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Non-Technical Summary

v2.0

Environmental and sustainability solutions provided to

Waste Organics (Leeds) Limited

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	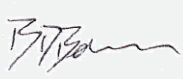

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1.0 INTRODUCTION

1.1 Site Address

Waste Organics (Leeds) Limited
Waste Treatment Station
Knowsthorpe Road
Leeds
LS9 0NX

1.2 Operational Location

Grid Reference: Easting 433155, Northing 431765

1.3 Site Description

The site is situated on Knowsthorpe Road which is one of many roads present in the Crossgreen Industrial Estate. The industrial estate is located approximately 4km southeast of the centre of Leeds, near the Stourton and Knowsthorpe areas of the city. Knowsthorpe Road joins to Knowsthorpe Gate which itself is a main access road into the industrial estate from the A63 (Pontefract Lane) which is a main arterial road from the M1 motorway to the centre of Leeds. The site is surrounded by mixed-use industrial developments. Immediately north of the site is a vehicle bodycare workshop, adjacent to the east is Knostrop Sewage Treatment Works, to the south is a cement production facility and to the west is a chemical production facility. The River Aire is located approximately 600m south of the site and the nearest residential receptor is located approximately 1km north of the site. There are no sensitive ecological receptors within 750m of the site.

The site currently consists of the following aspects:

- 1No. weighbridge.
- 2No. adjoining waste reception / treatment buildings.
- 1No. large lego-block waste storage bay.
- 1No. covered workshop.
- Site office and staff facilities.
- A number of car parking spaces.

1.4 Site Plans

Site Location Plan – EPR_001 Site Location Plan

Site Layout Plan – EPR_002 Site Layout Plan

1.5 Permit and Licences

Crossgreen Investments Limited currently hold an environmental permit for the operation of a waste transfer and treatment station under environmental permit reference number EPR/FB3701UA/V003. This allows for the treatment of up to 249,999 tonnes of differing waste types on site. The site has full planning permission for all activities carried out on site.

1.6 Reason for Application

Waste Organics (Leeds) Limited (hereon referred to as Waste Organics) are seeking to transfer the complete existing environmental permit from Crossgreen Investments Limited to themselves.

At the same time, Waste Organics are seeking to vary the environmental permit to allow them to add additional waste codes, suitable for supply into AD facilities, to the permit and to add a waste treatment activity to allow the treatment of biodegradable organic wastes to produce a “soup” of blended wastes suitable for feedstock to AD facilities. Whilst they are not seeking to remove the existing activities from the environmental permit, Waste Organics currently only plan on carrying out the treatment of biodegradable organic waste to produce a “soup” on site. As such, Waste Organics consider that only the activities associated with this waste treatment type need considering in this permit variation application. It is proposed that should any amendments be required to be made to the site, appropriate measures or the environmental management system for the operation of the existing permitted activities following review, these are written into the new permit as pre-operational conditions.

Additionally, Waste Organics are requesting that the permit is modernised, as the current permit references activities and conditions from the original Waste Management Licence which was issued in 2004.

As advised by the Environment Agency during enhanced pre-application advice, two applications, one for the permit transfer and one for the permit variation, are to be submitted to the Environment Agency. As part of the submission of the application, it shall be made known that the two applications are linked.

2.0 OVERVIEW OF PROPOSED OPERATION

2.1 Current Operation

The site is currently permitted to carry out a number of waste transfer and treatment activities.

2.1.1 General Waste

Waste Organics do not intend to carry out this activity.

The permit currently allows for the storage and repackaging of general waste. All bulking or transfer of non-hazardous waste must be carried out inside a building. The maximum quantity of asbestos received and stored on site must not exceed 20 tonnes at any one time. All waste, with the exception of inert waste, must be stored on an impermeable surface with a sealed drainage system. Inert waste can be stored on hard standing. The permit also allows for the physico-chemical treatment of waste, recycling and reclamation of metals, metal compounds and other inorganic materials and recycling or reclamation of organic substances which are not used as solvents. Treatment can consist of manual sorting, separation, screening, baling, shredding, crushing or compaction of non-hazardous or inert waste into different components. Treatment of non-hazardous waste must be carried out in a building. All waste, with the exception of inert waste, must be treated on an impermeable surface with a sealed drainage system. Inert waste can be treated on hard standing. Asbestos cannot be treated on site. Up to 249,999 tonnes of this waste type can be accepted and treated on site per year, as long as the total amount of waste accepted on to site is less than 249,999 tonnes.

