

STAFFORD PARK PLASTICS RECYCLING FACILITY ENVIRONMENTAL PERMIT VARIATION APPLICATION

Non-Technical Summary
Prepared for: AO Recycling Limited

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1.0 Introduction

AO Recycling Limited (AO) has retained SLR Consulting Limited (SLR) to prepare an Environmental Permit (EP) variation application for the Plastics Recycling Facility located at Stafford Park, Telford, Shropshire, TF3 3AY ('the Site'). The facility is currently permitted as a waste operation (ref EPR/HB3207LZ) which was issued on 28 February 2020 under the Environmental Permitting (England and Wales) Regulations 2016 (as amended) (EPR).

During determination of the application for the current permit, the Environment Agency (EA) advised that the classification of plastics containing brominated fire retardants had changed to hazardous waste. Further, that wastes consisting of, containing or contaminated by Persistent Organic Pollutants (POPs) (which include fire retardants) must be dealt with in accordance with Article 7 of Regulation (EU) 2019/1021¹ (POPs Regulation).

Rather than amend the waste operation application to an installation application which may have prolonged the determination timescale, AO proposed to operate below the Industrial Emissions Directive (IED) installation thresholds for the treatment and storage of hazardous waste. Accordingly, the current permit is a waste operation which restricts the processing of hazardous plastics to a maximum of 10 tonnes per day with a limit of 50 tonnes of hazardous plastic to be stored on site at any one time.

AO are now applying for a variation to increase the amount of hazardous plastics which can be stored and treated up to the maximum capacity of the site.

This document provides a Non-Technical Summary (NTS) of the variation application including:

- An explanation of what is being applied for;
- A summary of the changes proposed to the facility; and
- A summary of the key technical standards and control measures relating to the proposed changes.

To support this application for an EP, the following documentation is submitted in addition to this NTS:

- Application Forms (Parts A, C2, C3 and F1); and
- A Best Available Techniques-Operating Techniques document.

1.1 Pre-Application Advice

Basic pre-application advice was initially sought to confirm the scope of the application requirements. A response reference EA/EPR/HB3207LZ/V002 was received 05 May 2020 and is provided in Appendix 1 of this NTS.

1.2 The Site

The site address is 11, Stafford Park, Telford TF3 3AY and it is located 2km to the east of the centre of Telford at grid reference x371934, y308549. The site is accessed from the Stafford Park 11 access road, which leads to the A464.

The site is located within a commercial estate which lies to the south of the M54 motorway and to the north of the main railway line connecting to Telford Central. The site is circa 1.47 hectares in area and roughly rectangular in shape.

¹ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019R1021&from=EN>

1.3 Existing Facility

The facility is currently permitted as a waste operation for the storage and treatment of waste plastics using physical separation processes.

The facility is permitted to accept mixed plastic wastes originating from WEEE recycling facilities, such as AO's Halesfield appliance recycling facility. The types of plastic accepted at the site are listed in Table 2 below.

Table 2 Wastes Permitted to be Accepted

EWC Code	EWC Description	Additional Information
16	WASTES NOT OTHERWISE SPECIFIED IN THE LIST	
16 02	Wastes from electrical and electronic equipment	
16 02 15*	Hazardous substances removed from discarded equipment	plastics from domestic appliances only – limited to less than 10 tonnes per day and less than 50 tonnes stored at any one time
16 02 16	Components removed from discarded equipment other than those mentioned in 16 02 15	non-hazardous plastics from domestic appliances only
19	WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE	
19 02	Wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)	
19 02 04*	Premixed wastes composed of at least one hazardous waste	plastics from domestic appliances only – limited to less than 50 tonnes per annum and less than 10 tonnes stored at any one time
19 10	wastes from shredding of metal-containing wastes	
19 10 06	Other fractions other than those mentioned in 19 10 15	non-hazardous plastics resulting from shredding of domestic appliances only
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified	
19 12 04	Plastic and rubber	non-hazardous plastics resulting from shredding of domestic appliances only
19 12 11*	Other wastes (including mixtures of materials) from mechanical treatment of waste containing hazardous substances	plastics from domestic appliances only – limited to less than 10 tonnes per day and less than 50 tonnes stored at any one time
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	non-hazardous plastics resulting from shredding of domestic appliances only

Some plastics from the treatment of small domestic appliances which contain brominated fire retardants are classified as hazardous waste; the rest are non-hazardous waste. The site is currently permitted to treat up to 10 tonnes per day of hazardous waste plastics and store up to 50 tonnes of hazardous waste plastics at any one time.

