states that “if non-combustible waste is contaminated with combustible waste the pile shall be generally regarded as combustible”.

The site does not process hazardous waste.

The primary combustible non-hazardous waste types to be treated at the Facility, which may comprise municipal or commercial and industrial waste, are presented in Table 1.

Table 1 Type of Combustible Waste

Code	Waste description
02	Wastes from Agriculture, Horticulture, Aquaculture, Forestry, Hunting and Fishing, Food Preparation and Processing
02 01	Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing
02 01 03	Plant tissue waste
02 01 04	Waste plastics (except packaging)
02 01 07	Waste from forestry
02 02	Wastes from the preparation and processing of meat, fish and other foods of animal origin
02 02 03	Materials unsuitable for consumption or processing
02 03	Wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea, and tobacco preparation and processing; converse production, yeast and yeast extract production, molasses preparation and fermentation
02 03 04	Materials unsuitable for consumption or processing
02 05	Wastes from the dairy products industry
02 05 01	Materials unsuitable for consumption or processing
02 06	Wastes from the baking and confectionery industry
02 06 01	Materials unsuitable for consumption or processing
02 07	Wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)
02 07 04	Materials unsuitable for consumption or processing
03	Wastes from Wood Processing and the Production of Panels and Furniture, Pulp, paper and Cardboard
03 01	Wastes from wood processing and the production of panels and furniture
03 01 01	Waste bark and cork
03 01 05	Sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04

Code	Waste description
03 03	Wastes from pulp, paper and cardboard production and processing
03 03 01	Waste bark and wood
03 01 08	Wastes from sorting of paper and cardboard destined for recycling
04	Wastes from the Leather, Fur and Textile Industries
04 02	Wastes from the textile industry
04 02 21	Wastes from unprocessed textile fibres
04 02 22	Wastes from processed textile fibres
15	Waste Packaging; Absorbents, Wiping Cloths, Filter Materials and Protective Clothing not otherwise specified
15 01	Packaging (including separately collected municipal packaging waste)
15 01 01	Paper and cardboard packaging
15 01 02	Plastic packaging
15 01 03	Wooden packaging
15 01 05	Composite packaging
15 01 06	Mixed packaging
15 01 09	Textile packaging
15 02	Absorbents, filter materials, wiping cloths and protective clothing
15 02 03	Absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02
16	Wastes not otherwise specified in the list
16 01	End-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08)
16 01 19	Plastic
16 02	Wastes from electrical and electronic equipment
16 02 16	Components removed from discarded equipment other than those mentioned in 16 02 15
16 03	Off-specification batches and unused products
16 03 04	Inorganic wastes other than those mentioned in 16 03 03
16 03 06	Organic wastes other than those mentioned in 16 03 05
17	Construction and Demolition Wastes (including excavated soil from contaminated sites)
17 02	Wood, glass and plastic
17 02 01	Wood
17 02 03	Plastic
19	Wastes from Waste Management Facilities, Off-site Waste Water Treatment Plants and the Preparation of Water Intended for Human Consumption and Water for Industrial Use
19 05	Wastes from aerobic treatment of solid wastes
19 05 01	Non-composted fraction of municipal and similar wastes

Code	Waste description
19 05 02	Non-composted fraction of animal and vegetable waste
19 05 03	Off-specification compost
19 06	Wastes from anaerobic treatment of waste
19 06 04	Digestate from anaerobic treatment of municipal waste
19 06 06	Digestate from anaerobic treatment of animal and vegetable waste
	Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 01	Paper and cardboard
19 12 04	Plastic and rubber
19 12 07	Wood other than that mentioned in 19 12 06
19 12 08	Textiles
19 12 10	Combustible waste (refuse derived fuel)
19 12 12	Other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11
20	Municipal Wastes (Household waste and similar commercial, industrial and institutional wastes) Including separately collected fractions
20 01	Separately collected fractions (except 15 01)
20 01 01	Paper and cardboard
20 01 08	Biodegradable kitchen and canteen waste
20 01 10	Clothes
20 01 11	Textiles
20 01 25	Edible oil and fat
20 01 32	Medicines other than those mentioned in 20 01 31
20 01 36	Discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35
20 01 38	Wood other than that mentioned in 20 01 37
20 01 39	Plastics
20 01 41	Wastes from chimney sweeping
20 01 99	Other fractions not otherwise specified
20 02	Garden and park wastes (including cemetery waste)
20 02 01	biodegradable waste
20 02 03	Other non-biodegradable wastes
20 03	Other municipal wastes
20 03 01	Mixed municipal waste
20 03 02	Waste from markets
20 03 03	Street-cleaning residues
20 03 07	Bulky waste

It is not anticipated that any of the wastes received will be contaminated with persistent organic pollutants (POPs), therefore the requirement to segregate POPs waste does not apply to the Facility

2.2 Other Combustible Materials

In addition to the waste listed above, other combustible materials are stored and consumed on site. These include oils, greases and lubricants used in plant maintenance; diesel for vehicles, mobile plant, and electrical generators; and gas cylinders for welding.

The storage of non-waste combustible materials shall form part of this Fire Prevention Plan. Combustible materials shall be stored in appropriate, secure locations and away from ignition sources. Gas cylinders are kept in lockable facilities and are inspected regularly.

The location of non-waste combustible materials is shown in the storage plan in Appendix A (Drawings) EII/SC/FPP/011, this plan will form part of the site's Environmental Management System (EMS).

3 Using this Fire Prevention Plan

3.1 General

This Fire Prevention Plan sets out the measures in place to reduce the risk of a fire breaking out on site. It identifies all the possible causes of a fire and sets out the plans in place to address those fire risks. This plan must be kept on site at the Scunthorpe Facility in hard copy and electronically and must be read fully and understood by the site management team.

The management team shall be responsible for ensuring that the FPP or any appropriate section of the FPP are read and understood by staff members, fire officers, contractors working on site or any other person as necessary and appropriate.

The FPP has been compiled using the Guidance published by the Environment Agency; *“Fire prevention plans: environmental permits”*, updated 11 January 2021

3.2 Where the plan is kept and how staff know how to use it

This FPP will form part of the environmental management systems (EMS) for the Facility. The FPP will be linked with the site Fire Risk Assessment. The FPP will be available in both electronic and hard copies at easily accessible locations. Staff induction programmes will be location and job role specific; however, they will include EMS awareness training as a minimum. All staff will be able to easily access the documented management systems, including this FPP.

Visitors and contractors will be informed about fire prevention measures adopted at the Facility as part of site induction procedures and will be able to access the FPP if required. The FPP will also be made available to local Fire Officers. A premises box or similar will be made available to the fire and rescue service which will contain a copy of the FPP, contact numbers and also information on control features such as shut-off valves, hydrants control etc.

3.3 Testing the plan and staff training

All site staff (and contractors) will be trained in emergency response procedures and in the use of firefighting equipment such as fire extinguishers. Training records will be maintained in accordance with the documented management systems for the Facility, with fire response procedures will be incorporated in the site’s management systems. It is expected that fire drills (including procedures for emergency evacuation of the site) will be exercised at least twice per year.

This FPP will be subject to regular review and at least every 4 years or immediately following any major fire incidents or site modification. Fire prevention messages will be reinforced around the site using signs.

Visitors to the Facility will be informed of the correct safety and fire prevention procedures – information will be provided at the site entrance and by appropriate located signage on-site.

Testing of the emergency procedures will be undertaken to verify that all staff and contractors are aware of the emergency procedures. Following all tests, the implementation of the procedures will be

reviewed. If appropriate, the procedures will be amended, or additional training provided to all staff and contractors.

The effectiveness of the emergency response procedures will be reviewed following any emergency incidents on-site. Where appropriate the procedures will be updated, and staff trained in the updated procedures.

3.4 Roles and responsibilities

In addition to all staff having an awareness of fire safety and emergency response procedures, a Fire Safety Manager (FSM) will be assigned. The FSM will take overall responsibility for establishing and maintaining a safe working environment in which fires are prevented or if they do, from developing beyond a minor event. The FSM will be responsible with overseeing the production of any fire risk assessments at the site and ensuring that findings are addressed, or mitigation measures are implemented. Risk assessments will be reviewed on an annual basis. The assigned FSM would also be responsible to ensure that the FPP is reviewed regularly and remains appropriate to the site.

In addition to the FSM, a number of fire wardens will be assigned to ensure a safe and timely evacuation in the event of a fire. The fire wardens will be suitably trained and competent to carry out the role, with any training recorded as part of the documented management systems. The fire wardens will undertake fire watch site inspections and raise alarm/activate call points if smoke, odour or flame indicates a potential fire source. They will be responsible for investigating the location of the fire if safe to do so and utilising fire suppression equipment such as fire extinguishers and fire appliances if safe to do so. They will liaise with the FSM if they are not already present on the site.

All other employees at the Facility will have basic responsibilities in relation to fire safety, including but limited to:

- Keeping corridors, stairways, exits and escape routes clear of obstructions at all times;
- Ensuring fire doors are kept shut at all times unless need for escape
- Never interfering with any fire detection or suppression equipment
- Reporting any damage to fire detection or suppression equipment.
- Maintaining safe working practices with electrical equipment.
- Only smoking in designated areas
- Familiarising themselves with fire emergency procedures
- Booking into and out of site using the approved systems

4 Fire Prevention Plan Contents

4.1 Activities at the site

The main 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 drying 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 out in Table 2:

4.1.1 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: EII/SC/FPP/010.

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

4.1.2 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 30mm; magnet 3 to remove any remaining ferrous metal. The processed SRF is then baled in a Dicom vertical baler 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: EII/SC/FPP/010.

WFD Annex I and II operations	<p>R4: Recycling / reclamation of metals and metal compounds.</p> <p>R5: Recycling / reclamation of other inorganic materials.</p> <p>D9: Physico-chemical treatment resulting in final compounds or mixtures which are discarded by any of the operations numbered D1 to D12</p>
Equipment used	<p>Lindner Jupiter Shredder</p> <p>3 x magnets</p> <p>Eddy current separator</p> <p>ADSS Air Density Separator</p> <p>Lindner Komet shredder</p> <p>Dicom vertical baler</p> <p>CrossWrap bale wrapping machine</p> <p>Loading shovel</p> <p>360 grab</p> <p>Telehandler</p> <p>Clamp truck</p> <p>2 x 550 KVa diesel generators</p>
Location	SRF Building North Site

4.1.3 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: EII/SC/FPP/011.

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

4.1.4 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: EII/SC/FPP/010.

<p>WFD Annex I and II operations</p>	<p>R3: Recycling / reclamation of organic substances which are not used as solvents.</p> <p>R4: Recycling / reclamation of metals and metal compounds.</p> <p>R5: Recycling / reclamation of other inorganic materials.</p> <p>R12 Sorting of wastes before any recovery operation R1 to R10 (other than R3 to R5)</p> <p>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.</p> <p>D15: Temporary Storage pending any of the operations numbered D1 to D14</p>
<p>Equipment used</p>	<p>Loading shovels</p> <p>360 grabs</p> <p>Picking line</p> <p>Vacuum / fan density separator</p> <p>Magnet</p>
<p>Location</p>	<p>South Site</p>

4.1.5 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 is shredded to reduce particle size to sub 300mm and then 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 overband magnet, and the residual material is moved to the SRF line for further processing. See drawing: EII/SC/FPP/010.

<p>WFD Annex I and II operations</p>	<p>R3: Recycling / reclamation of organic substances which are not used as solvents.</p> <p>R4: Recycling / reclamation of metals and metal compounds.</p>
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	<p>R5: Recycling / reclamation of other inorganic materials.</p> <p>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.</p> <p>D15: Temporary Storage pending any of the operations numbered D1 to D14</p>
Equipment used	<p>Loading shovel</p> <p>360 grab</p> <p>Tana mobile shedder</p> <p>Tana mobile trommel</p> <p>Magnet</p> <p>Picking line</p>
Location	South Site

4.1.6 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	<p>R5: Recycling / reclamation of other inorganic materials.</p> <p>R12 (excluding temporary storage, pending collection, on the site where the waste is produced).</p> <p>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.</p> <p>D15: Temporary Storage pending any of the operations numbered D1 to D14</p>
Equipment used	<p>Loading shovels</p> <p>Excavator</p> <p>Power Screen Warrior 3-way screener</p>
Location	South Site

4.1.7 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 in one of the 4 process line 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

4.1.8 Storage of non-hazardous waste following treatment

As with storage prior to treatment (4.1.5) 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 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
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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

4.2 Site plans and Drawings

The following plans and drawings are included in Appendix A of this FPP.

Some of the information contained in these drawings and within this plan is provisional and subject to approval of this plan and the associated application for permit consolidation for the site. Where information or plans are provisional this is indicated in the text and on drawings.

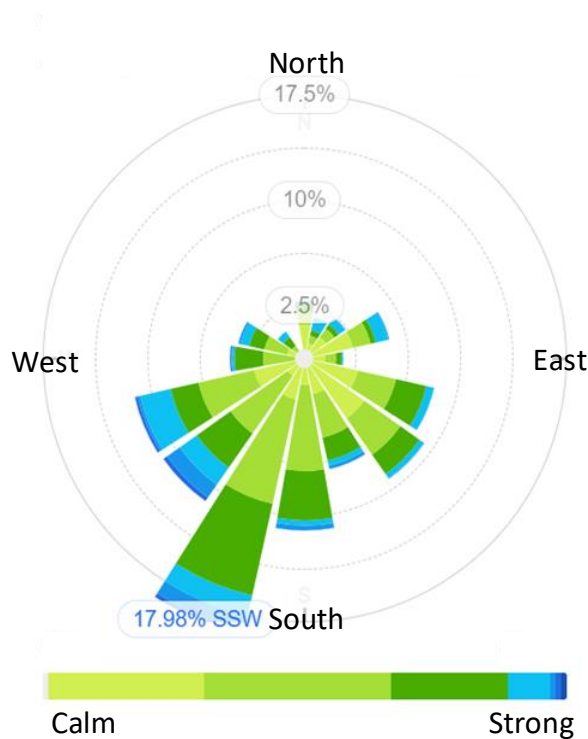
Table 2 List of Drawings

	Document	Drawing No
1	Location Plan	EII/SCU/FPP/001
2	Site Plan	EII/SCU/FPP/002
3	Site Layout & Storage Plan	EII/SCU/FPP/010
4	Oils, Fuels and Combustible Goods	EII/SCU/FPP/011
5	Fire Equipment and Water Supply	EII/SCU/FPP/012
6	Surface Water Drainage Flows	EII/SCU/FPP/013
7	Site Drainage Scheme	EII/SCU/FPP/014
8	Sensitive Receptors	EII/SCU/FPP/020

4.3 Sensitive Receptors

4.3.1 Site Location and Prevailing Wind

The site is located at grid reference SE 90219 12125 (Lat 53.597943, Lon -0.638229). The prevailing wind at the site is South South West. This is indicated on the plan of receptors.



4.3.2 Plan of sensitive receptors near the site

Annex B includes a list of sensitive receptors and key contact instructions and within 1km of the site. Drawing EII/SCU/FPP/020 shows the site and location of sensitive receptors.

5 Managing common causes of fire

5.1 Introduction

The most likely causes of fire at the site have been identified below. Table 3 provides a summary of the management controls for restricting the possibility of a fire outbreak;

- Arson or vandalism
- Plant or equipment failure
- Electrical faults including damaged or exposed electrical cables
- Discarded smoking materials (matches, lighters, etc.)
- Hot works
- Industrial heaters
- Hot exhausts
- Ignition sources (naked flames, space heaters, incinerators, etc.)
- Batteries in ELV's
- Leaks and spillages of oils and fuels
- Build-up of loose combustible waste, dust and fluff
- Reactions between wastes
- Deposited hot loads

5.2 Arson and Vandalism

The site is bounded by a combination of security fences and deep dykes. Out of hours gates are locked and access is control by security personnel.

The site is equipped with a 32 channel 24-hour CCTV system, which provides coverage of the whole site. Cameras can be controlled remotely to pan and zoom in or out to investigate anything suspicious or unusual. The system is monitored during working hours by office and operations staff and can be reviewed remotely by phone, tablet, or PC.

Outside operating hours, the site is manned continuously by security personnel who carry out regular patrols of the whole site and monitor CCTV and fire alarm panels installed in the security cabin.

5.3 Plant and Equipment

5.3.1 Inventory

The site currently utilises the following key plant and equipment items:

Table 3 Schedule of plant and equipment

Serial number Registration	Description / Model Type	Make	Category	Year of Manufacture
30507	Baler	DICOM	Baler	2014
1103600	Bale Wrapper	Cross Wrap	Baler	2014
FGWPES27VPCA00220	Generator	FG Wilson	Generator	2012
FGWREPS4TPWC00886	Generator	FG Wilson	Generator	2012
WC00795	Generator	FG Wilson	Generator	2011
FGWRPE4TPWC00791	Generator	FG Wilson	Generator	2011
170585/11	Generator	Bruno	Generator	2017
2313161	Shovel Loader	JCB	Mechanical Handling	2015
4933	Dump Truck	Volvo	Mechanical Handling	1998
2252569	Telehandler	JCB	Mechanical Handling	2013
1541046	Telehandler	JCB	Mechanical Handling	2012
237883	Telehandler	Manitou	Mechanical Handling	2007
2136151	Excavator (Tracked)	JCB	Mechanical Handling	2015
VATZ0434CZB016950	Shovel Loader	Liebherr	Mechanical Handling	2006
2424764	Excavator (Tracked)	JCB	Mechanical Handling	2017
1701879	Excavator (Tracked)	JCB	Mechanical Handling	2007
42859	Shovel Loader	Liebherr	Mechanical Handling	2016
Y1D2A25Q	Forklift	NISSAN	Mechanical Handling	2012
JCBJW16DE01451667	Excavator (Wheeled)	JCB	Mechanical Handling	2012
71030990	Forklift	Samuk	Mechanical Handling	2020
VCEL120FK00026190	Loading Shovel	Volvo	Mechanical Handling	2011
JCB085Z1V02249298	JCB Mini Excavator	JCB	Mechanical Handling	2015
36096	Excavator (Tracked)	JCB	Mechanical Handling	2015
BT0248	Shredder	Tana	Shredders/Mobile shredder	2017
YK97E2XXOF4009005	Mobile Trommel	Tana	Screening Equipment	2017
T901410685	Lighting Tower	(mobile)	Lighting Tower	2014
7329	Shredder	Lindner Jupiter 3200	Shredders/Static Shredders	2020
5015	Shredder	Lindner Komet 1800	Shredders/Static Shredders	2020
N/A	Loading Ramp	Thorworld	Loading Ramp	N/A
7451	Shredder	Lindner Jupiter 3200	Shredders/Static Shredders	2021
W-00015	Shredder	Wellmac	Shredders/Static Shredders	2017
N/A	Powerscreen	Warrior 1400	Screening Equipment	2014

5.3.2 Inspection and Maintenance

The site employs a fulltime engineering and maintenance team lead by a senior qualified engineer. A planned preventive maintenance programme (PPM) is operated on site and all site equipment is checked and maintained in accordance with the manufacturer's guidelines and a strict inspection programme, all breakdowns or faults are recorded.

All site vehicles, mobile and static plant will be fitted with suitable fire extinguishers and drivers cab dust filters. Static shredders are fitted with fire detection and deluge systems and mobile shredders are fitted with an inbuilt suppression system.

An exclusion zone of 6m will be maintained between combustible waste and plant machinery and equipment when not in use.

5.4 Electrical faults including damaged or exposed electrical cables

All electrical and light fittings will be fully certified by a qualified electrician.

All electrical equipment will be routinely checked and maintained by an appropriately qualified individual.

5.5 Discarded smoking materials

The site operates a strict no smoking policy in all areas other than the designated and clearly marked smoking area.

Regular housekeeping will be maintained throughout the site and all staff and visitors are made aware of the site smoking policy as part of the site induction.

5.6 Hot works safe working practices

Safe Systems of Work instructions are in operation throughout the site and Permits to Work are issued for hot works including any activity or work that requires using open flames, applying heat or friction, or may generate sparks or heat.

A dedicated fire watch is implemented as and when required for hot works.

The hot works permit is included in Annex C

5.7 Industrial heaters

Industrial heaters are not used on site

5.8 Hot exhausts and engine parts

Operational staff are trained to remain vigilant when using plant and equipment for signs of

fire caused by dust or any flammable material settling on hot exhaust or engine parts.

There will be a minimum of 1 Fire Watch per shift carried out by trained operational staff and site security personnel are trained to perform fire watch outside of operational hours.

Plant and equipment are subject to daily inspections and checks at the start and end of each shift and where required cleaned down before use.

5.9 Ignition sources

Open burning or naked flames are not permitted anywhere on the site other than as part of hot works and in accordance with the permit to work procedure.

Space heaters are not permitted on site

The site has a biomass boiler. This is contained in a specifically design boiler house and is fitted with and automatic fire suppression system to prevent burn back.

5.10 Batteries

Incorrect disposal of batteries creates a fire risk where batteries can be ruptured in processing equipment or by mobile plant movements.

The risk from incorrectly disposed batteries is minimised through the following:

1. Continuous interaction with customers to highlight the need to exclude / remove batteries from waste streams
2. All operators are trained to be vigilant for batteries in waste to be processed.
3. All processing lines are equipped with one or more magnets
4. All shredders are equipped with automatic spark/flame detection and suppression systems
5. Staff are trained in procedures for removing and quarantining material where battery rupture is identified or suspected.

5.11 Batteries in end-of-life vehicles (ELVs)

The site does not accept ELVs

5.12 Leaks and spillages of oils and fuels

Spill kits are be stored onsite for use in the event of an incident.

A regular site inspection and maintenance programme is in place and all spillages are cleaned up immediately upon detection. Spillages dealt with in accordance with the **'Spillage Procedure EL EM 02-007'**.

Oils and fuels will be stored in appropriate secured containers, away from operational areas see Annex D.

5.13 Build-up of loose combustible waste, dust and fluff

Regular housekeeping and inspection of the site will be carried out in accordance with site inspection schedule **EL EM05-005**, inspections are carried out regularly and documented in daily site inspection form **EL EM 03-006**, and weekly site inspection form **EL EM 03-007**.

All equipment (plant and vehicles) is checked prior to use and inspected as part of the daily site inspection routine. All process lines have a daily clean down routine at the end of shifts and plant is also cleaned thoroughly during weekly planned preventative maintenance sessions.

5.14 Reactions between wastes

Non-permitted wastes are rejected during inspection and acceptance.

Site staff trained in waste acceptance criteria '**Waste Acceptance Procedure EL EM 03-003**.

Site inspections are carried out daily in accordance with **EL EM 03-006**.

All incoming loads of recyclable materials are initially deposited in the designated tipping area marked on the Site Plan where it is inspected and separated if required to prevent any reaction between incompatible wastes. Unstable wastes are not accepted at site but in the unlikely event of a receipt this would be removed to the external quarantine areas (see drawing ELL/SCU/FPP/010) via shovel loader for observation and assessment. The Site Manager would be informed and depending upon the nature of the load, a decision on a treatment/disposal route would be taken. Such waste shall be disposed of by an appropriately qualified contractor to a suitably licenced facility.

5.15 Deposited hot loads

All loads are checked prior to acceptance in accordance with **Waste Acceptance Procedure EL EM 03-003**.

Hot loads are not accepted at the site. In the unlikely event of a hot load being deposited in the tipping area it would be immediately removed by shovel loader to the external quarantine areas pending inspection and disposal decision by the Site Manager.

(Note: To access the external quarantine area the shovel loaders **do not** pass through the areas where combustible finished product is stored)

5.16 Hot and dry weather

Incoming and outgoing waste piles are kept in buildings in shaded areas, externally stored baled and wrapped material is located in shaded areas whenever possible.