The following waste codes are allowed to be accepted on to site for this activity:

Table 1 - Waste codes associated with general waste storage and treatment

Waste Code	Waste Description
01 Wastes resulting from exploration, mining, quarrying and physical and chemical treatment of minerals	
01 01	Wastes from mineral excavation
01 01 02	Wastes from mineral non-metalliferous excavation
02 Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing	

02 01	Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing
02 01 03	Plant-tissue waste
02 01 04	Waste plastics (except packaging)
02 01 09	Agrochemical waste other than those mentioned in 02 01 08
02 03	Wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing, conserve production; yeast and yeast extract production, molasses preparation and fermentation
02 03 02	Wastes from preserving agents
02 03 04	Materials unsuitable for consumption or processing
02 04	Wastes from sugar processing
02 04 01	Soil from cleaning and washing beet
02 06	Wastes from the baking and confectionary industry
02 06 02	Wastes from preserving agents
02 07	Wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)
02 07 01	Wastes from washing, cleaning and mechanical reduction of raw materials
02 07 02	Wastes from spirits distillation
02 07 03	Wastes from chemical treatment
02 07 04	Materials unsuitable for consumption or processing
03 Wastes from wood processing and the production of panels and furniture, pulp, paper and cardboard	
03 01	Wastes from wood processing and the production of panels and furniture

03 01 01	Waste bark and cork
03 01 05	Sawdust, shavings, cutting, wood, particle board and veneer other than those mentioned in 03 01 04
03 02	Wastes from wood preservation
03 02 03*	Organometallic wood preservatives
03 02 04*	Inorganic wood preservatives
03 02 05*	Other wood preservatives containing dangerous substances
03 03	Wastes from pulp, paper and cardboard production and processing
03 03 01	Waste bark and wood
03 03 07	Mechanically separated rejects from pulping of waste paper and cardboard
03 03 08	Wastes from sorting of paper and cardboard destined for recycling
03 03 10	Fibre rejects, fibre-, filler- and coating-sludges from mechanical separation
04 Wastes from the leather, fur and textile industries	
04 01	Wastes form the leather and fur industries
04 01 02	Liming waste
04 02	Wastes from the textile industries
04 02 09	Waste from composite materials (impregnated textile, elastomer, plastomer)
04 02 10	Organic matter from natural products (for example grease, wax)
04 02 15	Waste from finishing other than those mentioned in 04 02 14

04 02 21	Wastes from unprocessed textile fibres
04 02 22	Wastes from processed textile fibres
06 Wastes from inorganic chemical processes	
06 11	Wastes from the manufacture or inorganic pigments and opacifiers
06 11 01	Calcium-based reaction wastes from titanium dioxide production
07 Wastes from organic chemical processes	
07 02	Wastes from the MFSU plastics, synthetic rubber and man-made fibres
07 02 13	Waste plastic
08 Wastes from the manufacture, formulation, supply and use (MFSU) of coatings (paints, varnishes and vitreous enamles), adhesives, sealants and printing inks	
08 01	Wastes from the MFSU and removal of paint and varnish
08 01 11*	Waste paint and varnish containing organic solvents or other dangerous substances
08 01 12	Waste paint and varnish other than those mentioned in 08 01 11
08 01 13*	Sludges from paint or varnish containing organic solvents and other dangerous substances
08 02	Wastes from MFSU of other coatings (including ceramic materials)
08 02 01	Waste coating powders
08 02 02	Aqueous sludges containing ceramic materials
08 02 03	Aqueous suspensions containing ceramic materials
08 03	Wastes from MFSU of printing inks

08 03 13	Waste ink other than those mentioned in 08 03 12
09 Wastes from the photographic industry	
09 01	Wastes from the photographic industry
09 01 07	Photographic film and paper containing silver or silver compounds
09 01 08	Photographic fil and paper free of silver or silver compounds
10 Wastes from thermal processes	
10 02	Wastes from the iron and steel industry
10 02 01	Wastes from the processing of slag
10 02 02	Unprocessed slag
10 09	Wastes from casting of ferrous pieces
10 09 06	Casting cores and moulds which have not undergone pouring other than those mentioned in 10 09 05
10 09 08	Casting cores and moulds which have undergone pouring other than those mentioned in 10 09 07
10 11	Wastes from manufacture of glass
10 11 03	Waste glass-based fibrous materials
10 11 12	Waste glass other than those mentioned in 10 11 11
10 12	Wastes from manufacture of ceramic goods, bricks, tiles and construction products
10 12 08	Waste ceramics, bricks, tiles and construction products (after thermal processing)
10 13	Wastes from manufacture of cement, lime and plaster and articles and products made from them

