



Rehab Glassco

# Annual Environmental Report

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2014

Waste License No. W0279-01

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## 1.0 Introduction

Rehab Glassco is part of Rehab Enterprises, Ireland's largest single non-Government employer of people with disabilities. Over 400 people are employed by Rehab Enterprises, more than half of whom have a disability, where the emphasis is on ensuring that people with disabilities play a full role in society, while managing a business that is financially sustainable. Rehab Enterprises is a division of the Rehab Group which has a proud 60-year tradition of providing high quality services across Ireland, England, Scotland, the Netherlands and Poland.

Rehab Glassco Ltd. offers a nationwide collection and recycling service for all types of waste glass and cans. Rehab Glassco collects from pubs, hotels, restaurants, sports clubs, financial institutions, office blocks, apartments and housing developments, council bring sites, civic amenity centres, industrial units and waste companies. The company recycles bottles and jars, aluminium and steel cans. The facility uses advanced technology to sort glass into three separate colours, processes colour-segregated glass and produces a glass cullet product, which is dispatched off-site for use in the manufacture of new glass bottles and jars.

The Environmental Protection Agency (EPA) issued Rehab Glassco Ltd. with a Waste Licence for its recycling facility at Unit 4 Osberstown Industrial Park, Caragh Road, Naas, Co. Kildare on 10<sup>th</sup> December 2014. The Waste Licence reference number is W0279-01. The facility is currently licensed to a maximum of 150,000 tonnes of waste per annum. In accordance with Condition 11.7 of the Waste Licence for the facility:

*“The licensee shall submit to the Agency, by the 31st March each year, an AER covering the previous calendar year. This report, which shall be to the satisfaction of the Agency, shall include as a minimum the information specified in Schedule D: Annual Environmental Report of this license and shall be prepared in accordance with any relevant guidelines issued by the Agency”.*

This report addresses Condition 11.8 of the waste license for the facility and contains the details the items listed in Schedule D: Annual Environmental Report (AER) of the Waste License. This AER covers the reporting period from 1st January 2014 up to 31st December 2014.

## 1.1 Site Activities

The Rehab Glassco facility operates in accordance with the activities identified within Waste License (W279-01):

### Licensed Waste Activities

*Licensed Waste Disposal Activities, in accordance with the Third Schedule of the Waste Management Act 1996 as amended*

**Class D 15** Storage pending any of the operations numbered D 1 to D 14 (excluding temporary storage (being preliminary storage according to the definition of “collection” in section 5(1), pending collection on the site where the waste is produced.

*Licensed Waste Recovery Activities, in accordance with the Fourth Schedule of the Waste Management Act 1996 as amended*

**Class R 4.** Recycling/reclamation of metals and metal compounds.

**Class R 5.** Recycling/reclamation of other inorganic materials, which includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials. [Principal Activity]

**Class R 12.** Exchange of waste for submission to any of the operations numbered R I to R 1 I (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as, amongst others, dismantling, sorting, crushing, compacting, pelletising, drying, shredding, conditioning, repackaging, separating, blending or mixing prior to submission to any of the operations numbered R I to R I I).

**Class R 13.** Storage of waste pending any of the operations numbered R 1 to R 12 (excluding temporary storage (being preliminary storage according to the definition of ‘collection’ in section 5( I)), pending collection, on the site where the waste is produced).

The facility is located in the Osberstown Industrial Estate, Caragh Road, Naas, Co. Kildare off the R409 as indicated in Figure 1.1.2

**Figure 1.1.2**

Facility Location Map:



## 1.2 Site Operations

Operational hours at the facility are 24 hours a day Monday to Friday and 7.00am to 11.00pm on a Saturday. Waste is not accepted at the facility on Sundays or Bank Holidays. Current waste acceptance procedures involve the use of a computer based programme, called Integrated Waste System (IWS). The software is linked to the on-site weighbridge and is used for recording waste quantities accepted on-site. Details including the waste type, EWC code, vehicle registration number, and customer are recorded on the system as per the requirements of Waste Licence W0279-01. After weighing, loads are directed to the appropriate area for tipping and visual inspection.

The Shovel Driver/Designated Inspector is responsible for carrying out visual inspections and for notifying the weighbridge operator of the outcome. Written records of each inspection are recorded on the incoming waste inspection sheet at the end of each working day. Only after visual inspection can the waste be identified for suitable for recovery.

