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NON TECHNICAL SUMMARY

Hertfordshire County Council (HCC) is applying for a permit for a waste transfer station, the Eastern Transfer Station (ETS). The ETS is located at Westmill Road, Ware, Hertfordshire, SG12 0EL, next to their existing Recycling Centre (RC). The application seeks to permit the handling of up to 140,000 tonnes of commercial and industrial (C&I) waste and household waste, including residual, organic, recyclable and clinical waste at the ETS.

The facility will be used to bulk waste, segregated into different waste types, from the Waste Collection Authorities (WCA) and RCs. A shredder will be utilised to shred bulky waste on site, such as furniture and mattresses. This will make the waste more manageable for off-site disposal. No other wastes will undergo treatment within the ETS.

An environmental risk assessment (ERA) is provided in Appendix C. There are no process emissions to land, air, water or sewer from the ETS. The results of the ERA have shown that the risk of odour, noise and vibration, fugitive emissions, and accidents range from 'not significant' to 'low'.

A noise assessment is included in Appendix D. The noise assessment concluded that the operations of the ETS will not cause a significant adverse noise impact and that the noise from the site will comply with local policies.

Odour and dust management plans have been produced for the ETS and are included in Appendix F and Appendix H respectively. These set out the management measures in place at the site to manage and control emissions of dust and odour. With these measures in place, adverse effects from dust and odour emissions from the ETS during both normal and abnormal operations will be minimised or prevented.

A fire prevention plan (FPP) has been produced as part of this variation application and is in Appendix I. The FPP sets out the current measures that are in place at the site to minimise the risk of a fire starting and to ensure that should a fire occur appropriate measures are in place to identify and manage it effectively.

A site condition report is included in Appendix J. The SCR concluded that the ground investigations (undertaken between 2007 and 2015) identified elevated concentrations of a number of contaminants in soils at the site which are in line with its previous use as a landfill site.

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1 INTRODUCTION

- 1.1.1 This document and its supporting appendices form an application for the Eastern Transfer Station (ETS) at Westmill Road, Ware, Hertfordshire, SG12 0EL. The site is on land owned by Hertfordshire County Council (HCC) directly east of their newly built and operational Recycling Centre (RC) on the A602 (Westmill Road) near Ware (permit number EPR/CB3203TK). The ETS will process up to 140,000 tonnes of waste per annum with a maximum storage capacity at any one time of 100,000 tonnes.
- 1.1.2 The facility will be used to bulk waste, segregated into different waste types, from the Waste Collection Authorities (WCA) and RCs.
- 1.1.3 The ETS will be capable of bulking a variety of waste types including:
- Residual waste
 - Clinical waste
 - Organic waste (including Green waste and Food waste)
 - Recyclable waste

1.2 Site Location

- 1.2.1 The ETS site (the Site) is located on a former quarry and landfill site approximately 1.9 km north west of Ware, Hertfordshire. The national grid reference is 534182E, 215988N. The Site is located approximately 3.8 km north east of Hertford and approximately 12.1 km south east of Stevenage. The closest residential receptor is approximately 170m west of the ETS.
- 1.2.2 A site location plan showing the proposed permit boundary is provided in Appendix B. The permitted area of the site is approximately 1.4 ha.
- 1.2.3 The closest sensitive ecological receptors are Downfield pit which is 670 m east of the site and Waterford Heath local nature reserve which is approximately 2.6 km to the south west of the Site.
- 1.2.4 The Site is located within a protected deciduous woodland habitat and there are two protected species within 500 m of the Site.
- 1.2.5 The Site is situated adjacent to HCC's (RC).

1.3 Operator Details

- 1.3.1 The Applicant and Operator is HCC.

1.4 Regulated Activities and Applicable Guidance

- 1.4.1 Activities taking place at the ETS will be a waste operation as defined by the Environmental Permitting Regulations¹, Schedule 9 of those regulations apply. The site will handle clinical waste

¹ The Environmental Permitting (England and Wales) Regulations, 2016.

and therefore the EA's Healthcare Waste guidance also applies². The site will also handle hazardous waste and therefore the EA's Hazardous Waste guidance also applies³.