Buildings are fitted multiple entrances with roller shutter doors which can be opened to allow natural through draft cooling.

During hot dry periods more temperature monitoring frequency will be increased

Storage times are minimised as a general operating principle, but particular attention shall be paid, and storage times reduced where possible, during hot periods.

6 Prevent self-combustion

6.1 General self-combustion measures

Self-combustion can occur when biological decomposition or chemical oxidation generates an increase in temperature creating an exothermic reaction which cannot be dissipated at the rate it is being generated. This can lead to what is known as a thermal runaway with the result being auto-ignition and self-combustion. In general, the risk self-combustion is minimised by employing several operating principles:

- Avoid mixing waste types as far as possible
- Maintain pile separation distances
- Store waste in largest fraction size
- Minimising storage times
- Keep piles and storage areas as cool as possible
- Site inspections are carried out routinely each day with a formal 'End of Day' carried out to check for fire risks and signs of self-heating

Regular housekeeping and inspection of the site are carried out in accordance with site inspection schedule **EL EM05-005**, inspections are carried out regularly and documented in daily site inspection form **EL EM 03-006**, which includes checking any signs of self-heating

6.2 Managing storage time

In general storage times are minimised as much as possible.

Table 4 Summary of Storage Times and Control Measures

CONTROL MEASURES						Operating Conditions
Storage Duration	FIFO Principle	Fire Watch	Routine Inspections	Sub-Surface Monitoring	Diversion of Waste to Alternative Facility	
24 hours	✓	✓	✓			Normal
72 hours	✓	✓	✓			
1 week	✓	✓	✓			
4 weeks	✓	✓	✓			
3 months	✓	✓	✓	✓		Abnormal
>3 months	✓	✓	✓	✓	✓	
6 months	Waste will not be stored for 6 months or longer therefore extra measures are NOT required.					

6.3 Method used to record and manage the storage of all waste on site

Baled SRF and RDF is stored for a maximum of one month. Bales are labelled with the date of production, contents, and destination (offtake) and the date and time of placement is noted on a layout map of the storage area by the relevant supervisor, the order despatch of material is prioritised by date processed, with the oldest bales being loaded first.

Lose material incoming and outgoing is stored for a maximum of 7 days

6.4 Stock rotation policy

All stock is managed on the general principle of First in First Out (FIFO). In the event of a slower than normal rotation of combustible waste additional monitoring shall be done. All staff are trained in the importance and implementation of the FIFO process and stock rotation is a standing item on daily briefing meetings for operational staff.

6.5 Monitor and control temperature

During normal working conditions, stockpiles will be visually monitored by operational staff throughout the day. Formal inspections will be carried each day in accordance with the company's Site Inspection Procedure (Document Ref: EL EM 03-006) to identify any potential fire risks. Informal checks will also be carried out at the end of each day to ensure all prevention controls are in place for non-operational hours.

Security Staff are also trained carry out fire watch during regular patrols which take place throughout non-operational hours.

Relevant members of staff are trained in how to monitor stockpiles for signs of hot spots and what actions to take to mitigate any potential fire risks e.g., isolating material and cooling it in the quarantine areas.

Where it is deemed necessary due to extreme weather conditions, stockpiles will be dampened down to reduce potential fire risks resulting from external heating.

Material piles from shredders is routinely turned and mixed to ensure homogenous outputs and dissipate heat generated in the shredding process. Other waste piles are routinely turned to make sure the waste remains cold and any localised warming is dissipated.

Table xx below summarises both visual and temperature action triggers and the actions that will be taken to mitigate any associated fire risk.

Due to the rapid turnaround of waste within the RDF and SRF buildings, and stock rotation procedures described above it is not considered necessary to measure the temperature of the waste within the building as heat build-up will be highly unlikely given the short timescales. Waste piles will be visually monitored throughout the working day for signs of heat build-up and signs of combustion. However, temperature monitoring will

be undertaken on any waste piles or bales which have been stored for a period of 3 months or longer.

VISUAL & TEMPERATURE ACTION (TRIGGER) LEVEL	
STEAM	<p>On cool mornings steam emitting from the surface of the stockpile may be an indication of increased sub-surface temperatures.</p> <p>Where steam is observed in significant volume extends across the pile, investigations should be implemented immediately.</p> <p>Actions to be taken in the event of significant volumes of steam being observed include, isolating areas of the pile and spreading across the storage area floor to allow material to cool.</p>
SMOKE	<p>If smoke is observed immediate action should be taken. Actions include:</p> <ul style="list-style-type: none"> • Isolate the area of the stockpile where the smoke is observed. • If material is smouldering either remove to the quarantine area and extinguish or isolate from all combustible materials and extinguish.
TEMPERATURE ACTION TRIGGERS BELOW ARE ONLY FOR WASTES STORED FOR >3 MONTHS	
<30°C	No actions required
30°C to 50°C	<p>Stockpiles will be turned to dissipate any heat not being lost to the surrounding environment.</p> <p>Where temperatures are seen to be rising or at the higher end of the range potential hot spots will be isolated moved to the quarantine area and spread out and allowed to cool.</p>
>50°C	<p>Where sub-surfaces exceed 50°C in wastes which have been stored for longer than 3 months action should be taken as soon as is reasonably possible.</p> <p>Areas with hotspots of 50°C or more should be isolated from the stockpile and moved to the quarantine area where they can then be turned and spread out in order to dissipate the heat and allow the waste to be cooled. Waste should be checked to ensure no smouldering material is present.</p>

6.6 Reduce the exposed metal content and proportion of 'fines'

All processes include metal extraction using over-band magnets, eddy current separators. No fines are produced in the RDF and SRF processes.

Inert fines are produced in the construction and demolition process line, but metal content in these fines is negligible.

6.7 Waste bale storage

Bale storage is minimised as much as possible. Where bales need to be stored on site for logistical reasons such as bulk vessel scheduled require stock build up, bale storage shall not exceed 3 months. All stored bales shall be regularly inspected and in the unlikely event that bales are stored for more than three months temperature monitoring shall be implemented using intrusive temperature probes.

7 Managing waste piles

7.1 General

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

Table 5 Pile Types on 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	30-40
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
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**)

7.2 Maximum pile sizes

The maximum pile sizes are given in section 9.2 of the EA guidance. All waste piles shall be maintained within the maximum sizes given in the current EA Guidance. For all waste piles,

- the maximum height allowed is 4m.
- the maximum length or width allowed (whichever is the longest) is 20m

When measuring height, you must use the longest measurement between the base of the pile and the top. This is to allow for any uneven ground beneath the waste.

If waste piles contain a mixture of combustible wastes, the maximum limit shall be based on the type of waste that makes up most of a mixed pile. Waste piles are managed and located to allow adequate access for fire detection and extinguishing.

Table 6 below shows the maximum volume of each type of waste pile, the maximum square dimension for a pile 4m high and the maximum width of a pile 4m high and 30m long.

Table 6 Maximum Pile Sizes

Maximum volume m ³			
Waste type	Loose and more than 150mm	30 to 150mm or baled	Less than 30mm
Tyres and rubber	450	300	300
Wood	750	450	300
Compost and green waste	750	450	450
RDF and SRF	450	450	450
Plastics	750	450	300
Paper and cardboard	750	750	450
Textiles	750	750	450
WEEE containing plastics, including fridges, computers, and televisions	450	450	450
Metals other than WEEE	750	450	450
Fragmentiser fluff	450	450	450
Maximum square dimensions (m) if 4m high			
Waste type	Loose and more than 150mm	30 to 150mm or baled	Less than 30mm
Tyres and rubber	10.61	8.66	8.66
Wood	13.69	10.61	8.66
Compost and green waste	13.69	10.61	10.61
RDF and SRF	10.61	10.61	10.61
Plastics	13.69	10.61	8.66
Paper and cardboard	13.69	13.69	10.61
Textiles	13.69	13.69	10.61
WEEE containing plastics, including fridges, computers, and televisions	10.61	10.61	10.61
Metals other than WEEE	13.69	10.61	10.61
Fragmentiser fluff	10.61	10.61	10.61
Maximum width if 4m high and 20m long (m)			
Waste type	Loose and more than 150mm	30 to 150mm or baled	Less than 30mm
Tyres and rubber	5.63	3.75	3.75
Wood	9.38	5.63	3.75
Compost and green waste	9.38	5.63	5.63
RDF and SRF	5.63	5.63	5.63
Plastics	9.38	5.63	3.75
Paper and cardboard	9.38	9.38	5.63
Textiles	9.38	9.38	5.63
WEEE containing plastics, including fridges, computers, and televisions	5.63	5.63	5.63
Metals other than WEEE	9.38	5.63	5.63
Fragmentiser fluff	5.63	5.63	5.63

7.3 Storing waste materials in their largest form

Waste is stored in its largest form wherever possible. RDF is only shredded prior to being removed from site. SRF is only shredded prior to being removed from site for loose offtake contracts or is immediately baled and stored according to the maximum storage limits for sea freight contracts.

7.3.1 Maximum Pile Sizes Ellgia Scunthorpe

Table 7 Maximum Pile Sizes and locations (see Drawing ELL/SCU/FPP/010)

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

7.4 Waste Stored in Containers

7.4.1 Types of containers

In addition to the waste piles detailed in section 7.3 of the EA guidance, small amounts of WEEE waste, green waste and CA waste are stored temporarily in skips and or roll-on roll-off skips with the following dimensions:

Table 8 Waste Stored in Containers

Example	Container Type	Size
Green Waste	Skip	26.2 m ³
Tyres	Skip	26.2 m ³
Metal	Skip	26.2 m ³
Mattresses	Skip	26.2 m ³

7.4.2 Accessibility of containers

Containers are all readily accessible from at least two sides so a fire can be extinguished easily. The locations of the containers are shown on the Drawing Ell/SCU/FPP/010.

They shall be maintained in positions that allow them to be easily moved as soon as is reasonably practicable to prevent the fire spreading.

7.4.3 Moving containers in a fire

The site shall maintain an operational yard truck which is available at all times in the event that a container has to be moved quickly.

8 Prevent fire spreading

The containment of fires will be achieved either by maintaining the minimum separation distance of 6m between piles of combustible material or by storing material in containers or bays constructed of fire resistant material (fire walls)

8.1 Separation distances

All waste piles are 6m from any other waste pile, site perimeter, other buildings or other combustible or flammable materials as shown on the drawing above, unless separated by 2 hour retardant fire walls.

8.2 Fire walls and Bays

Push walls and internal bay division walls have all been designed to resist fire (both radiative heat and flames) and provide a minimum of 120 mins fire resistance.

8.3 Storing waste in bays

The majority of waste on site will generally be stored in piles with a minimum separation distance of 6m. Where bays are used the following design and operational parameters shall be applied:

- Frequent stock rotation, ensuring the overall site first in, first out policy, is applied. Daily operations sheets shall be used to monitor and record this stock movements.
- Temperatures of all the waste within the bays for more 48 hours, taken at a minimum of 4 locations within the bay
- Bay design and waste stored will take into account the calculation of flame height of the waste concerned and radiation levels to prevent the spread of fire between piles.
- Bay design will minimize the likelihood of lighted material moving outside the bay walls and igniting other wastes
- A 'freeboard' space of 1m minimum at the top and sides of the walls will be maintained at all times to prevent fire spreading over and around the walls.
- Mobile plant is maintained at all times and available to quickly remove wastes at risk of ignition to the quarantine area to isolate any bays with burning waste during an incident.

8.4 Quarantine area

Quarantine areas shall be maintained at all time, these are shown on drawing ELL/SCU/FPP/010. All quarantine area are capable of containing half the largest stockpile of waste (225m³ unprocessed, processed or baled waste) each.

The quarantine areas have in excess of 6m of permanently clear area all around for ease of access for fire control. The quarantine areas are located on impermeable paving and would be isolated from the site drainage system using a penstockvalve which would be closed in the event that the quarantine area is used.

Any material moved to a quarantine area will be monitored closely to ensure there is no further risk of fire and shall be removed from site as soon as possible to an appropriately licensed facility.

8.5 Fire Detection

8.5.1 General

All loads are checked for signs of smoke or high temperatures prior to acceptance in accordance with **Waste Acceptance Procedure EL EM 03-003**.

All staff are trained to be on constant look out for signs of smoke, fire or elevated temperatures, as part of their normal duties regardless of the area of operation.

Regular visual inspections of all waste piles are carried out through the day by operatives and supervisors and outside working hours by security personnel.

In the event of a fire being detected by site personnel the alarm is raised by activating an alarm call point, sounding an air siren or by shouting “Fire” until such time as the nearest audible fire alarm has been activated.

The site is equipped with a 32 channel 24-hour CCTV system, which provides coverage of the whole site. Cameras can be controlled remotely to pan and zoom in or out to investigate anything suspicious or unusual. The system is monitored during working hours by office and operations staff and can be reviewed remotely by phone, tablet, or PC.

Outside operating hours, the site is manned continuously by security personnel who carry out regular patrols of the whole site and monitor CCTV and fire alarm panels installed in the security office.

8.5.2 Detection Systems

The site is occupied 24/7 either by operational staff and or security personnel. CCTV and alarm panels are continuously monitored.

A number of independent fire detection systems are / will be installed in different locations. Each system activates a local audible and visual alarm as well as an alarm at the central control panel located in the security office.

Table 9 Fire Detection Systems

Area	Detection System	Alarm
Biomass Boiler House	Flame Detectors	Local fire panel, siren, lamps, link to security office repeater panel
Drying Floor	VESDA Aspirating smoke detector	Local fire panel, siren, lamps, link to security office repeater panel
Dry Material Store	VESDA Aspirating smoke detector	Local fire panel, siren, lamps, link to security office repeater panel
SRF Building	VESDA Aspirating smoke detector*	Local fire panel, siren, lamps, link to security office repeater panel
SRF Process Line	Local spark / flame detectors (GreCon)	Local fire panel, siren, lamps, triggers automatic drench system
RDF Building	Helios Flamescan automatic video fire detection system	Local fire panel, siren, lamps, link to security office repeater panel
RDF Shredder	Atexon Spark detection and suppression systems	Sounder and beacon, activation of automatic drench system

*planned

In the event of a fire being detected, site management would be contacted and would attend site. A rota system will be in place ensuring that the out of hours monitoring service will always have a minimum of two contacts available on a 24/7 basis 365 days a year.

Operatives are also be available out of hours in the event of the need for plant and machinery to be used to assist the Fire Service.

An emergency contact procedure shall be maintained at all times with the names and contact numbers for site managers and operators.

8.5.3 Certification for the systems

All systems are designed and installed and maintained in line with a UKAS accredited scheme. All systems shall be covered by a contract covering maintenance as per manufacturer's recommendations and a UKAS accredited scheme.

8.6 Suppressing fires

8.6.1 Suppression systems in use

Table 10 Fire Suppression Systems

Area	Suppression System	Specification
All Areas	Fire Extinguishers	Water, Powder, Foam and CO ₂ fire extinguishers are located on site a shown in EII/SCU/FPP/012, these can be used in the event of small / local fires.
All Areas	Volvo Fire Engine	1800 litre water tank, foam tank with foam proportioning system, multi pressure alloy centrifugal water pump, driven by PTO Two powered rewind high pressure hose reels, Three 2 ½ normal pressure deliver outlets for fire hoses, reinforced suction line for connection to hydrant or water storage tank, reinforced suction line and strainer for pumping from drainage pond.
SRF Building	FireRover automatic foam cannon system	The Fire-MIST [®] system includes duty pump skid, 3 directional valves connected galvanised steel pipe run to each pf the 3 zones, electrically actuated directional zone valves installed into each zone, and "2V Fire-MIST [®] " pipework installed at high level to cover the entire area of building. System type: Open deluge single activation largest risk; Flow rate 1000 l/min per zone; Run time Approx. 30 mins

		<p>The system is activated by Flamescan video detection cameras. In the systems' standby state, the pipe work from the zone valves will be dry and water will be directed to the normally closed directional valves installed within the building.</p> <p>Upon activation of Flamescan video analytic detection cameras - or manual call point - a signal is sent to the analogue addressable control panel which switches open the appropriate directional valve and activates the onsite pump system to start flow to the required risk zone.</p> <p>The system includes audible and visual alarms in the event of the system activating. (See Annex E)</p>
RDF Building	Hellios: Fire-MIST® water mist fire suppression system.	<p>The Fire-MIST® system includes duty pump skid, 6 directional valves connected galvanised steel pipe run to each of the 6 zones, electrically actuated directional zone valves installed into each zone, and "2V Fire-MIST®" pipework installed at high level to cover the entire area of building.</p> <p>System type : Open deluge single activation largest risk; Flow rate 1000 l/min per zone; Run time Approx. 30 mins</p> <p>The system is activated by Flamescan video detection cameras. In the systems' standby state, the pipe work from the zone valves will be dry and water will be directed to the normally closed directional valves installed within the building.</p> <p>Upon activation of Flamescan video analytic detection cameras - or manual call point - a signal is sent to the analogue addressable control panel which switches open the appropriate directional valve and activates the onsite pump system to start flow to the required risk zone.</p> <p>The system includes audible and visual alarms in the event of the system activating. (See Annex E)</p>
SRF Process Line	Local spark / flame detectors (GreCon)	Local fire panel, siren, lamps, triggers automatic drench system
RDF Shredder	Atexon Spark detection and suppression systems	Sounder and beacon, activation of automatic drench system

8.6.2 Certification for the systems

The Automatic fire suppression systems design, installation and maintenance contracts shall be covered by UKAS accreditation.

8.7 Firefighting techniques

The key firefighting techniques to be used in the event of a fire are the following

- applying water to cool unburned material and other hazards
- separating unburned material from the fire using heavy plant
- separating burning material from the fire to quench it with hoses
- suffocating the fire using soil, sand, or other suitable inert material

The site is in close proximity to the Scunthorpe Fire Station and the response time of the Fire and Rescue Service is 8-12 minutes.

The firefighting strategy applied on site is to deal with any minor incidents as quickly as possible and avoid any escalation, using onsite equipment and personnel.

If it is technically feasible and safe to do so, material shall be removed from the RDF or SRF buildings tipped in one of the quarantine areas shown on drawing Ell/SCU/FPP/010, where it shall be doused with water or inert material.

If a serious or unquantifiable fire is detected or an incident cannot be dealt with, site based resources will be employed to contain the fire where it is safe to do so until the Fire Service arrives on site.

Once the Fire Service is on site, a senior manager will liaise with incident commander to provide assistance to the Fire Service by means of heavy plant and trained operators.

A roster of suitability trained personnel shall be maintained at all times, this shall include:

- Fire wardens
- Fire engine operators (for minor incidents and initial containment)
- Heavy plant operators

9 Water supplies

9.1 Minor incidents and initial containment

The site fire engine has an inbuilt supply of 1,800 litres and additional foam tank, there is also a 45,000 litre water tank with manifold for refilling or direct pumping using rigid suction lines connected to the fire engine.

The site also has drainage pond with a volume in excess of 3 million liters which can be used for refilling or direct pumping via the Fire Engine suction line and strainer. See EII/SCU/FPP/012.

9.2 Major incidents

A fire hydrant is located with 20 m of the site entrance, this has been tested and used by Humberside Fire and Rescue and is shown on drawing EII/SCU/FPP/012.

9.3 Water Supply Calculations

Sufficient water should be available for firefighting in the worst case scenario. For this site the worst case scenario would be a pile of SRF or RDF with a maximum volume of 450m³.

Maximum pile volume	Water supply needed in litres per minute	Overall water supply needed over 3 hours in litres	Total water available on site in litres
450m ³	3,000 l/min	540,000	>3,000,000

9.4 Alternative Measures – Fire Suffocation Soil

A stock of 200 tonnes of suitable inert material (soil, sand, stone etc) shall be maintained for the purposes of suffocating fires in situ to prevent escalation and or material tipped on a quarantine area.

10 Managing fire water

10.1 Receptors

The nearest ground water protection zone (SPZ) is 4.6 km away north of Roxby and there are no drinking water abstraction within at 1km of the site drainage pond.

10.2 Containing the run-off from fire water

Firewater will be directed to one of the site interceptors in the same way as surface water. In the event of an incident the outlet valves of the interceptor/s in question shall be closed to contain firewater. See EII/SCU/FPP/013.

A stock of Polly Booms shall be kept on site at all times. These will be deployed where necessary to guide firewater runoff for example as indicated in EII/SCU/FPP/013.

An emergency call out service agreement for emptying interceptors shall be maintained with 24/7 1 hour call out. The contents of interceptors shall be disposed of at a suitably

licensed facility and the tanker shall return to site to repeat the cycle until such time as the firewater runoff has ceased.

Should the volume flow rate at any time exceed the containment and emptying capacity of an interceptor then the main site drainage valve shall be closed and runoff will be contained in the main drainage pond (see drawing ELL/SCU/FPP/020).

The surface area of the pond is 2890 m², therefore a 3 hour water supply of 540,000 litres would represent 186 mm rise in water level. The pond level has never risen above a height less than 1400mm below the containment level, therefore this is considered more than adequate containment.

10.3 During and after an incident

10.3.1 Dealing with issues during a fire

In the event of a fire any incoming waste will be diverted to another part of the site, or to an alternative facility.

The Site Manager will liaise with the Emergency Services, Environment Agency and all other receptors throughout the incident, senior management will also be available to provide guidance both during and after the incident.

10.3.2 Notifying residents and businesses

Due to the direction of the prevailing winds and the site layout it is unlikely that any receptors will be directly affected by fire. However a contact sheet shall be maintained with telephone contacts for all immediately adjacent receptors and these shall be contacted in the event of a major incident.

If emissions of smoke are seen to affect other receptors or if asked to do so by the FRS, the site manager will contact receptors wherever possible.

10.3.3 Clearing and decontamination after a fire

10.3.4 Making the site operational after a fire

In the event of a fire a range of measures will be undertaken to allow the site to become fully operational again. The site manager will continue to liaise with the Environment Agency as appropriate.

All 'Duty of Care' obligations will be complied with at all stages of the clean-up. The site will not become operational again until approval is signed off by the site manager and the Managing Director.

Firewater will be pumped into tankers for off-site disposal to a suitable permitted facility.

Used absorbents and flood containment media will be analysed by a third party contractor and disposed of at an appropriate site. All absorbents and flood containment media will be replenished and replaced.

Solid wastes will be sent off-site for disposal at a suitable permitted facility.

Any fire damaged waste will be characterised to enable determination of a suitable facility for recovery or disposal of the affected waste, which may include the following:

- Waste characterisation by visual sorting
- Compositional analysis of the waste material
- Waste acceptance criteria testing for landfill

If the drainage pond has been used to capture firewater runoff, sampling will be carried out to establish if the water has been contaminated to the extent that the normal drainage flow cannot be re-opened. If this is the case appropriate remediation will be carried out.

A structural engineer will carry out a structural survey to determine any building has been structurally damaged. The Insurers will also be invited to site if there has been severe damage that will need to be highlighted to them.

Once all reports have been completed the site manager will establish if and when the site is safe to re-open. If major repairs are needed an assessment will be made into the length of time this will take and the continuing of the use of alternative outlets in the short or long term.

If the fire was limited to only part of the site, operations at the site will be restricted to the unaffected area, providing that (i) it is safe to do so and (ii) that the site can comply in full with the permit conditions.

No site operations will commence in the affected area until all inspections and necessary repairs have been carried out and advice is given by the Environment Agency.

The Environment Agency will be notified of the inspections and repairs undertaken within 5 working days and recommencement of full site operations.

