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 Signed: N. Kearey Date: 25/09/2014

LICENSING & RESOURCE USE

INSPECTOR'S REPORT ON A LICENCE APPLICATION

TO:	DIRECTORS	
FROM:	John McEntagart	- Licensing Unit
DATE:	25 th September 2014	
RE:	Application for a waste licence from Rehab Glassco Limited, for a facility at Unit 4, Osberstown Industrial Park, Caragh Road, Naas, County Kildare. Licence application register number W0279-01.	

1 Application Details

Table 1:

Licence application received:	27 July 2011.
EIA Required:	Yes – see section 8 of this report.
Class(es) of Activity (P = principal activity):	3 rd Schedule: D15. 4 th Schedule: R4, R5 (P), R12 and R13.
Category of activity under First Schedule EPA Acts 1992 to 2013:	None
Category of activity under Industrial Emissions Directive:	None
Third party submissions:	3
Site Inspection:	29 November 2013

2 Applicant and facility

Table 2:

Applicant:	Rehab Glassco Ltd. was formed as a result of the acquisition of Glassco Recycling Ltd. by The Rehab Group in December 2009. The facility currently operates under waste facility permit reg. No. WFP-KE-08-0357-01, but a licence is required due to an increase in tonnages. The facility has been in operation at its current location
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	<p>since 2008.</p> <p>Prior to the formation of Rehab Glassco, Glassco Recycling Ltd. operated in the glass recycling sector for 11 years, and Rehab Recycle operated in the glass recycling sector for 15 years.</p> <p>The operation of this facility accounts for approximately 80% of the country's glass recycling.</p>	
Type of facility:	Glass and can recycling facility.	
Existing or new development	This is an existing facility which to-date has been authorised by Kildare County Council under a waste facility permit (WFP-KE-08-0357-01).	
Quantity of waste managed per annum and main classes of waste:	Non-hazardous waste type	Proposed max (tonnes per annum)
	Packaging waste (including separately collected municipal packaging waste) – glass and metal. Glass from C&D wastes, vehicles, waste management facilities. Municipal wastes (separately collected fractions) – glass and metals.	150,000.
	Total	150,000.
Description of site:	The site is located within the existing Osberstown Industrial Park, which has a well developed road network. Traffic movement is controlled by a designated one-way system on site.	
Number of employees:	There are currently 85 employees.	

3 Operational Description

Reference Appendix 1 for the site layout plan and site location.

Table 3: Summary of Process

Inputs ^{Note 1}	Process	Outputs	Emissions
Glass and can processing facility			
<ul style="list-style-type: none"> - Packaging waste; - Separately collected MSW fractions - Waste from C&D wastes, vehicles, waste management facilities. 	<p><u>Proposed:</u> Incomings loads weighed and inspected. Glass loaded into main process for sorting/processing (screening, magnets, picking, crushing, eddy current separator, air classification systems, optical systems to remove ceramic, stone and porcelain particles, and optical systems for colour separation).</p> <p>Clean, separated glass cullet is the main output of this operation. Glass cullet is colour separated and sized to meet customer specifications. Ferrous and non-ferrous metals also removed and separated before being crushed, baled and palletised for further processing off-site.</p>	<p><u>Current:</u> Bulk glass cullet. Bulk metals. Granular glass product (from drying plant). Residual waste (<1% of input) - pending off-site removal.</p>	<p>One emission to air from the drying plant.</p>

Inputs ^{Note 1}	Process	Outputs	Emissions
	Residual materials directed to drying plant after remaining in storage bay for 3 to 6 months to facilitate removal of contaminants (approximately 60% of the dried material is returned to main process).		

Note 1: The input material to the facility is glass and cans. Input glass may be colour-segregated or mixed-colour.

4 Emissions

4.1 Air

There is one point-source emission to atmosphere at the facility, associated with the dryer (A1) that is fuelled with natural gas.

The impact of emissions from this emission point were modelled for carbon monoxide (CO), oxides of nitrogen (NO_x), sulphur dioxide, total organic carbon and particulate matter (PM₁₀ and PM_{2.5}).

The emission limit values proposed by the applicant and used in the model for each parameter are based on emissions monitoring carried out at the facility. The emission limit values (and the associated abatement) are consistent with the *Final Draft BAT Guidance Note on Best Available Techniques for the Waste Sector: Waste Transfer and Materials Recovery, 2011*, and in particular Section 6.3.1 which states that emission limit values must ensure the quality of the receiving environment is not impaired and air quality standards are not exceeded.

The emissions abatement system at A1 includes a cyclone and bag filters, and is consistent with BAT. The filter bags employed in the system, chosen to be suitable for glass particles, are sensitive to temperature, and the applicant adds cooling air prior to the bag filters to protect them. This results in oxygen levels in the emission that are much higher than would typically arise in a gas combustion process (the applicant measured 18.6% O₂). As this air enters prior to the abatement system and is to protect it, the RD does not provide a reference oxygen for emissions at A1.

The applicant does not currently measure pressure drop at the bag filters and does not have a satisfactory way of determining when filter socks need to be replaced. Accordingly Condition 6.1 of the RD requires a test programme on the abatement system for A1 to set out optimal operation and maintenance of the abatement system.

As shown in Table 4, the predicted ground level concentration values combined with the baseline atmospheric values, are within the Air Quality Standards (AQS) for each parameter. **Schedule B.1** recommends emission limit values for A1.