1.5 Structure of the Permit Application

1.5.1 This section provides an overview of the proposals. This is supplemented by further details in Sections 2 – 5 as follows:

- Section 2 details the proposed management practices which will be in place at the plant, with specific detail covering:
 - Accident management;
 - Energy efficiency;
 - Efficient use of raw materials and water; and
 - Avoidance, recovery and disposal of wastes.
- Section 3 addresses the operational measures which will be in place to prevent and/or control any potential environmental effects of the proposal.
- Section 4 identifies the nature of emissions from the operation.
- Section 5 summarises the conclusions from the detailed impact assessments undertaken to predict any environmental effects from the operation.

1.5.2 Supporting documents, assessments and application forms are provided within the appendices list as set out in the contents page.

² Healthcare waste: appropriate measures for permitted facilities, 2020. <https://www.gov.uk/guidance/healthcare-waste-appropriate-measures-for-permitted-facilities>

³

2 MANAGEMENT OF ACTIVITIES

2.1 General

2.1.1 An environmental management system (EMS) will be set up to reflect the activities that HCC seeks to operate at the ETS. Documented procedures will detail specifically how each activity is to be controlled.

2.1.2 The EMS will clearly define the management structure as well as setting out roles and responsibilities of all staff. The development of the EMS will also include an Environmental Policy. Separate Health and Safety Procedures will also be developed.

2.2 Operations and Maintenance

2.2.1 Procedures will be in place to ensure that all operations which have the potential to give rise to significant environmental effects are controlled. In particular, procedures will be in place prior to operation in relation to waste reception and handling, including waste pre-acceptance and acceptance procedures as detailed in Section 3.5 and 3.6 of this supporting document.

2.3 Competence and Training

2.3.1 All staff and contractors will receive training on the EMS requirements as part of their induction, this will include environmental awareness covering appropriate environmental topics.

2.3.2 Copies of relevant plans, procedures and the environmental permit shall be kept at the facility for reference.

2.3.3 Records will be maintained by the Site Manager of all the training provided to staff. Records shall be available for inspection as required.

2.3.4 Management will ensure Technical Competent Managers (TCMs) are available at the facility for at least the minimum specified times. Details of the WAMITAB qualified TCMs for the ETS are provided in Appendix A of this supporting document.

2.4 Organisation

2.4.1 Roles and responsibilities will be clearly defined within the management system.

2.4.2 The key environmental management responsibilities will be allocated as follows:

- The Site Manager will have overall responsibility for management of the ETS and compliance with the operating permit. The Site Manager will have extensive experience relevant to their responsibilities.
- The Contracts Manager will ensure that the environmental impact of the plant's operations is minimised. In this context, they will be responsible for designing and implementing operating procedures which incorporate environmental aspects.

2.4.3 Further details on specific aspects of the management systems for the ETS are provided in the following sections of this document.

2.5 Accident Management

- 2.5.1 An accident management plan (AMP) will be established prior to commencing operation of the proposed ETS. Procedures to follow in the event of an emergency or accident/incident will be in place prior to importing waste. This will include small incidents such as minor spills and leaks and complaints as well as major incidents such as a fire. In particular a procedure for recording and allocating appropriate follow-up for accidents, incidents and non-conformances will be included within the AMP.
- 2.5.2 To support this application an initial environmental risk assessment including consideration of accident risks is provided in Appendix C, which was carried out in accordance with EA guidance^{4,5}. The results of the ERA have shown that the risk of accidents range from 'not significant' to 'low'.
- 2.5.3 In addition, a fire prevention plan has been developed for the site and is provided as Appendix I to this application. The approved FPP will form part of the ETS's AMP.

2.6 Site Security

- 2.6.1 The site will be enclosed by 2.4m palisade fence, with gated access to match the neighbouring RC Site and have CCTV provision. Access control will be provided to personnel doors on the office / welfare facility to prevent unauthorised access to this building. All operational vehicles entering / leaving the yard area will report to the weighbridge office.