10 13 04	Wastes from calcination and hydration of lime
12 Wastes from shaping, and physical and mechanical surface treatment of metals and plastics	
12 01	Wastes from shaping, and physical and mechanical surface treatment of metals and plastics
12 01 05	Plastics shavings and turnings
12 01 06*	Mineral-based machining oils containing halogens (except emulsions and solutions)
12 01 10*	Synthetic machining oils
12 01 12*	Spent waxes and fats
12 01 13	Welding wastes
13 Oil wastes and wastes of liquid fuels	
13 01	Waste hydraulic oils
13 01 04*	Chlorinated emulsions
13 01 05*	Non-chlorinated emulsions
13 01 09*	Mineral-based chlorinated hydraulic oils
13 01 10*	Mineral-based non-chlorinated hydraulic oils
13 01 11*	Synthetic hydraulic oils
13 01 12*	Readily biodegradable hydraulic oils
13 01 13*	Other hydraulic oils
13 02	Waste engine, gear and lubricating oils

13 02 04*	Mineral-based chlorinated engine, gear and lubricating oils
13 02 05*	Mineral-based non-chlorinated engine, gear and lubricating oils
13 02 06*	Synthetic engine, gear and lubricating oils
13 02 07*	Readily biodegradable engine, gear and lubricating oils
13 02 08*	Other engine, gear and lubricating oils
13 03	Waste insulating and heat transmission oils
13 03 06*	Mineral-based chlorinated insulating and heat transmission oils other than those mentioned in 13 03 01
13 03 07*	Mineral-based non-chlorinated insulating and heat transmission oils
13 03 08*	Synthetic insulating and heat transmission oils
13 03 09*	Readily biodegradable insulating and heat transmission oils
13 03 10*	Other insulating and heat transmission oils
13 05	Oil/water separator contents
13 05 02*	Sludges from oil/water separators
13 05 03*	Interceptor sludges
13 05 06*	Oil from oil/water separators
13 05 07*	Oily water from oil/water separators
13 05 08*	Mixtures of wastes from grit chambers and oil/water separators
13 07	Wastes of liquid fuels

13 07 01*	Fuel oil and diesel
14 Waste organic solvents, refrigerants and propellants	
14 06	Waste organic solvents, refridgerants and foam/aerosol propellants
14 06 01*	Chlorofluorocarbons, HCFC, HFC
14 06 02*	Oher halogenated solvents and solvent mixtures
14 06 03*	Other solvents and mixtures
14 06 04*	Sludges or solid wastes containing halogenated solvents
14 06 05*	Sludges or solid wastes containing other solvents
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

15 01 10*	Packaging containing residues of or contaminated by dangerous substances
15 02	Absorbents, filter materials, wiping cloths and protective clothing
15 02 02*	Absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances
15 02 03	Absorbents, filter materials, wiping cloths and protective other than those mentioned in 15 02 02
16 Wastes not otherwise specified in this list	
16 02	Wastes from electrical and electronic equipment
16 02 12*	Discarded equipment containing free asbestos
16 02 13*	Discarded equipment containing hazardous components other than those mentioned in 16 02 09 to 16 02 13
16 02 15*	Hazardous components removed from discarded equipment
16 03	Off-specification batches and unused products
16 03 04	Inorganic wastes other than those mentioned in 16 03 03
16 03 06	Organic wastes other than those mentioned in 16 03 05
16 06	Batteries and accumulators
16 06 03*	Mercury-containing batteries
16 06 04	Alkaline batteries (except 16 06 03)
16 08	Spent catalysts
16 08 01	Spent catalysts containing gold, silver, rhenium, rhodium, palladium, iridium or platinum (except 16 08 07)
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 03	Bituminous mixtures, coal tar and tarred products
17 03 02	Bituminous mixtures other than those mentioned in 17 03 01
17 05	Soil (including excavated soil from contaminated sites), stones and dredging spoil
17 05 04	Soils and stones other than those mentioned in 17 05 03
17 05 06	Dredging spoil other than those mentioned in 17 05 05
17 05 08	Track ballast other than those mentioned in 17 05 07
17 06	Insulation materials and asbestos-containing construction materials
17 06 01*	Insulation materials containing asbestos
17 06 04	Insulation materials other than those mentioned in 17 06 01 and 17 06 03
17 06 05*	Construction materials containing asbestos