Operations at the Rehab Glassco facility include the receipt of domestic, commercial and industrial glass and cans, which is sorted and segregated for onward recycling/recovery in accordance with the recycling potential. Waste deemed unsuitable for recycling/recovery is segregated and sent for appropriate disposal off-site. A process flow diagram for the operations within the Main Processing Plant and the Drying Plant are located in Appendix A.

The layout of the operational areas at Rehab Glassco is identified in Figure 1.2.1 in Appendix B.

## 2.0 Waste Quantities

Table 2.0.1 details the EWC codes the Rehab Glassco facility is licensed to accept:

**Table 2.0.1**

Waste Type	EWC Code	Description	Max. tpa
Non-Hazardous Household & Commercial Waste	15 01 04	Metallic packaging	150,000
	15 01 05	Composite packaging	
	15 01 07	Glass packaging	
	16 01 20	Glass – from end of life vehicles	
	17 02 02	Glass – from C&D wastes	
	19 12 05	Glass – from the mechanical treatment of wastes	
	20 01 02	Glass – separately collected fractions of municipal wastes	
20 01 40	Metals – separately collected fractions of municipal wastes		

## 2.1 Waste Accepted & Dispatched

A summary of incoming wastes accepted at the facility in 2014 is shown in Table 2.1.1:

**Table 2.1.1**

EWC Code	Description	Tonnes
15 01 04	Metallic packaging	107
15 01 07	Glass packaging	110,122
19 12 05	Glass – from the mechanical treatment of wastes	12,399
<b>Total</b>		<b>122,628</b>

A summary of all waste streams and products dispatched from the facility during 2014 is detailed in Table 2.1.2

**Table 2.1.2**

<b>EWC Code</b>	<b>Weight Tonnes</b>	<b>Destination</b>	<b>Address</b>	<b>Licence No.</b>
13 05 03*	85.12	Super Drain	Western Ind. Est Dublin 12	W0196-01 (Disposal at Enva Ireland)
15 01 02	65.18	Recyclenet	Rathangan, Co. Kidlare	49/2001
15 01 02	5.20	Nexgen	Bagenalstown, Co Carlow	WFP-KK-13-0001-01
15 01 04	256.86	Howcan	Manchester, UK	CB/TP3612QT
15 01 04	230.9	Northern Trading	Cumbria, UK	CB/UP3890XB
15 01 04	318.56	Novelis	Manchester, UK	BL6802IU
15 01 04	1012.26	Wilton Waste	Crosserlough, Co. Cavan	06/03
15 01 04	561.30	A1 Metals	Mountmellick, Co. Laois	ATF WMP 007E
17 02 02	2.32	Gannon Eco	Ballinagore Co. Westmeath	WFP-WM-2009-000701
19 12 05	8535.26	Drehid WMF	Carbury, Co. Kildare	W0201-03
19 12 12	1523.74	Dillon Waste	Tralee, Co. Kildare	WFP-KY-10-001
20 01 40	13.12	Hammond Lane	Ringsend, Dublin 4	WFP-DC-0013-01
<b>Item</b>	<b>Weight Tonnes</b>	<b>Destination</b>	<b>Address</b>	<b>Licence No.</b>
Product	876.32	Rehab Glassco	Enfield, Co. Meath	
Product	9.28	Relabeg Transport	Bailieborough, Co. Cavan	N/A
Product	36.56	Specialist Glass	Ballymena, Co. Antrim	N/A
Product	11.72	Urban & Rural	Bunclody, Co. Wexford	
Product	90304.43	Quinn Glass	Derrylin, Co. Fermanagh	P0053/04A

Product	10050.70	Quinn Glass Elton	Chester, UK	CB/GM3184XJ
Product	56.04	Iggy Madden	The Docks, Galway	N/A
Product	2.12	J&P Logistics	Naul, Co. Dublin	N/A
Product	3568.3	Gannon Eco	Ballinagore, Co. Westmeath	WFP-WM-2009-000701
Product	26.46	F&F Shotblasting	Carrickmacross Co. Monaghan	N/A
Product	246.78	GRL	Lummen Belgium	N/A
Product	1.22	Albert Gill Compressors Ltd.	Meelick Co Clare	N/A
Product	1460.44	Applied Concepts	Birr Co. Offaly	N/A
Product	3509.80	Ardagh	Knottingley, UK	
Product	172.56	Ardagh	Doncaster, UK	
Product	910.30	Ardagh	Irvine, UK	
Product	54.86	Campbell Machinery		N/A
<b>Total:</b>		<b>123,907.71</b>		



### 3.0 Facility Emissions

Environmental Emissions as per Schedule B of the Waste Licence, W0279-01 is discussed in Section 6 of this report. A total of 85.12tonnes of waste as a result of interceptor cleaning (EWC Code 13 05 03\*) was removed off site for appropriate disposal during 2014.