2.7 Energy Efficiency

- 2.7.1 The main energy consumption at the ETS will be associated with the air handling system used to power the fans and other equipment to extract air from the buildings and treat odours within the activated carbon filter. The shredder will be electrically powered but will only be used periodically. Other power consumption at the ETS will be limited to a small amount of electricity for building lighting and electricity and heat for the site office and welfare building
- 2.7.2 The air handling system, abatement plant and shredder will be subject to routine maintenance in accordance with manufacturers recommendations to ensure systems remain in good working order.
- 2.7.3 Energy efficient lighting will be used at the facility.
- 2.7.4 Overall, energy consumption from the ETS is therefore not expected to be significant

2.8 Use of Raw Materials and Water

- 2.8.1 The main materials used within the facility are diesel, engine oil and hydraulic fluid oil.

⁴ Risk assessments for your environmental permit, 1st February 2016, Environment Agency. Available online: <https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit>

⁵ Air emissions risk assessment for your environmental permit, 1st February 2016, Environment Agency. Available online: <https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit>

2.9 Avoidance, Recovery and Disposal of Wastes

- 2.9.1 By its nature, the proposed development's purpose is to facilitate the segregation, storage and transfer of waste. Waste generated by the operation of the facility will be limited to a small amount of household type waste from the operational staff (anticipated to be ten).

3 OPERATIONS

3.1 Overview

- 3.1.1 The proposed ETS will enable waste to be bulked up for efficient transport and provide a facility for household waste from the adjacent RC to be transferred to the ETS and stored before being transported in bulk away from the site. The facility will be designed with a capacity to receive up to 140,000 tonnes per annum (tpa).
- 3.1.2 The purpose of the ETS is to provide a central hub at which a range of local wastes collected by waste management contractor(s) on behalf of HCC can be consolidated and transferred in bulk to other facilities for appropriate treatment or disposal. As such, the range of waste that can be accepted would be quite wide, but the four primary waste streams are:
- Residual waste;
 - Organic waste
 - Recyclable waste
 - Clinical waste in limited quantities
- 3.1.3 The facility will provide suitable areas to segregate and store different waste streams, within the waste transfer station (WTS) building and additional building, for removal off-site.
- 3.1.4 The site will not be open to the general public and would accept primarily local authority waste, including that from the adjacent RC.

3.2 Activities

- 3.2.1 The ETS will include the following activities:
- Receipt and storage of non-hazardous and hazardous waste;
 - Physical treatment of waste (i.e. shredding);
 - Storage of recyclable and residual wastes;
 - Storage of raw materials (fuel oil, maintenance oils and greases).
- 3.2.2 The ETS will include the following recovery and disposal activities:
- R3: Recycling/reclamation of organic substances which are not used as solvents;
 - R4: Recycling/reclamation of metals and metal compounds;
 - R5: Recycling/reclamation of other inorganic compounds;
 - R13: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on site where it is produced);
 - D9: Physico-chemical treatment not specified elsewhere which results in final compounds or mixtures which are discarded by means of any of the operations numbered D1 to D12;
 - D14: Repackaging prior to submission to any of the operations numbered D1 to 13;
 - D15: Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where the waste is produced).
- 3.2.3 A shredder will be utilised to shred bulky waste on site, such as furniture and mattresses. This will make the waste more management for off-site disposal.

3.2.4 No more than 50 tonnes of waste will be shredded per day.

3.2.5 The proposed site layout plan is provided in Appendix B.

3.3 Site Layout and Access

3.3.1 The site lies immediately adjacent to the Ware RC and will be accessed using the existing RC access road (which has a junction opening directly onto the A602). No new access will be required.

