

## INTRODUCTION

Starling Environmental Limited (SEL) has been commissioned by Green Future Limited (the operator) to prepare an environmental permit application for the glass recycling facility located at the Old Brickworks, Annas Rd, Westby, Blackpool, Lancashire, FY4 5JX.

Green Future Recycling Limited are an accredited glass reprocessor. Accredited reprocessors recycle packaging waste discarded by UK businesses and households and generate packaging recycling notes (PRNs). They are registered with the Environment Agency and have to demonstrate quality control and produce end of waste products which require no further reprocessing.

Green Future Recycling produce the following products:

- Recycled glass filter media (water treatment usage)
- Recycled glass abrasive media (for use in sand blasting)
- Recycled glass infill sand (for use on synthetic sports pitches)

The site currently operates under registered exemptions which allow storage and processing of waste glass. The operator would like to enhance the recycling operation by carrying out washing of waste glass. This would be outside of the scope of the exemption and an environmental permit will be required. It is proposed that the existing activities will also be brought under the permit and the permit application is for physical and chemical processing to allow crushing, screening and washing of waste glass.

## Site Details and Surrounding Area

The site is located at the Old Brickworks, Annas Rd, Westby, Blackpool, Lancashire, FY4 5JX. The site is located approximately 200 m to the south of Peel, a small hamlet approximately 2 km to the east of Lytham St Annes, Lancashire. The national grid reference for the site is SD 35652 31149. The location of the site is shown on Drawing No 122/01.

The site is a former brickworks associated with the surrounding Westby Clay Pits which were excavated from the 1800s. The surrounding clay pits have since been infilled by landfill.

The site lies in a predominantly rural setting to the south-east of Blackpool. The Peel Hall Business Village, a small business park, is located approximately 200 m to the north-east of the site adjacent to the hamlet of Peel.

The site is bound by Anna's Road to the south, then south of Anna's Road is the Woods Waste Limited Westby (South) landfill which is currently being infilled. Adjacent to the site to the west, north and east is the fully restored Woods Waste Limited Westby (North) landfill which rises approximately 3 - 4 m above the site providing screening to the surrounding area.

Within the Westby (North) landfill, there are a few small ponds to the west (former clay pits), and some woodland to the north-west. These features are shown on the Receptors Plan Drawing No 122/03 which is provided in Appendix A.

The site lies in a rural setting and the surrounding area is predominantly agricultural land with associated farm ditches. Farmland to the west and south are designated as the Lytham Moss Biological Heritage Site (BHS).

The Peel Hall Business Park is located approximately 210 m to the north-east of the site and includes a small number of light industrial businesses including a car dealership and a motor repair garage and commercial businesses including a florist. The closest residential properties are 211 m north-east of the permit boundary.

## **Layout**

The site is rectangular in shape and covers an area of 10,633 m<sup>2</sup>. Access to the site is off Anna's Road on the southern boundary. The site is bound by palisade fencing and lockable gates at the entrance off Anna's Road. There is thick hedgerow on all boundaries of the site and some mature trees along Anna's Road. There is one main processing building at the site where waste glass is processed by drying, crushing and screening to produce recycled products. Two silos are located on the eastern side of the building for storage of recycled products.

The building is fitted with a dust extraction system with three dust extraction points showed on the site layout plan. This is a pulse jet bag filter system.

The proposed wash plant will be located in the yard in the south-east corner where waste glass will be washed and screened to produce different size fractions. A smaller product storage building and bagging plant will be located adjacent to the wash plant.

There is a brick building adjacent to the southern boundary of the site which houses office and welfare facilities with an adjacent staff parking area. A weighbridge is located in the west of the site in line with the HGV access. A gas storage compound with tanks storing LPG is located adjacent to the southern boundary.

The majority of the site is hardstanding. The wash plant will be located over concrete and there is a concrete pad at the entrance to the main processing building. Site surfacing is shown on the Site Layout Plan (Drawing No 122/02) provided in Appendix A.

## **Current Activities**

Planning permission was obtained in 2009 for a change of use of the site from use as a brickworks to glass recycling. The site currently operates under waste exemptions S1, S1 and T4 registered under reference WEX355305. These exemptions allow for the storage and processing of waste glass including the following EWC codes:

- 150107 glass packaging
- 170202 glass from construction and demolition
- 191205 glass from mechanical waste treatment
- 200102 glass separately collected fraction from municipal waste

Green Future Recycling Limited are an accredited glass reprocessor. A copy of their accreditation is contained in Appendix C. The site also accepts non-waste glass product for processing into products.