### 4.0 Resource & Energy Consumption

#### 4.1 Resource Consumption Summary

Table 4.1.1 details the resource consumption by Rehab Glassco during 2014:

**Table 4.1.1**

<b>Resource</b>	<b>Consumption</b>
Water	4826 m <sup>3</sup>
Electricity	1405969 kWh
Diesel	195736 Litres

#### 4.2 Energy Efficiency Audit Report Summary

To comply with Condition 7.1 of the Waste Licence an Energy Efficiency Audit shall be completed during the 2015 reporting period.

#### 4.3 Raw Materials Consumption & Waste Energy

The site has initiated an internal waste awareness campaign. Rehab Glassco have allocated recycling bins on site and dedicated desk trays to collect office paper for recycling to improve the efficiency of the use of raw materials in processes and the reduction in waste generated on-site.

### 5.0 Environmental Management Programme

As part of the Environmental Management Programme in place at Rehab Glassco, a definitive list of Environmental Objectives & Targets has been established for the facility. These Objectives & Targets were established in October 2014. A list of the Environmental Objectives & Targets for 2015 is located in Appendix C. The Objectives & Targets will be reviewed on an annual basis going forward and are incorporated within the Rehab Glassco Environmental Management System.

## 6.0 Environmental Monitoring

The Environmental monitoring requirements for the facility are detailed within Schedule C of the Waste License, W0279-01. The Waste Licence was granted on December 10<sup>th</sup> 2014 therefore there was no environmental monitoring carried out within the 2014 reporting period. The environmental aspects monitored under the terms of the licence and the frequencies of monitoring are as follows;

Parameter	Frequency
Noise	Annually
Dust	Quarterly
Surface Water	Weekly

## 7.0 Bund, Tank and Pipeline Integrity Testing

Condition 6.9 of the Waste License requires the Licensee to complete an assessment to evaluate the integrity and water tightness of all underground pipes and tanks and bunding. This assessment will be completed during 2015 reporting period.

## 8.0 Site Developments/Infrastructural Works

### 8.1 Current Infrastructure

The facility is currently licensed to accept a maximum of 150,000 tonnes of waste per annum. As per condition 3.18.2, Rehab Glassco will be completing a Duty & Capacity Report during the 2015 reporting period. A diagram of the operational areas at the facility is located within Appendix B.

### 8.2 Site Development Works during 2014

The following development works were completed in 2014 at Rehab Glassco:

1. Upgrade to the main plant in December 2014 encompassing the installation of a new fines processing line consisting of a direct fired rotary dryer (capacity to process 10 tonnes/hr), feed conveyors, screens and an extraction system. The extraction system consists of associated exhaust pipework, a dust cyclone, followed by a reverse jet bag filter. Air movement is controlled by a centrifugal fan with discharge to atmosphere through a new air emission point. This upgrade remains in the commissioning phase.

### **8.3 Proposed Development Works for 2015**

It is proposed to carry out the following site development works at Rehab Glassco during 2015:

1. Installation of a Surface Water attenuation pond in the northeast portion of the site as per condition 3.7.3 of the waste licence along with an appropriate sized constructed wetland area for treatment of surface water.
2. Upgrade to main plant involving the installation of new equipment encompassing new glass sorters and conveyors to increase the capture rate of glass for remelt. This upgrade will take place within the existing footprint of the plant.

### **9.0 Environmental Liabilities Risk Assessment Review**

The Environmental Liabilities Risk Assessment Report will be completed and submitted to the Agency during the 2015 reporting period.

### **9.1 Review of Decommissioning Plan**

As part of the waste licence application in March 2013, Rehab Glassco proposed a phased decommissioning plan. There have been no changes to facility operations since the waste licence application was submitted. This plan will be reviewed on an annual basis going forward.

### **10.0 Facility Management**

#### **10.1 New Procedures developed during 2014**

Rehab Glassco has an ISO 14001 accredited Environmental Management System in place. The system received this accreditation in January 2015. The system continues to be developed with the view on integrating the existing ISO 9001 Quality Management System and investigating the possibility of implementing a Health & Safety Management System in line with the OHSAS 18001 standard.