List of Annexes

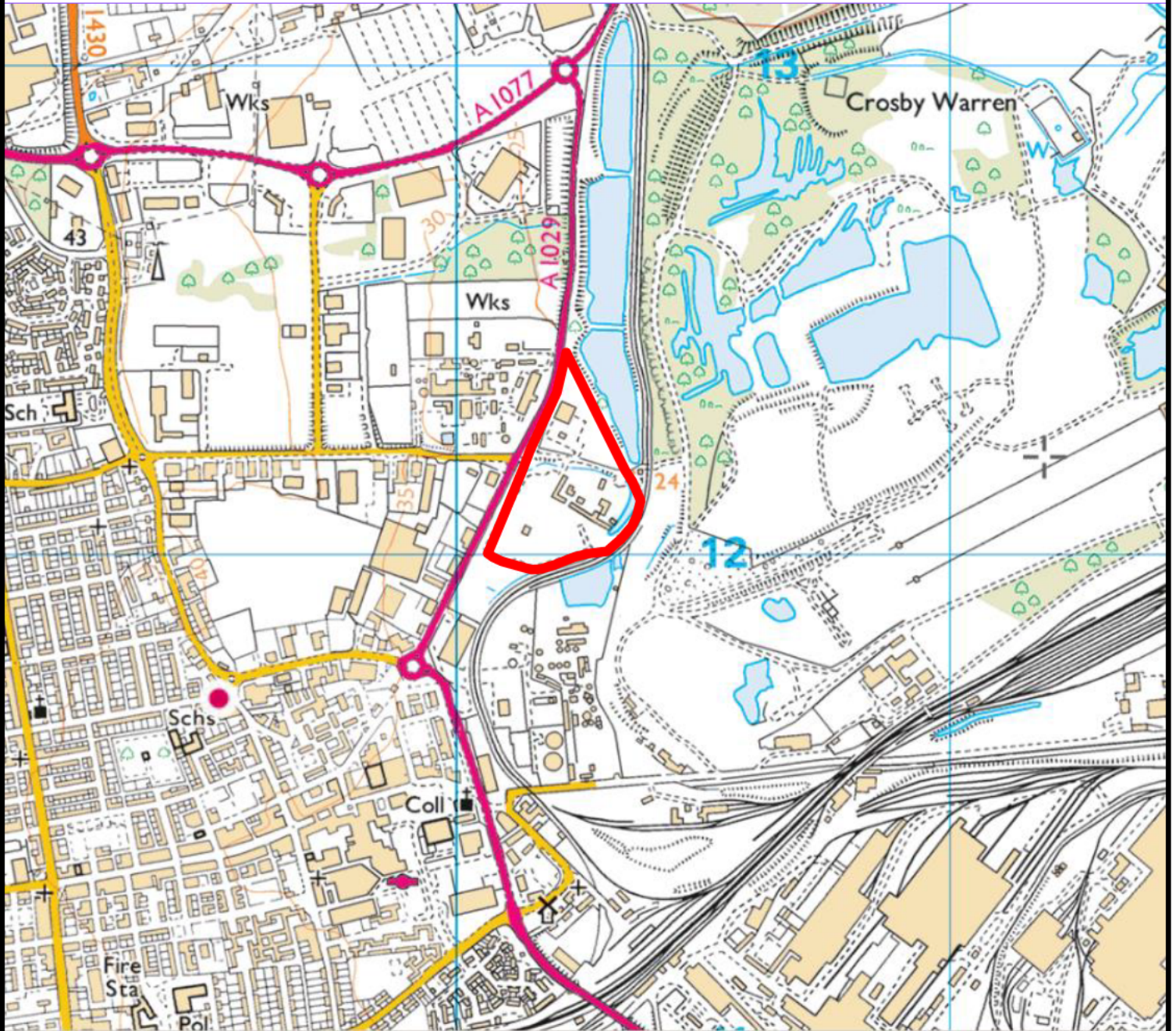
Annex	Contents
A	Drawings
B	Sensitive Receptors
C	Hot Works Permit
D	Oils, Fuels, and Combustible Goods
E	FireRover Fire Detection and Suppression System Specifications
F	Depot Maintenance Schedule
G	Daily and Weekly Inspection sheets
H	Safety Data Sheets

Annex A

Drawings

	Document	Drawing No
1	Location Plan	EII/SCU/FPP/001
2	Site Plan	EII/SCU/FPP/002
3	Site Layout & Storage Plan	EII/SCU/FPP/010
4	Non-waste Combustible Materials Storage	EII/SCU/FPP/011
5	Fire Equipment and Water Supply	EII/SCU/FPP/012
6	Surface Water Drainage Flows	EII/SCU/FPP/013
7	Site Drainage Scheme	EII/SCU/FPP/014
8	Sensitive Receptors	EII/SCU/FPP/020

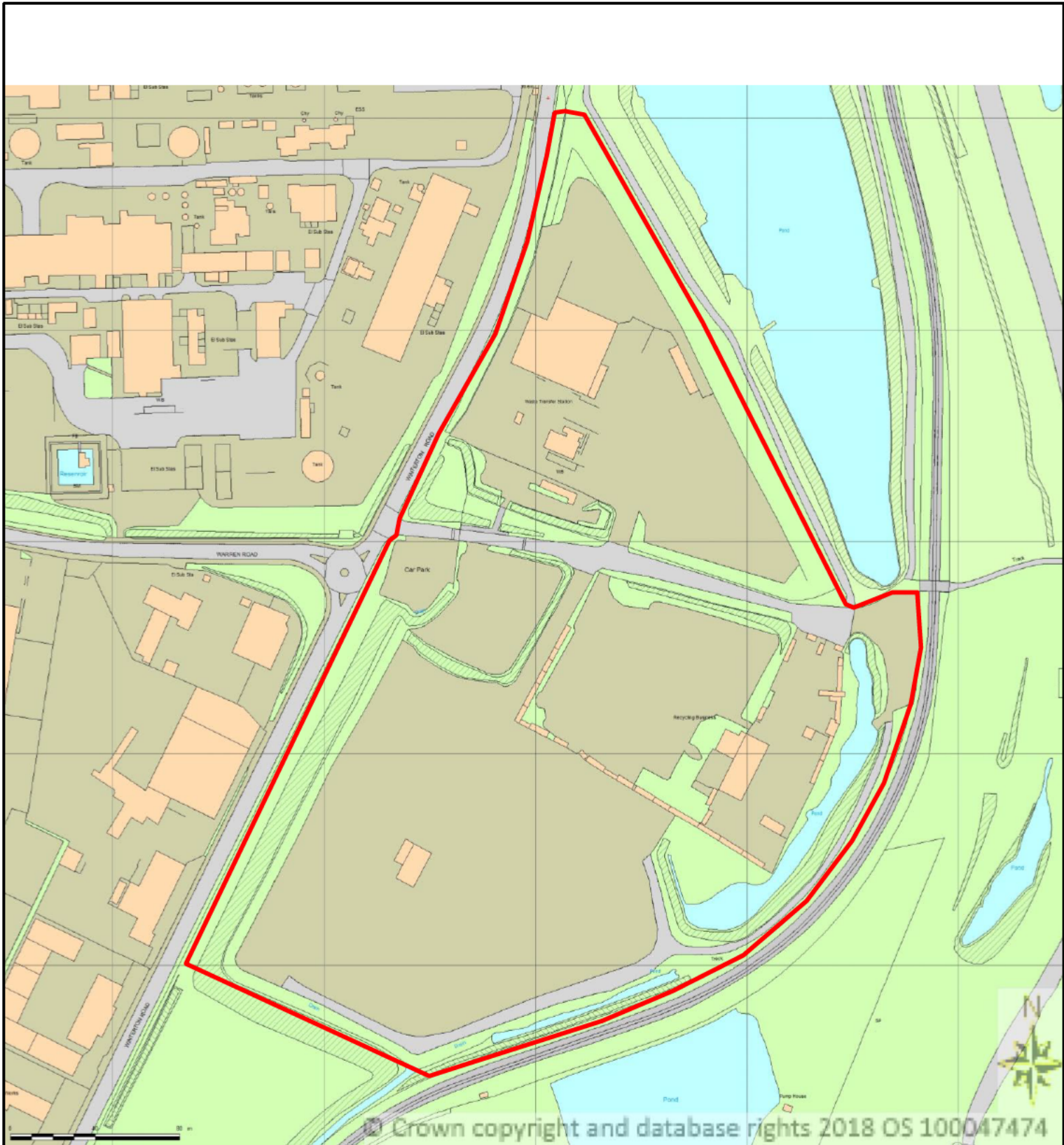
Ellgia Scunthorpe
Site Location
Grid Reference SE 90224 12236



ELLGIA

Ellgia Ltd, 7 Lancaster Way, Ely,
Cambridgeshire, CB6 3NW

Title	Site Location	
No	ELL/SCU/FPP/001	
Date	Revision	
Dec 21	A	



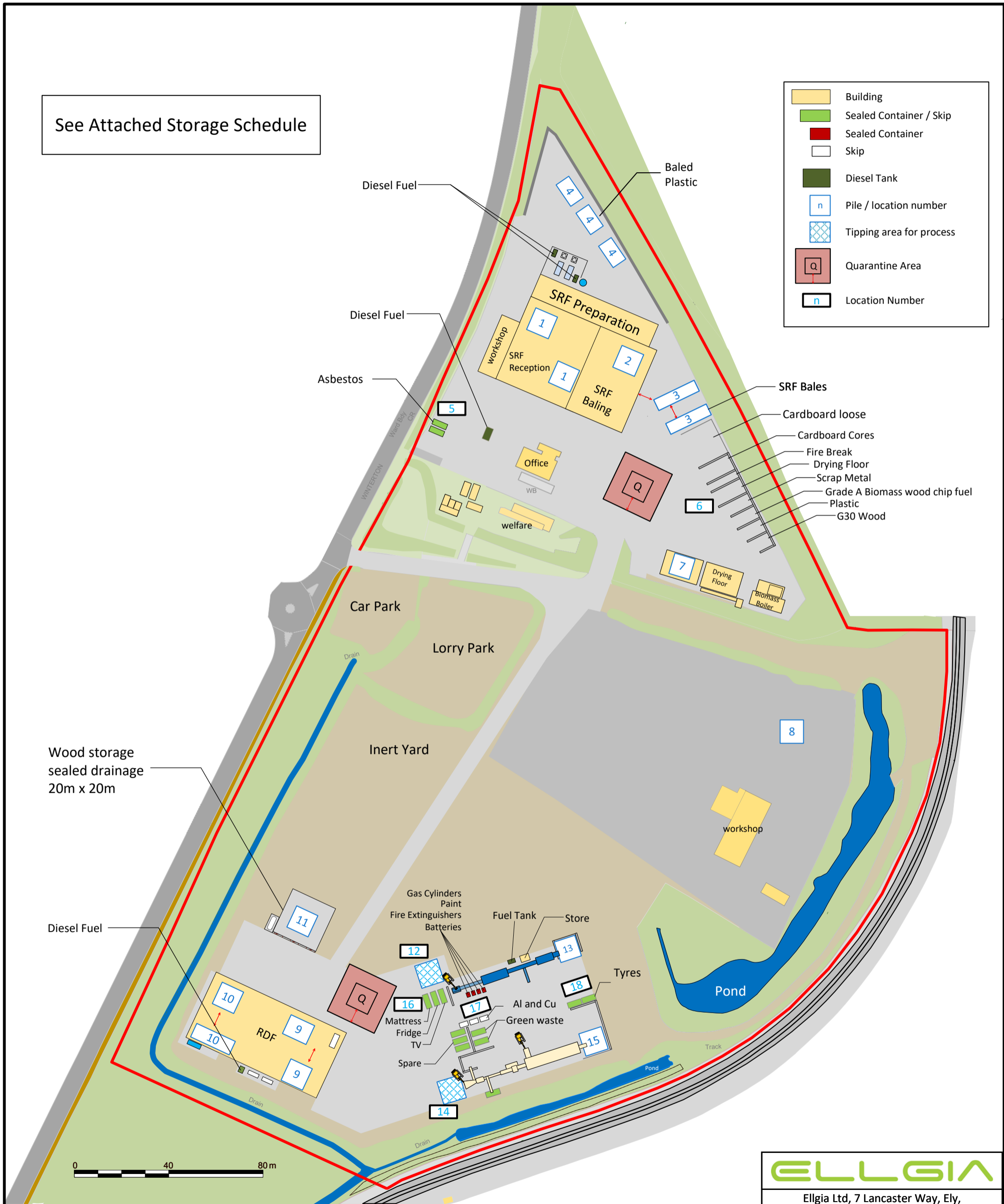
ELLGIA

Ellgia Ltd, 7 Lancaster Way, Ely,
Cambridgeshire, CB6 3NW

Title	Site Location Plan	
Drawing No.	ELL/SCU/FPP/002	
Date	Revision	Scale
13/12/19	B	1:2500 at A4

See Attached Storage Schedule

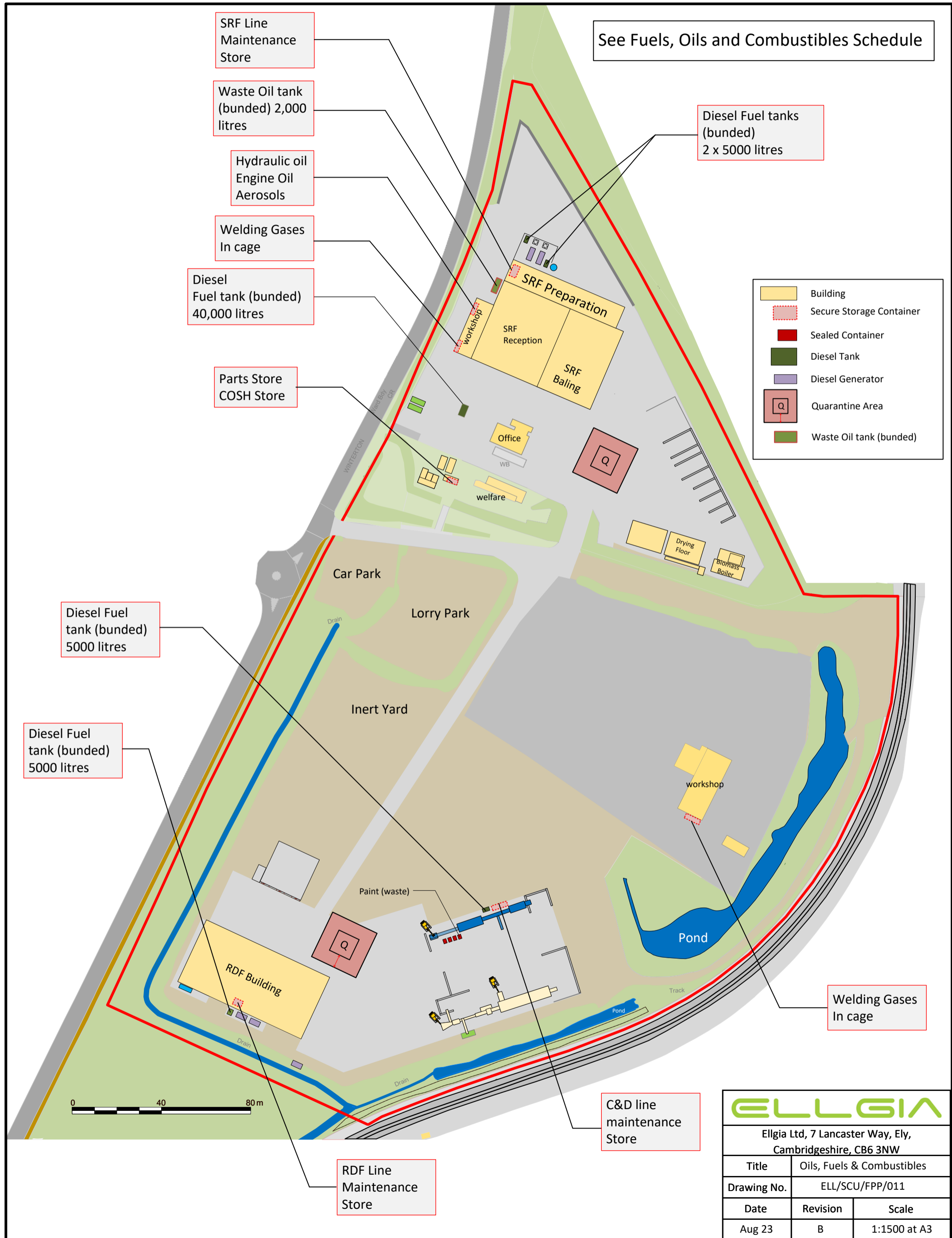
- Building
- Sealed Container / Skip
- Sealed Container
- Skip
- Diesel Tank
- Pile / location number
- Tipping area for process
- Quarantine Area
- Location Number



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

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



See Fuels, Oils and Combustibles Schedule

Diesel Fuel tanks (bunded) 2 x 5000 litres

SRF Line Maintenance Store

Waste Oil tank (bunded) 2,000 litres

Hydraulic oil Engine Oil Aerosols

Welding Gases In cage

Diesel Fuel tank (bunded) 40,000 litres

Parts Store COSH Store

- Building
- Secure Storage Container
- Sealed Container
- Diesel Tank
- Diesel Generator
- Q Quarantine Area
- Waste Oil tank (bunded)

Diesel Fuel tank (bunded) 5000 litres

Diesel Fuel tank (bunded) 5000 litres

C&D line maintenance Store

RDF Line Maintenance Store

Welding Gases In cage



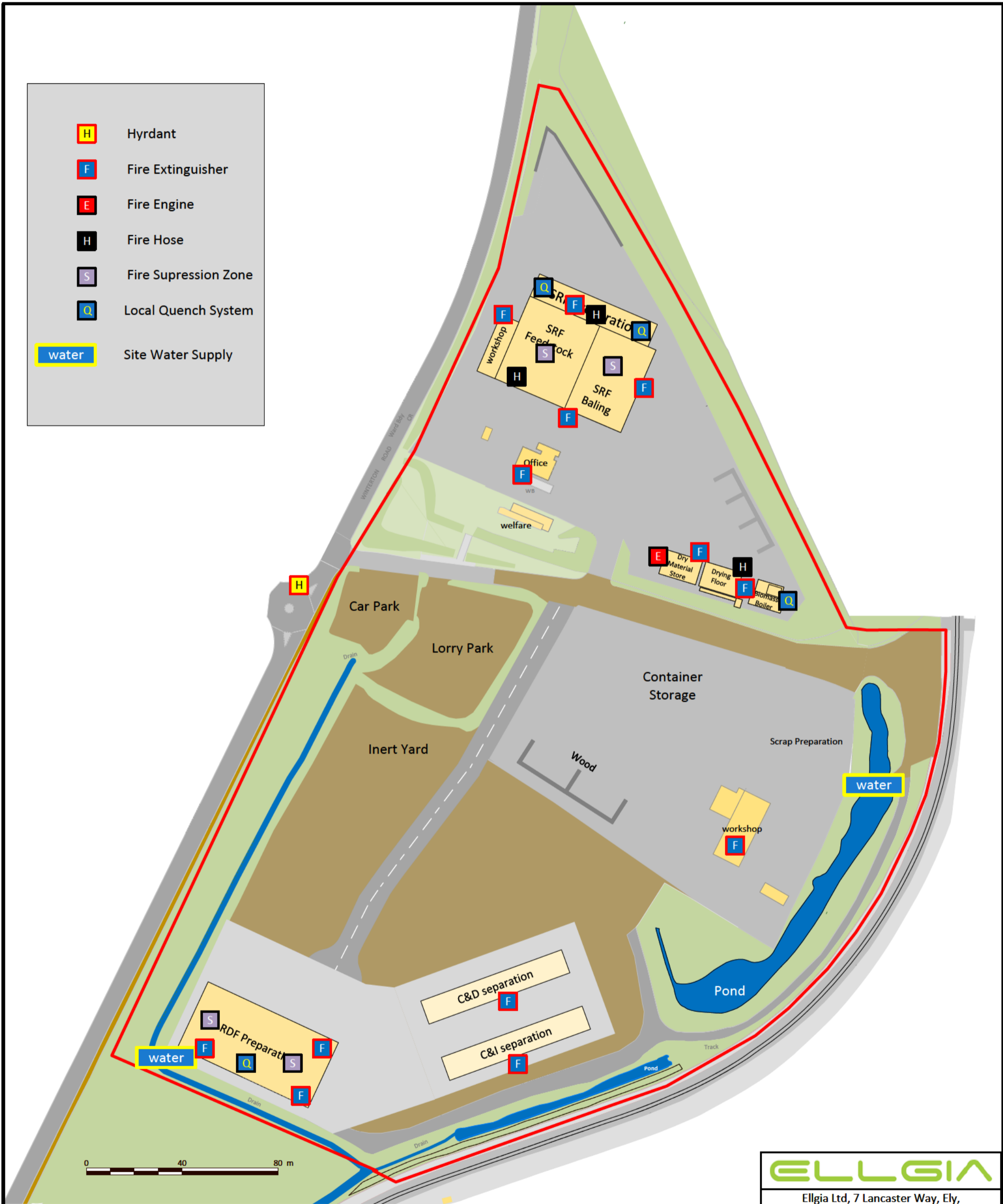
ELLGIA		
Elgia Ltd, 7 Lancaster Way, Ely, Cambridgeshire, CB6 3NW		
Title	Oils, Fuels & Combustibles	
Drawing No.	ELL/SCU/FPP/011	
Date	Revision	Scale
Aug 23	B	1:1500 at A3