Table 4. Results of air dispersion modelling for A1.

Parameter	Model input emission factor (mg/m ³)	Background (µg/m ³) ^{Note 1}	Process contribution (µg/m ³)	Predicted ground level concentration (including background) (µg/m ³) ^{Note 2}	Limit as per S.I. 180 of 2011 ^{Note 3} (µg/m ³)	% of AQS
Nitrogen oxides (as NO ₂) ^{Note 4}	50	9	19	37	200	18.5

1 hour (99.8%ile)						
Nitrogen oxides (as NO ₂) ^{Note 4} Annual		9	2.4	11.4	40	28.5
Sulphur dioxide 1 hour (99.7%ile)	50	3	55	61	350	17
Sulphur dioxide 24 hour (99.1%ile)		3	33	39	125	31
Particulates (PM ₁₀) 24 hour (90.4%ile)	50	14	12	26	50	52
Particulates (PM ₁₀) Annual		14	3.4	17.4	40	44
Particulates (PM _{2.5}) Annual	50	9	3.4	12.4	25	50
Carbon monoxide 8-hour	300	200	294	494	10,000	4
Total organic carbon (as benzene) Annual	80	0.4	3.5	3.9	5	78

Note 1: Background data taken as maximum of 2011 data for EPA's Zone D monitoring stations.

Note 2: Background levels add to process contribution in line with the Agency's *Air Dispersion Modelling from Industrial Installations Guidance Note (AG4)*.

Note 3: S.I. No. 180/2011 – Air Quality Standards Regulations 2011.

Note 4: Conversion rates of NO to NO₂: 35% for short-term and 70% for long-term average concentration.

4.2 Emissions to Sewer

There are no process emissions to sewer from this facility.

4.3 Emissions to Surface Waters

There are no process emissions to surface water from this facility.

4.4 Storm Water Run-off

There are two separate discharge points (SW1 and SW2) from the site, both of which emit to a storm water culvert, which runs adjacent to the north-eastern boundary of the site, and through the drainage system for the industrial park. Interceptors are installed in the surface water management system. There is also an attenuation tank and hydro-valve (to control flow) for SW2. The sites lies within the River Liffey Water Management Unit.

One round of monitoring of storm water run-off was conducted in 2012 and again in 2013. The monitoring conducted in 2012 indicated elevated levels of suspended solids (183 mg/l) and biochemical oxygen demand (240 mg/l BOD), although the

2013 levels were more indicative of uncontaminated surface water (17-20 mg/l suspended solids and 6-7 mg/l BOD).

The application identified that attenuation capacity is inadequate and the applicant proposes to install an attenuation pond in the north-east of the site to control the rate of storm water run-off. Similarly, the applicant proposes to install an additional silt trap and states that the storage of bulky, uncontained input materials and product will be restricted to hardstanding areas only.

Input, intermediate and product materials are stored outdoors in bays on hardstanding areas. Rainwater can pick up suspended solids and any leftover materials in (or on) the containers e.g., drink and food products or labels. Intermediate materials that are generated in the main processing plant, but not of a suitable grade for sale as product, are left in the yard for 3 to 6 months before being processed in the drying plant, as it enables the labels to be more easily removed at the drying plant stage.

The RD includes conditions regarding the management of surface water and requires additional attenuation capacity to be installed within six months of the date of grant of licence. The RD (Condition 8.10) also requires areas where waste and other materials with a potential to contaminate surface water run-off are stored to be covered (unless otherwise agreed with the Agency).

A wayleave associated with the Newbridge Rising Main runs along the northeastern boundary of the site. It is covered by a removable hard plastic matting system, which allows for vehicle movements and temporary storage of materials and recycling receptacles in this area.

4.5 Emissions to ground/groundwater:

There are no direct or indirect process emissions to the ground.

All sanitary effluent produced at the facility is directed to the sewer network.

4.6 Wastes Generated:

It is a requirement of the RD that all wastes generated at the facility are sent off site to authorised facilities for disposal or recovery.

The applicant estimates no more than 1% of the input materials has to be disposed of, after processing. This material is sent to landfill for disposal. There are also non-process wastes, e.g., general office wastes and wastes from garaging activities. Condition 8.13 of the RD proposes to limit the disposal of any waste accepted at the facility for recovery.

4.7 Noise and Vibration:

There were three noise complaints in the period July 2012 to July 2013. Night time operation of the drying plant was identified as a likely source of noise complaints.

A noise monitoring survey was carried out on 1st and 2nd July 2013. The monitoring was carried out in the presence of a recently installed acoustic barrier and the survey was conducted with the Drying Plant turned off from 19:00 to 07:00 hrs. This restriction on the operation of the drying plant is provided for in the RD (Condition 3.12.2). With this restriction in place, noise levels associated with the facility were in line with the recommended noise limits included in the Agency's *Guidance Note for*

Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4), and these limits are stipulated in the RD.

The applicant carried out a vibration assessment to assess the impact of:

- drying plant items within drying plant building;
- process and sorting plant within the main process plant building;
- heavy good vehicles on site;
- forklift movements on site.

The results of the assessment concluded that vibration levels were all below a level which would cause complaint within a residential building, or cause any form of cosmetic damage to buildings, and were all orders of magnitude below a level which would cause structural damage to a building structure. The assessment concluded that mitigation measures are not required at the facility.