3.3.2 The proposed site layout plan is included in Appendix B.

3.4 Waste Types

3.4.1 The waste types that will be accepted into the ETS are detailed in Table 3.1 below:

Table 3-1: Permitted Waste Types

Waste Code	Description
15	Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified
15 01	Packaging (including separately collected municipal packaging waste)
15 01 01	paper and cardboard packaging
15 01 02	plastic packaging
15 01 03	wooden packaging
15 01 04	metallic packaging
15 01 05	composite packaging
15 01 06	mixed packaging
15 01 07	glass packaging
15 01 09	textile packaging
16	Wastes not otherwise specified in the list
	End-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08)
16 01	
16 01 03	end-of-life tyres
16 01 17	ferrous metal
16 01 18	non-ferrous metal
16 01 19	Plastic
16 01 20	Glass
16 05	Gases in pressure containers and discarded chemicals
16 05 05	gases in pressure containers other than those mentioned in 16 05 04
16 06	Batteries and accumulators
16 06 01*	lead batteries
16 06 02*	Ni-Cd batteries
16 06 03*	mercury-containing batteries
16 06 04	alkaline batteries (except 16 06 03)
17	Construction and demolition wastes (including excavated soil from contaminated sites)
17 01	concrete, bricks, tiles and ceramics
17 01 01	concrete
17 01 02	bricks
17 01 03	tiles and ceramics
17 01 07	mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
17 02	Wood, glass and plastic
17 02 01	wood
17 02 02	glass
17 02 03	plastic
17 04	Metals (including their alloys)
17 04 01	copper, bronze, brass
17 04 02	aluminium
17 04 03	lead
17 04 04	zinc
17 04 05	iron and steel
17 04 06	tin

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Waste Code	Description
17 04 07	mixed metals
17 04 11	cables other than those mentioned in 17 04 10
17 06	Insulation materials and asbestos-containing construction materials
17 06 04	insulation materials other than those mentioned in 17 06 01 and 17 06 03
17 08	Gypsum-based construction material
17 08 02	gypsum-based construction materials other than those mentioned in 17 08 01
18	Wastes from human or animal health care and/or related research (except kitchen and restaurant wastes not arising from immediate health care)
18 01	Wastes from natal care, diagnosis, treatment or prevention of disease in humans
18 01 01	sharps (except 18 01 03)
18 01 03*	wastes whose collection and disposal is subject to special requirements in order to prevent infection wastes whose collection and disposal is not subject to special requirements in order to prevent infection (for example dressings, plaster casts, linen, disposable clothing, diapers)
18 01 04	
18 01 06*	chemicals consisting of or containing hazardous substances
18 01 07	chemicals other than those mentioned in 18 01 06
18 01 08*	cytotoxic and cytostatic medicines
18 01 09	medicines other than those mentioned in 18 01 08
18 01 10	amalgam waste from dental care
18 02	Wastes from research, diagnosis, treatment or prevention of disease involving animals
18 02 01	sharps (except 18 02 02)
18 02 02*	wastes whose collection and disposal is subject to special requirements in order to prevent infection wastes whose collection and disposal is not subject to special requirements in order to prevent infection
18 02 03	
18 02 05*	chemicals consisting of or containing hazardous substances
18 02 06	chemicals other than those mentioned in 18 02 05
18 02 07*	cytotoxic and cytostatic medicines
18 02 08	medicines other than those mentioned in 18 02 07
20	Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions
20 01	Separately collected fractions (except 15 01)
20 01 01	paper and cardboard
20 01 02	glass
20 01 08	biodegradable kitchen and canteen waste
20 01 10	clothes
20 01 11	textiles
20 01 27*	paint, inks, adhesives and resins containing hazardous substances
20 01 28	paint, inks, adhesives and resins other than those mentioned in 20 01 27
20 01 33*	batteries and accumulators included in 16 06 01, 16 06 02 or 16 06 03 and unsorted batteries and accumulators containing these batteries
20 01 34	batteries and accumulators other than those mentioned in 20 01 33
20 01 35*	discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35
20 01 36	
20 01 37*	wood containing hazardous substances
20 01 38	wood other than that mentioned in 20 01 37
20 01 39	plastics
20 01 40	metals
20 02	Garden and park wastes (including cemetery waste)
20 02 01	biodegradable waste
20 02 02	soil and stones
20 02 03	other non-biodegradable wastes

Waste Code	Description
20 03	Other municipal wastes
20 03 01	mixed municipal waste
20 03 07	bulky waste