Fuels, Oils and Combustibles Schedule

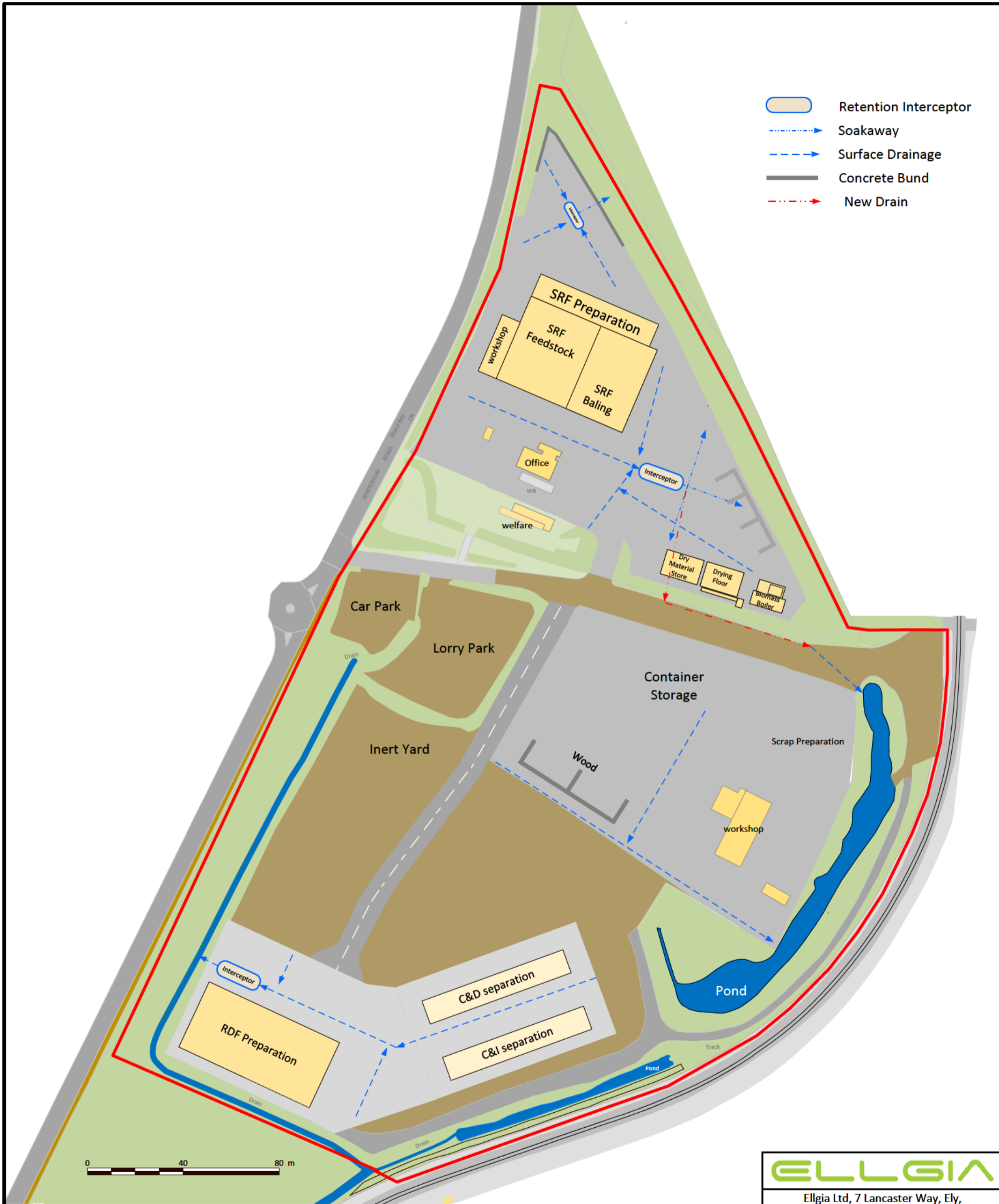
See drawing ELL/SCU/FPP/011

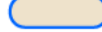




Location	Inventory of Fuels and Combustibles
Compliance Office	Aerosol (max 48 tins) cab cleaner for the Truck
Parts Stores COSH Cupboard	Grease Cartridge - 72 Max WD40 Aerosol – 12 Max Brake Cleaner aerosol – 12 Max Spray Grease Aerosol – 6 Max Cooper Grease Aerosol – 6 Max 25 litre brake cleaner – 1 Max 6/8 5 litre Paint
Main Yard	Fuel Tank (Diesel) 40,000 litre Ad-blue 3000 litre (3 x 1000litre ibc)
Vehicle Workshop	1100 litre Hydraulic tank with bund 1100 litre engine oil tank with bund Waste oil bund 4000 litre rear of workshop
Coshh Cupboard	Grease Cartridge - 72 Max WD40 Aerosol – 12 Max Brake Cleaner aerosol – 12 Max Spray Grease Aerosol – 6 Max Cooper Grease Aerosol – 6 Max 25 litre brake cleaner – 1 Max 6/8 5 litre Paint Burning and Welding Equipment
SRF Plant storage container	Grease (72 cartridges) 2 x 5000 litre fuel tanks
RDF Shed maintenance storage container	Grease (72 cartridges) 1 x 5000 litre fuel tanks
C&D Line Maintenance Storage Container	Engine Oil 205 litre Drum Hydraulic Oil 205 litre Drum Antifreeze 205 litre Drum Coolant 205 litre drum Fuel Tank 13000litre tank
Welding Workshop	Burning and welding gear 6 to 8 x 5 litre Paint

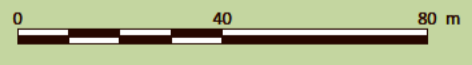
- H Hyrdant
- F Fire Extinguisher
- E Fire Engine
- H Fire Hose
- S Fire Supression Zone
- Q Local Quench System
- water Site Water Supply



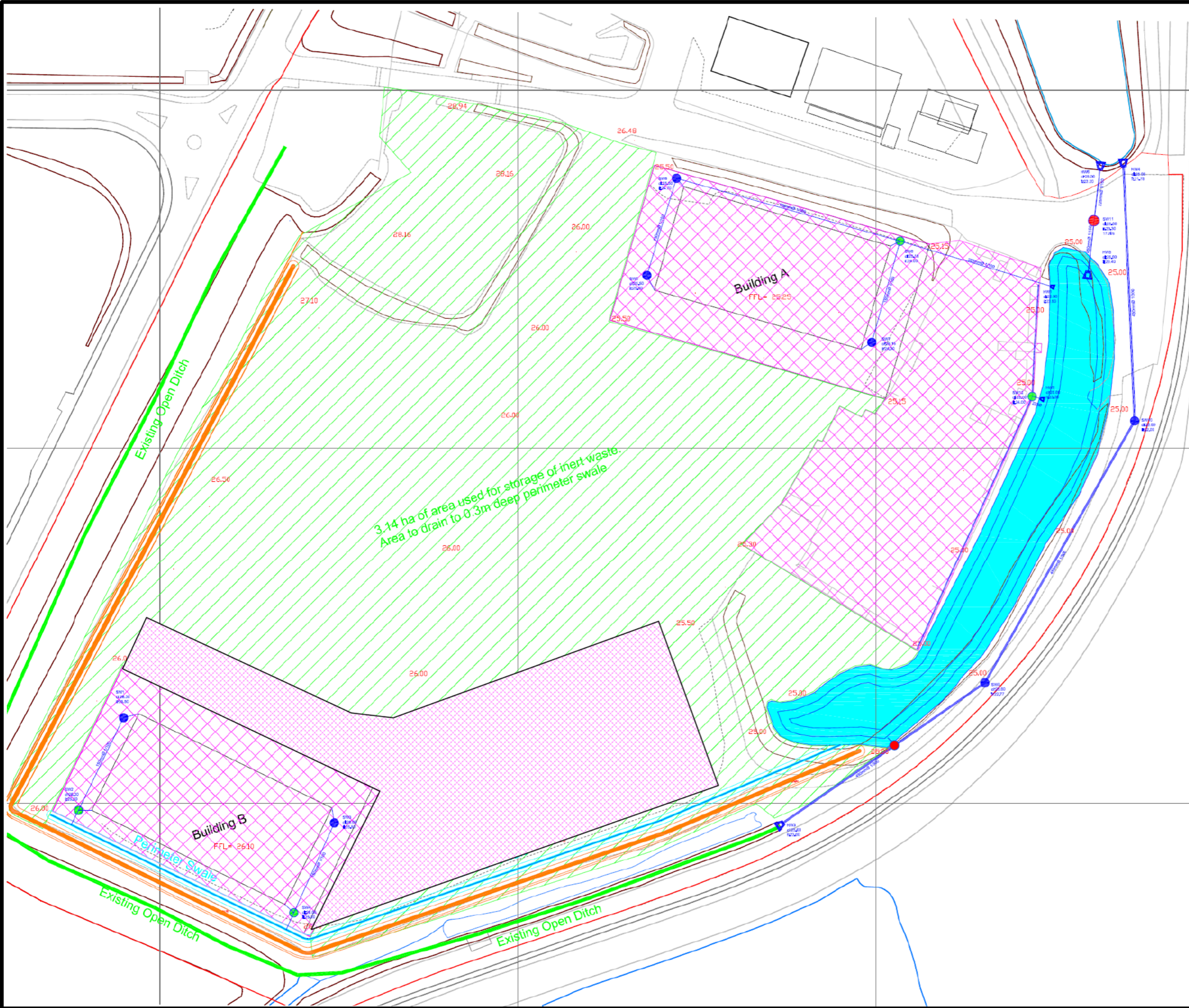
ELLGIA		
Ellgia Ltd, 7 Lancaster Way, Ely, Cambridgeshire, CB6 3NW		
Title	Fire Equipment & Water	
Drawing No.	SCU/FPP/21/012	
Date	Revision	Scale
Dec 2021	B	1:1000 at A3



-  Retention Interceptor
-  Soakaway
-  Surface Drainage
-  Concrete Bund
-  New Drain



ELLGIA		
Ellgia Ltd, 7 Lancaster Way, Ely, Cambridgeshire, CB6 3NW		
Title	Surface Drainage Flows	
Drawing No.	ELL/SCU/FPP/013	
Date	Revision	Scale
Dec 21	B	1:1000 at A3



- NOTES**
1. Driveway and car park surfacing design and construction to Engineer's Specification (by others).
 2. All dimensions are in millimetres unless otherwise stated.
 3. Pre-cast concrete products shall comply with the relevant provisions of BS 5911 and be 'Kite Marked'.
 4. Manhole covers and frames, grids and frames shall comply with the relevant provisions of BS EN 124. D400 class manhole cover to be used within trafficked areas. A15 class manhole cover to be used in untrafficked areas.
 5. Do not scale from this drawing. If in doubt ask.

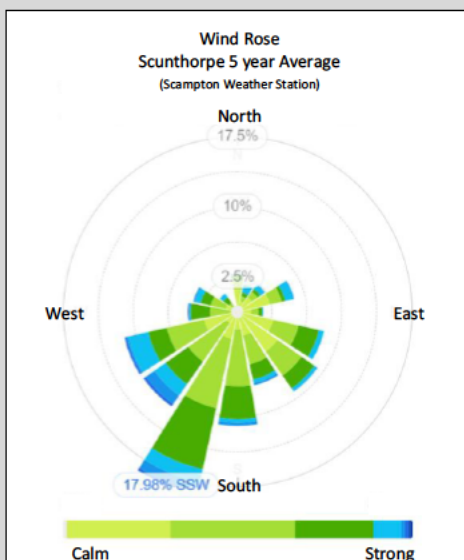
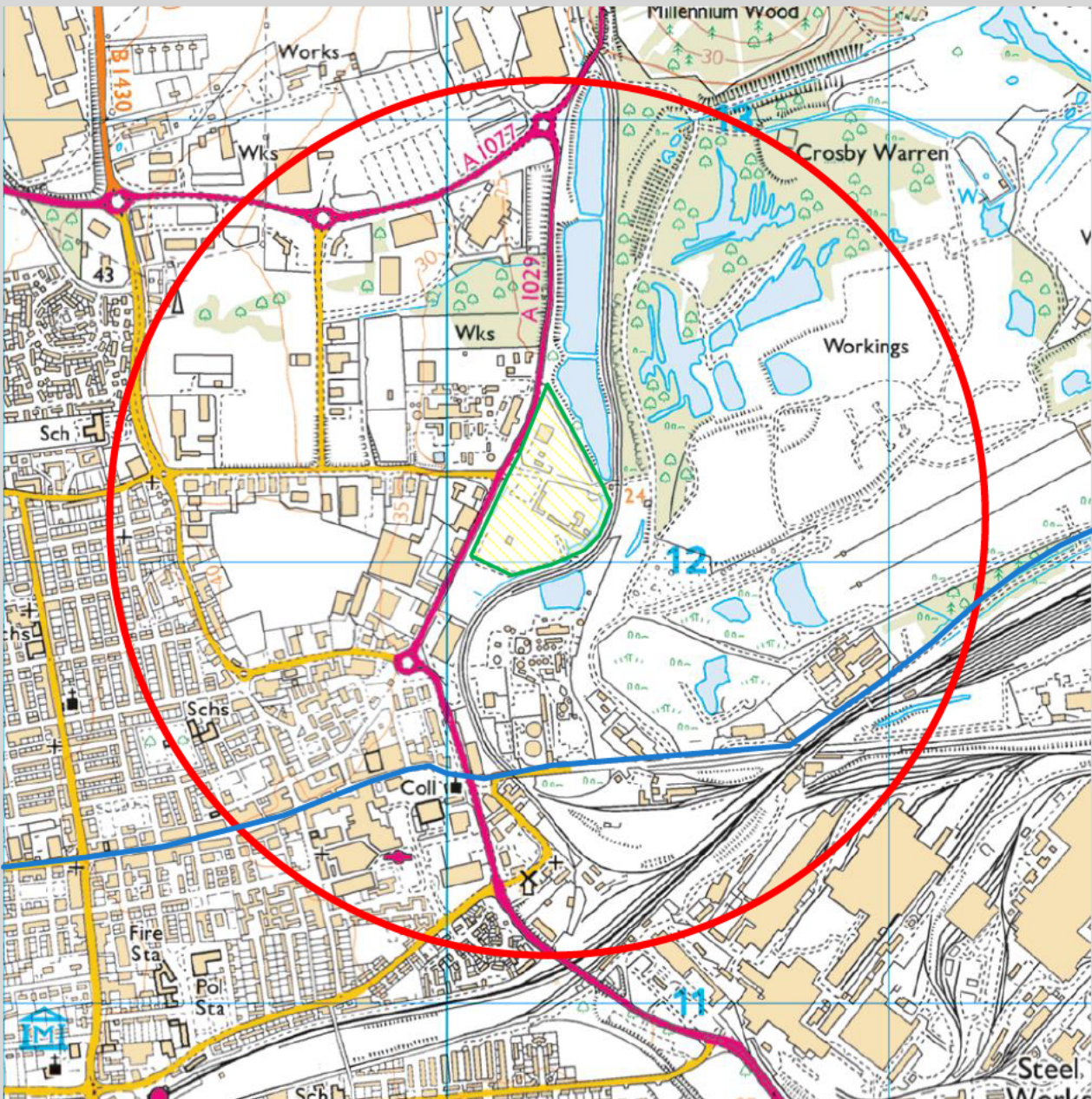
Proposed Discharge rate of 17.3l/s based on Qbar rate for 4.5 hectares.
Occupier should undertake regular inspection of control manhole and clear when required.

KEY:

- Roofed and Paved Areas requiring formalized drainage system. Drain to either swale or pond. roofed areas to be sealed downpipes. Paved areas to drain through appropriately sized interceptor. Total area is 1.19 hectares.
- Paved Area used for storing inert waste. Drains to perimeter swale then to pond. Total area is 3.14 hectares.
- SW Manhole
- SW Manhole with 300mm sump
- SW PPIC Manhole with 300mm deep sump and control of 17.3/s
- Existing Network of Open Ditches
- Proposed Pond 2890m² by 1.6m deep. Bed area 1603m². 100yr+CC20% volume of 3136m³. Existing pond to be modified
- Surface Water headwall
- ACCO Drainage Channel
- Under drained swale
- Earth Bund

ELLGIA		
Ellgia Ltd, 7 Lancaster Way, Ely, Cambridgeshire, CB6 3NW		
Title	Site Drainage Scheme	
Drawing No.	ELL/SCU/FPP/014	
Date	Revision	Scale
Jan 2022	B	

Ellgia Scunthorpe Receptors with 1km
Grid Reference SE 90224 12236



ELLGIA

Ellgia Ltd, 7 Lancaster Way, Ely, Cambridgeshire, CB6 3NW

Title	Sensitive Receptors	
Drawing No.	ELL/SCU/FPP/020	
Date	Revision	Scale
28/09/21	A	NA

Annex B

Sensitive Receptors

Ellgia	SENSITIVE RECEPTOR SCHEDULES	
Document Reference: SCU EM 05-006	Issue Number: 2	Issue Date: 30:09:21

The Table below details the identified sensitive receptors for the Top 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.

Nature of Receptor		Direction	Approximate Distance from Site	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	17
		W	155 metres	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.		
<p>*: Closest receptor identified;</p> <p>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.</p> <p>2: Closest local road network only;</p> <p>3 Distance shown measured using Ordnance Survey data provided by Promap;</p> <p>4 Air Quality Management Zone data assessed using www.airquality.co.uk/archive/laqm/laqm.php November 2009;</p> <p>5 Nature and Conservation receptors established through the MAGIC and Nature on the Map websites October / November 2009</p>				

Issued By:	Page 1 of 2	Approved By:
Cameron Murdoch		Jack Lavington

Ellgia	SENSITIVE RECEPTOR SCHEDULES	
Document Reference: SCU EM 05-006	Issue Number: 2	Issue Date: 30:09:21

The Table below details the identified sensitive receptors for the Bottom 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.

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 Northeast 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				

Issued By:	Page 2 of 2	Approved By:
Cameron Murdoch		Jack Lavington

Annex C

Hot Works Permit

HOT WORK PERMIT

Part 1 - Work

Company:	
Name of person responsible for Hot works	
Site address:	
Description of work to be done	
Location of work on site	
<i>I Confirm "The above location has been examined and the precautions listed has been Checked"</i>	
Date:	
Time of issue:	
Time of expiry:	
Signature of person issuing permit	
Print Name	

Note: This permit is only valid on the day of issue.

Part 2 – Confirmation of Completion

Company / contractor receiving the permit:	
Time work started:	
Time work finished and cleared up:	
Signature of person receiving permit:	
Print Name	

HOT WORK PERMIT

Part 3 - FINAL CHECK

I confirm "Work areas and all adjacent areas to which sparks, and heat might have spread (such as floors above and below and on opposite sides of walls) were inspected one hour after the work finished and were found to be fire safe"

Signature of person carrying out final check:

Print Name:

After signing return permit to person who issued the permit to work.

HOT WORK PERMIT CHECKLIST

Hot Work Area

- All Flammable and loose combustible material within 10 metres must be cleared away before any work commences.
- Non moveable combustible material within 10 meters of work must be covered with a overlapping non-combustible sheet
- All holes, openings in walls, partitions and ceiling through sparks could pass are to be fully covered by a non-combustible sheet or screen
- Suitable extinguishers to hand (min of 2) will be kept in the area until the final check has been carried out one hour after completion of the job.
- Gas cylinders fitted with a regulator and flashback arrestor not in immediate use shall be kept at least 10 metre away.
- All hot work equipment involved in the activity must be switch off when not in use.
- All work should be completed as per company risk assessment
- Other personnel who may be affected by the work removed from the area

Work on walls, ceilings or partitions

- Opposite side checked for combustible waste, Combustible waste at a risk of ignition are to be removed, all immovable combustibles material must be covered with a overlapping non-combustible sheet orscreen

Welding, cutting or grinding work

- Work area screened to contain sparks

Annex D

Oils, Fuels and Combustible Goods

Fuels, Oils and Combustibles Schedule

See drawing ELL/SCU/FPP/011

Location	Inventory of Fuels and Combustibles
Compliance Office	Aerosol (max 48 tins) cab cleaner for the Truck
Parts Stores COSH Cupboard	Grease Cartridge - 72 Max WD40 Aerosol – 12 Max Brake Cleaner aerosol – 12 Max Spray Grease Aerosol – 6 Max Cooper Grease Aerosol – 6 Max 25 litre brake cleaner – 1 Max 6/8 5 litre Paint
Main Yard	Fuel Tank (Diesel) 40,000 litre Ad-blue 3000 litre (3 x 1000litre ibc)
Vehicle Workshop	1100 litre Hydraulic tank with bund 1100 litre engine oil tank with bund Waste oil bund 4000 litre rear of workshop
Coshh Cupboard	Grease Cartridge - 72 Max WD40 Aerosol – 12 Max Brake Cleaner aerosol – 12 Max Spray Grease Aerosol – 6 Max Cooper Grease Aerosol – 6 Max 25 litre brake cleaner – 1 Max 6/8 5 litre Paint Burning and Welding Equipment
SRF Plant storage container	Grease (72 cartridges) 2 x 5000 litre fuel tanks
RDF Shed maintenance storage container	Grease (72 cartridges) 1 x 5000 litre fuel tanks
C&D Line Maintenance Storage Container	Engine Oil 205 litre Drum Hydraulic Oil 205 litre Drum Antifreeze 205 litre Drum Coolant 205 litre drum Fuel Tank 13000litre tank
Welding Workshop	Burning and welding gear 6 to 8 x 5 litre Paint

Annex E

Flamescan / Fire-MIST® water mist fire suppression systems

System Design, Conformity and Capability

The fire suppression systems are supplied by Helios Fire Systems

All equipment and installations are covered by UKAS accreditation and the system and extinguishing components are tested and manufactured to the following standards:

Standard	Coverage
<i>FM Class 3265</i>	<i>Approvals Standard for Spark Detection and Extinguishing systems.</i>
<i>FM Class 2021, 2025</i>	<i>Approvals Standard for Automatic and Open Water Spray Nozzles</i>
<i>FM Class 3260</i>	<i>Radiant Energy-Sensing Fire Detectors for Automatic Fire Alarm Signalling</i>
<i>NFPA 15</i>	Standard for Water Spray Fixed Systems for Fire Protection
BS 8489	Fixed Fire Protection Systems – Industrial and Commercial Watermist Systems
NFPA 750	Standard for Watermist Fire Protection Systems

Technology

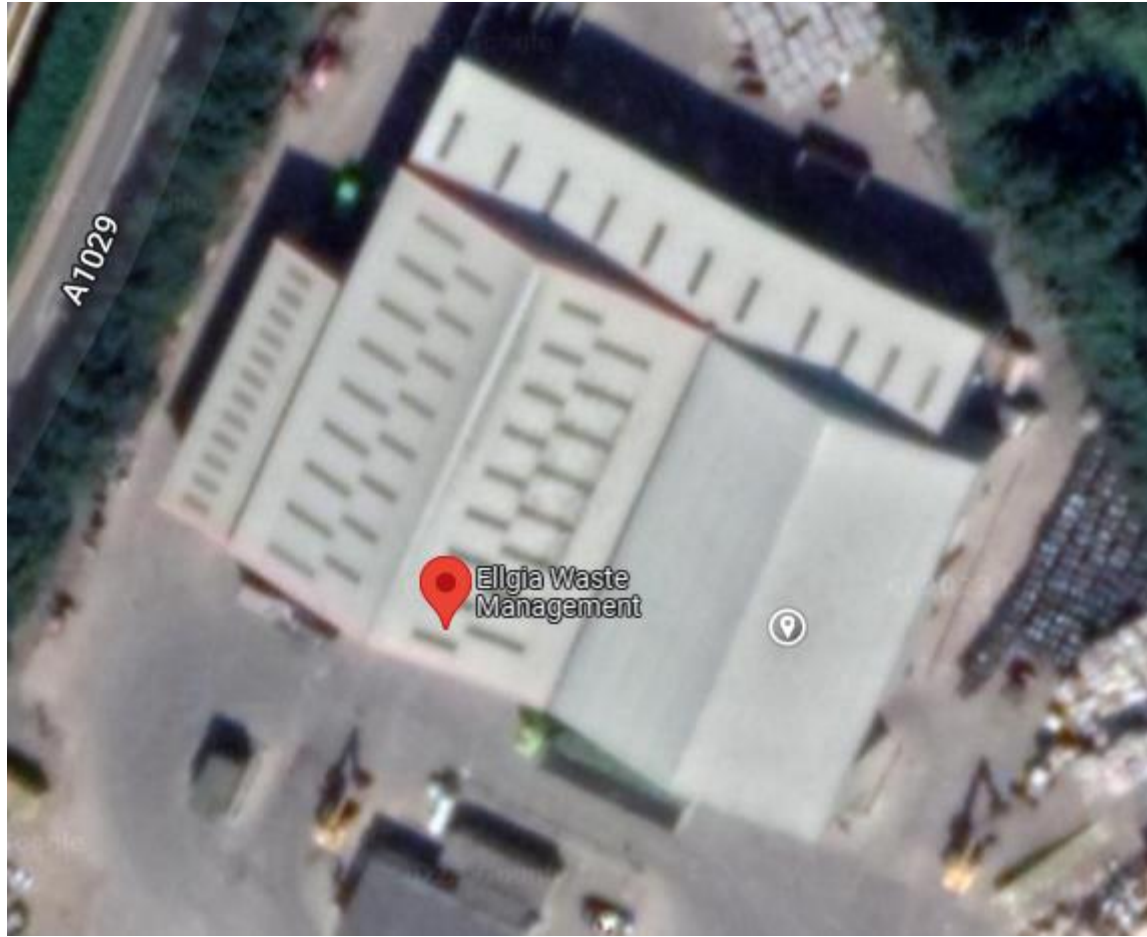
By atomising the water into a fine mist the droplets immediately convert to steam and absorb the energy, quickly controlling the fire and cooling the surrounding areas. Once the fire has been extinguished the droplets being discharged continue the effect by removing heat from the fuel source thus preventing re-ignition. Additionally, this leads to a localised reduction in oxygen from the flame front, which creates a local inert atmosphere as it starves the combusting fuel of Oxygen.