4.8 Nuisance:

Given the nature of the activities at the facility, the potential for nuisance relates mainly to dust, but the applicant also identified the need for controls regarding litter and vermin. The applicant noted that wasps are sometimes present in high numbers (attracted by the sugar residues in some beverage containers), but there has been no complaints regarding this matter and it will be dealt with through usual pest control measures. The RD includes controls in relation to prevention and monitoring of nuisance.

Dust deposition monitoring indicated dust deposition levels greater than 350 mg/m³ and the dust deposition monitoring report also noted that, at the time of monitoring, the doors were open with a large amount of dust coming from the building. The RD (Conditions 3.19, 6.8 and 8.10) requires a number of dust mitigation measures.

5 Use of Resources

Diesel and electricity are the main forms of energy used at the facility.

Water is supplied from the mains.

The RD requires an energy efficiency audit and an assessment of resource use efficiency.

6 Waste Management Plans

The Waste Management Plan for County Kildare 2005 - 2010 identifies waste management solutions which shift the emphasis from disposal to prevention, minimisation, recycling, recovery and other forms of waste treatment.

The Plan states that glass should not be mixed with dry recyclables [as part of household waste management system], rather it should be handled separately for safety reasons. The Rehab Glassco activity is consistent with the objectives of Kildare Waste Management Plan.

7 Compliance with Directives/Regulations

The Recommended Decision takes account of the requirements of the following Directives/Regulations:

Industrial Emissions Directive [2010/75/EU]

The facility does not fall within the scope of the Industrial Emissions Directive.

Waste Framework Directive [2008/98/EC]

The RD will be in accordance with the Directive for the following reasons:

- It will allow for more waste to move up the waste hierarchy as it increases the recovery of separately collected waste that might otherwise have been disposed of by landfill.
- Member States shall take the necessary measures to ensure that waste undergoes recovery operations.
- Member States shall take measures to promote high quality recycling.
- Member States shall take the necessary measures to ensure that waste management is carried out without endangering human health and the environment.

Water Framework Directive [2000/60/EC]

European Communities Environmental Objectives (Surface Water) Regulations, S.I. No. 272 of 2009

European Communities Environmental Objectives (Ground Water) Regulations, S.I. No. 9 of 2010

A number of measures have been included in the RD to prevent any impact on water quality, as described above and presented in the RD.

Environmental Liabilities Directive (2004/35/EC)

Condition 10 of the RD requires the licensee to prepare a Decommissioning Management Plan (DMP) and **Condition 12** requires the completion of an Environmental Liabilities Risk Assessment (ELRA) which addresses liabilities from past and present activities.

Habitats Directive (92/43/EEC) & Birds Directive (79/409/EEC)

Appropriate Assessment

There are no discharges from the facility directly into any site designated under the E.U. Habitats or Birds Directives.

Table 5 – Natura 2000 sites within 10 km of the facility or considered relevant in the Appropriate Assessment screening.

Site Code	Designation	Description	Distance
002331	Mouds Bog, SAC	<u>Annex I habitats:</u> Active raised bogs; Degraded raised bogs still capable of natural regeneration; Depressions on peat substrates of the <i>Rhynchosporion</i> .	5.8 km
000391	Ballynafagh Bog,	<u>Annex I habitats:</u>	8.4 km

	SAC	Active raised bogs; Degraded raised bogs still capable of natural regeneration; Depressions on peat substrates of the <i>Rhynchosporion</i> .	
000396	Pollardstown Fen, SAC	<u>Annex I habitats:</u> Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i> ; Petrifying springs with tufa formation (<i>Cratoneurion</i>); Alkaline fens. <u>Annex II species:</u> <i>Vertigo geyeri</i> ; <i>Vertigo angustior</i> ; <i>Vertigo moulinsiana</i> .	9.9 km
000206	North Dublin Bay, SAC	<u>Annex I habitats:</u> Mudflats and sandflats not covered by seawater at low tide; Annual vegetation of drift lines; <i>Salicornia</i> and other annuals colonizing mud and sand; Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>); Mediterranean salt meadows (<i>Juncetalia maritimi</i>); Embryonic shifting dunes; Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ("white dunes"); Fixed coastal dunes with herbaceous vegetation ("grey dunes"); Humid dune slacks. <u>Annex II species:</u> <i>Petalophyllum ralfsii</i> ;	40 – 50 km by river
000210	South Dublin Bay, SAC	<u>Annex I habitats:</u> Mudflats and sandflats not covered by seawater at low tide.	40 – 50 km by river
004006	North Bull Island, SPA	Sand spit with extensive dune system, intertidal lagoons and saltmarsh. <u>Species:</u> Light-bellied Brent Goose (<i>Branta bernicla hrota</i>); Shelduck (<i>Tadorna tadorna</i>); Teal (<i>Anas crecca</i>); Pintail (<i>Anas acuta</i>); Shoveler (<i>Anas clypeata</i>); Oystercatcher (<i>Haematopus ostralegus</i>); Golden Plover (<i>Pluvialis apricaria</i>); Grey Plover (<i>Pluvialis squatarola</i>); Knot (<i>Calidris canutus</i>); Sanderling (<i>Calidris alba</i>); Dunlin (<i>Calidris alpina</i>); Black-tailed Godwit	40 – 50 km by river