3.5 Waste Pre-acceptance Procedures

- 3.5.1 Only waste arriving at the ETS from charities will be booked in advance. As a minimum the waste code and approximate tonnage will be obtained prior to arrival at the ETS.
- 3.5.2 Before waste is accepted, the source, nature and any hazardous properties will be considered. Additionally, potential risk to safety, occupational safety and the environment (for example, from odour and other emissions) and knowledge about the previous waste holder will be considered.
- 3.5.3 The operator will obtain the following details from the waste producer or holder in electronic form:
- Waste holder and waste producer organisation name, address and contact details.
 - Source of the waste (the producer's business and the specific process that has created the waste).
 - Information on the nature and variability of the waste production process and the waste.
- 3.5.4 Waste carriers delivering wastes to the site will be required to register vehicle plates that will be used for waste deliveries to the ETS. Any deliveries not using registered vehicles will not be permitted entry to the site (see Section 3.6 below).

Healthcare Waste

- 3.5.5 The above pre-acceptance procedures will apply to healthcare waste, in addition to the below further procedures.
- 3.5.6 HCC will ensure that the producer follows the correct packaging requirements from Safe Management of Healthcare Waste (HTM 07 01)⁶ including the correct colour coding.
- 3.5.7 The following details will be provided by the waste producer in the form of an audit report:
- the name, address and contact details of the healthcare waste practice;
 - the type of practice, for example, hospital, veterinary clinical, general practice;
 - dates for when the audit started and ended;
 - a description of the audit, the procedures employed, the auditors, their affiliation and their competence.
- 3.5.8 It will also include a list (or diagram) of the different wards, departments, or functional areas that exist within the premises. This will detail all the specific processes producing relevant wastes at the practice, for example, pharmacy, primary care, dental acute or laboratory.
- 3.5.9 For each of the waste types identified and listed by unit, department or area, the audit report will detail:

⁶ Health Technical Memorandum 07-01: Safe management of healthcare waste https://www.england.nhs.uk/wp-content/uploads/2021/05/HTM_07-01_Final.pdf

- the waste's written description, type and classification, including EWC codes;
- the type and colour-coding of the container or packaging the waste is placed in;
- how the packaging is labelled;
- physical form and composition;
- hazardous properties.

3.5.10 HCC will obtain and assess a waste pre-acceptance audit report before they take delivery of the first batch of waste from each medical practice.

3.5.11 They will then do this at the following minimum frequencies, every:

- 12 months for each medical practice that produces 5 tonnes or more of clinical waste in any calendar year.
- 2 years for each veterinary practice, dental practice and laboratory that produces less than 5 tonnes of clinical waste in any calendar year.
- 5 years for other clinical waste healthcare producers.

3.5.12 HCC will keep records that relate to pre-acceptance for a minimum of 3 years in a computerised process control system including:

- audit reports;
- assessment of the reports;
- additional information received;
- assessment that the waste is acceptable.

3.6 Waste Acceptance Procedures

General

3.6.1 Waste shall only be accepted if:

- it is of a type and quantity listed in table 3-1; and
- it conforms to the description in the documentation supplied by the producer and holder.

3.6.2 All waste will arrive at the site via the entrance road located on the neighbouring RC site from the A602. Vehicles will only be authorised to deliver their waste if their registration plates have been registered, see Section 3.5. On arrival, all vehicles will be weighed at the weighbridge station and all documentation will be checked.

3.6.3 Annual waste returns will be submitted to the EA in accordance with the requirements of the permit.

Waste Inspection

3.6.4 Waste will be visually inspected to ensure it complies with the acceptable waste codes and conforms to the description on the consignment note.

Unacceptable Waste

- 3.6.5 Where, upon inspection, the waste does not conform to the description in the documentation supplied by the producer or holder it will be returned to the holder.
- 3.6.6 Should any unacceptable waste be identified after unloading, it would be stored in the designated quarantine area, separated from other waste, until it can be collected and transported for treatment or disposal by an appropriately licensed waste carrier.