#### **10.2 Incidents & Complaints Summary**

All environmental incidents and complaints are recorded at the facility. During the 2014 reporting period, one complaint was received at the Rehab Glassco facility relating to odour. There were no incidents of environmental significance at the facility during 2014.

### 10.3 Accident Prevention and Emergency Response

Condition 9.1 of the Waste Licence states:

*“The licensee shall, within six months of date of grant of this licence, ensure that a documented Accident Prevention Procedure is in place that addresses the hazards on-site, particularly in relation to the prevention of accidents with a possible impact on the environment. This procedure shall be reviewed annually and updated as necessary”*

Condition 9.2 of the Waste Licence states:

*“The licensee shall, within six months of date of grant of this licence, ensure that a documented Emergency Response Procedure is in place that addresses any emergency situation which may originate on-site. This procedure shall include provision for minimising the effects of any emergency on the environment. This procedure shall be reviewed annually and updated as necessary”*

Rehab Glassco is currently reviewing the below listed Emergency Response Procedures (ERP's) in place at the facility. The ERP's shall be recorded within the 2015 reporting period

ERP – 1 Emergency Contact List

ERP – 2 General Emergency Preparedness & Response

ERP – 3 Spill Clean Up

ERP – 4 Fire Explosion

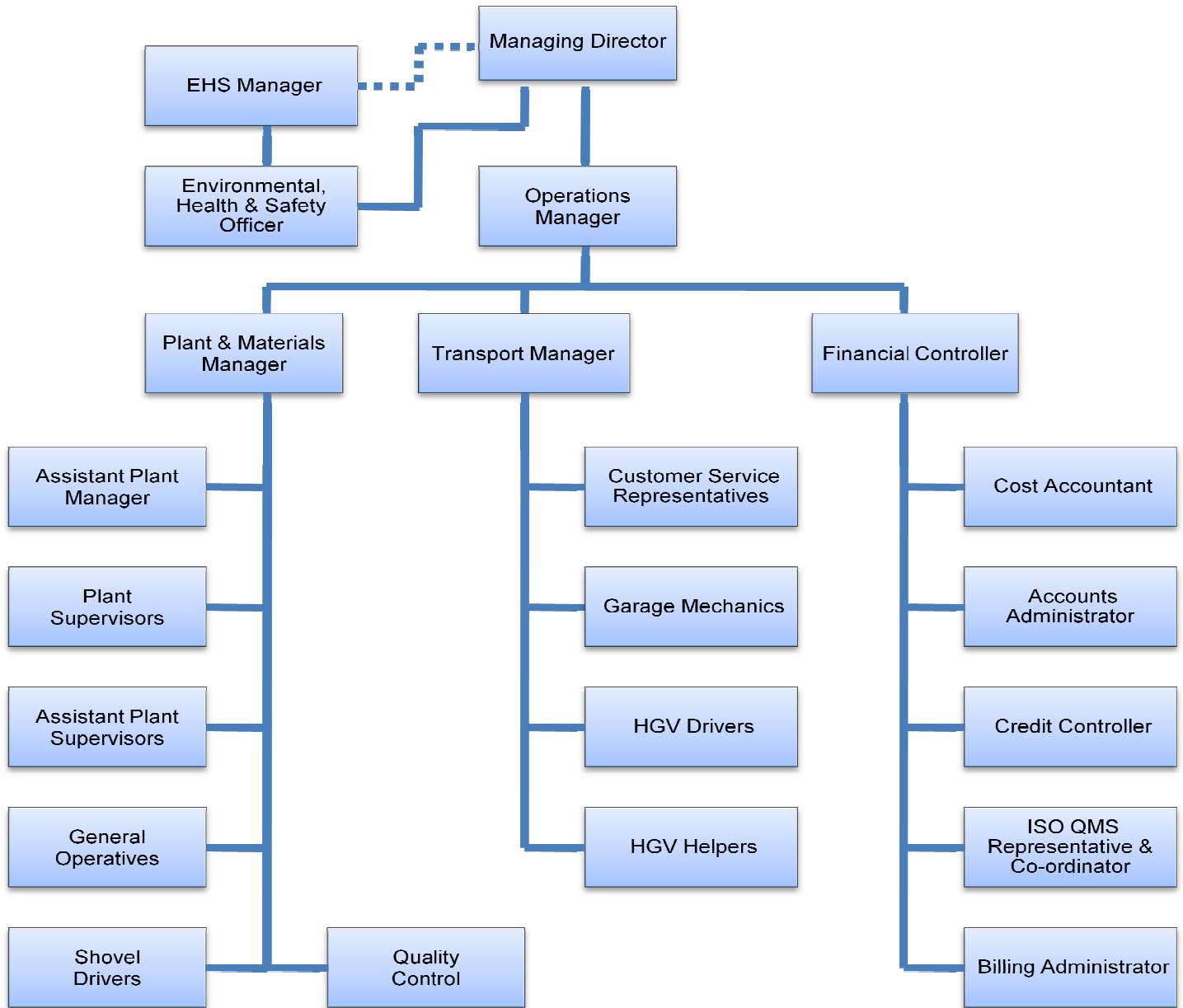
ERP – 5 Malicious Damage

ERP – 6 Unforeseen Emergencies & Fugitive Emissions

### 10.4 Management & Staffing Structure

The Environmental Organisation and the Site organisations structure for the site are presented in Figure 11.1.1

**Figure 10.4.1**



### 11.0 Public Information Programme

As part of the Environmental Management System in place at Rehab Glassco, a procedure for Public Information Program has been put in place, EP02 Programme for Public Information. The full details are included in Appendix E.