Elgia Waste Management (Scunthorpe)

Site plan layout



HELIOS
FIRE SYSTEMS

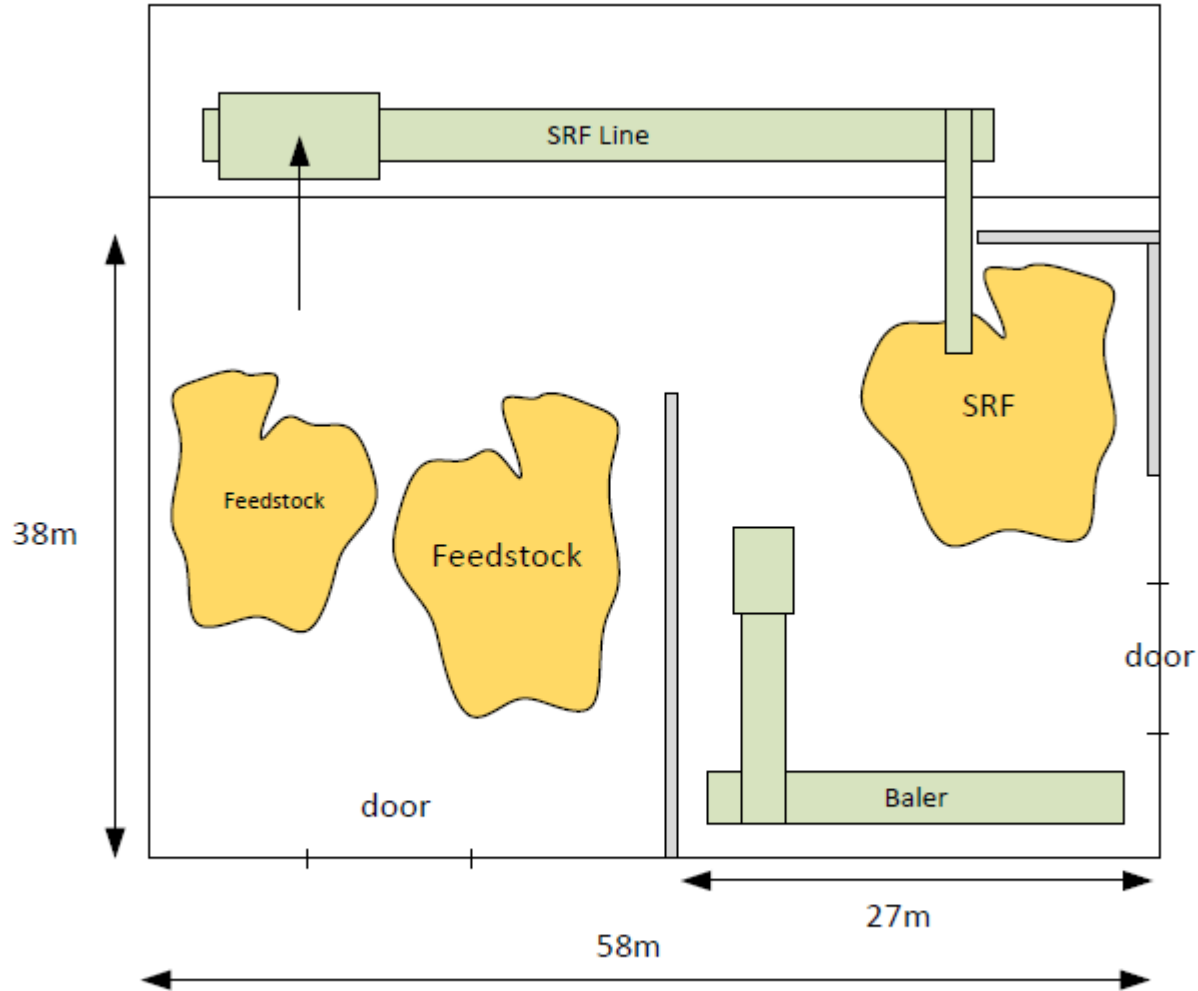


Elgia Waste Management (Scunthorpe)

Building operational layout



HELIOS
FIRE SYSTEMS

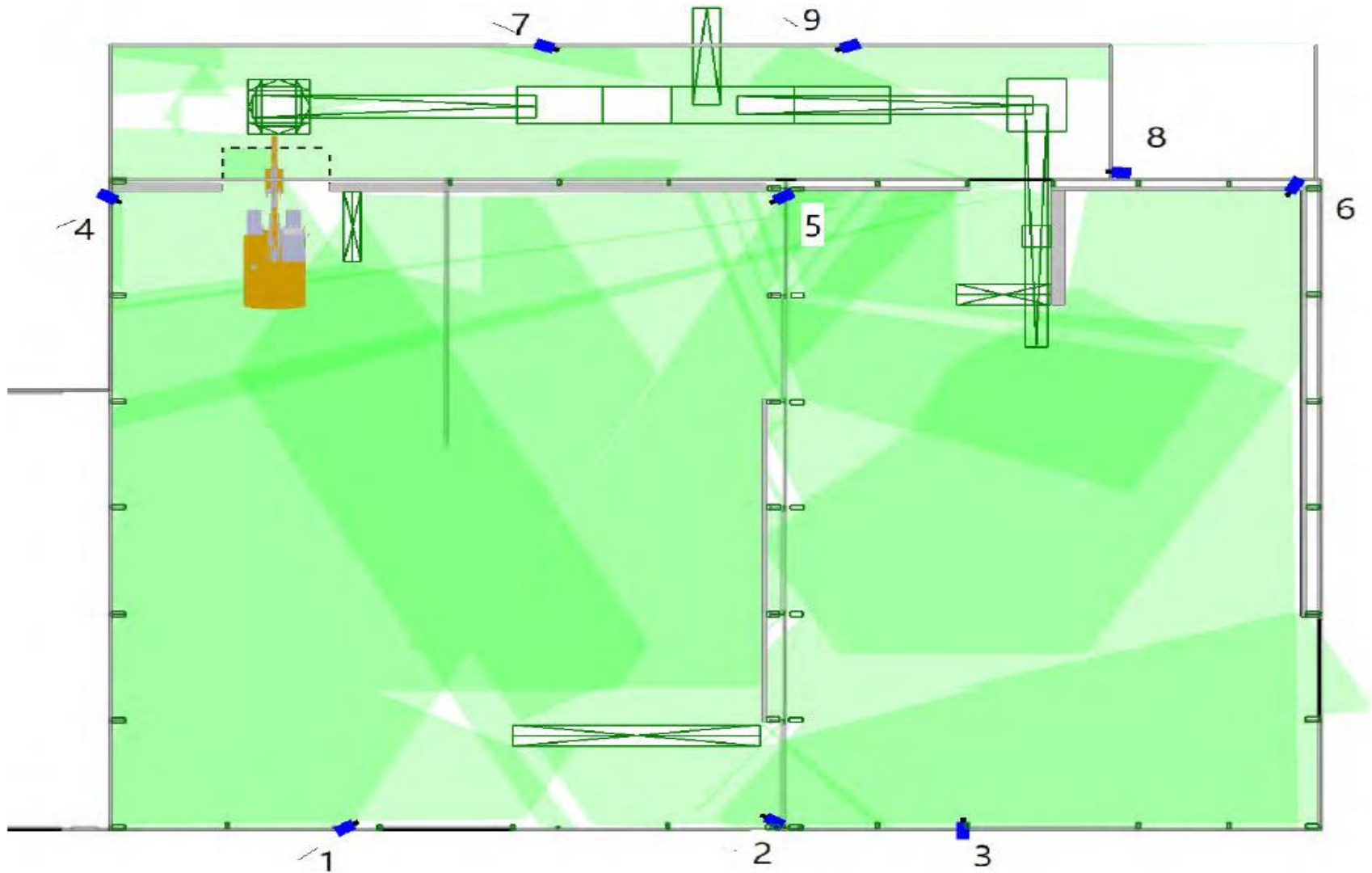


Ellgia Waste Management (Scunthorpe)

Camera layout (Plan Elevation)



HELIOS
FIRE SYSTEMS

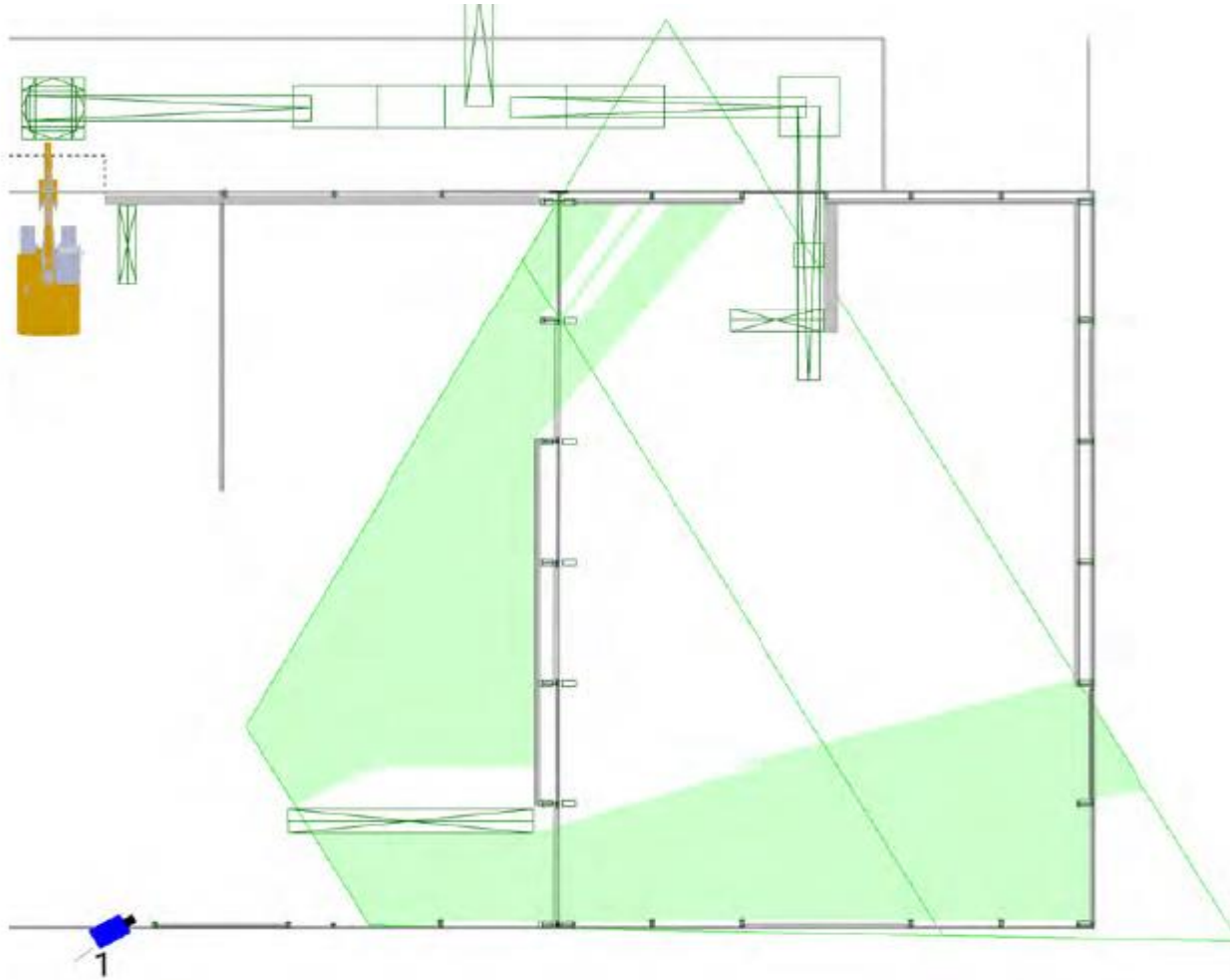


Ellgia Waste Management (Scunthorpe)

Camera 1 Field of view



HELIOS
FIRE SYSTEMS

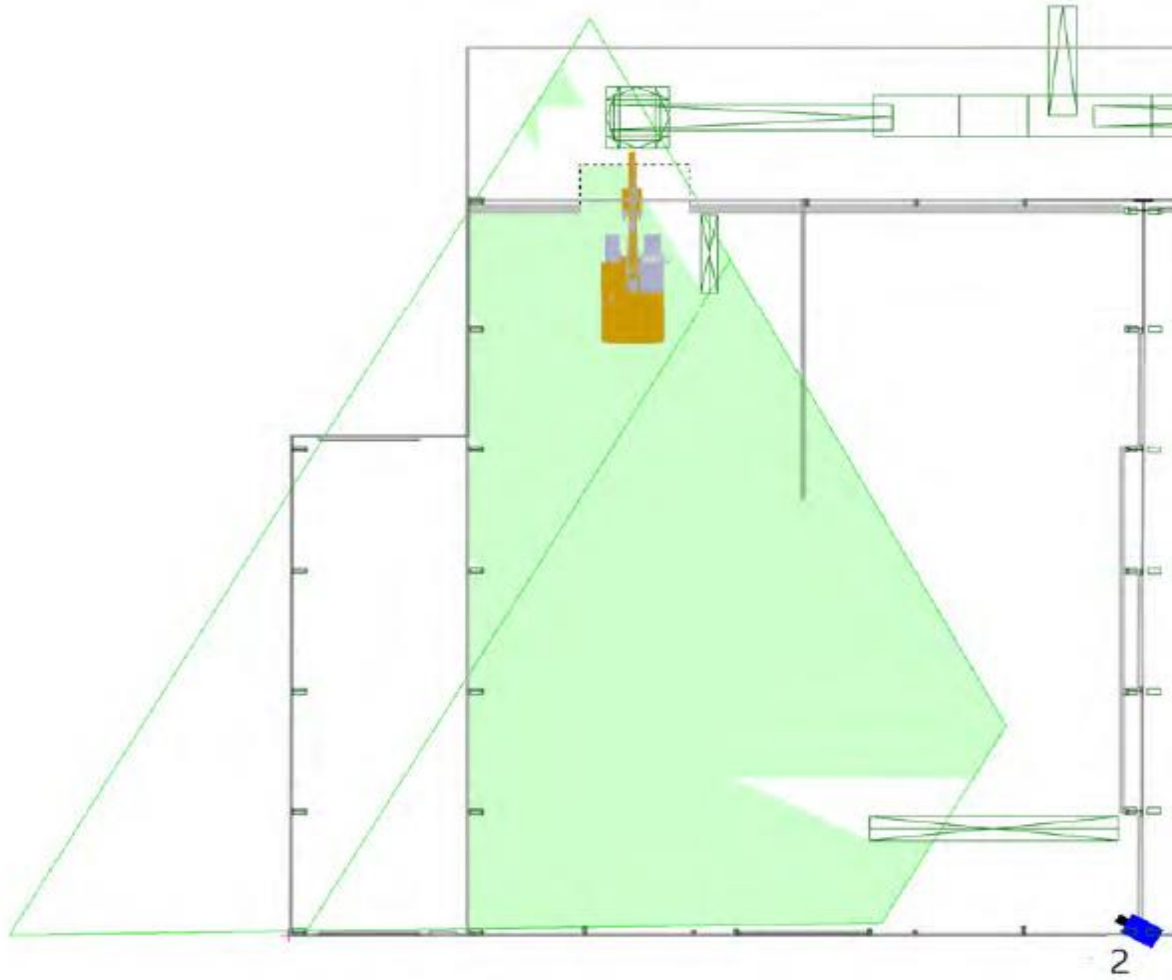


Elgia Waste Management (Scunthorpe)

Camera 2 Field of view



HELIOS
FIRE SYSTEMS

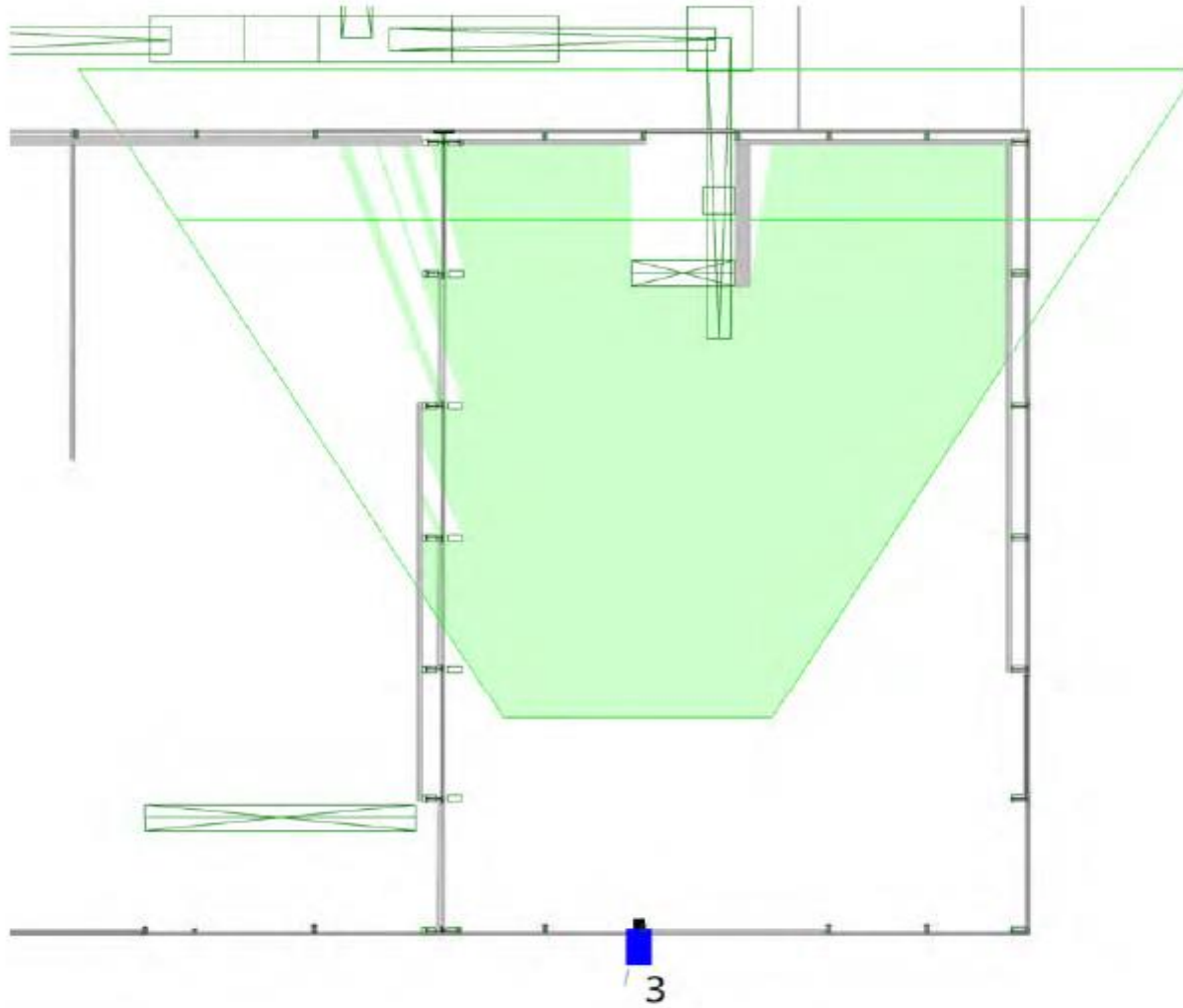


Ellgia Waste Management (Scunthorpe)

Camera 3 Field of view



HELIOS
FIRE SYSTEMS

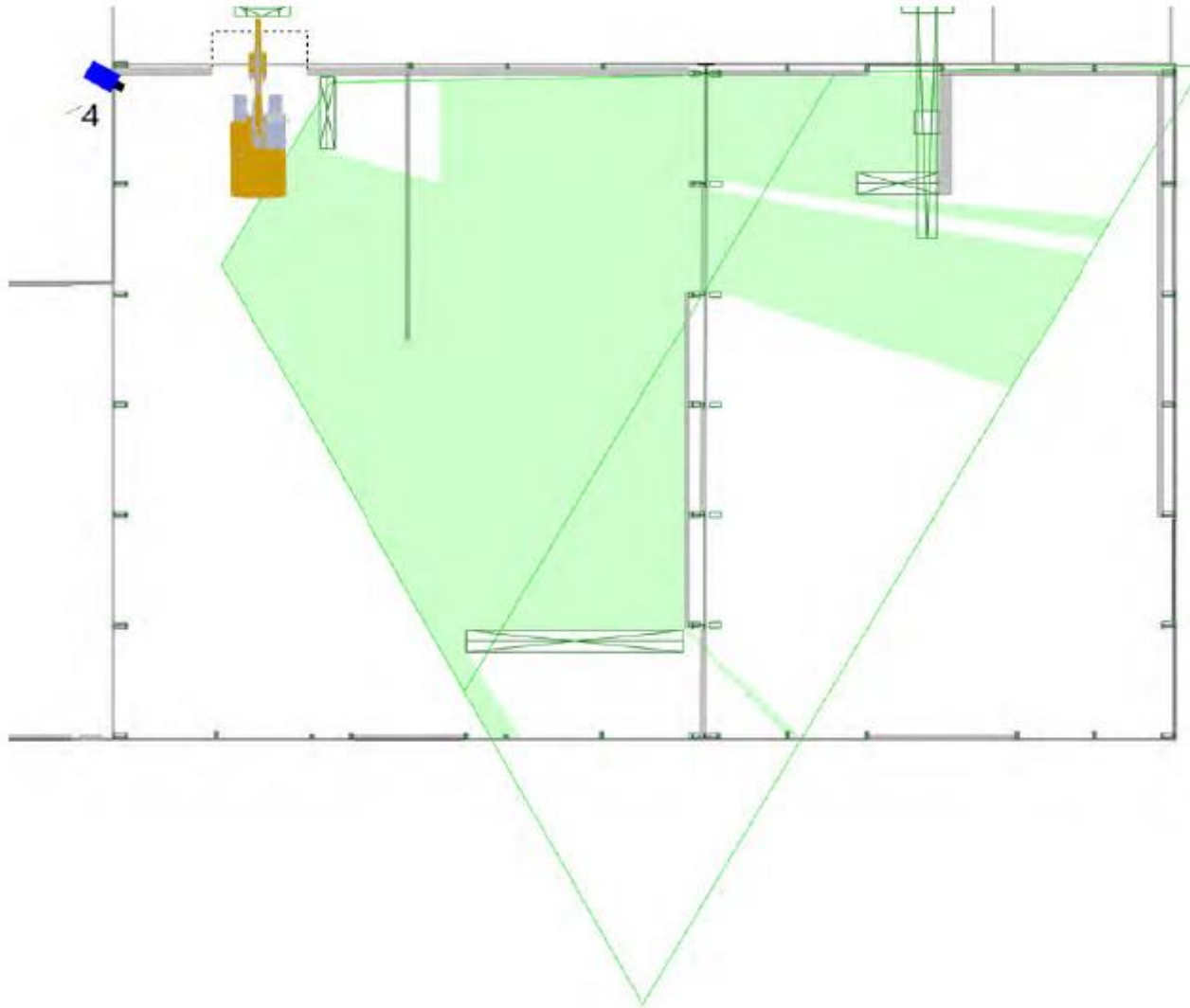


Ellgia Waste Management (Scunthorpe)