		(<i>Limosa limosa</i>); Bar-tailed Godwit (<i>Limosa lapponica</i>); Curlew (<i>Numenius arquata</i>); Redshank (<i>Tringa totanus</i>); Turnstone (<i>Arenaria interpres</i>); Black-headed Gull (<i>Larus ridibundus</i>). All wintering birds.	
004024	South Dublin Bay and River Tolka Estuary, SPA	Habitats include intertidal area, siltmarsh and estuary. <u>Species:</u> Light-bellied Brent Goose (<i>Branta bernicla hrota</i>); Oystercatcher (<i>Haematopus ostralegus</i>); Ringed Plover (<i>Charadrius hiaticula</i>); Grey Plover (<i>Pluvialis squatarola</i>); Knot (<i>Calidris canutus</i>); Sanderling (<i>Calidris alba</i>); Dunlin (<i>Calidris alpina</i>); Bar-tailed Godwit (<i>Limosa lapponica</i>); Redshank (<i>Tringa totanus</i>); Black-headed Gull (<i>Croicocephalus ridibundus</i>). All wintering birds. Roseate Tern (<i>Sterna dougallii</i>); Arctic Tern (<i>Sterna paradisaea</i>). Both birds of passage. Common Tern (<i>Sterna hirundo</i>). Breeding and passage.	40 – 50 km by river

A screening for Appropriate Assessment was undertaken to assess, in view of best scientific knowledge and the conservation objectives of the site, if the activity, individually or in combination with other plans or projects is likely to have a significant effect on a European Site(s). In this context, particular attention was paid to the European sites at **Mouds Bog SAC, Ballynafagh Bog SAC, Pollardstown Fen SAC, North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA**. The Agency considered, for the reasons set out below, that the activity is not directly connected with or necessary to the management of those sites as European Sites and that it can be excluded on the basis of objective information, that the activity, individually or in combination with other plans or projects, will have a significant effect on a European site, and accordingly the Agency determined that an Appropriate Assessment of the activity is not required.

It has been determined that this facility does not have the potential for significant effects on any European site due to the nature and scale of the operations, the absence of a process emission to water and the distance between the facility and the designated sites.

8 Environmental Impact Assessment Directive (85/337/EEC)

The applicant submitted an Environmental Impact Statement (EIS), in the form of a *Remedial* Environmental Impact Statement (REIS), which was prepared in

support of an application for *substitute consent* to An Bord Pleanála for the purpose of regularising the existing Rehab Glassco glass recycling facility and ancillary activities.

- **Content of EIS**

I have considered and examined the content of the EIS and other material (information submitted in the licence application, the planning permission, planning inspectors report, correspondence between the Agency and the Planning Authority in relation to the licence application and EIS and any submissions made by third parties in relation to the EIS). I consider that having examined the relevant documents and with the addition of this Inspector's Report that the likely significant direct and indirect effects of the activity have been identified, described and assessed in an appropriate manner as required in Article 3 and in accordance with Articles 4 to 11 of the EIA Directive as respects the matters that come within the functions of the Agency. I consider that the EIS also complies with the Waste Management (Licensing) Regulations 2004, as amended.

- **Environmental Impact Assessment (EIA)**

An assessment, as respects the matters that come within the functions of the Agency, has been carried out as detailed below.

An assessment as regards the functions of An Bord Pleanála was carried out by An Bord Pleanála when granting *substitute consent* for the development. The *substitute consent* application (Reference number PL09.SU.0015) was lodged with An Bord Pleanála on 6th March 2013. An Bord Pleanála decided to grant *substitute consent* on 12 June 2014. An Bord Pleanála's EIA was considered as part of the Agency's assessment.

Consultation was carried out between An Bord Pleanála and the Agency in relation to the licence application and EIS, as follows:

Letter to An Bord Pleanála requesting observations on licence application and EIS issued:	4 th October 2013
Response to letter requesting observations on licence application and EIS received:	29 th November 2013

As part of the consultations, An Bord Pleanála confirmed that *substitute consent* reference PL09.SU.0015 was the applicable grant of permission relating to this development.

An Bord Pleanála had the following observations in relation to the licence application:

- (i) The information relating to the EIS on the Agency's website is the same information in the EIS submitted to An Bord Pleanála.
- (ii) A number of documents submitted to the Agency, on foot of an Article 14 request, were submitted to An Bord Pleanála by the applicant (e.g., environmental noise survey and report on control of birds), while a number of other documents so submitted to the Agency were not

submitted to An Bord Pleanala (e.g., dust monitoring report, air dispersion model report and surface water discharge report).

- (iii) An Bord Pleanala notes that Rehab Glassco, in its Article 14 submission to the Agency, have decided the hours of operation of the drying plant will be 0700 to 1900 hours and that the environmental noise survey considered these operating hours. An Bord Pleanala also noted that these revised operating hours were not included in the EIS submitted to An Bord Pleanala.
- (iv) No oral hearing has been conducted by An Bord Pleanala in relation to the *substitute consent* application.