## Appendix A

Figure D.2.1 Main Processing Plant Operations

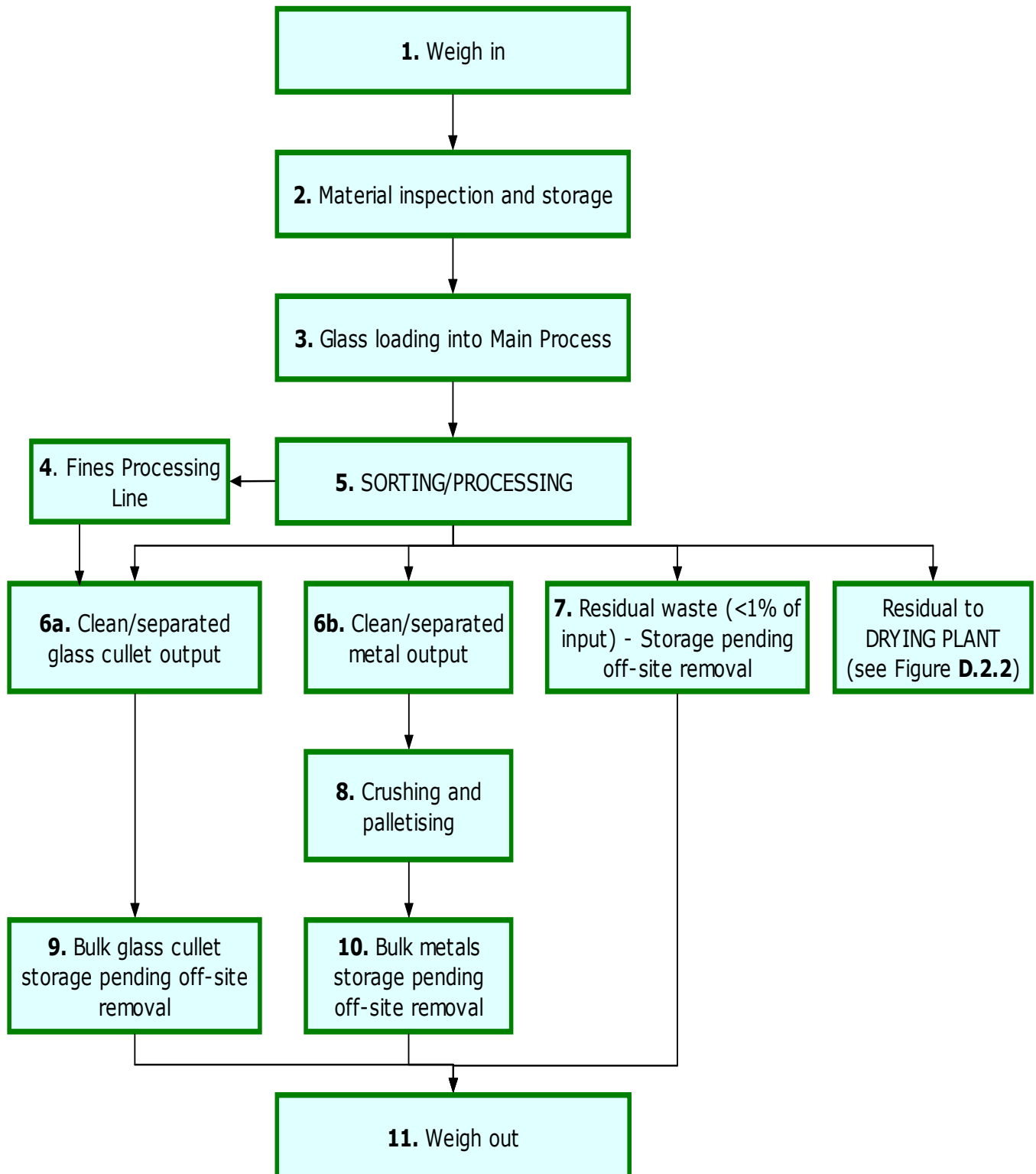
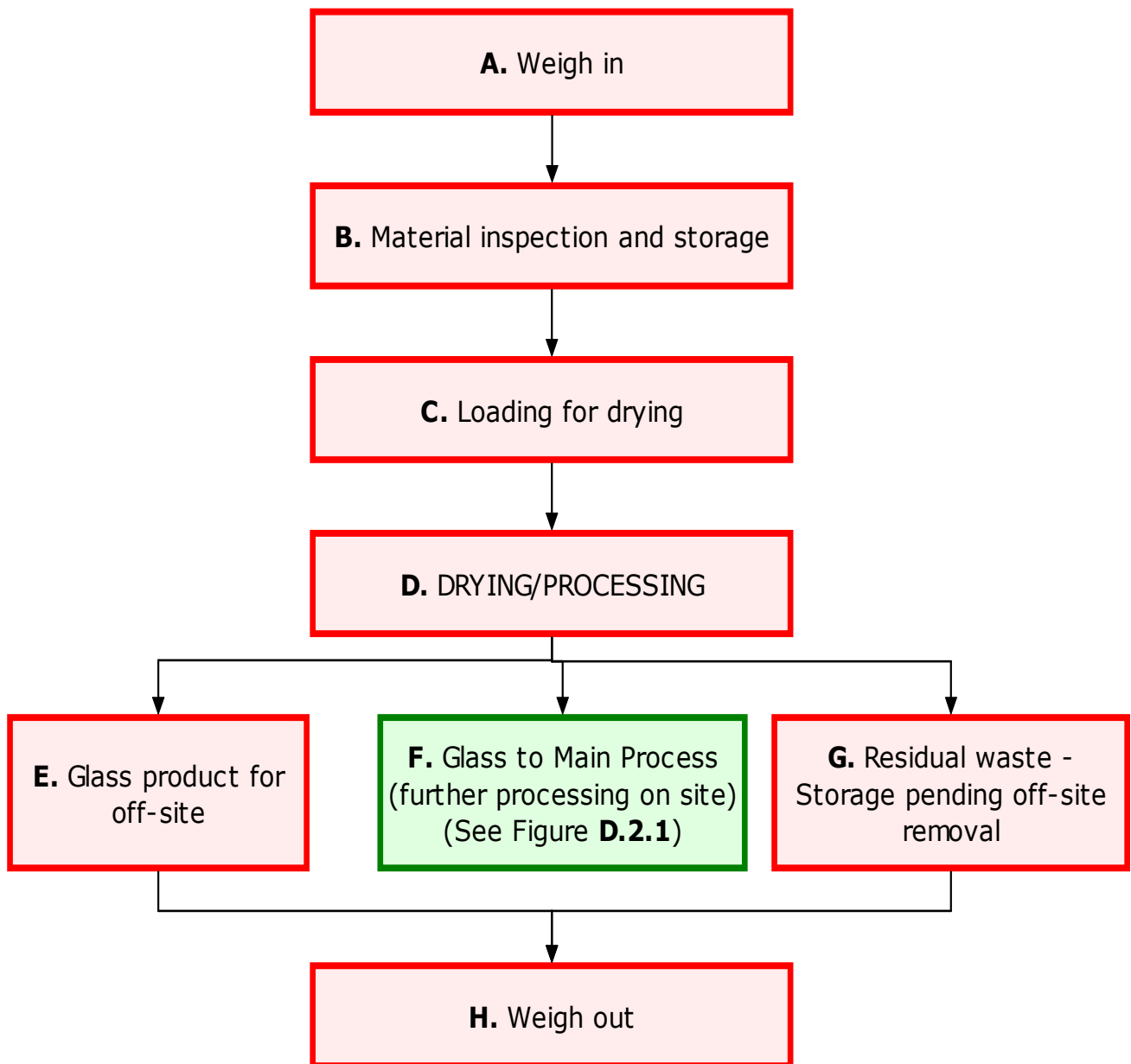