3.7 Waste Storage and Management

General Storage

- 3.7.1 All waste types will be stored on site for a maximum of seven working days.
- 3.7.2 The waste will be brought into the WTS building typically by heavy goods vehicles (HGVs). The HGV drivers are directed to the appropriate bay by the weighbridge operator, in accordance with the waste type and capacity levels. The driver is directed to the relevant designated bays at the rear half of the building and the waste is unloaded directly into the allocated bay. The loading shovel will then tidy and compact the waste as required.
- 3.7.3 There are six bays within the WTS building; two have capacity for 750 m³ of waste and four have capacity for 450 m³ of waste. They bay walls are moveable so their capacity will be variable, although stockpiles will be kept within the maximum dimensions of 20 m in any direction with a height of 4 m in accordance with EA fire prevention plan (FPP) requirements. The building will be accessible via seven doors.
- 3.7.4 Further waste storage will be provided in the additional building and this will have three bays which will be accessible via three doors. This additional building will be used to store kerbside collected residual waste and residual waste collected from RCs. Additionally, it will be used to store bulky waste, bagged clinical waste, green waste and food waste.
- 3.7.5 Both buildings can completely house the delivery vehicles with the doors closed and doors will remain shut other than for access.
- 3.7.6 A mechanical loading shovel will be used to manage and shape the storage piles as well as for loading waste into 'Bulk loader' HGVs.
- 3.7.7 The following sections identify alternative storage arrangements for specific waste types.
- 3.7.8 When waste is removed from site the HGVs drivers will be directed to the relevant bay and the loading shovel will load waste directly into the vehicle.

Batteries

- 3.7.9 It is anticipated that only small volumes of batteries will be tipped at the site and it will not be a regular occurrence. In the event that batteries are discovered in the waste they will be stored within the quarantine area in sealed plastic containers to prevent water ingress.

Hazardous Waste

- 3.7.10 It is anticipated that only small volumes of hazardous waste will be tipped at the site. It will be stored within the WTS building within clearly identified lockable containers and will be segregated from the other waste. The maximum quantity of hazardous waste that can be stored at the ETS shall not exceed 50 tonnes at any one time.

Clinical Waste

- 3.7.11 Clinical wastes are stored within roll top 770 litres (l) wheelie bins in a locked compound constructed from interlocking concrete blocks on the lower level (Zone 2) of the site. These are filled and emptied within 4 days of the deposit by specialist waste contractors. These bins are kept shut at all times except during filling or emptying. As the waste will be stored in these bins it will not come in to contact with site surfaces.
- 3.7.12 The site will not accept any clinical waste that requires refrigerated storage.
- 3.7.13 The site will accept a maximum of 800 tonnes of clinical was per annum.

Shredder

- 3.7.14 Bulky waste including furniture and mattress will be shredded on site by the shredder. This will be located within the WTS building. The bulky waste will be placed into the hopper by loading shovels and the interlocking hooks and knives will pull in the waste and shred it.
- 3.7.15 The resulting shredded waste will be between 80-400 mm in size; this will travel over the conveyor belt on the shredder to form a stockpile. This waste will then be moved by the loading shovel to be stored within the waste storage bays at the back of the WTS building or the additional building.

3.8 Odour Control

- 3.8.1 The WTS building will contain waste streams with a higher potential to become odorous than the waste streams being stored in the additional building. The additional building will primarily be used for storing bulky wastes such as large items extracted from the main waste streams, dry recyclables, green waste or waste in sealed containers which are typically not significant odour sources, whilst the WTS building will store all other waste types including black bag wastes and food wastes, which are more likely to become odorous.
- 3.8.2 The doors of both buildings will remain shut other than for access and doors will rapidly open and close to minimise the amount of time that the buildings are open. Both buildings will also be kept under a slight negative pressure.
- 3.8.3 The WTS building layout has been designed so that waste storage and most of the vehicular activity will be in the same area. The air extraction system is therefore focused within this area with extraction points located approximately above the storage bays. Potentially odorous air from within the building is extracted and treated within an activated carbon odour abatement system. Treated air is then released to air from a 15m high stack.
- 3.8.4 The odour at the additional building will be managed via air extraction and dispersion via a second 15m stack. The system has been designed with fans and duct work that are big enough to support a system upgrade to allow for flexibility in the future for the operator to adapt their waste infrastructure e.g. to store more odorous waste within the additional building. This would allow for dust filtration and carbon adsorption to be installed in the future, if required.