An Bord Pleanala also gave a summary of the planning history of the site. This noted that Kildare County Council granted permission for the structures at the facility, including the drying plant, although the planning permissions did not specifically limit emissions from the site and did not specify the quantity of material that could be accepted at the site. An Bord Pleanala noted the planning permissions do limit the height of stockpiles to a maximum of 3 metres, as well as stipulating other controls regarding further development/change of use, landscaping, noise and surface water disposal. An Bord Pleanala also noted that Rehab Glassco was granted the following hours by Kildare County Council in previous planning permission: hours of operation from 8:30 to 17:30 hours (Monday to Friday) and 8:30 to 14:30 hours (Saturdays). I note the EIS considered waste acceptance hours of 7am to 7pm Monday to Saturday and hours of operation of 24 hours Monday to Friday, 7am to 11pm Saturday and these hours of operation and waste acceptance are consistent with those provided in An Bord Pleanala's *substitute consent*.

An Bord Pleanala also carried out an EIA in respect of the development. They also provided a copy of the EIA report relating to substitute consent PL09.SU.0015.

The assessment outlined in this report considers the submissions and observations exchanged between An Bord Pleanala and the Agency. All third party submissions/observations received which are relevant to impacts on the environment have also been considered and taken into account.

The submitted EIS and the assessment as described in this Inspectors Report address the likely significant direct and indirect effects arising from the activity, as respects the matters that come within the functions of the Agency.

- ***Likely significant effects***

The following section identifies, describes and assesses the main likely significant direct and indirect effects of the activity on the environment, as respects the matters that come within the functions of the Agency, for each of the following factors: human beings, flora, fauna, soil, water, air, climate, the landscape, material assets and cultural heritage. The main mitigation measures proposed to address the range of predicted significant impacts arising from the activity have also been outlined.

1. Human Beings

Likely significant effect	Description of effect	Mitigation measures proposed by applicant in EIS or waste licence application ^{Note 1}
Traffic	Traffic related emissions and disamenity effects, e.g., noise, dust and air quality.	Traffic levels will not increase significantly upon grant of licence. The RD sets hours of operation and waste acceptance and the requirements for vehicles to be cleaned and covered.
Odour	Odour nuisance from handling waste materials.	Inert nature of wastes handled result in minimal odour emissions.
Air quality and dust	Impact on air quality due to emissions from internal traffic movements, drying plant, storage of materials and loading and unloading operations. Environmental nuisance associated with dust emissions from the operation of the facility.	Minimal traffic related emissions. The RD sets limits on emissions to air and dust deposition. Dust levels controlled through water bowser and improved extraction and enclosed conveying systems at the drying plant. The RD also requires review of dust mitigation measures with a view to requiring containment of drying plant with negative air pressures.
Noise and vibration	Disamenity from noise emissions due to licensed activities. Mitigation measures required. Vibration impacts associated with the facility operation, which could negatively impact on neighbours/receptors. Mitigation measures not required.	Installation of noise barrier/screen at the loading bay of the Main Process building. The drying plant will not be operated between 7pm and 7am. The RD sets noise limit values and requires noise surveys.

Note 1: and/or as outlined above in this report

2. Flora & fauna

Likely significant effect	Description of effect	Mitigation measures proposed by applicant in EIS or IE licence

		application ^{Note 1}
Impact on any habitats or flora and fauna in the area.	Storm water drainage and emissions from the drying plant.	The site has no ecological value and the very limited flora and fauna are associated with the peripheral drain and hedges. Appropriate Assessment screening indicated no adverse impact on any Natura 2000 site.
Impact on water quality.	Reduction in water quality due to storm water run-off.	The RD requires treatment and monitoring of yard run-off.

Note 1: and/or as outlined above in this report

3. Soil

Likely significant effect	Description of effect	Mitigation measures proposed by applicant in EIS or IE licence application ^{Note 1}
Contamination of soil/groundwater.	Accidental spillage, leak or discharge to ground. Off-site impact on soils/agricultural areas associated with airborne dust emissions from the facility.	The RD includes requirements for safe storage and handling of wastes, fuels and materials. The RD requires accident prevention policy and emergency response procedure. The RD includes dust mitigation measures (see Air section below)

Note 1: and/or as outlined above in this report

4. Water

Likely significant effect	Description of effect	Mitigation measures proposed by applicant in EIS or IE licence application ^{Note 1}
Contamination of surface water.	Discharge of potentially contaminated yard run-off ultimately leading to the River Liffey.	There are no process emissions to surface water. The RD includes requirements for safe

		<p>storage and handling of wastes, fuels and materials. Storage of bulk, uncontained input materials and product will be restricted to hardstanding areas only.</p> <p>The RD requires control and monitoring of yard run-off. The RD also requires dust mitigation measures including the use of a bowser.</p>
Flooding	Reduced infiltration with increase in hardstanding.	No historical flooding. The RD requires the provision of adequate storm water attenuation.
Contamination of groundwater.	Contamination of groundwater due to accidental spillage or discharge to ground.	<p>There is no direct discharge to groundwater.</p> <p>The RD requires all areas of the facility associated with the movement, processing, storage and handling of waste to be hardstanding.</p> <p>See also section 3, Soil.</p>

Note 1: and/or as outlined above in this report

5. Air

Likely significant effect	Description of effect	Mitigation measures proposed by applicant in EIS or IE licence application ^{Note 1}
Air quality	Impact on air quality due to emissions from internal traffic movements, drying plant, storage of materials and loading and unloading operations.	Minimal traffic related emissions. The RD sets ELVs on emissions to air and dust deposition limits. Dust levels controlled through water bowser and improved extraction and enclosed conveying systems at the drying plant. The RD also requires review of dust mitigation measures with a view to requiring containment of drying plant with negative air

		pressures if necessary.
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Note 1: and/or as outlined above in this report

