

INTRODUCTION

Starling Environmental Limited (SEL) has been commissioned by Quercia Limited to prepare an environmental permit variation application for the Materials Recycling Facility (MRF) at Clayton Hall, Dawson Lane, Whittle-le-Woods, Chorley, PR6 7DT. The site is regulated under environmental permit EPR/AP389CJ.

The site is currently permitted to accept a wide range of non-hazardous waste for treatment, including metal shredder residues under the EWC codes:

- 19 10 04 fluff-light fraction other than those mentioned in 19 10 03*
- 19 10 06 other fractions other than those mentioned in 19 10 05*

In May 2023, the EA issued a Regulatory Position Statement (RPS 274) which requires operators to vary their permit to add the hazardous mirror entry codes for these wastes in order to continue to accept them:

- 19 10 03* fluff-light fraction and dust containing hazardous substances
- 19 10 05* other fractions containing hazardous substances

Therefore, the operator wishes to vary the permit to add an installation for treatment of >10 tn/day of hazardous waste, in order to continue processing the above waste.

Site Details and Surrounding Area

The site is located off Dawson Lane some 3 km to the east of Leyland and 3 km to the north of Chorley town centre, Lancashire. The approximate National Grid Reference for the centre of the site is SD 5685 2180. The site is within the permitted area of the Clayton Hall Landfill Site, a non-hazardous landfill also operated by Quercia, under permit EPR/BV1364.

To the north of the MRF is the operational landfill, and to the south the vegetated overburden mound of the former sand quarry. The site, and the landfill infrastructure, are situated between those two areas of higher ground, and a public footpath runs to the rear (south) of the buildings.

Layout

The permit area is approximately 1.7 hectares within which the building covers an area of 0.31 hectares. The site is securely fenced with palisade fencing approximately 2 m high. The entrance is via lockable gates.

Site features include a large waste processing building, a weighbridge and portacabin style offices, car parking area and a large yard area. Waste processing is carried out inside the building. Baled waste is stored in the yard awaiting collection.

The weighbridge, offices and yard are shared with landfill operations. On the eastern periphery of the yard is the landfill leachate treatment plant and gas compound which houses the gas engines and flare.

The yard is surfaced with concrete and surface water drains to a sump at the low point towards the northern end of the yard. From there it is pumped into the final tank of the leachate treatment system (Tank 3) for discharge to sewer along with treated leachate. The discharge is made under a trade effluent discharge consent by United Utilities.

The waste processing building is fitted with lockable roller shutter doors. The base of the building comprises a reinforced concrete pavement. Roof water from the building is collected and discharged to Bryning Brook under an EA discharge consent, Permit No 017091485. A CCTV system is in use at the site to provide additional security.

Current Activities

The site operates as a household, commercial and industrial waste transfer station under a bespoke permit. A wide range of non-hazardous waste can be accepted for treatment. The treatment process consists of mechanical treatment using a typical MRF plant including shredding, trommelling, metals recovery, density separation. All treatment is carried out within the building.

Recyclable fractions are recovered for onward shipping to third party recyclers. Residual combustible waste which is not suitable for recycling is shredded to produce RDF. Material which cannot be recovered may be disposed of in the landfill, subject to landfill waste acceptance procedures. The annual permitted throughput for the site is 150,000 tonnes per annum.

PROPOSED CHANGES

It is proposed to add an installation activity to allow treatment of more than 10 tonnes per day of hazardous waste, specifically hazardous metal shredder residues which are currently accepted under the non-hazardous mirror entry codes. The hazardous waste treatment activity will consist of physical treatment so would come under Section 5.3 Disposal or recovery of hazardous waste, Part A(1) (ii) physico-chemical treatment.

Hazardous waste will be stored and processed separately to non-hazardous waste on a campaign basis. An annual throughput of 150,000 tonnes is requested for the installation activity in addition to the 150,000 tonnes for the waste operation. It is not envisaged that 300,000 tonnes of waste would be processed, instead this prevents a cap being applied to either waste type and provides flexibility to adapt to changes in demand.

It is proposed to add two hazardous waste codes to the permit as listed in Table 1 below.

Waste Code	Description
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 10	Waste from shredding of metal-containing waste
19 10 03*	fluff-light fraction and dust containing hazardous substances
19 10 05*	other fractions containing hazardous substances

Table 1: Proposed Installation Waste Codes

Hazardous waste will be accepted into a dedicated storage bay. The waste will be subjected to mechanical treatment and passed over and through a number of eddy current separators and magnets to remove ferrous and non-ferrous metal. The residual waste will be shredded to achieve a particle size of < 300 mm as RDF. This will be

stored loose in a bay inside the building, as shown on the site layout plan, or be baled and stored outside in the yard.

A BAT assessment has been carried out for the installation activities and abatement will be required for emissions to air. This will be by fabric filter followed by adsorption using activated carbon. The fabric filter will remove dust and the carbon adsorption will remove ammonia and VOCs. The transfer station already operates with an extraction system with fabric dust filter. This system will be adapted so that the air stream post dust filtration is channelled into an activated carbon unit, which will be located next to the dust filter. Abated air will be released outside the building.

It is proposed to carry out 6 monthly monitoring of dust, ammonia and TVOC, which is the minimum BAT requirement. Monitoring will be carried out using an MCERTS accredited supplier. Any analysis required will be undertaken in a UKAS accredited laboratory. Additional monthly monitoring for VOCs will be carried out by site personnel. This will allow early detection of when the carbon units becoming saturated and will require changing.

SUPPORTING DOCUMENTS

The following documents have been submitted with the application:

Environmental Risk Assessment – identifies receptors and assesses the risks from the proposed changes and proposes mitigation to reduce risks where required. Report No 110/1.

H1 Assessment of emissions using the EA's modelling tool.

Dust Management Plan – this is a standard requirement for this activity as the site is within 500 m of a sensitive receptor. Report No 110/2.

Supporting Information – BAT assessment; energy efficiency; raw material usage; stack sampling information. Report No 110/3.

Site Condition Report –required for the addition of an installation. Report No 08469/112.

Revised Environmental Management System documents:

- EMS Summary
- Fire Prevention Plan
- Hazardous Waste Operations Manual including waste pre-acceptance; waste acceptance; storage, tracking and recording; operations and maintenance; emissions monitoring plan.

The site operates according to a joint Odour Management Plan for both the landfill and the MRF. This has been reviewed and not altered at this stage, however it has been submitted with the application.