17 08	Gypsum-based construction material
17 08 02	Gypsum-based construction material other than those mentioned in 17 08 01
17 09	Other construction and demolition wastes
17 09 04	Mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03
19 Wastes from waste management facilities, off-site waste water treatment plants and preparation of water intended for human consumption / industrial use	
19 12	Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 01	Paper and cardboard
19 12 04	Plastic and rubber
19 12 05	Glass
19 12 06*	Wood contaminated with dangerous substances
19 12 07	Wood other than that mentioned in 19 12 06
19 12 08	Textiles
19 12 09	Minerals (for example sand, stones)
19 12 10	Combustible waste (refuse derived fuel)
19 13	Wastes from soil and groundwater remediation
19 13 02	Solid wastes from soil remediation other than those mentioned in 19 13 01
20 Municipal wastes (household waste and similar commercial, industrial and institutional wastes) not including separately collected fractions	
20 01	Separately collected fractions (except 15 01)

20 01 21*	Fluorescent tubes and other mercury containing wastes
20 01 34	Batteries and accumulators other than those mentioned in 20 01 33
20 01 37	Wood containing dangerous substances
20 02	Garden and park wastes (including cemetery waste)
20 02 01	Biodegradable waste
20 02 02	Soil and stones
20 02 25	Edible oils and fats
20 03	Other municipal wastes
20 03 03	Street-cleaning residues
20 03 07	Bulky waste

2.1.2 End of Life Vehicles

Waste Organics do not intend to carry out this activity.

The permit currently allows for the storage of uncontaminated plastic, glass, and ferrous and non-ferrous metal wastes arising from the treatment of end of life vehicles. The permit also allows for recycling and reclamation of metals, metal compounds and other inorganic materials via depollution of waste motor vehicles and sorting, separation, grading, baling, shearing compacting, crushing or cutting of waste into different components for recovery. These activities must take place on an impermeable surface with a sealed drainage system. Waste motor vehicles must have their tyres removed before they are baled, crushed or compacted. The maximum treatment capacity of hazardous waste must be less than 10 tonnes per day. Up to 249,999 tonnes of this waste type can be accepted and treated on site per year, as long as the total amount of waste accepted on to site is less than 249,999 tonnes.

The following waste codes are allowed to be accepted on to site for this activity:

Table 2 - Waste codes associated with end-of-life vehicle storage and treatment

Waste Code	Waste Description
16 Wastes not otherwise specified in this list	
16 01	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 03	End-of-life tyres
16 01 04*	End-of-life vehicles
16 01 06	End-of-life vehicles, containing neither liquids nor other hazardous components
16 01 07*	Oil filters
16 01 11*	Brake pads containing asbestos
16 01 12	Brake pads other than those mentioned in 16 01 11
16 06	Batteries and accumulators
16 06 01*	Lead batteries
16 06 05	Other batteries and accumulators

2.1.3 Metals and Metal Compounds

Waste Organics do not intend to carry out this activity.

The permit currently allows for the storage of uncontaminated ferrous metals or alloys and uncontaminated non-ferrous metal wastes. The permit also allows for recycling and reclamation of metals and metal compounds via sorting, separation, grading, shearing, shredding, baling, compacting, crushing or cutting of waste into different components for recovery. These activities must take place on an impermeable surface with a sealed drainage system. These types of waste cannot be stored on site for longer than 3 years prior to

recovery. Up to 249,999 tonnes of this waste type can be accepted and treated on site per year, as long as the total amount of waste accepted on to site is less than 249,999 tonnes.

The following waste codes are allowed to be accepted on to site for this activity:

Table 3 - Waste codes associated with metal and metal compounds storage and treatment