6. Climate

Likely significant effect	Description of effect	Mitigation measures proposed by applicant in EIS or IE licence application ^{Note 1}
Increase in traffic emissions.	Traffic and its associated emissions	See section 1. Human Beings.
Increase in greenhouse gases.	Increase in emissions of greenhouse gases due to plant operations versus decrease in emissions of green house gases due to recycling (life cycle benefit).	Glass recycling has positive climate-change implications: conversion of recycled glass into new glass product saves much CO ₂ from going into the atmosphere. The RD requires an energy efficiency audit and the implementation of identified measures.

Note 1: and/or as outlined above in this report

7. Landscape, Material Assets & Cultural Heritage

Likely significant effect	Description of effect	Mitigation measures proposed by applicant in EIS or IE licence application ^{Note 1}
River Liffey	Impacts on water quality and flora and fauna	Mitigation measures described in Sections 2 and 4.
Quality of the local environment	Dust, odour, noise nuisance or other impacts on air quality.	Mitigation measures described in Sections 1 and 5.
Farming/Bloodstock	No significant impacts identified.	No remedial mitigation measures necessary.
Waste recovery infrastructure.	Facility is critical infrastructure for glass recycling.	The RD includes conditions regarding the handling and management of wastes accepted and generated at the facility. The RD requires recovery/recycling data to be reported on an annual basis.

Services and utilities	Demand for new, or increase level of, services and utilities.	Services and utilities already provided to the industrial park. No mitigation measures required.
Resource/energy use	Demand for electricity, water, space heating, fuels and raw materials.	The RD includes conditions on energy, water and raw material efficiency. The residual non-recyclable output from the facility will be less than 1% of input.

Note 1: and/or as outlined above in this report

● **Assessment of parts 1 to 7 and the interaction of effects and factors**

The assessment detailed throughout this Inspector’s Report fully considers the range of likely significant effects of the activity on human beings, flora, fauna, soil, water, air, climate, landscape, material assets and cultural heritage, as respects the matters that come within the functions of the Agency, (as identified in parts 1-7 above), with due regard given to the mitigation measures proposed to be applied. The assessment also has regard to the assessments carried out by An Bord Pleanála and all relevant observations and submissions made on the licence application and EIS.

The following is a matrix of the potential significant interaction of impacts, as provided by Table 13.1 of the EIS.

Table 13.1 Potential Interactions between EIS Chapters

	01 Introduction	02 Project	03 Human Beings	04 Roads/Traffic	05 Air/Climate	06 Noise	07 Landscape	08 Flora/Fauna	09 Hydrogeology	10 Surface Water	11 Archaeology	12 Material Assets	13 Other
01 Introduction	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)	(xii)	(xiii)
02 Project	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)	(xii)	(xiii)
03 Human Beings	(i)	(ii)	(iii)	(iv)	(v)	(vi)						(xvii)	(xviii)
04 Roads/Traffic	(i)	(ii)	(iii)	(iv)	(v)	(vi)							
05 Air/Climate	(i)	(ii)	(iii)	(iv)	(v)	(vi)							
06 Noise	(i)	(ii)	(iii)	(iv)	(v)	(vi)							
07 Landscape	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)						
08 Flora/Fauna	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)				(xv)	
09 Hydrogeology	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)			(xvi)	
10 Surface Water	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)		(xvi)	(xviii)
11 Archaeology	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)		(xv)	
12 Material Assets	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)	(xvi)	
13 Other	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)	(xvii)	

I have considered the interaction between the factors referred to in parts 1-7 above and the interaction of the likely effects identified (as well as cumulative

impacts with other developments in the vicinity of the activity). I do not consider that the interactions identified are likely to cause or exacerbate any potentially significant environmental effects of the activity.

I am satisfied that the proposed mitigation measures identified above are adequate and will also address any potential significant interactions or cumulative effects. The RD includes conditions as considered appropriate to address any likely significant effects or interactions associated with the licensable activity.

- **Reasoned Conclusion on Environmental Impact Assessment**

I consider that having examined the relevant documents, and on foot of the assessment carried out throughout this Inspector's Report, that the likely significant direct and indirect effects of the activity have been identified, described and assessed in an appropriate manner as respects the matters that come within the functions of the Agency, and as required by Section 40(2A) and Section 42(1G)(a) of the Waste Management Acts.

It is considered that the mitigation measures as proposed will adequately control any likely significant environmental effects from the activity.

It is also considered that the proposed activity, if managed, operated and controlled in accordance with the licence conditions included in the RD will not result in a significant detrimental impact on the environment.

9 Best Available Techniques (BAT)

I have examined and assessed the application documentation and I am satisfied that the site, technologies and techniques specified in the application and as confirmed, modified or specified in the attached Recommended Decision comply with the requirements and principles of BAT (as described in *Final Draft BAT Guidance Note on Best Available Techniques for the Waste Sector: Waste Transfer and Materials Recovery*, 2011). I consider the technologies and techniques as described in the application, in this report, and in the RD, to be the most effective in achieving a high general level of protection of the environment having regard - as may be relevant - to the way the facility is located, designed, built, managed, maintained, operated and decommissioned.