Camera 4 Field of view



HELIOS
FIRE SYSTEMS

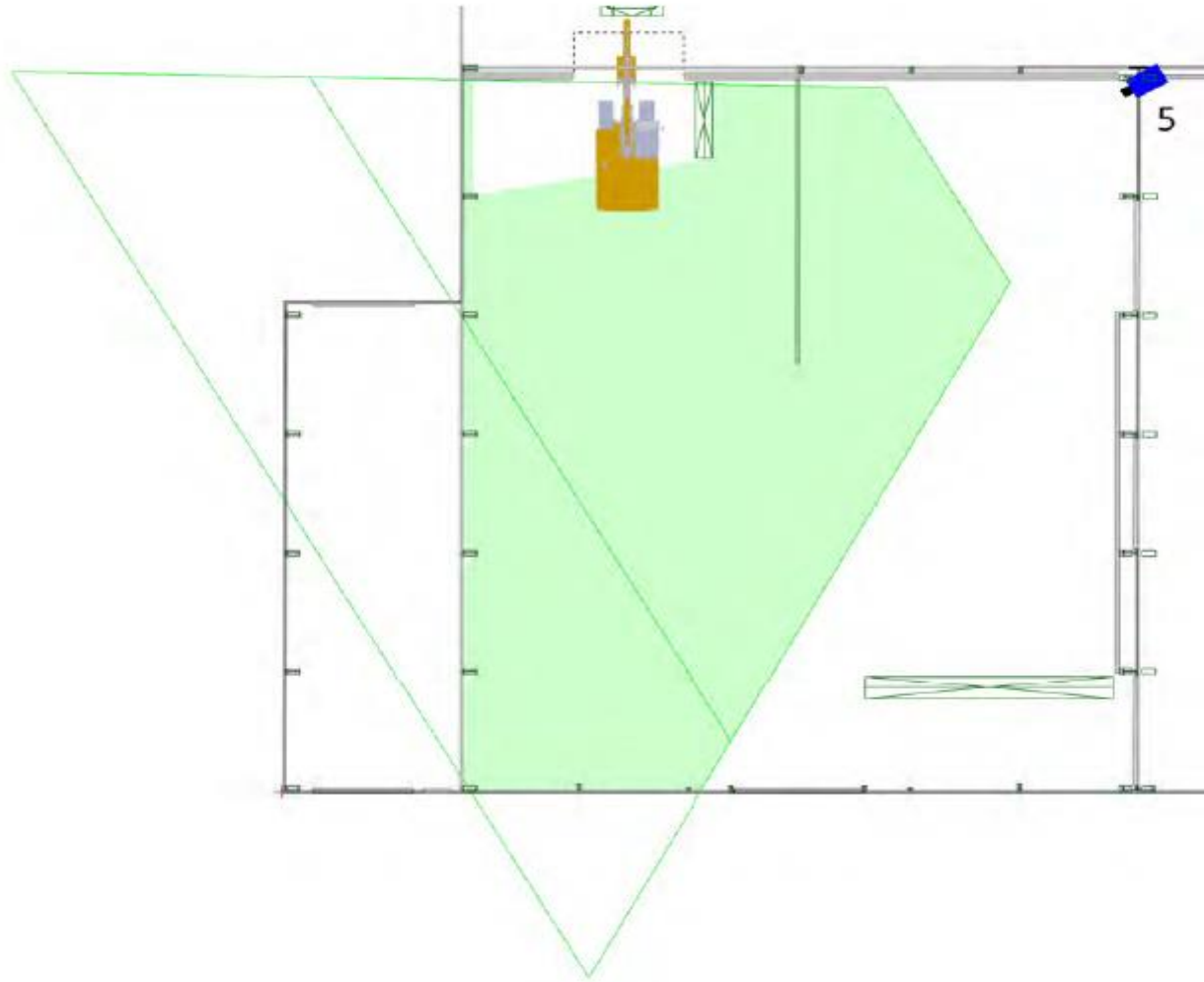


Ellgia Waste Management (Scunthorpe)

Camera 5 Field of view

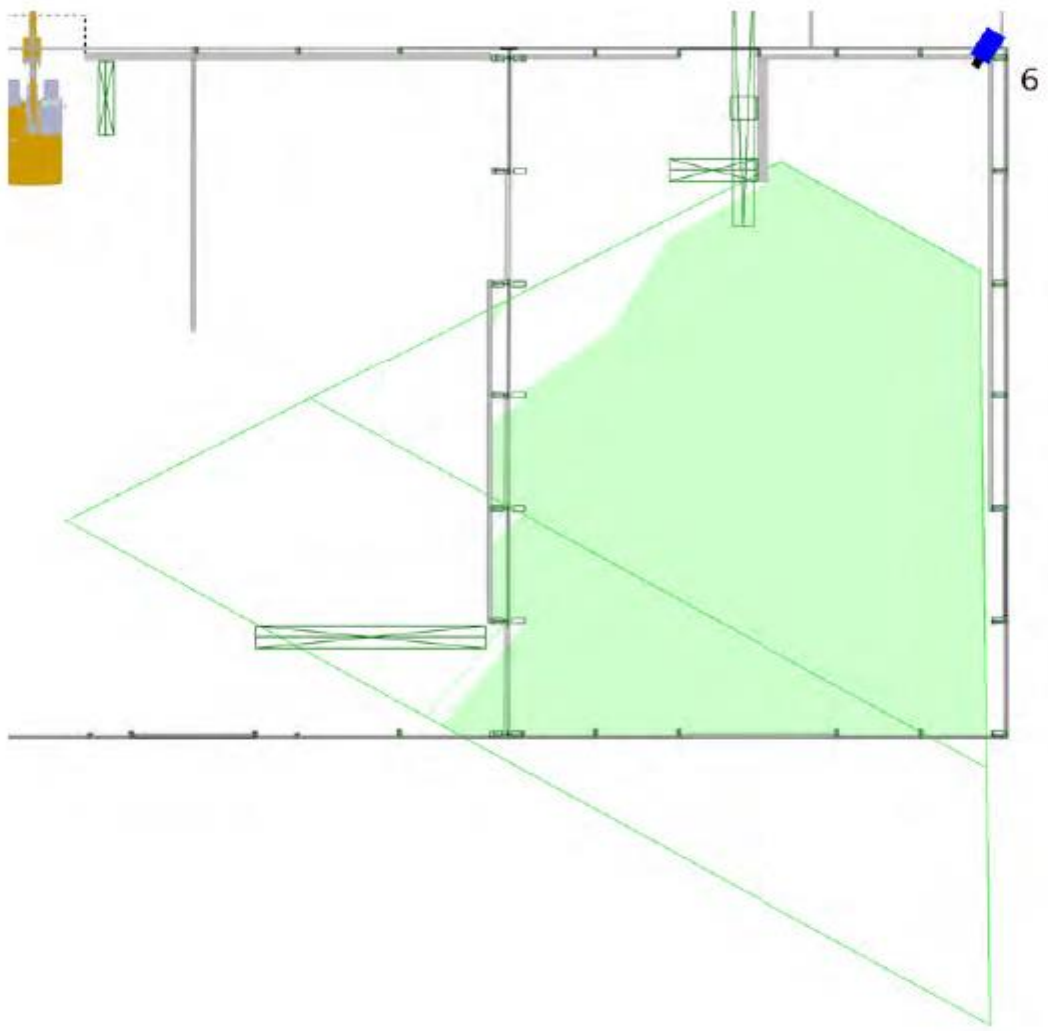


HELIOS
FIRE SYSTEMS



Ellgia Waste Management (Scunthorpe)

Camera 6 Field of view

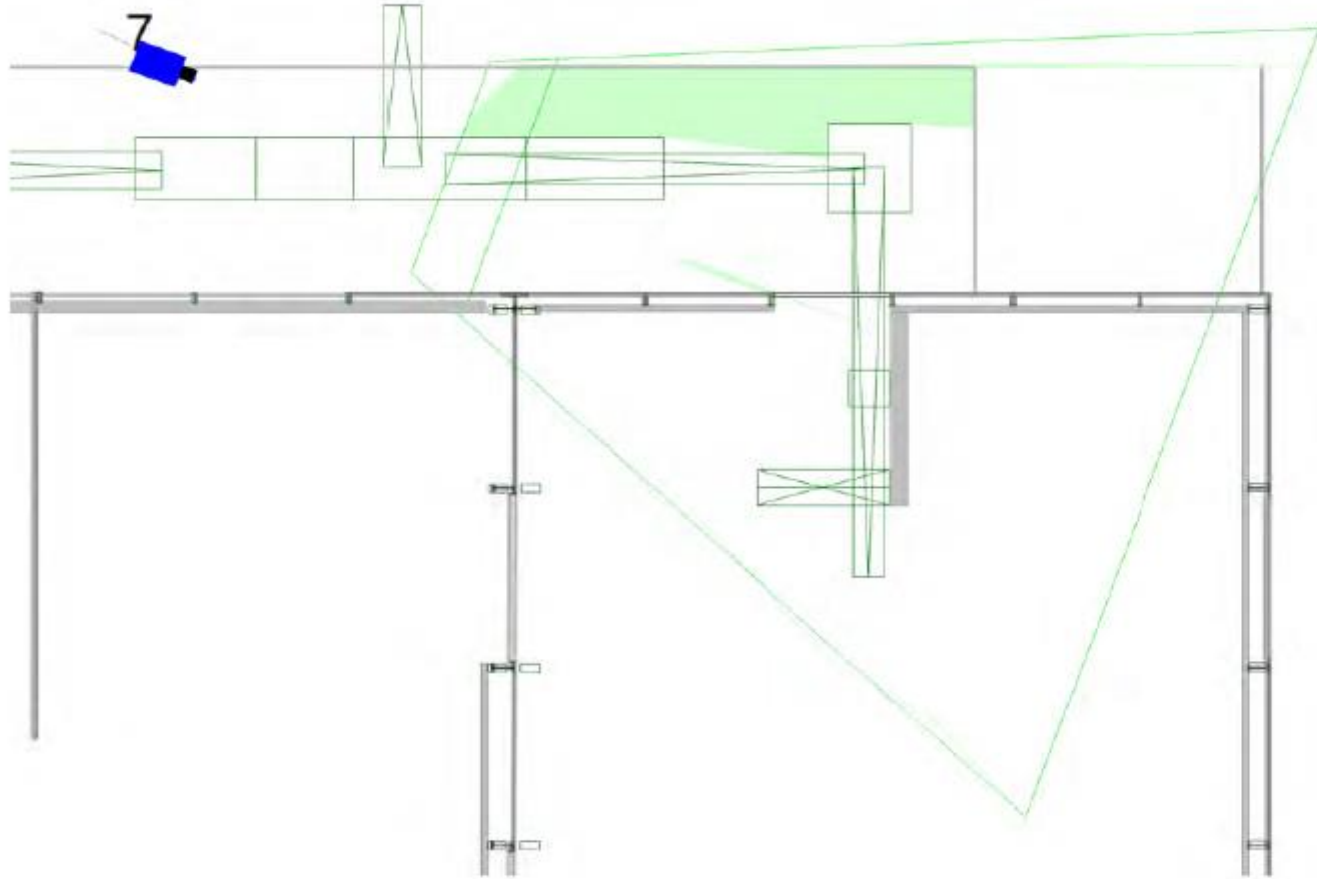


Ellgia Waste Management (Scunthorpe)

Camera 7 Field of view



HELIOS
FIRE SYSTEMS

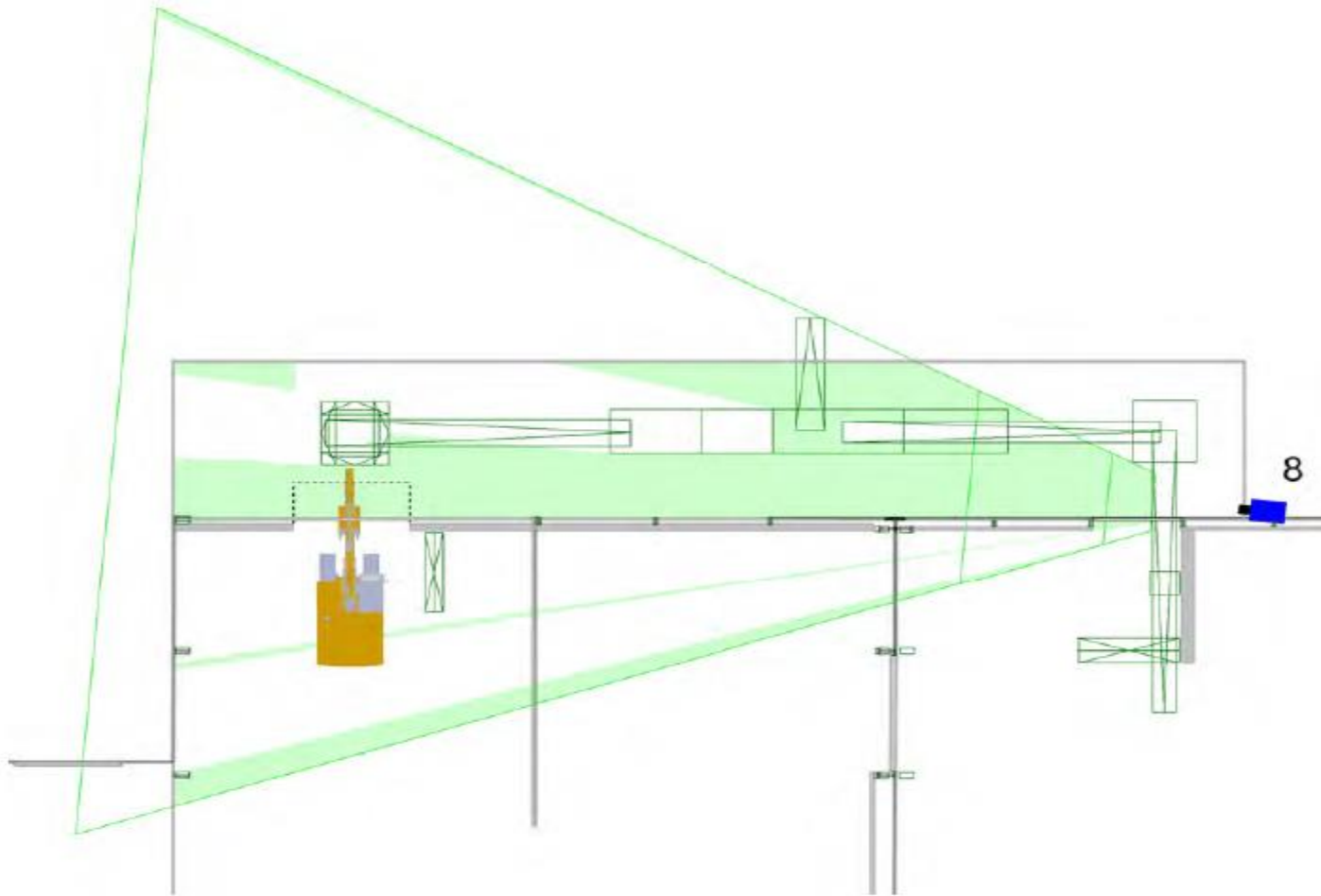


Ellgia Waste Management (Scunthorpe)

Camera 8 Field of view



HELIOS
FIRE SYSTEMS

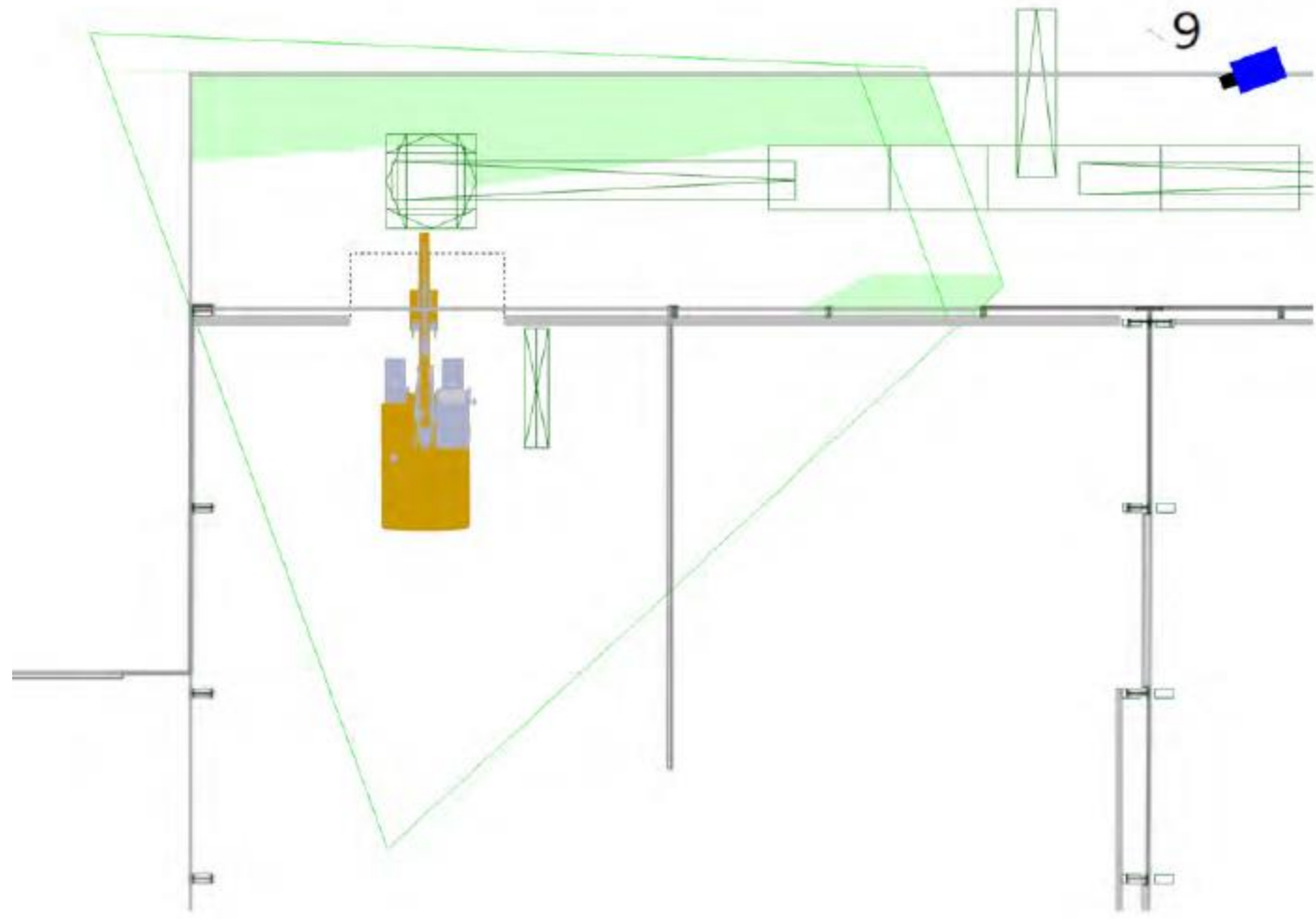


Ellgia Waste Management (Scunthorpe)

Camera 9 Field of view



HELIOS
RE SYSTEMS

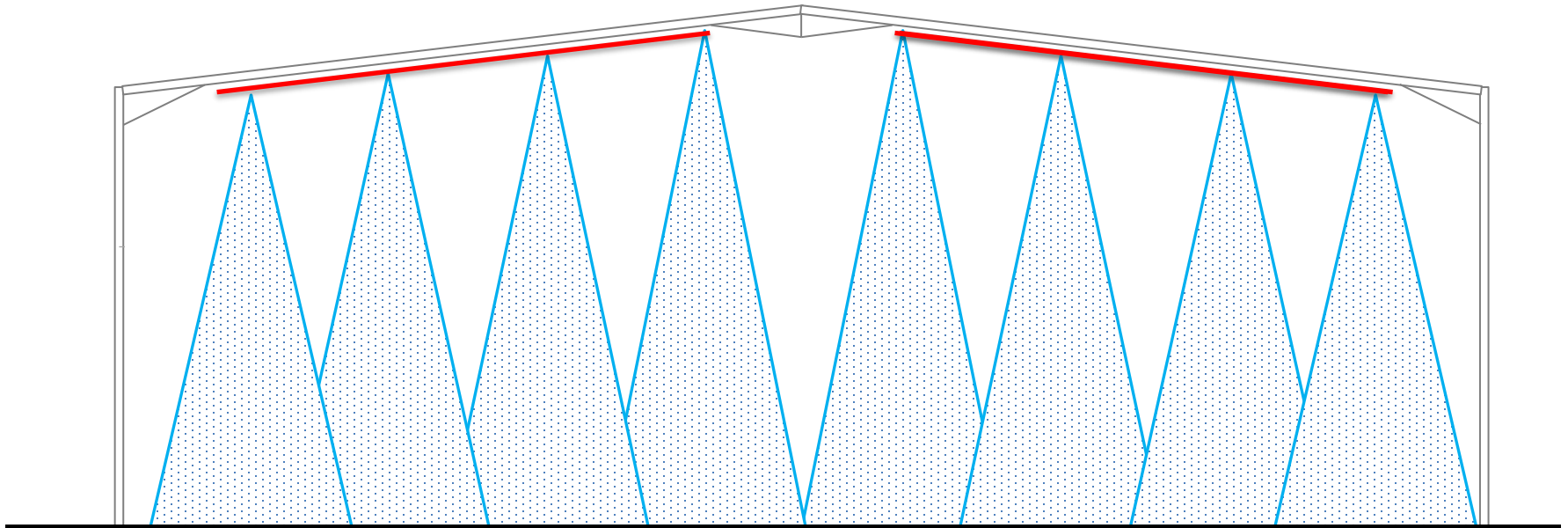


Ellgia Waste Management (Scunthorpe)