Waste Code	Waste Description
02 Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing	
02 01	Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing
02 01 10	Waste metal
12 Wastes from shaping, and physical and mechanical surface treatment of metals and plastics	
12 01	Wastes from shaping, and physical and mechanical surface treatment of metals and plastics
12 01 01	Ferrous metal filings and turnings
12 01 03	Non-ferrous metal filings and turnings
16 Wastes not otherwise specified in this list	
16 01	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 17	Ferrous metal
16 01 18	Non-ferrous metal
17 Construction and demolition wastes (including excavated soil from contaminated sites)	
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
17 04 07	Mixed metals
17 04 11	Cables other than those mentioned in 17 04 10
19 Wastes from waste management facilities, off-site waste water treatment plants and preparation of water intended for human consumption / industrial use	
19 01	Wastes from incineration or pyrolysis of waste
19 01 02	Ferrous material removed from bottom ash
19 10	Wastes from shredding of metal-containing wastes
19 10 01	Iron and steel waste
19 10 02	Non-ferrous waste
19 12	Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 02	Ferrous metal
19 12 03	Non-ferrous metal
20 Municipal wastes (household waste and similar commercial, industrial and institutional wastes) not including separately collected fractions	
20 01	Separately collected fractions (except 15 01)

20 01 40	Metals

2.1.4 Organic Substances Not Used as Solvents, Metals and Metal Compounds and Other Inorganic Materials

Waste Organics do not intend to carry out this activity.

The permit currently allows for the storage of organic substances which are not used as solvents, metals and metal compounds and other inorganic materials. The permit also allows for recycling and reclamation of these materials via manual sorting, separation, screening, shredding, baling or compaction of waste into different components for recovery. These activities must take place within a building and on an impermeable surface with a sealed drainage system. These types of waste cannot be stored on site for longer than 3 years prior to recovery. Up to 249,999 tonnes of this waste type can be accepted and treated on site per year, as long as the total amount of waste accepted on to site is less than 249,999 tonnes.

The following waste codes are allowed to be accepted on to site for this activity:

Table 4 - Waste codes associated with organic substances not used as solvents, metals and metal compounds and other inorganic materials storage and treatment

Waste Code	Waste Description
20 Municipal wastes (household waste and similar commercial, industrial and institutional wastes) not 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 38	Wood other than that mentioned in 20 01 37
20 01 39	Plastics
20 03	Other municipal wastes
20 03 01	Mixed municipal waste (consisting of mixtures of paper and cardboard, glass, clothes, textiles, wood other than mentioned in 20 01 37, plastic or metals only
20 03 02	Waste from markets (consisting of mixtures of paper and cardboard, glass, clothes, textiles, wood other than mentioned in 20 01 37, plastic or metals only

2.1.5 Refrigeration Equipment

Waste Organics to not intend to carry out this activity.

The permit currently allows for the storage of refrigeration equipment. Free storage shall not exceed a maximum storage height of 3.5m, or two fridge units high. Palletised or racked individual storage shall not exceed a maximum storage height of 3.5m or two fridge units per pallet or shelf. The permit also allows for recycling and reclamation of metals and metal compounds from the refrigeration equipment. All waste must be stored and treated on an impermeable surface. The treatment of non-hazardous waste must take place within a building. Up to 249,999 tonnes of this waste type can be accepted and treated on site per year, as long as the total amount of waste accepted on to site is less than 249,999 tonnes.

The following waste codes are allowed to be accepted on to site for this activity:

Table 5 - Waste codes associated with refrigeration equipment storage and treatment

Waste Code	Waste Description
16 Wastes not otherwise specified in this list	
16 02	Wastes from electrical and electronic equipment
16 02 11*	Discarded equipment containing chlorofluorocarbons, HCFC, HFC

16 02 14	Discarded equipment other than those mentioned in 16 02 09 to 16 02 13
16 02 16	Components removed from discarded equipment other than those mentioned in 16 02 15
20 Municipal wastes (household waste and similar commercial, industrial and institutional wastes) not including separately collected fractions	
20 01	Separately collected fractions (except 15 01)
20 01 23*	Discarded equipment containing chlorofluorocarbons
20 01 35*	Discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components
20 01 36	Discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35

2.2 Proposed Operation

Whilst it is proposed to keep all of the above activities on the environmental permit for potential future operations, this application relates only to the acceptance of new wastes to enable the treatment of biodegradable organic wastes to produce a “soup” of blended wastes suitable for feedstock to AD facilities. It is anticipated that all “soup” leaving site shall be transferred to anaerobic digestion sites for further treatment.