Material is deposited outside in the 'incoming waste storage area' shown on the site layout plan and is fed into a hopper which transports the material inside the processing building. It is first conveyed through a dryer then into a crusher. From the crusher it passes through a classifier and then onto a number of shaker decks which screen the material into different sizes. The process is shown in Figure 1 overleaf as a process flow diagram.

The different fraction sizes are stored in silos before being packaged into product bags by an automated bagging plant. The finished products are stored inside the building and then dispatched to customers. Quality control tests are carried out on the products to check conformance with the product specification.

## **PROPOSED CHANGES**

### **Continuation of Existing Operations**

It is proposed to continue with the current physical processing operations under the environmental permit instead of as exempt activities. The proposed waste types are listed in Table 1 below.

Waste Code	Description
15 01 07	Packaging (including separately collected municipal packaging waste): Glass packaging
17 02 02	Construction and demolition waste: Glass
19 12 05	Waste from mechanical treatment of waste: Glass
20 01 02	Municipal waste – separately collected fractions: Glass

**Table 1: Proposed Waste Types**

The proposed annual throughput is 75,000 tonnes per year and the proposed maximum storage capacity is 40,000 tonnes. This is the combined throughput for both the dry processing operations and the glass washing activity described below.

### **Glass Washing**

It is proposed to add a washing activity to allow a wider range of products to be produced. Washing will be carried out in a fixed wash plant. The plant will be located on a concrete surface and the location is shown on Drawing No 122/02.

Incoming waste will be deposited in a stockpile next to the washplant and loaded into a hopper which feeds the 'wash bath', which is the main wash box. Lightweight material (eg. plastic and paper) floats off in the wash bath. In the case of EWC 19 12 05 this is generally bottle tops and labels that are mixed in with the waste glass. This is then dewatered before being stored inside a concrete block bay with concrete pavement. This material is a waste product and will be classified as EWC 19 12 12 removed from site to a permitted facility.

The heavier glass is screened into separate stockpiles of various sizes. Sand is also separated through a cyclone. The fractions will be stored in 4 m high concrete block bays around the wash plant as they are produced.

The incoming waste stockpile will not be in a bay, this will be freestanding. It will be maintained at a maximum height of 4 m and will be situated to the north of the processing building. This area is contained by the perimeter bund and shielded by the elevated profile outside the bund which forms the restored landfill.

Wash water will be returned into a flocculation tank where it is separated into water/sludge by flocculation. Sludge will be sent for filtration and water is returned to the water feed tank for reuse. The plant will be a closed loop system, there will be no discharge of water. Water is lost as moisture in the filtercake and the system will be topped up with clean water. The water source will be harvested roof water and mains water.

The sludge will be filtered through a plate and frame filter press to produce a filtercake. This is stored below the press in a covered housing.

Recycled products will meet end of waste requirements required by the PRN accreditation. This requires that products produced require no further processing to be fit for purpose and undergo quality control testing to show they are fit for purpose.

## **SUPPORTING DOCUMENTS**

Enhanced pre-application advice was sought from the EA and this advised on the supporting documents that would be required to accompany the application. The following documents have been submitted with the application:

Environmental Risk Assessment – identifies receptors and assesses the risks from the proposed activities and proposes mitigation to reduce risks where required. Report No 122/1.

Dust Emissions Management Plan – this is a standard requirement for this activity as the site is within 500 m of a sensitive receptor. Report No 122/2.

Site Condition Report – Report No 122/3.

Environmental Management System – including any controls identified through the risk assessment and a climate change risk assessment. Report No 122/4.

Odour Management Plan – this was advised as a requirement through pre-app advice. Report No 122/5.

Noise Impact Assessment and Noise Management Plan – this was advised as a requirement through pre-application advice. Report No 122/6.

Wamitab certificates – Carla Roskell holds an EPOC certificate and will register on the MROC course and will complete the qualification once the permit is issued. A copy of the EPOC has been supplied.

Site Layout Plan – Drawing No 122/2.