3.9 Site Drainage

Surface Water Drainage

- 3.9.1 Clean rainwater run-off from impermeable areas including roads, parking areas and roofs will be discharged to the existing pumped surface water drainage system which serves the neighbouring RC.
- 3.9.2 This system discharges surface water via a pumping station and rising main to an existing highway drainage system on the A602 Westmill road, which ultimately discharges to the River Rib which lies 500m to the north-west of the site. The existing drainage system has an attenuation tank system to cater for surface water runoff up to and including the 1 in 100 year (plus climate change) event.
- 3.9.3 Drainage for the ETS will include a separate new attenuation tank system to attenuate flows from an extreme rainfall event. The new surface water drainage system will be connected via gravity feed to the existing RC drainage system. Input flows will be installed to avoid overloading existing interceptors.
- 3.9.4 The 50,000 l fuel tank is located to the north of the site and the fuel is pumped underground to the east of the site to the refuelling bay. The vehicle refuelling bay shall be isolated with a perimeter channel drain and connected via an oil separator to manage the risk of major fuel spillages.
- 3.9.5 A site drainage plan is provided in Appendix B.

Trade Effluent and Foul Drainage

- 3.9.6 The disposal of domestic foul sewage waste generated from the welfare facilities will be via an onsite bio-digestion unit or cesspool as there are no foul sewers or private foul drains available in the vicinity of the site to facilitate an off-site connection.
- 3.9.7 Operation of the WTS will potentially generate contaminated runoff from liquid waste spillages and/or floor cleaning and washing down activity. Such areas and activities will be isolated within the effluent holding tank and removed off site via tanker.
- 3.9.8 An external emergency quarantine area will be provided for storage of waste, as shown on the proposed site layout plan in Appendix B. This area will be formed with an impermeable concrete bunded slab connected to the surface water drainage system when not in use, but with an isolator valve provided to close off the drainage system when in use. Removal of any contaminated liquid will be carried out by sump pumping to the contaminated wastewater drainage system, which will be stored in the effluent holding tank and ultimately removed from site via tanker.

4 EMISSIONS

4.1 Emissions to Air

4.1.1 The ETS will give rise to emissions to air, in the form of odour as a result of the storage of wastes.

4.1.2 There are two point source emissions to air at the ETS:

- the release from the odour abatement unit serving the WTS building;
- the additional building ventilation exhaust.

4.1.3 The emissions will be discharged via two 15 m stacks (one serving each emission point). A stack height assessment has been undertaken and confirms that the selected stack heights will provide acceptable dispersion of releases to air from each of the buildings. Details supporting the stack height determination are provided in the Air Quality and Odour Assessment in Appendix G.

4.2 Emissions to Land

4.2.1 There will be no point source emissions to land from the ETS.

4.3 Emissions to Waters and Sewer

4.3.1 There will be no process discharges to water from the ETS. Clean surface water run-off will discharge to surface water via the neighbouring RC pumped surface water drainage system after passing through an oil interceptor and attenuation pond.

4.3.2 Discharges to sewer will be limited to domestic effluents from the onsite amenities. There will be no process discharges to sewer.

4.4 Fugitive Emissions to Air, Land, Water and Sewer

4.4.1 Fugitive emissions have been considered within the ERA in Appendix C. The assessment indicates that the proposed measures for control of fugitive releases will ensure that no significant risks from fugitive releases are expected from the ETS.

The ERA sets out the primary sources of dust from the facility and the proposed dust control measures under normal and abnormal operation.

4.5 Odour

4.5.1 The main odour sources from the ETS are:

- Green Garden Waste (EW Chapter code 20 02);
- Municipal Waste (EW Chapter codes 20 01 08, 20 01 27/28);
- Residual Waste;
- Clinical Waste;
- Cesspit.