Hazardous and non-hazardous plastic wastes are stored separately and are segregated at all times to avoid mixing. Plastics are treated in separate batches consisting wholly of either hazardous or non-hazardous types;

the outputs and residues from their processing are collected and managed separately so that segregation is maintained throughout the processing and no mixing occurs between the two classifications. Other than these segregation measures, the treatment process is the same whether treating batches of hazardous or non-hazardous plastic waste.

The site, when at full capacity, can treat approximately 1,000 tonnes of waste plastic per week, with an annual throughput of 50,000 tonnes. The maximum amount of waste stored on site at any one time is estimated as 2,592 tonnes. All treatment takes place within an enclosed building.

Incoming mixed plastic is stored either loose or in flexible intermediate bulk containers (FIBC) in external bays from where it is transferred into feed bays within the process building. From there it is placed by front-end loader into a feed hopper which feeds an enclosed conveyor with a vibrating screen to remove any incidental dust and fine material.

The plastic waste is processed using a two-stage wet density sink/float separation process. The first stage uses a solution of calcium carbonate in water to separate residual metals and heavy plastics, which are bagged for transfer off-site to a suitable recovery facility. Lighter plastics are then treated in a second-stage density separation tank using water to separate the heavier fraction from the lighter fraction.

The heavier fractions are transferred to granulators to reduce size to 10mm, and through a cyclone and dedusting equipment to remove residual liquid and solids. The plastics are then processed by optical sorter to separate white and non-white fractions. Each of these fractions then undergoes a final electrostatic separation process which sorts each stream into further fractions suitable for onward recovery.

Waste is stored in dedicated external storage bays and within storage bays/marked areas within the process building.

The process building and storage areas benefit from impermeable surfacing and sealed drainage system. The site produces a small amount of process effluent which is associated with periodic draining of the wet density separator for maintenance. Liquid drained from this process is filtered in a sludge tank before joining the site's drainage system. All site drainage is released to foul sewer under a trade effluent discharge consent.

There are no point source emissions to air, surface water or groundwater.

2.0 Proposed changes to the activities

AO are applying to increase the permitted amounts of hazardous waste that can be treated and stored at the facility up to the maximum capacity of 50,000 tonnes per annum and to the maximum storage capacity of 2,592 tonnes at any one time.

The proposed increase means that the thresholds within the IED will be exceeded. Therefore, AO seeks a variation to the permit to change the site to an installation and to authorise the following prescribed activities as described in Schedule 1 of the EPR:

- Section 5.3 Disposal or recovery of hazardous waste Part A(1) (a) Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving one or more of the following activities- (ii) physico-chemical treatment²; and

² EA RGN2 Understanding the meaning of regulated facility Version 4 April 2019 Appendix 1 – Interpretation of Schedule 1 to the Regulations, states: "5.3.4: "Physico-chemical treatment" means the physical treatment or chemical treatment or a combination of physical and chemical treatment of waste."

- Section 5.6 Temporary or underground storage of hazardous waste Part A(1) (a) temporary storage of hazardous waste with a total capacity exceeding 50 tonnes pending any of the activities listed in Sections 5.1, 5.2, 5.3 and paragraph (b) of this Section.

No change is proposed to the list of wastes permitted to be accepted at the site, which will remain as shown in Table 2.

It is proposed that the Site will continue to process both hazardous and non-hazardous wastes in accordance with the already agreed measures to ensure that waste types are segregated and mixing is prevented. Further, that the site will continue to secure the requirements of the POPs Regulation.

3.0 Application Contents

3.1 Application Forms

Parts A, C2, C3 and F1 of the EA's EP application forms have been completed in support of this application, together with the following additional information:

- Appendix A_1: List of Directors

3.2 Application Fee

The Basic Pre-application advice received from the EA considers that the application will be a substantial variation and that an application fees of £26,568.00 is required. This comprises:

- 1.16.1.2 Section 5.3 (a)(ii) - hazardous waste installation – physico-chemical treatment £14,401.00
- 1.16.4 Section 5.6 – temporary or underground storage of waste - £12,167.00

The basic pre-application advice considers that the second activity does not attract a 90% charge reduction (as would be the case if the application was for a new permit rather than a variation).

AO recycling consider that the application fees are disproportionate to the technical work required and request that the EA provide abatement of the fees.

3.3 Best Available Techniques - Operating Techniques

The Best Available Techniques-Operating Techniques (BAT-OT) document submitted with this application is intended to supersede the existing Operating Techniques (OT) V5 document which is referenced in Table S1.2 of the current permit.