Fire-MIST® Suppression area 80 nozzles, building seperated into 3 zones



HELIOS
FIRE SYSTEMS



Annex F

Maintenance Schedule

Annex F Example of Maintenance Schedule

A	B	C	D	E	F	G	H	I	J
Day	Plant number	Task name	Note for engineer	Work order	Printed Yes/No	Status	Assigned to	Priority	Additional Comments
	Engineers in Giles 6am - finish Ryan 6am -6pm Steve 6am - 6pm								
3rd	P188	Daily Jupiter Shredder Checks	Jupiter SRF line	WO4311	YES	ACTIVE	Ryan / Steve	PPM	
	P189	Daily Komet Shredder Checks	Komet SRF line	WO4312	YES	ACTIVE	Ryan / Steve	PPM	
	P189	Daily Jupiter Shredder Checks	Jupiter RDF line	WO4313	YES	ACTIVE	Ryan / Steve	PPM	
	P189	Re - Torque teeth Row 1 - 4 (Row1)	Jupiter SRF line	WO4314	YES	ACTIVE	Ryan / Steve	PPM	
	P189	Re - Torque teeth Row 1 - 4 (Row 1)	Komet SRF line	WO4315	YES	ACTIVE	Ryan / Steve	PPM	
	P190	Re - Torque teeth Row 1 - 4 (Row 1)	Jupiter RDF line	WO4316	YES	ACTIVE	Ryan / Steve	PPM	
	P172	Replace Tana Air Filter and Coolant Filter		WO4317	YES	ACTIVE	Steve	PPM	
	DA12 CUX	Defect. replace door strap		WO4364	YES	ACTIVE	Giles	defect	
	FX07 CJO	FX07CJO Wiring Loom		WO4018	YES	ACTIVE	Ryan	PMI	
	P145	JCB 437HT Horn		WO4318	YES	ACTIVE	Steve	DEFECT	
	Engineers in Giles 6am - finish Ryan 6am -6pm Steve 6am - 6pm								
4th	P188	Daily Jupiter Shredder Checks	Jupiter SRF line	WO4319	YES	ACTIVE	Ryan / Steve	PPM	
	P189	Daily Komet Shredder Checks	Komet SRF line	WO4320	YES	ACTIVE	Ryan / Steve	PPM	
	P190	Daily Jupiter Shredder Checks	Jupiter RDF line	WO4321	YES	ACTIVE	Ryan / Steve	PPM	
	P188	Re - Torque teeth Row 1 - 4 (Row2)	Jupiter SRF line	WO4322	YES	ACTIVE	Ryan / Steve	PPM	
	P189	Re - Torque teeth Row 1 - 4 (Row 2)	Komet SRF line	WO4223	YES	ACTIVE	Ryan / Steve	PPM	
	P190	Re - Torque teeth Row 1 - 4 (Row 2)	Jupiter RDF line	WO4324	YES	ACTIVE	Ryan / Steve	PPM	
	SITE	External netting fence		WO3646	YES	ACTIVE	Ryan	IMPROV	
	FX07 CJO	Mot Prep		WO4299	YES	ACTIVE	Giles/ Ryan	DEFECT	
	P158	Replace Ram and Clean Washers		WO4325	YES	ACTIVE	Steve	DEFECT	
	DG17 KTD	brake light fault		WO4361	YES	ACTIVE	Stephen	DEFECT	
	SN72 WJT	Repair to rear light guard, rsg plate & ADA Board		WO4362	YES	ACTIVE	Ryan	DEFECT	
	P189	Repairs to momet, replace broken tooth, unblock		WO4363	YES	ACTIVE	Ryan	DEFECT	
	AY18 LZU	NS rear lamp Inop		WO4360	YES	Active	Stephen	DEFECT	
	VX15 KGK	Fit Alternator from AY18LZU		WO4367	YES	Active	Giles	DEFECT	
	AY18 LZV	Remove alternator to fit on to VX15 KGK, while awaiting new part		WO68	YES	Active	Giles	DEFECT	
	BUS6 DHQ	Defect		WO3787	YES	ACTIVE	Giles / Ryan	DEFECT	
		Engineers in Giles 6am - finish Ryan 6am -6pm Steve 6am - 6pm							
5th	P188	Weekly Jupiter Shredder Checks	Jupiter SRF line	WO4326	YES	ACTIVE	Ryan / Steve	PPM	
	P189	Weekly Komet Shredder Checks	Komet SRF line	WO4327	YES	ACTIVE	Ryan / Steve	PPM	
	P190	Weekly Jupiter Shredder Checks	Jupiter RDF line	WO4328	YES	ACTIVE	Ryan / Steve	PPM	
	P188	Re - Torque teeth Row 1 - 4 (Row 3)	Jupiter SRF line	WO4329	YES	ACTIVE	Ryan / Steve	PPM	
	P189	Re - Torque teeth Row 1 - 4 (Row 3)	Komet SRF line	WO4330	YES	ACTIVE	Ryan / Steve	PPM	
	P190	Re - Torque teeth Row 1 - 4 (Row 3)	Jupiter RDF line	WO4331	YES	ACTIVE	Ryan / Steve	PPM	
	DA12 CUX	PMI & BRAKE TEST		WO4332	YES	ACTIVE	Giles	PPM	
	YX70 NHG	YX70 NHG Grease line Adaption		WO4012	YES	ACTIVE	Giles	IMPROV	
	AD55	AD55 Inspection		WO4333	YES	ACTIVE	Steve	PPM	
	E00V	Eddy Current Inspection		WO4334	YES	ACTIVE	Steve	PPM	
	FD21MME	FD21 MME O/S Beacon		WO4218	YES	ACTIVE	Steve	DEFECT	
	P181	Fire Engine inspection		WO4335	YES	ACTIVE	Steve	PPM	
	P157	Coolant leak		WO4370	YES	ACTIVE	Stephen	BREAKDOWN	
	P183	Remove paneling and clean rad cores		WO4369	YES	ACTIVE	Stephen	PPM	
FX07 CJO	FX07CJO Mot Prep		WO4299	YES	ACTIVE	Giles/ Ryan	MOT		
	Engineers in Giles 6am - finish Ryan 6am -6pm Steve 6am - 6pm								
6th	P188	Daily Jupiter Shredder Checks	Jupiter SRF line	WO4336	YES	ACTIVE	Ryan / Steve	PPM	
	P189	Daily Komet Shredder Checks	Komet SRF line	WO4337	YES	ACTIVE	Ryan / Steve	PPM	
	P190	Daily Jupiter Shredder Checks	Jupiter RDF line	WO4338	YES	ACTIVE	Ryan / Steve	PPM	
	P188	Re - Torque teeth Row 1 - 4 (Row 4)	Jupiter SRF line	WO4339	YES	ACTIVE	Ryan / Steve	PPM	
	P189	Re - Torque teeth Row 1 - 4 (Row 4)	Komet SRF line	WO4340	YES	ACTIVE	Ryan / Steve	PPM	
	P190	Re - Torque teeth Row 1 - 4 (Row 4)	Jupiter RDF line	WO4341	YES	ACTIVE	Ryan / Steve	PPM	
	SRF	REPLACE NYLON ROLLERS		WO4342	YES	ACTIVE	Ryan	PPM	
	BUS6 DHQ	BUS6 DHQ Defect		WO3787	YES	ACTIVE	Giles	DEFECT	
	P207	P207 Inspection And Reverse Alarm		WO4343	YES	ACTIVE	Steve	PPM	
	P185	Volvo skip shunter inspection		WO4344	YES	ACTIVE	Steve	PPM	
FX07 CJO	FX07CJO Mot Prep		WO4299	YES	ACTIVE	Giles/ Ryan	MOT		
	Engineers in Giles - Holiday Ryan 6am -4pm Adam - Holiday								
7th	P188	Daily Jupiter Shredder Checks	Jupiter SRF line	WO4345	YES	ACTIVE	Ryan	PPM	
	P189	Daily Komet Shredder Checks	Komet SRF line	WO4346	YES	ACTIVE	Ryan	PPM	
	P190	Daily Jupiter Shredder Checks	Jupiter SRF line	WO4347	YES	ACTIVE	Ryan	PPM	
	P188	Re - Torque teeth Row 1 - 4. All Rows	Jupiter SRF line	WO4348	YES	ACTIVE	Ryan	PPM	
	P189	Re - Torque teeth Row 1 - 4. All Rows	Komet SRF line	WO4349	YES	ACTIVE	Ryan	PPM	
	P190	Re - Torque teeth Row 1 - 4. All Rows	Jupiter SRF line	WO4350	YES	ACTIVE	Ryan	PPM	
	C&D	C + D Line Inspection		WO4351	YES	ACTIVE	Ryan	PPM	
C&I	C + I Line Inspection		WO4352	YES	ACTIVE	Ryan	PPM		
	Engineers in Adam - Holiday								
8th	NO COVER								
	Engineers in Adam 6am - 6pm								
9th	P190	TOOTH CHANGE		WO4373	YES	AWAITING	Adam	PPM	
	P182	Blow Generator out		WO4354	YES	AWAITING	Adam	PPM	
	P183	Blow Generator out		WO4355	YES	AWAITING	Adam	PPM	

Annex G

Daily and weekly inspection Sheets



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Conduct 3 x pick rate assessments													
Report any missing rollers													
Empty and clean all bays													
Clean picking cabin													
Clean overhead magnets													
Clean conveyor skirting / rollers													
Check screen decks for blockages													
Check Screen has been greased													
Clean air filters on screen daily													
Check Screen has been re-fueled													
Check screen for oil water and hydraulic oil													
Confirmation Sign, Print & Additional Comments													

PAAL/DICOM BALER REPORT

OPERATOR NAME		DATE	
START TIME		HOUR METER START	
FINISH TIME		HOUR METER FINISH	
Total Card Bales		Total RDF Bales	Total SRF Bales

Machine breakdown detail

Reason	Comment	Time Start	Time Finish	(Minutes lost)
Total Minutes Lost (Excludes Checks)				

MONDAY STOCK CHECKS

Number of Baler twine

Number of reels of wrap

Number of boxes of labels

Additional Comments

Daily Checks	DONE	Additional Comments/Advisory
Check all electrical cables, switches. No breaks		
Check all emergency stop devices are operational		
Check all hydraulic pipework, ensure no leakage		
Check all guarding is in place, secure and not damaged		
Remove material and dust accumulations and dirt behind pressure plate		
Clean material and dust accumulations in the area of the needle slits, on the press chamber, door hinges and in the press filling area, clean guides of the needle slot cover		
Clean material adhering to the running surfaces of the pressure plate rollers		
Clean knotter housing		
Check knotter settings		
Grease bolts and guides in the channel adjustment		
Clean and grease the rollers for pressure plate		
Remove any build up of material under and around the baler and exit conveyors		
Check feeder belt and hopper are clear of debris		
Check all conveyors for wear and tracking		
Ensure power isolation at the end of operation		
Report all defects		
Check Oil level with cylinders retracted, top up as required		
Check, clean and adjust the light barriers		
Clean area around limit switches/proximity switches		
Signature.....		
Comments		

Print		Sign
<p>TANA Shark 440 PPM Weekly Inspection Sheet</p>		
Week Commencing		Hours
Description	Task	Completion
Comment		
General	Check H&S signage condition	
Electrical	Check wiring for damage	
Lubrication	Grease rollers and bearings	
Battery	Check Electrolyte level	
Conveyors	Check skirting – adjust / replace	
Conveyors	Check belt tension and tracking	
Conveyors	Grease Drum bearing	
Conveyors	Check gearbox bolts for tightness	
Conveyors	Check scraper and adjust	
Shredder	Check for material build up	
Tracks	Check tension	
Tracks	Check for oil leaks	
Engine	Drain water trap	
Engine	Check oil and fuel breathers	



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Engine	Check suction filter condition		
Engine	Check return filter condition		
Completed by Print			Sign



Operated Mobile plant Daily Check

Machine.....Plant No.....Hours..... Operator.....

Item	Check	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	Pre-shift Date-							
1	Engine Oil Level							
2	Coolant level							
3	Hydraulic Oil level							
4	Radiator cleaned out							
5	Mirrors & lights							
6	Steps & Hand Rails							
7	Flashing Beacons / LEDs							
8	Instrument Gauges							
9	Horn Operation							
10	Seat Belt							
11	Tracks / Wheels							
12	Reverse Alarm							
13	Fire Extinguishers							
14	Braking System							
15	Hose Condition (leaks)							
16	Machine Washed							
17	Machine Greased							
18	Tracks Cleaned Out							

Comments:

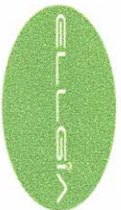
Powerscreen Warrior Daily Inspection Sheet									
Week Commencing									
Description	Task	M	T	W	TH	F	S	Completion	Comment
E-Stop circuit	Check operation of E- Stops								
Fuel system	Check fuel level and signs of leakage								
Guarding	Check for security & damage								
Hydraulics	Check oil level – top up if required								
Hydraulics	Check hoses for damage & leaks - report								
Conveyors	Check belts for rips and tears								
Conveyors	Check belt alignment								
Conveyors	Check rollers for free movement								
Tracks	Check for wear								
Engine	Check oil and coolant levels								
Lubrication	Grease rollers and bearings								
Conveyors	Check skirting – adjust / replace								
Conveyors	Check belt tension and tracking								
Conveyors	Grease Drum bearing								
Shaker decks	Check bolts for tightness								
Conveyors	Check scraper and adjust								
Completed by Print					Sign				

RDF REPORT

MACHINE	Lindner / Tana	AREA	RDF/SHED
OPERATOR NAME		DATE	
START TIME		HOUR METER START	
FINISH TIME		HOUR METER FINISH	
Total number of grabs/Buckets per Shift:			

Machine breakdown detail/Downtime

Comment	Time Start	Time Finish	(Minutes lost)
Total Minutes Lost (Excludes Checks)			
<u>Additional Comments</u>			



Mobile Plant Daily Check

Name of Plant

Item	Check	Date-	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
1	Check Coolant Level								
2	Check Engine oil Level								
3	Check /Clean Air Filter								
4	Blast radiator with air								
5	Check fan and belt for damage								
6	Check hydraulic oil								
7	Mirrors & Lights								
8	Steps and Handrails								
9	Flashing Beacons/LEDs								
10	Instrument gauges								
11	Horn Operation								
12	Seat Belt								
13	Tracks/wheels								
14	Reverse alarm								
15	Fire extinguishers								
16	Hose condition /Leaks								
17	Machine washed								
18	Machine greased								
19	Tracks cleaned out								
20	Accident/Damage								

Comments:

Plant Number	Model Type	Make	Category	Year of Manufacture	Owned Hired	Owned Hired
P145	437HT	JCB	Mechanical Handling Equipment	2015	Owned	
P157	JS220LC Excavator	JCB	Mechanical Handling Equipment	2015	Owned	
P162	JS160HR Excavator	JCB	Mechanical Handling Equipment	2017	Owned	
P168	Forklift	NISSAN	Mechanical Handling Equipment	2012	Owned	
P176	Forklift	Samuk	Mechanical Handling Equipment	2020	Owned	
P185	L120F Loading Shovel	Volvo	Mechanical Handling Equipment	2011	Owned	
P184	85z Mini Excavator	JCB	Mechanical Handling Equipment	2015	Owned	
P158	JS220LC Excavator	JCB	Mechanical Handling Equipment	2015	Owned	
P201	H30D	Linde	Mechanical Handling Equipment	2019	Hired	
P202	H35D	Linde	Mechanical Handling Equipment	2021	Hired	
P203	531-70	JCB	Mechanical Handling Equipment	2022	Hired	
P204	531-71	JCB	Mechanical Handling Equipment	2022	Hired	
P205	CX2100	Case	Mechanical Handling Equipment	2016	Hired	
P206	180MH	Atlas	Mechanical Handling Equipment	2020	Hired	
P155	Road Sweeper	Daf	Mechanical Handling Equipment		Owned	
P177	Lighting Tower		Static Plant Equipment		Owned	
P178	Lighting Tower		Static Plant Equipment		Owned	
	Yard Shunter	Man	Mechanical Handling Equipment		Owned	
	Skip Truck	Volvo	Mechanical Handling Equipment		Owned	
P182	SRF Gen		Static Plant Equipment		Owned	
P183	SRF Gen		Static Plant Equipment		Owned	
P193	RDF Gen		Static Plant Equipment		Owned	
P194	RDF Gen		Static Plant Equipment		Owned	
	Con Gen		Static Plant Equipment		Owned	
	Welder Gen		Static Plant Equipment		Owned	

Annex H

Safety Data Sheets

PRODUCT: EUROMASTER 15W/40

15

Sheet 1 of 4
Last Revision: 12.11.02
Issue No: 03

1. IDENTIFICATION OF SUBSTANCE/PREPARATION AND COMPANY

Product Name: EUROMASTER 15W/40
Application: Heavy-duty Diesel & Petrol Crankcase Lubricant
Manufacturer: BATOYLE FREEDOM GROUP
Colne Vale Road
Milnsbridge
Huddersfield
England
HD3 4NT
Emergency Telephone: 01484 653015

2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients: This material is not considered hazardous as defined by E.C. legislation.

3. HAZARDS IDENTIFICATION

This product is not considered hazardous, but should be handled in accordance with good standards of industrial hygiene and safety practices.

4. FIRST AID MEASURES

Eyes: Flush eyes with water, lifting eyelids for at least 15 minutes. If irritation persists obtain medical attention.
Skin: Remove contaminated clothing. Wash affected area with copious amounts of soap and water. If irritation persists obtain medical attention.
Ingestion: Rinse mouth out with water and give water to drink. DO NOT INDUCE VOMITING. Obtain immediate medical attention.
Inhalation: Remove to fresh air. Keep warm and at rest. Obtain medical attention if ill effects occur.

5. FIRE FIGHTING MEASURES

Extinguishing Media: Alcohol resistant foam, Dry chemical, Carbon Dioxide and Water fog (to cool containers)
DO NOT USE WATER JETS
Products of Combustion: Hazardous fumes may be evolved on burning or exposure to heat, this will include Carbon Monoxide.
Protective Equipment: Fire in confined spaces should be dealt with by trained personnel wearing approved breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

- Personal Precautions:** Wear appropriate protective clothing. Presents a significant slip hazard.
- Environmental Precautions:** Prevent entry into drains, sewers and watercourses.
- Decontamination Procedure:** Contain and recover using absorbent inert material and dispose of in accordance with local byelaws and the Environmental Protection Act 1990. In case of large spills contact the appropriate authorities immediately.

7. HANDLING AND STORAGE

- Handling Precautions:** Wear appropriate protective clothing.
- Storage Conditions:** Store in tightly closed original container in a cool, dry, well-ventilated place. Store away from sources of ignition and strong oxidising agents. Protect from extremes of temperature.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Eyes:** Wear chemical safety goggles.
- Skin:** Wear mineral oil resistant gloves and protective overalls and boots.
- Inhalation:** Ensure adequate ventilation or local exhaust measures.
- Exposure Limits:**
 - LTTEL (8 Hr TWA) Mineral Oil Mist = 5 mg/m³
 - STEL (15 min Ref) Mineral Oil Mist = 10mg/m³

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Specific Gravity @ 15°C	0.891
Kinematic Viscosity @ 40°C	>100 cSt
Flash Point (PMCC) °C	>200
Boiling Point Range °C	>320
Auto-ignition Temperature °C	>320
Solubility in Water	Insoluble
pH (3% Deionised)	-

10. STABILITY AND REACTIVITY

- Stability:** Stable under normal conditions of use.
- Incompatibility:** Avoid contact with strong oxidising agents.
- Decomposition:** Thermal decomposition can lead to the formation of a variety of compounds, the precise nature of which will depend on the prevailing conditions. Incomplete combustion will generate smoke, carbon dioxide and hazardous gases including carbon monoxide.

11. TOXICOLOGICAL INFORMATION

Ingestion: Expected to be of low order of oral toxicity. Main hazard is in the unlikely event of ingestion, vomiting may result in aspiration into the lungs with possible resultant chemically induced pneumonia.

Eyes: Unlikely to cause more than transient irritation.

Skin: Unlikely to cause more than transient irritation. Prolonged contact in conditions of poor hygiene can lead to defatting of the skin, dermatitis, erythema, oil acne and oil folliculitis.

Inhalation: Unlikely to be hazardous under normal conditions of use. Risk of severe pulmonary problems in case of accidental aspiration into lungs.

12. ECOLOGICAL INFORMATION

Mobility: Spillages may penetrate the soil causing ground contamination and eventually water contamination.

Persistence and Degradability: Expected to biodegrade slowly.

Bioaccumulative Effect: Contains components which have the potential to bioaccumulate.

Aquatic Toxicity: Will form a floating layer on surface, which will not dissolve to any great extent. Expected to be practically non-toxic to aquatic organisms, but has the potential to physically foul aquatic organisms.

13. DISPOSAL CONSIDERATIONS

Place used and contaminated materials in suitable containers. Dispose of the waste in compliance with the "Duty of Care" and Environmental Protection Act 1990 regulations. Always dispose of using a licensed waste disposal contractor.

14. TRANSPORT INFORMATION

Hazard Information: Not classified as hazardous for transportation.

15. REGULATORY INFORMATION

Hazard Label Data: No label required.

Risk and Safety Phrases: None

E.C. Directives: Dangerous Preparations Directive 2001/60/EC
91/156/EEC Framework Waste Directive
87/101/EEC Waste Oil Directive

Statutory Information: Chemicals (Hazard Information and Packaging for Supply) Regulations 2002 (CHIP 3)
EH40/2002 Occupational Exposure Limits
Health and Safety at Work Act 1974
Consumer Protection Act 1987
Control of Substances Hazardous to Health 1988
Environmental Protection Act 1990

16. OTHER INFORMATION

The Company: The information given applies when these products are sold for their stated applications and no others. Use of these products for applications other than those stated may give rise to risks not already covered in this document. Before using for applications other than directed seek advice from the company.

Third Party: If you have purchased this product for supply to a third party for use in the workplace, it is your duty to take all the necessary steps to ensure that any person handling this product is provided with the appropriate health and safety information.

The Employer: If you are an employer, it is your duty to warn your employees and others who may be affected of the hazards, if any, that are associated with the use of this product and any precautions that should be taken.

Approved Codes of Practice: Waste Management.
The Duty of Care.

SAFETY DATA SHEET

LITHIUM EP 2 GREASE

Page: 1

Compilation date: 12/01/2016

Revision No: 1

Section 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier****Product name:** LITHIUM EP 2 GREASE**Product code:** GR0122**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of substance / mixture:** Multipurpose grease.**1.3. Details of the supplier of the safety data sheet****Company name:** Squire A. Radcliffe & Sons Ltd, t/a SAR Lubricants

Gill Bridge Oil Works

Lowlands Road

Mirfield

West Yorkshire

WF14 8LU

United Kingdom

Tel: 01924 494371**Fax:** 01924 498940**Email:** dave@sarlubricants.co.uk**1.4. Emergency telephone number****Emergency tel:** 01924 494371

(office hours only)

Section 2: Hazards identification**2.1. Classification of the substance or mixture****Classification under CLP:** This product has no classification under CLP.**2.2. Label elements****Label elements:** This product has no label elements.**2.3. Other hazards****PBT:** This product is not identified as a PBT/vPvB substance.**Section 3: Composition/information on ingredients****3.2. Mixtures****Section 4: First aid measures**

SAFETY DATA SHEET

LITHIUM EP 2 GREASE

Page: 2

4.1. Description of first aid measures

Skin contact: Wash immediately with plenty of soap and water.

Eye contact: Bathe the eye with running water for 15 minutes. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

Ingestion: Wash out mouth with water. Do not induce vomiting. Consult a doctor.

Inhalation: Not applicable.

4.2. Most important symptoms and effects, both acute and delayed

Skin contact: There may be mild irritation at the site of contact.

Eye contact: There may be irritation and redness.

Ingestion: There may be irritation of the throat.

Inhalation: No symptoms.

4.3. Indication of any immediate medical attention and special treatment needed

Immediate / special treatment: Not applicable.

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: During fire toxic gases (CO, CO₂) are formed.

5.3. Advice for fire-fighters

Advice for fire-fighters: Wear protective clothing to prevent contact with skin and eyes. Wear self-contained breathing apparatus. (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European Standard EN 469 will provide a basic level of protection for chemical incidents. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Refer to section 8 of SDS for personal protection details. Turn leaking containers leak-side up to prevent the escape of liquid.

6.2. Environmental precautions

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways and sewers. Alert the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air) Collect spillage.

[cont...]

SAFETY DATA SHEET

LITHIUM EP 2 GREASE

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6.3. Methods and material for containment and cleaning up

Clean-up procedures: Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS.

Section 7: Handling and storage

7.1. Precautions for safe handling

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a cool, well ventilated area. Keep container tightly closed.

7.3. Specific end use(s)

Specific end use(s): No data available.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Workplace exposure limits: No data available.

DNEL/PNEC Values

DNEL / PNEC No data available.

8.2. Exposure controls

Respiratory protection: Respiratory protection not required.

Hand protection: Protective gloves.

Eye protection: Safety glasses. Ensure eye bath is to hand.

Skin protection: Protective clothing.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Grease

Colour: Brown

Odour: Odourless

Solubility in water: Insoluble

Melting point/range°C: >100

Flash point°C: >200

Autoflammability°C: >250

Relative density: 0.91

9.2. Other information

Other information: No data available.

Section 10: Stability and reactivity

[cont...]

SAFETY DATA SHEET

LITHIUM EP 2 GREASE

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10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

10.2. Chemical stability

Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.
Decomposition may occur on exposure to conditions or materials listed below.

10.4. Conditions to avoid

Conditions to avoid: Heat. Flames.

