Project details	Environmental Permit Variation Application – EPR XP3602PF Sharpsmart Limited – Normanton Waste Transfer and Treatment Facility
Applicant details	Sharpsmart Limited Unit 1 Enterprise City Meadowfield Avenue Spennymoor County Durham DL16 6JF
Report details	**EP Variation Application – Appendix E: Non-Technical Summary** **Document reference: SHSMT_2022.01/02_v1**
Report date	13 September 2022
Submitted to	Permitting and Support Centre Environmental Permitting Team Environment Agency Quadrant 2 99 Parkway Avenue Parkway Business Park Sheffield S9 4WF Email: PSC@environment-agency.gov.uk
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1 Non-Technical Summary

1.1 Introduction

Sharpsmart Ltd (the 'applicant') has requested that Reva Environmental Ltd (the 'agent') prepares an Environmental Permit (EP) variation application, for its Normanton Waste Transfer and Treatment Facility at Unit 1 Loscoe Close, Normanton Industrial Estate, Normanton, WF6 1TW.

This Non-Technical Summary provides an overview of the application.

The site currently houses two autoclave units that thermally treat (by steam sterilisation) the incoming soft clinical waste. It was formerly operated by HES, until the EP was transferred to the applicant in August 2019.

The facility is currently authorised by EP ref. EPR/XP3602PF which was originally granted in April 2011 (as EPR/VP3137TV). The EP allows the pre-shredding, autoclaving, and compaction of waste and the associated temporary storage of waste pending that process. The EP includes two directly associated activities (DAAs) which are the operation of a steam boiler and the washing of bins. Additionally, the EP allows the storage and repackaging of non-hazardous and hazardous waste as a Waste Operation.

1.2 Application Objective

The objective of this application is to obtain a varied EP which enables the applicant to:

- Treat decanted and bulked sharps waste through the existing autoclave plants. This waste stream would be subject to pre-treatment shredding and post-treatment compaction. The proposed acceptance of sharps waste for treatment in the autoclave will not affect the existing Listed Activity (A1) and the addition of the sharps waste code 18 01 03* (with or without 18 01 09) can be achieved through the amendment of Table S2.2 of the permit. **Variation of the existing autoclaving installation activity to add the additional waste stream is considered to represent a normal variation**.
- Operate a larger natural gas fuelled steam-raising boiler. The existing EP specifies the operation of the existing boiler as DAA A3. The applicant intends to install a new boiler to better meet the steam demand of the two autoclaves running in parallel. Whilst the input capacity of the boiler (2.5 MW) is below the threshold for a listed activity the applicant does recognise that as the input capacity will exceed 1 MWth the Medium Combustion Plant Directive (MCPD) is applicable and that emission limits will be imposed on this exhaust via permit conditions. **Variation of the existing DAA A3 to reflect the new boiler is considered to represent a minor variation**.
- Treat offensive waste (18 01 04) in two ways as follows:
  - Shredding through the existing shredders. For this short to medium term option, the waste stream would not be subject to autoclaving but would be subject to compaction. The shredded offensive waste can be compacted and can be transferred off site as RDF under EWC 19 12 10 / 19 12 12. It is proposed that this is achieved through the addition of a new Waste Operation (A6) for D9/R12 shredding of these non-hazardous wastes (<50 tonnes per day). **It is considered that the shredding of offensive waste in the existing plant would add a new waste operation (A6) to the EP so represents a normal variation.**
  - Shredding and autoclaving. For this medium to long term option, the waste stream would be shredded and autoclaved (not compacted) in order enable the recovery of plastic film from the waste. The uncompacted treated floc would be transferred off site via a national contractor under EWC 19 02 codes or suitable 19 12 codes. It is very unlikely that the autoclaving of offensive waste in the existing plant would exceed 50 tonnes per day (the threshold for 5.4 Part A(1)(a); it is therefore proposed that this is achieved through the

addition of a new Waste Operation (A7) for D9/R5. **It is considered that the autoclaving of offensive waste in the existing plant would represent a normal variation.**

- Increase the storage capacity of floc (treated waste) from 40 tonnes to 80 tonnes to provide operational flexibility. **It is considered that an increase to the storage capacity of this non-hazardous waste represents a minor variation.**

The application supports the existing market for healthcare waste in the following ways:

- It supports the current market for reusable sharps containers (which can be used up to 500 times) and also promotes the future market for them. This is a more sustainable option and in turn removes a large quantity of plastic (burn bins) from autoclaving and incineration plants, a waste that can cause difficulties for such plants in relation to damage/maintenance and emissions; and
- It will reduce the burden on an ageing infrastructure across the UK for clinical waste incineration (there are few plants that can accept sharps repackaged in volume);
- It frees up capacity in the small network of clinical waste incinerators in the UK by diverting sharps waste to the autoclaves; and
- It supports the NHS strategy of 60/20/20 segregation, higher volumes of offensive waste expected and needs to be managed in accordance with NHS strategy and tender expectations, nil to landfill via innovative methods.