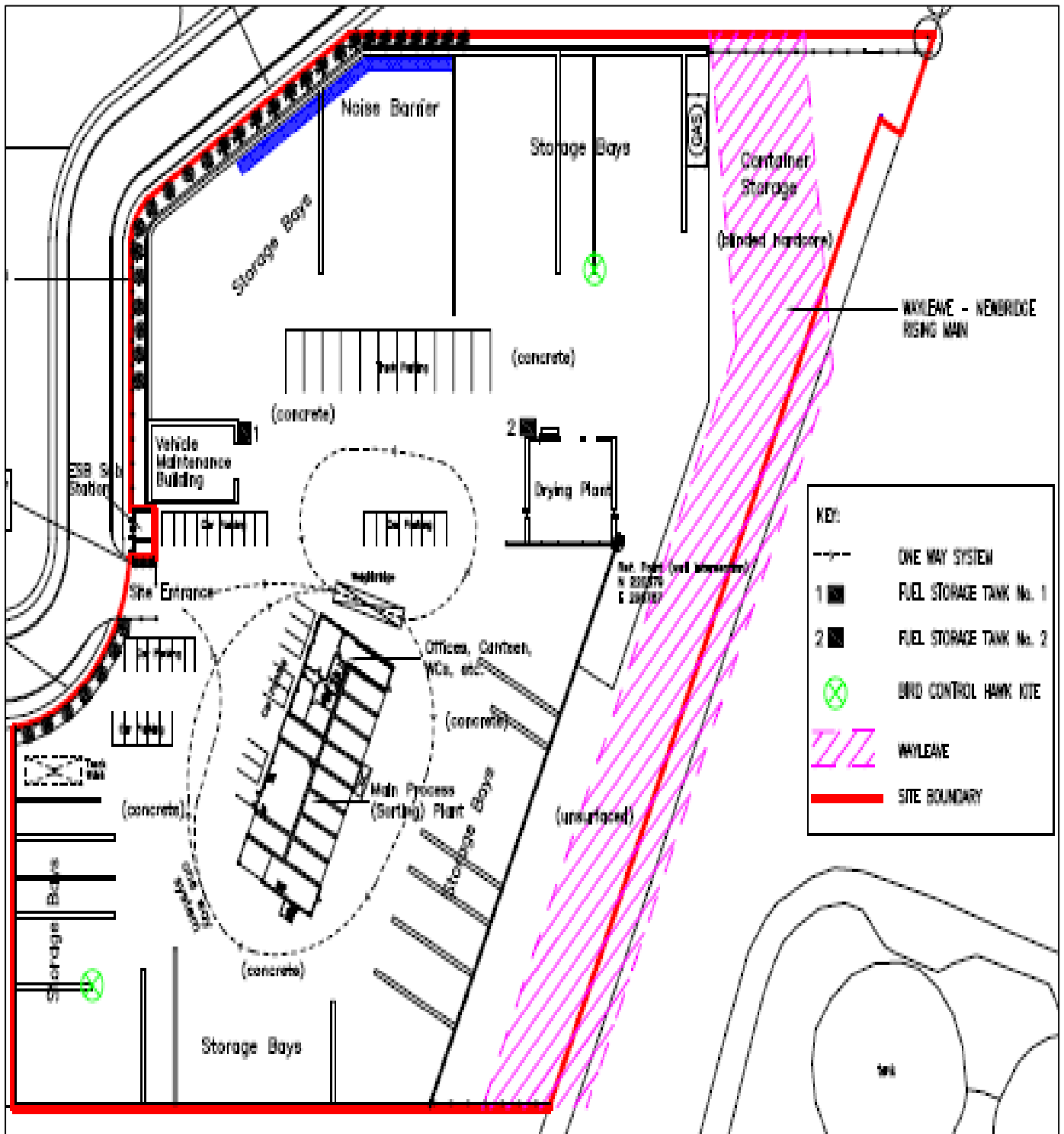


