

RUNCORN ENERGY RECOVERY FACILITY

Environmental Permit Variation Application

Non-Technical Summary

Prepared for: Viridor Energy Limited

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1.0 INTRODUCTION

SLR Consulting Ltd (SLR) has been instructed to prepare an Environmental Permit (EP) variation application for the Runcorn Energy from Waste Facility, Barlow Way, Runcorn, Cheshire, WA7 4HG, (hereafter referred to as 'the Site') operated by Viridor Energy Limited.

This non-technical summary provides a summary of the regulated facility, an explanation of exactly what is being applied for, and a summary of the key technical standards and control measures that will be implemented at the Site.

1.1 Site History

The Site is an existing Energy from Waste Facility (ERF) operated by Viridor under a bespoke EP (ref. EPR/XP3005LB). In accordance with the EP, the Site is permitted to treat up to 1,100,000 tonnes per annum (tpa) of a range of non-hazardous waste types including Refuse Derived Fuel (RDF), commercial and industrial (C&I) wastes and source segregated packaging. The EP was originally issued on 21st October 2009 (EPR/RP3638CG) and has had multiple variations since. The most recent variation issued on 18 December 2020 transferred the permit to Viridor Energy Limited (EPR/XP3005LB).

1.2 Site Location

The Site is located approximately 2km south-west of Runcorn, Cheshire in an area called Weston Point, and 17.5km south-east of Liverpool. The Site is centred on National Grid Reference (NGR) SJ 49840 81620.

The surrounding land to the north, east and south consists largely of industrial and commercial premises within the Weston Point area and wider area of Runcorn. The closest industrial premises is an INEOS Enterprises warehouse located adjacent to the Site on the north-west boundary and an INEOS Enterprise Salt building located 40m south of the Site across Barlow Way. The closest commercial premises is Bob's Place AutoCare, located approximately 60m south of the Site. The closest residential properties are located on Clark Terrace, approximately 25m southwest of the Site. Other residential properties located in close proximity to the Site include those on Sandy Lane and Russell Road.

The Site includes rail sidings along its eastern boundary running parallel to Picow Farm Road. This provides the Site with a rail link to the north bound line at Runcorn Railway Station. The Mersey Estuary at its nearest point is located approximately 200 metres to the west, beyond Weston Docks. The estuary is a Special Protection Area (SPA), designated for its nature conservation importance for feeding and roosting ducks and waders and is also a Ramsar site and Site of Special Scientific Interest (SSSI).

2.0 SUMMARY OF THE REGULATED FACILITY

The Site is an existing ERF, currently permitted to treat an annual throughput of up to 1,100,000 tonnes per annum (tpa) of a range of non-hazardous waste types including Refuse Derived Fuel (RDF), commercial and industrial (C&I) wastes and source segregated packaging.

Waste material burned at the facility is primarily refuse derived fuel (RDF) but it also includes digestate produced from the Mechanical and Biological Treatment (MBT) of Municipal Solid Waste (MSW) and some appropriately treated commercial and industrial (C&I) waste and biomass. All waste material for processing received at the facility is non-hazardous.

Waste material arrives either by rail or by road and is weighed before proceeding into the tipping hall where it is tipped into the RDF bunker of sufficient capacity to hold several days waste inputs.

The facility has a total capacity of approximately 360 MW (thermal input) and generates approximately 74MW of electrical power and 64 tonnes (53 MW) of steam per hour. This provides approximately 20% of the energy requirements at the adjacent Runcorn Halochemicals installation and replaces energy that is currently derived from natural gas.

3.0 WHAT IS BEING APPLIED FOR?

Viridor are applying to vary the Site's EP as follows:

- The addition of the following waste code to Table S2.2 of the permit:

EWC Code	Description
20 03 01	mixed municipal waste

EWC 20 03 01 waste code is non-hazardous waste and can include household waste and that from other sources similar in nature and composition. This proposed new waste type is considered to be highly similar in nature and composition to that of a number of waste codes already accepted to the Site under the EP, including:

- 19 05 01 – non-composted fraction of municipal and similar wastes
- 19 05 02 – non-composted fraction of animal and vegetable waste
- 19 05 03 – off-specification compost
- 19 06 04 – digestate from anaerobic treatment of municipal waste
- 19 06 06 – digestate from anaerobic treatment of animal and vegetable waste

It is not considered that the proposed addition of this EWC waste code will cause any greater environmental risk, nor will require any operational changes to the Site due to the operations on Site already accepting waste highly similar in nature and composition.