The applicant can confirm that, other than the storage of floc, the existing storage limits in the EP remain applicable; this is constrained by the capacity of the building. These are as follows:

- Storage of hazardous waste pending treatment is limited to 144 tonnes;
- Storage of waste pending transfer off site (no treatment) is limited to 70 tonnes; and
- Total acceptance of waste is 20,000 tonnes per year of which treatment of hazardous waste is limited to <72 tonnes per day.

The maximum storage period for any load of waste is 2 weeks; this provides allowance for the operational contingency plan to be implemented.

No offensive waste, cytotoxic or cytostatic, non-hazardous, pharmaceutical, or anatomical waste will be processed in the autoclave plant.

1.3 Pollution Prevention

Existing measures already in place across the washing, repackaging, storage, shredding, autoclaving and compaction activities (including maintenance and inspection regimes and relevant operational procedures) will be applied to the new/amended activities. Best available techniques (BAT) will be implemented for the new activities and will include (but not be limited to):

- Bunding and containment of stored raw materials, and process effluent from the treatment of sharps in the autoclave;
- Dedicated incoming waste storage areas, where all waste is contained within UN approved containers. All untreated waste storage is within the confines of the building; no waste will be stored outside;
- Spillage materials will be available and appropriate to the potential spill. Staff will be trained in the use of these materials and any spent materials will be disposed of appropriately;
- The existing drainage system has been designed to capture process effluent from the site including the autoclave plant when treating the currently permitted waste stream. This can be

discharged to sewer under the existing consent. Treatment cycles processing sharps waste will generate an effluent that will not be discharged to sewer; it will be collected and transferred off site for disposal.

A full BAT assessment has been produced for the purposes of the application; this describes the measures that will be in place and confirms that they accord with the requirements of the BAT guidance for this type of facility.

2 Application Contents

A variation application has been made to the EA to vary the existing EP to include the proposed activities. The application comprises the following documents, in accordance with the EP Regulations and sector guidance.

- EA Application Form – Parts A, C2, C2.5, C3, C4 and F1. The application form is provided at the front of the EP variation application document.
- Supporting Statement. This has been written to provide an explanation of the application to the EA and to provide signposts to supporting documentation that is required by the application forms.
- A copy of the existing EP (and variation/transfer notices), and discharge consent for discharge of process effluent to sewer. No changes to limits or parameters in the discharge consent are proposed as a result of the variation application.
- Copies of relevant qualifications for the technically competent manager for the facility, confirming the applicants ability as an operator and a summary of the certified environmental management system (EMS) that is held by the applicant and which will be implemented at the site.
- A set of site plans detailing the location of the facility, the proposed layout, the drainage, and the site setting (in relation to local receptors).
- A copy of the environmental risk assessment for not just the proposed new activities, but the whole facility including those activities already permitted. This follows the EA's source-pathway-receptor methodology to identify potential risks and assess the potential impacts of those risks following implementation of suitable control/mitigation measures. It incorporates assessment of the habitat sites identified in the pre-application conservation screening. A quantitative H1 assessment and full Air Quality Impact Assessment has also been carried out to model the potential impacts to the environment of the emissions to air from the proposed gas-fired steam raising boiler; habitat sites are a consideration in this. The AQIA concludes that the overall effect of the installation at the worst case scenario (i.e. operating at published emission limit values) on local air quality and sensitive ecological sites is ***insignificant***.
- A copy of the Odour Management Plan which is a requirement of any application relating to the storage and/or treatment of clinical waste. This identifies the potential odour sources, sensitive receptors, the pathways between the two, and mitigation measures in place to minimise the risk of odour release.
- A copy of the Best Available Techniques (BAT) Assessment. This seeks to confirm that the proposed additional activities accord with the best techniques (as defined by the EU Commission and the EA) to ensure pollution prevention and control. It includes copies of safety data sheets (SDS) for chemicals used. The assessment concludes that the proposed activities fulfil the definition of BAT. The autoclaving process offers the requisite level of sterilisation, utilises a

waste feed system that presents a very low health and safety risk for maintenance, is in use already across the UK for healthcare waste so is proven and parts are readily available, and the resultant residues can be used to generate energy in wate to energy facilities.

- A copy of the Accident Management Plan. This ties into the risk assessment but identifies specific hazards that could result in an accident. It also sets out the controls in place to minimise the likelihood of those occurring and how each type of accident would be managed if it did.