Figure D.2.2 Drying Plant Operations



Appendix B

Figure 1.2.1 Facility Layout





Appendix C

2015 Objectives & Targets

Ref No.: QMS EF02 Issued by QMR Version No: 1.00  
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Environmental Objectives Sub objectives

OBJECTIVE	SUB-OBJECTIVES	ACTIONS
Reduce Volume of Waste to Landfill as a Percentage of Input	1. Communication to all suppliers detailing acceptance specification levels on materials that will be accepted.	All potential suppliers issued with Rehab Glassco glass supply intake specification. Ongoing action.
	2. Vigilance in relation to inspection of all material that is received at Rehab Glassco.	Standard operating procedure is for all loads to be inspected at delivery stage with delivery vehicle remaining on-site until material accepted by relevant company personnel
	3. Introduce further waste segregation to minimise recyclable materials being sent out as landfill waste.	Trials begun in late July 2013 involving picking PET and HDPE plastic bottles from waste stream. Initial results show ability to capture circa 9 tons per month which will have a positive sale value as opposed to a negative landfill cost.
	4. Ensure absolute minimum levels of glass, aluminium and steel within general waste stream.	Active/In progress. See QF68 Plant Data spreadsheet
	5. Carry out regular weight tests to ascertain recyclable fractions in outgoing waste.	Active/In progress. See QF68 Plant Data spreadsheet
	6. Investigate installation of main plant dryer to ascertain probability of this process reducing amount of recyclable glass ending up in land-filled waste fraction.	Cost-benefit analysis of dryer installation carried out. Project awaiting sign-off by board.
Establish CO <sub>2</sub> quoting system for customers	1. Ascertain CO <sub>2</sub> generating levels for the collection and recycling of glass packaging across peers.	Complete. Accepted average figure of 314kg CO <sub>2</sub> /ton adapted.
	2. Ascertain CO <sub>2</sub> generating levels for the collection and recycling of glass packaging unique to Rehab Glassco in the Irish market.	Complete. Calculated figure of 295kg CO <sub>2</sub> /ton adapted taking into account specific aspects of the Rehab Glassco glass collection, processing and delivery methodologies.
	3. Include CO <sub>2</sub> quotation within all major tenders	Active/In progress
Management of utility use to ensure best use and to minimise wastage	1. Identify all types and usage points of all utility types	All water, gas, diesel and electricity usage points identified.
	2. Establish benchmark usage rates of all utilities	Complete. Meters placed on all incoming utilities to measure usage rates.
	3. Engage with utility management consultants to install utility management software	Complete. ResourceKraft Ltd. engaged and supplying on-demand online reporting
	4. Review all utility bills on a monthly basis to ascertain usage and demand and to identify any anomalies in usage.	Monthly review of all utility bills taking place. Peaks identified and measures discussed to minimise usage.

## Appendix D

### EP02 Programme for Public Information



#### Programme for Public Information

**Purpose:** To define Rehab Glassco's procedure regarding external communications in relation to Environmental Information.

**Scope:** This procedure applies to Rehab Glassco

**References:** Data Protection Act 1988 with 2003 amendment

#### Procedure:

1. All external communications of environmental issues, unless specifically outline below, must be approved by the Operations Manager. If the Operations Manager is unavailable, then the Environmental Manager may approve out-going communications.
2. Environmental information, as detailed below, will be available to external parties. Only one copy of each document is available for view at any time.
3. All visitors must phone or write in advance, as this will facilitate the company to arrange for the necessary staff and documents to be made available. However, a prior appointment by any member of the public is necessary.
4. Viewing time is restricted to normal office hours (9am – 1pm, 2pm – 5pm Monday to Friday). No more than one hour of staff time is available for assistance of queries per day.
5. Visitors may ask for the Operations Manager or Environmental Manager. They are requested to sign in at reception, giving their name, address, and reason for their visit.
6. Access is restricted to the meeting room and the information will be brought to this designated area for viewing. The original documents are not to be removed, altered or damaged in any way.
7. A copy of the following files will be kept in Document Control and are available to the public as outlined above:
  - Waste Licence
  - Annual Environmental Report
  - Environmental Monitoring
  - Environmental Management System
  - EPA Correspondence
8. Every effort will be made to keep all records up to date. The information provide will be in accordance with Condition 2.2.2.8 of the facilities Waste licence however all confidential and commercially sensitive informaiton will be restricted for viewing by the public in line with the Data Protection Act.