10.5. Incompatible materials

Materials to avoid: Strong oxidising agents. Strong acids.

10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes of carbon dioxide / carbon monoxide.

Section 11: Toxicological information

11.1. Information on toxicological effects

Toxicity values: No data available.

Symptoms / routes of exposure

Skin contact: There may be mild irritation at the site of contact.

Eye contact: There may be irritation and redness.

Ingestion: There may be irritation of the throat.

Inhalation: No symptoms.

Section 12: Ecological information

12.1. Toxicity

Ecotoxicity values: No data available.

12.2. Persistence and degradability

Persistence and degradability: Biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential: No bioaccumulation potential.

12.4. Mobility in soil

Mobility: Absorbed only slowly into soil.

12.5. Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT/vPvB substance.

[cont...]

SAFETY DATA SHEET

LITHIUM EP 2 GREASE

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12.6. Other adverse effects

Other adverse effects: Negligible ecotoxicity.

Section 13: Disposal considerations

13.1. Waste treatment methods

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

Section 14: Transport information

Transport class: This product does not require a classification for transport.

Section 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Specific regulations: Not applicable.

15.2. Chemical Safety Assessment

Section 16: Other information

Other information

Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No 2015/830.

* indicates text in the SDS which has changed since the last revision.

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.



SAFETY DATA SHEET

Ecotrans 75W-80

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name	Ecotrans 75W-80
Product number	7047
Internal identification	GHS21457
REACH registration number	n/a Mixture

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Gear oil. Transmission fluid
Uses advised against	Non specified unless otherwise stated within this MSDS

1.3. Details of the supplier of the safety data sheet

Supplier	Morris Lubricants Castle Foregate Shrewsbury SY1 2EL
	08.45 - 17.00 GMT T: (+44)(0)1743 232200 F: (+44)(0)1743 353584 sds@morris-lubricants.co.uk

1.4. Emergency telephone number

Emergency telephone	+44(0)1743 232200 (08.45 - 17.00 GMT)
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification

Physical hazards	Not Classified
Health hazards	Elicitation - EUH208
Environmental hazards	Not Classified

Classification (67/548/EEC or 1999/45/EC) Not Classified

2.2. Label elements

Hazard statements	EUH208 Contains Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentoxide, and salted by amines, C12-14- tert-alkyl. May produce an allergic reaction.
Supplemental label information	EUH210 Safety data sheet available on request.

Ecotrans 75W-80

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Lubricating oil (petroleum) C20-C50,hydrotreated,neutral oil based	10-30%
CAS number: 72623-87-1	EC number: 276-738-4
	REACH registration number: 01-2119474889-13-0000
Classification Asp. Tox. 1 - H304	Classification (67/548/EEC or 1999/45/EC) -
Diphenylamine	<1%
CAS number: 122-39-4	EC number: 204-539-4
M factor (Acute) = 1	M factor (Chronic) = 1
Classification Acute Tox. 3 - H301 Acute Tox. 3 - H311 Acute Tox. 3 - H331 STOT RE 2 - H373 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	Classification (67/548/EEC or 1999/45/EC) T;R23/24/25. N;R50/53. R33.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Composition comments If REACH registration numbers do not appear the substance is either exempt from registration, does not meet the minimum volume threshold for registration, the registration date has not yet come due or this information is proprietary.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	Get medical attention if any discomfort continues.
Inhalation	If spray/mist has been inhaled, proceed as follows. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.
Ingestion	Get medical attention if any discomfort continues. Do not induce vomiting.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention promptly if symptoms occur after washing.

4.2. Most important symptoms and effects, both acute and delayed

General information	If aspiration into the lungs is suspected, eg when vomiting, admit to hospital immediately.
Inhalation	Upper respiratory irritation.

Ecotrans 75W-80

Ingestion	May cause discomfort if swallowed. The product contains mineral oil, which if aspirated into the lungs through vomiting after ingestion, may result in chemical pneumonia.
Skin contact	May cause an allergic skin reaction.
Eye contact	Irritation of eyes and mucous membranes.

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor	Treat symptomatically
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards Heat from fire could result in drums bursting

Hazardous combustion products Protection against nuisance dust must be used when the airborne concentration exceeds 10 mg/m³. Oxides of carbon. Oxides of nitrogen. Fire may also create other unidentified organic gases some of which may be toxic.

5.3. Advice for firefighters

Protective actions during firefighting Control run-off water by containing and keeping it out of sewers and watercourses.

Special protective equipment for firefighters Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions For personal protection, see Section 8. In case of spills, beware of slippery floors and surfaces.

6.2. Environmental precautions

Environmental precautions Contain spillage with sand or earth. Avoid the spillage or runoff entering drains, sewers or watercourses. The product is insoluble in water and will spread on the water surface.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Contain spillage with sand or earth. Collect spillage for reclamation or disposal in sealed containers via a licensed waste contractor. Avoid water contacting spilled material or leaking containers. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body. In case of spillage on water prevent the spread by use of suitable barrier equipment

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health hazards. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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Usage precautions Avoid spilling. Always remove oil with soap and water or skin cleaning agent, never use organic solvents. Do not use oil-contaminated clothing or shoes, and do not put rags moistened with oil into pockets.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place.

Storage class Miscellaneous hazardous material storage.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

Lubricating oil (petroleum) C20-C50,hydrotreated,neutral oil based

Long-term exposure limit (8-hour TWA): ACGIH 5 mg/m³

Short-term exposure limit (15-minute): ACGIH 10 mg/m³

Diphenylamine

Short-term exposure limit (15-minute): WEL 20 mg/m³

Long-term exposure limit (8-hour TWA): WEL 10 mg/m³

ACGIH = American Conference of Governmental Industrial Hygienists.

WEL = Workplace Exposure Limit

Diphenylamine (CAS: 122-39-4)

DNEL	Workers - Dermal; Long term systemic effects: 0.62 mg/kg Workers - Inhalation; Long term systemic effects: 4.37 mg/m ³ Consumer - Dermal; Long term systemic effects: 0.31 mg/kg Consumer - Inhalation; Long term systemic effects: 1.09 mg/m ³ Consumer - Oral; Long term systemic effects: 0.31 mg/kg
PNEC	- Fresh water; 0.051 mg/l - Marine water; 0.0051 mg/l - Intermittent release; 0.51 mg/l - Sediment (Freshwater); 9320 mg/kg - Sediment (Marinewater); 932 mg/kg - Soil; 1860 mg/kg - STP; 1 mg/l

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles or face shield.

Ecotrans 75W-80

Hand protection	The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material.
Other skin and body protection	Use barrier creams to prevent skin contact.
Hygiene measures	Use engineering controls to reduce air contamination to permissible exposure level. Wash promptly with soap and water if skin becomes contaminated.
Respiratory protection	No specific recommendations. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit.
Thermal hazards	Not anticipated under normal conditions of use. The product is combustible if heated excessively and an ignition source is applied.
Environmental exposure controls	Do not allow product to contaminate land.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Straw.
Odour	Characteristic. Oil-like.
Odour threshold	Not known.
pH	Not applicable.
Melting point	Pour point -33°C
Initial boiling point and range	>320°C @ 101.3 kPa
Flash point	173°C PMCC (Pensky-Martens closed cup).
Evaporation rate	Not relevant.
Upper/lower flammability or explosive limits	Not known.
Other flammability	Product is not flammable but on excessive heating may become combustible.
Vapour pressure	<0.1 kPa @ 20°C
Vapour density	Not determined.
Relative density	0.860 @ 15.6°C
Solubility(ies)	Insoluble in water. Soluble in the following materials: Organic solvents.
Partition coefficient	Not determined. log Kow: > 7 This figure is typical of mineral oil.
Auto-ignition temperature	No specific test data are available.
Decomposition Temperature	Not determined.
Viscosity	55 cSt @ 40°C
Explosive properties	Not considered to be explosive.
Explosive under the influence of a flame	Not considered to be explosive.

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Oxidising properties The mixture itself has not been tested but none of the ingredient substances meet the criteria for classification as oxidising.

9.2. Other information

Volatile organic compound The product is a complex mixture, the majority of which would not be classed as a VOC. However it cannot be discounted that trace or low levels of VOC's may be present.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Unlikely to occur under normal conditions of use. Unlikely to occur.

10.4. Conditions to avoid

Conditions to avoid Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials

Materials to avoid Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Oxides of carbon. Oxides of nitrogen.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD₅₀) Not expected to be highly toxic based on information of ingredients. Based on available data the classification criteria are not met.

Acute toxicity - dermal

Notes (dermal LD₅₀) Not expected to be highly toxic based on information of ingredients. Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Not determined. The product is unlikely to present any significant inhalation hazard at ambient temperatures and under normal conditions of use.

Serious eye damage/irritation

Serious eye damage/irritation May cause mild, short lasting discomfort to eyes.

Respiratory sensitisation

Respiratory sensitisation No evidence to suggest the product will be a respiratory sensitiser. Repeated exposure to oil mists may cause respiratory damage.

Skin sensitisation

Skin sensitisation Not expected to be a skin sensitizer based on information on components.

Carcinogenicity

Ecotrans 75W-80

Carcinogenicity This product contains mineral oils which are considered to be severely refined and not considered to be carcinogenic under IARC. All of the oils in this product have been demonstrated to contain less than 3% extractables by the IP346 test

Reproductive toxicity

Reproductive toxicity - fertility No data available to suggest the product will cause reproductive toxicity.

Specific target organ toxicity - single exposure

STOT - single exposure Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met.

Aspiration hazard

Aspiration hazard Kinematic viscosity > 20.5 mm²/s. The product viscosity is greater than the upper limit assigned for classification. Although not classified, the product contains mineral oil. If aspirated into the lungs e.g. through vomiting after ingestion, admit to hospital immediately.

General information This product has low toxicity. Only large quantities are likely to have adverse effects on human health.

Inhalation Unlikely to be hazardous by inhalation because of the low vapour pressure of the product at ambient temperature.

Ingestion No harmful effects expected from quantities likely to be ingested by accident.

Skin contact Liquid may irritate skin. May cause an allergic skin reaction.

Eye contact Vapour or spray in the eyes may cause irritation and smarting.

Acute and chronic health hazards Prolonged or repeated contact with used oil may cause serious skin diseases, such as dermatitis and skin cancer.

EcoTrans 75W-80

SECTION 12: Ecological Information

Ecotoxicity Based on available data the classification criteria are not met. Not regarded as dangerous for the environment.

12.1. Toxicity

Toxicity Based on available data the classification criteria are not met. Not considered toxic to fish.

Acute toxicity - aquatic invertebrates Based on available data the classification criteria are not met.

12.2. Persistence and degradability

Persistence and degradability The product contains mineral oil which has limited biodegradability in CEC test methods but will biodegrade slowly in aerobic water and sediments and is considered ultimately biodegradable.

Stability (hydrolysis) The product is based on highly refined mineral oils that are considered stable to hydrolysis.

Biodegradation The product is not considered readily biodegradable, albeit the major constituents are expected to ultimately biodegrade.

Biological oxygen demand Not determined.

Chemical oxygen demand Not determined.

12.3. Bioaccumulative potential

Bioaccumulative potential Bioaccumulation is unlikely to be significant because of the low water-solubility of this product.

Partition coefficient Not determined. log Kow: > 7 This figure is typical of mineral oil.

12.4. Mobility in soil

Mobility The product is non-volatile. The product is insoluble in water and will spread on the water surface.

Henry's law constant Not determined.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information This material and its container must be disposed of as hazardous waste. Dispose of waste via a licensed waste disposal contractor.

Disposal methods Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents. Dispose of waste via a licensed waste disposal contractor.

Waste class European waste catalogue (EWC) number = 13 02 08* (other engine, gear and lubricating oil)

SECTION 14: Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

Ecotrans 75W-80

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations	Health and Safety at Work etc. Act 1974 (as amended). The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716). Control of Substances Hazardous to Health Regulations 2002 (as amended). The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"].
EU legislation	Dangerous Preparations Directive 1999/45/EC. Dangerous Substances Directive 67/548/EEC. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).
Guidance	Workplace Exposure Limits EH40. Safety Data Sheets for Substances and Preparations.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

Inventories

Canada - DSL/NDSL

All the ingredients are listed or exempt.

US - TSCA

All the ingredients are listed or exempt.

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Australia - AICS

All the ingredients are listed or exempt.

Korea - KECI

All the ingredients are listed or exempt.

China - IECSC

All the ingredients are listed or exempt.

Philippines – PICCS

All the ingredients are listed or exempt.

New Zealand - NZIOC

All the ingredients are listed or exempt.

SECTION 16: Other information

Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	23/11/2015
Revision	1
SDS number	21457
Hazard statements in full	<p>EUH208 Contains Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentoxide, and salted by amines, C12-14- tert-alkyl. May produce an allergic reaction.</p> <p>H301 Toxic if swallowed.</p> <p>H304 May be fatal if swallowed and enters airways.</p> <p>H311 Toxic in contact with skin.</p> <p>H331 Toxic if inhaled.</p> <p>H373 May cause damage to organs through prolonged or repeated exposure.</p> <p>H400 Very toxic to aquatic life.</p> <p>H410 Very toxic to aquatic life with long lasting effects.</p>

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.



SAFETY DATA SHEET EP80W-90

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name	EP80W-90
Product number	7040
Internal identification	GHS21453

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Gear oil. Transmission oil.
Uses advised against	Non specified unless otherwise stated within this MSDS

1.3. Details of the supplier of the safety data sheet

Supplier	Morris Lubricants Castle Foregate Shrewsbury Shropshire SY1 2EL +44 (0) 1743 232200 +44 (0) 1743 353584 sds@morris-lubricants.co.uk
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1.4. Emergency telephone number

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards	Not Classified
Health hazards	Not Classified
Environmental hazards	Not Classified

Classification (67/548/EEC or 1999/45/EC) Not classified

2.2. Label elements

Hazard statements	NC Not Classified
Precautionary statements	P501 Dispose of contents/ container in accordance with national regulations.
Supplemental label information	EUH210 Safety data sheet available on request.

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

EP80W-90

Base oil - Unspecified - Distillates (Petroleum), hydrotreated Heavy Paraffinic	60-100%
CAS number: 64742-54-7	EC number: 265-157-1
	REACH registration number: 01-2119484627-25-XXXX
Classification Not Classified	Classification (67/548/EEC or 1999/45/EC) -
<hr/>	
Residual oils (petroleum), hydrotreated	10-30%
CAS number: 64742-62-7	REACH registration number: 01-2119480472-38-XXXX
A petroleum product. DMSO extract < 3 % weight (IP 346)	
Classification Not Classified	Classification (67/548/EEC or 1999/45/EC) -
<hr/>	
Distillates (petroleum) solvent-dewaxed heavy paraffinic	5-10%
CAS number: 64742-54-7	EC number: 265-157-1
	REACH registration number: 01-2119484627-25-XXXX
A petroleum product. DMSO extract < 3 % weight (IP 346)	
Classification Not Classified	Classification (67/548/EEC or 1999/45/EC) -
<hr/>	
Mineral Oil	1-5%
CAS number: —	
Classification Not Classified	Classification (67/548/EEC or 1999/45/EC) -

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Composition comments If REACH registration numbers do not appear the substance is either exempt from registration, does not meet the minimum volume threshold for registration, the registration date has not yet come due or this information is proprietary.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	Get medical attention if any discomfort continues.
Inhalation	If spray/mist has been inhaled, proceed as follows. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.
Ingestion	Get medical attention if any discomfort continues. Do not induce vomiting.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water.

4.2. Most important symptoms and effects, both acute and delayed

Inhalation Upper respiratory irritation.

EP80W-90

Ingestion	The product contains mineral oil, which if aspirated into the lungs through vomiting after ingestion, may result in chemical pneumonia.
Skin contact	Prolonged contact may cause redness, irritation and dry skin.
Eye contact	Irritation of eyes and mucous membranes.

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with foam, carbon dioxide, dry powder or water fog.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards	Heat from fire could result in drums bursting
Hazardous combustion products	Protection against nuisance dust must be used when the airborne concentration exceeds 10 mg/m ³ . Oxides of carbon. Oxides of nitrogen.

5.3. Advice for firefighters

Protective actions during firefighting	Control run-off water by containing and keeping it out of sewers and watercourses.
Special protective equipment for firefighters	Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	For personal protection, see Section 8. Take care as floors and other surfaces may become slippery. Keep unnecessary and unprotected personnel away from the spillage.
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6.2. Environmental precautions

Environmental precautions	Contain spillage with sand or earth. Avoid the spillage or runoff entering drains, sewers or watercourses. The product is insoluble in water and will spread on the water surface.
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6.3. Methods and material for containment and cleaning up

Methods for cleaning up	In case of spillage on water prevent the spread by use of suitable barrier equipment. Contain and absorb spillage with sand, earth or other non-combustible material. Collect and place in suitable waste disposal containers and seal securely. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.
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6.4. Reference to other sections

Reference to other sections	For personal protection, see Section 8. See Section 11 for additional information on health hazards.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions	Store in tightly-closed, original container in a dry, cool and well-ventilated place.
Storage class	Miscellaneous hazardous material storage.

EP80W-90

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

Base oil - Unspecified - Distillates (Petroleum), hydrotreated Heavy Paraffinic

Long-term exposure limit (8-hour TWA): ACGIH 5 mg/m³

Short-term exposure limit (15-minute): ACGIH 10 mg/m³

Residual oils (petroleum), hydrotreated

Long-term exposure limit (8-hour TWA): ACGIH 5 mg/m³

Short-term exposure limit (15-minute): ACGIH 10 mg/m³

Distillates (petroleum) solvent-dewaxed heavy paraffinic

Long-term exposure limit (8-hour TWA): ACGIH 5 mg/m³

Short-term exposure limit (15-minute): ACGIH 10 mg/m³

Mineral Oil

Long-term exposure limit (8-hour TWA): OES 5 mg/m³(c)

ACGIH = American Conference of Governmental Industrial Hygienists.

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles or face shield.

Hand protection

The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material.

Other skin and body protection

Use barrier creams to prevent skin contact.

Hygiene measures

Use engineering controls to reduce air contamination to permissible exposure level. Wash promptly with soap and water if skin becomes contaminated.

Respiratory protection

No specific recommendations. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit.

Thermal hazards

Not anticipated under normal conditions of use. The product is combustible if heated excessively and an ignition source is applied.

Environmental exposure controls

Do not allow product to contaminate land.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Liquid.

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Colour	Amber.
Odour	Oil-like.
Odour threshold	Not known.
Melting point	-30°C Pour point
Initial boiling point and range	>320°C @ 101.3 kPa
Flash point	181°C Pensky-Martens closed cup.
Evaporation rate	Not relevant.
Upper/lower flammability or explosive limits	Not known.
Other flammability	Product is not flammable but on excessive heating may become combustible.
Relative density	0.889 @ 15.6°C
Solubility(ies)	Insoluble in water. Soluble in the following materials: Organic solvents.
Partition coefficient	Not determined. log Kow:>7 Typical of mineral oil.
Auto-ignition temperature	No specific test data are available.
Decomposition Temperature	Not determined.
Viscosity	128.9 cSt @ 40°C
Explosive properties	Not considered to be explosive.
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	The mixture itself has not been tested but none of the ingredient substances meet the criteria for classification as oxidising.

9.2. Other information

Volatile organic compound	The product is a complex mixture, the majority of which would not be classed as a VOC. However it cannot be discounted that trace or low levels of VOC's may be present.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.
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10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Unlikely to occur under normal conditions of use.
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10.4. Conditions to avoid

Conditions to avoid	Avoid heat, flames and other sources of ignition.
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10.5. Incompatible materials

Materials to avoid	Strong oxidising agents.
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10.6. Hazardous decomposition products

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Hazardous decomposition products Oxides of carbon. Oxides of nitrogen.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD₅₀) Based on available data the classification criteria are not met.

Acute toxicity - dermal

Notes (dermal LD₅₀) Based on available data the classification criteria are not met.

ATE dermal (mg/kg) 888,888.89

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Not determined. The product is unlikely to present any significant inhalation hazard at ambient temperatures and under normal conditions of use.

Serious eye damage/irritation

Serious eye damage/irritation May cause mild, short lasting discomfort to eyes.

Respiratory sensitisation

Respiratory sensitisation Repeated exposure to oil mists may cause respiratory damage. There is no evidence that the product can cause respiratory hypersensitivity.

Skin sensitisation

Skin sensitisation Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity This product contains mineral oils which are considered to be severely refined and not considered to be carcinogenic under IARC. All of the oils in this product have been demonstrated to contain less than 3% extractables by the IP346 test

Reproductive toxicity

Reproductive toxicity - fertility No data available to suggest the product will cause reproductive toxicity.

Specific target organ toxicity - single exposure

STOT - single exposure Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met.

Aspiration hazard

Aspiration hazard Although not classified, the product contains mineral oil. If aspirated into the lungs e.g. through vomiting after ingestion, admit to hospital immediately.

General information

This product has low toxicity. Only large quantities are likely to have adverse effects on human health.

Inhalation

Unlikely to be hazardous by inhalation because of the low vapour pressure of the product at ambient temperature.

Ingestion

No harmful effects expected from quantities likely to be ingested by accident.

Skin contact

Skin irritation should not occur when used as recommended. Repeated exposure may cause skin dryness or cracking.

Eye contact

May cause temporary eye irritation.

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Acute and chronic health hazards

Prolonged or repeated contact with used oil may cause serious skin diseases, such as dermatitis and skin cancer.

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SECTION 12: Ecological information

Ecotoxicity Based on available data the classification criteria are not met. Not regarded as dangerous for the environment.

12.1. Toxicity

Toxicity Based on available data the classification criteria are not met. Not considered toxic to fish.

Acute aquatic toxicity

Acute toxicity - aquatic invertebrates Based on available data the classification criteria are not met.

12.2. Persistence and degradability

Stability (hydrolysis) The product is based on highly refined mineral oils that are considered stable to hydrolysis.

Biodegradation The product is not considered readily biodegradable, albeit the major constituents are expected to ultimately biodegrade.

Biological oxygen demand Not determined.

Chemical oxygen demand Not determined.

12.3. Bioaccumulative potential

Bioaccumulative potential Bioaccumulation is unlikely to be significant because of the low water-solubility of this product.

Partition coefficient Not determined. log Kow:>7 Typical of mineral oil.

12.4. Mobility in soil

Mobility The product is non-volatile. The product is insoluble in water and will spread on the water surface.

Henry's law constant Not determined.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods Dispose of waste via a licensed waste disposal contractor.

Waste class European waste catalogue (EWC) number = 13 02 08* (other engine, gear and lubricating oil)

SECTION 14: Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

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No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Not applicable.

**Annex II of MARPOL 73/78
and the IBC Code**

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations

Health and Safety at Work etc. Act 1974 (as amended).
Control of Substances Hazardous to Health Regulations 2002 (as amended).
The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"].
EH40/2005 Workplace exposure limits.

EU legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

Guidance

Workplace Exposure Limits EH40.
Safety Data Sheets for Substances and Preparations.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

Inventories

Canada - DSL/NDSL

All the ingredients are listed or exempt.

US - TSCA

All the ingredients are listed or exempt.

Australia - AICS

All the ingredients are listed or exempt.

Korea - KECI

All the ingredients are listed or exempt.

China - IECSC

All the ingredients are listed or exempt.

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Philippines – PICCS

All the ingredients are listed or exempt.

New Zealand - NZIOC

All the ingredients are listed or exempt.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet	ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road. CAS: Chemical Abstracts Service. DNEL: Derived No Effect Level. GHS: Globally Harmonized System. IATA: International Air Transport Association. IMDG: International Maritime Dangerous Goods. REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006. vPvB: Very Persistent and Very Bioaccumulative.
Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
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