10 Fit & Proper Person Assessment

The 'fit and proper person' assessment requires three areas of examination:

(i) Technical Ability

The managing director has 11 years experience in the Irish recycling sector. The collections manager and the plant manager are appropriately qualified and experienced with regard to their technical abilities to carry out the proposed waste activities.

(ii) Legal Standing

The applicant, Rehab Glassco Limited, has never been convicted of any relevant offence.

(iii) Financial Standing

A Closure/Decommissioning Management Plan (DMP), an Environmental Liabilities Risk Assessment (ELRA) and a quantification of financial provision was provided by the applicant on 6th September 2013. The Agency's *Guidance on Environmental Liability Risk Assessment, Residuals Management Plans and Financial Provision*, EPA 2006, was followed in the preparation of the report.

In relation to the DMP, the following deficiencies in the submitted document were identified:

- The costs have not been adjusted for inflation.

It is also noted that the DMP considered the costs of decommissioning would be offset by the value of material assets including input and product materials. This led to a median estimated cost of -€220,798 (i.e., money would be left over), with an estimated cost range of €246,342 to -€687,938 depending on how much of the assets would be materialised.

Condition 10.2.1 of the RD requires a decommissioning and closure plan to be agreed by the Agency within six months of the date of grant of licence, in line with the Agency's new guidance note (*Guidance on Assessing and Costing Environmental Liabilities*, 2014).

The ELRA addressed those costs not identified in the DMP which could potentially arise in the event of incidents or accidents. In relation to the ELRA, the following deficiency in the submitted document was identified:

- The risk of unsuitable waste being accepted at the site, despite the recommended controls in the licence, was not considered.
- The ELRA did not consider the *worst case scenario*, instead it considered just the *most likely scenario*.

The estimated 'most likely' cost of unknown environmental liabilities was €154,850. However an upper 'worst case scenario' of €1,000,000 is also estimated.

Condition 12.2.2 of the RD requires the submission of a revised ELRA within six months of the date of grant of licence, in line with the Agency's new guidance note (*Guidance on Assessing and Costing Environmental Liabilities*, 2014).

The applicant has proposed that financial provision will be required, quantified as follows:

Table 7:

Known liability	DMP	€246,342	Type of financial provision considered suitable by applicant: Cash-based deposit/trust fund/Escrow (accessible by EPA and by Rehab Glassco only with EPA consent).
Unknown liability	ELRA	€154,850. (most likely scenario)	Type of financial provision considered suitable by applicant: Bonds/insurance.

No definitive proposal for financial provision was put forward by the applicant, although the applicant did submit a letter from its insurance brokers which indicated the company has insurance for "sudden and accidental pollution" up to a value of €26,000,000 in any one accident/period. **Condition 12.2.3** of the RD requires the making of a financial provision that is agreeable to the Agency within nine months of the date of grant of licence.

Having regard to the provision of Section 40(8) of the Waste Management Acts 1996 to 2013, the applicant can be deemed a Fit & Proper Person for the purpose of this licence application.

11 Complaints

The applicant's complaints register indicates the applicant received the following complaints between 2009 and 2013 (Table 8). The RD addresses the matters raised by the complaints register (see Section 4 above).

Table 8. Complaints register.

Year	Noise	Dust	Birds (dropping glass items)	Vermin	Miscellaneous
2013	2	0	4	0	0
2012	8	1	1	0	0
2011	0	0	1	0	2
2010	0	1	0	1	2
2009	2	1	0	0	0

Kildare County Council confirmed that there has not been a history of complaints in relation to waste activities at the facility, except for a noise complaint at the beginning of its operations.

12 Recommended Decision

The RD includes a wide range of conditions that will ensure proper handling of wastes, protection of off-site surface water courses and minimisation of particulate/dust and noise emissions. Overall, I am satisfied that the conditions set out in the RD will adequately address all emissions from the facility and will ensure that the carrying on of activities in accordance with the conditions will not cause environmental pollution.

13 Submissions

Three submissions were received in relation to this application.

13.1 Two submissions from the Inland Fisheries Ireland (received 25 August 2011 and 29 July 2013):

Inland Fisheries Ireland (IFI) note that the facility is adjacent to the main channel of the River Liffey, a nationally important salmonid river. They state that only clean, uncontaminated surface or ground waters must be permitted to discharge to the water network in the area so that the ecological integrity of the surface water system is protected.

IFI are concerned that surface water run-off monitoring analysis indicated elevated levels of BOD. They consider that the elevated BOD levels should be investigated as a matter of priority and are concerned the incorporation of a silt pond may not address the matter. IFI also request that the remedial measures stated in the EIS be implemented in full with repeat sampling of surface water run-off.

They request that best practice be implemented with regard to surface water management measures (GSDSDS¹ study recommendations) to prevent any pollution of local surface waters. They request that petrol/oil interception (and possibly hydrobrake controls) be in place on primary surface water discharges.

IFI consider that it is essential that the receiving foul and storm water infrastructure has adequate capacity to accept the predicted volumes from the development with no negative repercussions for quality of treatment, final effluent quality and the quality of receiving waters.