4.5.2 Odour management measures are detailed in the ERA (Appendix C) and the odour management plan (Appendix H).

4.5.3 There are two odour emissions point sources at the ETS as described in section 4.1 above.

4.6 Noise and Vibration

4.6.1 The main noise sources from the ETS are:

- HGV movements associated with waste deliveries and collections;
- Operation of the odour abatement system; and
- The plant operating within the WTS building including shredder and loading shovel.

4.6.2 Noise management measures are detailed in the ERA (Appendix C) and the noise management plan (Appendix E).

5 IMPACTS

- 5.1.1 To support this application a number of environmental impact assessments have been completed. The full details of these assessments are appended to this application and for each of the environmental issues discussed within this section, a reference to the location of the full assessment is provided.
- 5.1.2 There are no emissions to land, surface water or sewer from the ETS, therefore there are no assessments for these. The ETS includes two emission points to air associated with the odour abatement unit serving the WTS building and the dispersion of potential odours from the additional building. These emissions are potentially odorous rather than emissions of pollutants which need to be controlled to protect air quality; consequently they have been assessed in respect of their odour impact and an assessment of impacts on air quality is not required.

5.2 Noise and Vibration

- 5.2.1 A noise and vibration assessment has been carried out for the ETS and is included in Appendix D.
- 5.2.2 Given the separation between the site and its nearest residential receptors, vibration from operational activities will be significantly below the negligible significance criteria. As such, vibration is considered to have no significant adverse effect.
- 5.2.3 Baseline noise levels were established from the worst cases from survey data collected in July and August 2021 from the noise sensitive receptors. The noise levels at noise sensitive residential receptors were concluded to not significantly increase during operation of the site. On this basis, the noise impacts from the operation of the ETS are considered to be low.

5.3 Dust

- 5.3.1 Dust impacts are considered within the Air Quality and Odour Assessment in Appendix G.
- 5.3.2 Most dust sources will be contained within buildings at the ETS. The magnitude of dust emissions is considered to be medium, at worst.
- 5.3.3 The nearest high-sensitivity and medium-sensitivity dust receptors are upwind of the site. Considering the distances and the infrequency of dusty winds it is considered that the significance of any dust effect will be negligible.

5.4 Odour

- 5.4.1 Appendix G of the application provides details of the assessment of odour effects from the operation of the ETS.
- 5.4.2 During normal operations, the odour emissions at the Ware ETS can be expected to arise from the WTS building and the additional building as this is where wastes will be unloaded, stored and loaded. The odour can be largely controlled by effective management and good housekeeping and there is also an odour abatement system, as discussed in Section 3.8 of this supporting document.
- 5.4.3 Site activities and waste streams are not expected to generate a high odour potential as there is very little biodegradable waste to be stored on site and the waste will be stored within the WTS building and additional building.

- 5.4.4 Emissions to air from these emission points have been considered within the Air Quality and Odour Assessment in Appendix G and management measures that will be in place are detailed in the Odour Management Plan in Appendix H.



APPENDICES

Appendix A
Application Forms

Appendix B

Drawings

020027-RPS-SI-XX-DR-A-0100-P04 Site Location Plan
020027-RPS-SI-XX-DR-A-9014-P01 Site Layout
020027-RPS-SI-XX-DR-D-1300-P01 Site Drainage Plan
020027-RPS-SI-XX-DR-A-0121-A1-P01 -Fire Safety Plan
020027-RPS-TS-00-DR-A-5401 Fire Safety – Waste Transfer Building
020027-RPS-AB-00-DR-A-9031-P01-Fire Safety Plan - Additional Building

Appendix C

Environmental Risk Assessment

Appendix D
Noise Assessment

Appendix E
Noise Management Plan

Appendix F
Dust Management Plan

Appendix G

Air Quality Odour Assessment

Appendix H

Odour Management Plan

Appendix I
Fire Prevention Plan

Appendix J
Site Condition Report

Appendix K

Pre-Application Responses

Appendix L
Environmental Statement