The existing OT document has been reviewed and updated to demonstrate that the operating measures in place to control potential environmental risks from the treatment and storage activities comply with the relevant BAT conclusions (BATc) in the revised Waste Treatment Bref.

The BAT-OT confirms that the facility is managed in accordance with AO's in-house Environmental Management System and details the management measures that will be implemented on Site to minimise the risk of accidents or emissions that could impact workers and local receptors.

The document includes the detailed process description and relevant roles and responsibilities to ensure the safe and effective management of the Site to keep it in compliance with the EP.

The BAT-OT document includes the following information:

- Management;
- Accident Management;
- Site operations & Controls;

- Emissions & Monitoring;
- BAT assessment; and
- Information.

The operational and management procedures will ensure that:

- The risks that the activities pose to the environment are identified;
- The measures that are required to minimise the risks are identified;
- The activities are managed in accordance with the management system and the Operating Techniques;
- Performance against the management system is audited at regular intervals; and
- The EP is complied with.

3.4 Existing Permit Documentation

The EA's guidance confirms that it is not necessary to resend any information from the original permit application if it is not affected by the proposed changes. It is considered that the proposed increase in the proportion of plastic waste treated and stored at the site which is classified as hazardous waste does not change the following documents which were submitted in support of the existing permit, and therefore these have not been revised or re-submitted with this application. The justifications for this are provided below.

3.4.1 Site plans

There is no change to the existing permit boundary, infrastructure and storage arrangements as a result of the proposed variation.

3.4.2 Site condition report (SCR)

The site benefits from impermeable concrete surfacing and sealed drainage. All drainage is discharged to sewer. The site has capacity to contain contaminated surface water (eg in the event of a fire) within the sealed drainage system and site if necessary. There are no changes to these existing provisions as a result of the proposed variation.

AO have not carried out intrusive surveys to collect baseline soil and groundwater data but relied on historic data review to produce the existing SCR. It is considered that the risk of contamination from Relevant Hazardous Substances present in waste plastics treated at the site is low. As these substances are embedded in solid material, it is not clear that a potential pathway between the source and receptors exists. The existing permit requires an investigation into the presence of PDBE POPs, tetrabromobisphenol A and antimony in surface drainage and process water. Should this confirm that there is a potential pathway, AO will review requirements for monitoring and put appropriate actions in place.

3.4.3 Environmental Risk Assessment

There are no changes to receptors or hazards as a result of the proposed variation. The site is already permitted to store and treat hazardous wastes, no changes to waste types are proposed, and the relevant controls have been assessed as satisfactory for protection of the environment.

3.4.4 Fire Prevention Plan (FPP)

The proposed changes will not impact on fire risk (in fact the risk may reduce as the material is hazardous by virtue of containing fire-retardants). Therefore, the fire prevention and fire-fighting techniques proposed in the existing FPP are unchanged by the proposal.

3.4.5 Noise, Odour and Dust Management Plans

The existing activities carried out at the site do not require a site specific noise, odour or dust management plan. It is considered that the increase in proportion of plastic waste which is hazardous will not change the risk of noise, odour or dust and therefore no site specific management plans are required. Further, as part of pre-application advice, the following was received:

“We have run our noise screening tool using the details from your current site operations. Based on your current site operations (and increase above the IED thresholds), we do not believe that a noise impact assessment is required. Please note that we will run the screening tool again once we receive your application and if any aspect of your current site operations changes, this may impact on the screening tool results. Be advised that if the screening tool results show that a noise impact assessment is required, we will request it at that time.”

4.0 Technical Standard and Control Measures

The following documents have been used to propose the appropriate technical standards and control measures for the changes proposed in this variation application:

- The Environmental Permitting (England and Wales) Regulations 2016 (as amended);
- Sector Guidance Note S5.06; Guidance for the Recovery and Disposal of Hazardous and Non-Hazardous Waste; and
- Revised Waste Treatment Bref published August 2018.

The control measures relevant to the proposed activities are described in the BAT-OT submitted with this application.

The proposals have been assessed against these standards and are all considered to meet the relevant technical standards.

The overall conclusion is that there is unlikely to be a significant environmental impact as a result of the proposed changes to the activities on Site.

AO Recycling Limited is fully committed to ensuring the highest standards are met and will undertake its activities in a manner consistent with best industrial practices and in accordance with the Company's EMS.

APPENDIX 1

Pre-application Advice

separate attachments:

- Pre-application advice – basic service letter ref EA/EPR/HB3207LZ/V002
- Email from Chidi Ogbuka dated 12/05/2020

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