Comment:

The RD requires the use of interceptors, silt traps, increased attenuation capacity and the use of hydro-valves (to control flow) for surface water run-off, which is consistent with the GSDSDS study recommendations. The RD restricts the storage of bulk, uncontained input materials and product to hardstanding and covered areas only. The upgrade to the surface water management infrastructure required by the RD will mean it has adequate capacity for predicted volumes. Foul effluent is directed to the Osberstown WWTP via sewer.

The RD (Condition 8.10) requires areas where waste and other materials with a potential to contaminate surface water run-off are stored to be covered (unless otherwise Agreed with the Agency).

13.2 Submission from the Health Service Executive (HSE) (received 25 July 2013):

The HSE's submissions stated there have been no complaints made to the Environmental Health Service with regard to the facility. The HSE also stated that there are no objections to the issue of a waste licence subject to the applicants' compliance with the mitigation and suppression measures proposed in the Remedial Environmental Impact Statement regarding dust, noise, litter and vermin control.

Comment:

The HSE's concerns have been noted and are provided for in the RD.

¹ GSDSDS: Greater Dublin Strategic Drainage Study.

14 Charges

The financial charge proposed in the RD is **€11,934.96**. This has been calculated based on the enforcement effort predicted for the facility.

15 Recommendation

In preparing this report and the Recommended Determination I have consulted with Environmental Licensing Programme's Senior Inspector, Mr Brian Meaney. I have considered all the documentation submitted in relation to this application and recommend that the Agency grant a licence subject to the conditions set out in the attached RD and for the reasons as drafted.

Signed

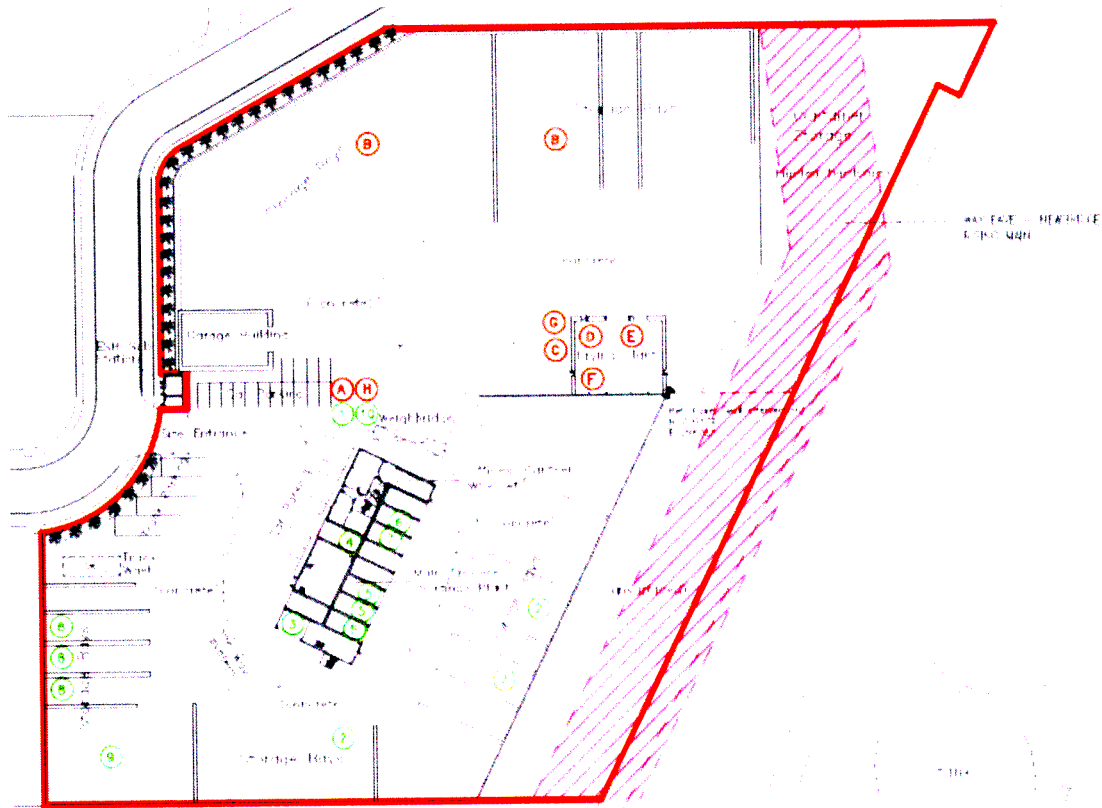


John McEntagart
Inspector
Environmental Licensing Programme

Procedural Note

In the event that no objections are received to the Proposed Decision on the application, a licence will be granted in accordance with Section 43(1) of the Waste Management Act 1996, as amended.

Appendix 1 – Site Layout Plan.



Main Glass Processing Plant Unit Operations

1. Weigh in
2. Material Inspection and Storage
3. Glass Loading into Main Process
4. Sorting/Processing
5. Clean Glass/Can Output Storage
6. Residual Waste Storage Pending Off-site Removal
7. Can Crushing and Palletising
8. Bulk Glass Cullet Storage Pending off-site Removal
9. Metals Storage Pending Off-site storage
10. Weigh out

Drying Plant Unit Operations

- A. Weigh In
- B. Material Inspection and Storage
- C. Loading for Drying
- D. Drying/Processing
- E. Glass Product for Off-site
- F. Glass to Main Process
- G. Residual Waste Storage Pending Off-site Removal
- H. Weigh out