The following operational changes are also included within this EP variation application;

- Remove the direct discharge of digestate to the feed hopper. This is currently referenced as an approved Operating Technique in the EP but is not an activity undertaken on Site; and
- Reflect that Air Pollution Control Residues (APCR) is now sent off-site for recovery. Previously, the EP's approved Operating Techniques referred to APCR being disposed of off-site.

Viridor is cognisant that there is significant demand for the processing of both recyclable and non-recyclable waste as part of a responsible waste management solution for the UK. This permit variation being sought in respect of Runcorn ERF will allow more non-recyclable waste to be diverted from landfill and instead be used to generate low carbon heat and power, contributing to both resource and energy efficiency.

4.0 APPLICATION CONTENTS

To support this application, the following documentation is submitted in addition to this Non-Technical Summary (NTS);

- Section 2 – Application Forms;
- Section 3 – Environmental Risk Assessment (ERA) update;

- Section 4 – Odour Impact Assessment;
- Section 5 – Odour Management Plan Update; and
- Section 6 – Best Available Techniques Assessment.

4.1 Application Forms

Parts A, C2, C3 and F1 of the EA's application forms have been completed in support of this EP Variation application and are enclosed as Section 2.

4.2 Environmental Risk Assessment

The Environmental Risk Assessment (ERA) prepared for the original permit application has been updated to consider odour and fugitive emissions from the proposed addition of a new waste code to the Site permit. The assessment concludes that with the implementation of the risk management measures described, potential hazards from the proposed variation waste to be accepted are not likely to be significant.

The ERA is enclosed in Section 3 of this application.

4.3 Odour Impact Assessment

An Odour Impact Assessment (OIA) has been produced in support of the application.

The potential odour impact from the Runcorn ERF has been quantified by dispersion modelling using Lakes AERMOD, applying a precautionary approach and model inputs, applied as part of a robust assessment. Odour emission rates for use in the dispersion modelling were determined in reference to an odour monitoring exercise at the Runcorn ERF Site as well as at another Viridor site (which processed waste representative of the MSW proposed to be received) as well as containment testing undertaken at the Runcorn Site. The odour monitoring found the MSW to be of a lower odour potential than the RDF currently received, therefore the receipt of MSW represents an overall reduction in predicted Site odour emissions.

The OIA is enclosed in Section 4 of this application.

4.4 Odour Management Plan

The Odour Management Plan (OMP) for the Site has been updated to reflect the proposed operations. The OMP formalises and describes how odour issues will be managed on Site, to minimise the odour impact of the Site. The OMP considers not just normal operating conditions, but also anticipates and plans for abnormal events and foreseeable accidents and incidents to reduce the odour impact. The OMP is a working document forming a part of the Site's Environmental Management System (EMS).

The OMP is enclosed in Section 5 of this application.

4.5 Best Available Techniques Assessment

A Best Available Techniques (BAT) Assessment has been completed for the proposed changes associated within this variation application. The BAT describes how the design and operation of the facility demonstrates BAT as it relates to receipt of a mixed municipal waste stream.

The BAT is enclosed in Section 6 of this application.

5.0 KEY TECHNICAL STANDARDS AND CONTROL MEASURES

Key technical standards that are complied with are as follows:

- Best Available Techniques (BAT) Reference Document for Waste Incineration, December 2019;
- How to Comply with your Environmental Permit. Additional guidance for the Incineration of Waste, March 2009;
- A1 Installations: Environmental Permits, June 2020;
- Risk Assessments for your environmental permit , March 2021; and
- Best available techniques: environmental permits, February 2016.

The control measures that are necessary to ensure the Site does not give rise to significant environmental impact have been determined through the risk assessment process and are summarised below:

- Activities are managed in accordance with an EMS;
- Performance against the management system is audited at regular intervals;
- Strict waste pre-acceptance and acceptance procedures, as detailed in the Working Plan, are employed to prevent receipt of unsuitable wastes at the Site;
- Odour management measures are employed to minimise emissions of odour including;
 - Offloading of waste is undertaken within an enclosed Tipping Hall benefitting from automatic roller shutter doors and air extraction system to contain odour;
 - Deliveries by rail are received within containers to minimise release of odour;
 - Feeding operations are carried out on a rotational basis to ensure a consistent turnover of waste;
 - All plant and equipment required for odour management is maintained in good working order and in accordance with the maintenance management systems operated on Site;
 - A weekly cleaning regime for Viridor vehicles to minimise odours and the Site also requests that hauliers keep up a good standard of cleanliness of its vehicles; and
 - Route off-site 'sniff testing' odour surveys are undertaken at a minimum of weekly intervals.

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