It is proposed that the existing buildings on site shall be used to house all equipment associated with the treatment of biodegradable organic waste and production of a “soup”. Solid packaged and unpackaged waste shall be tipped onto the floor of the reception building. From here, it will be loaded into attritors to be converted into a pumpable form. The floor of the waste reception hall is constructed of impermeable concrete and shall be served by a sealed drainage system. Any leachate collected by the drainage system shall be re-used in the “soup” production process. Vehicles that have delivered the waste to the reception hall shall also be washed out, with the dirty water again being collected by the sealed drainage system and used in the “soup” production process. The waste reception hall shall operate under negative aeration, with a minimum of three air changes per hour. The air removed from the waste reception hall shall be directed to an odour abatement system, consisting of carbon filters, prior to emission to atmosphere.

The pumpable waste produced in the waste reception hall shall than be pumped to a small bunded tank farm located within the adjacent building where it will be mixed with liquid biodegradable organic wastes to produce a “soup”.

Liquid biodegradable organic wastes shall be accepted onto site in the building adjacent to the solid waste reception hall. The liquid waste shall be pumped directly from the vehicle tanker into one of the liquid waste storage tanks in the tank farm. The liquid was reception hall features a sump with a solid lid which shall be closed at all times other than during tanker emptying or wheel washing and the tank farm is fully bunded to ensure containment of the liquid wastes. The containment has been designed to CIRIA C736 guidance, offering containment of 110% of the largest tank by volume. The floor of the liquid waste reception hall is constructed of impermeable concrete and shall be served by a sealed drainage system. Any liquid waste collected by the drainage system shall be re-used in the “soup” production process. The diagram below shows the process flow for the site.

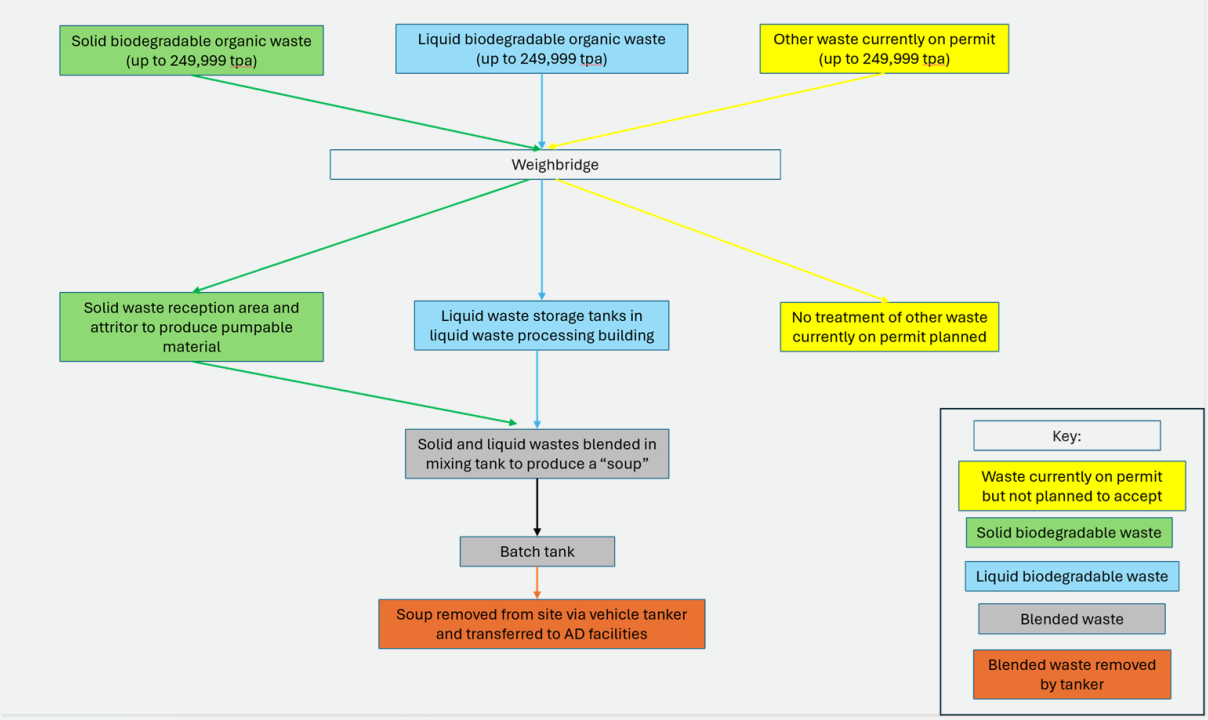

Figure 1 - Process Flow Diagram

The individual tanks in the bunded tank farm are served by the same carbon filters that serve the solid waste reception and treatment building, to treat air displaced from the tanks prior to release to atmosphere. Vehicle tankers that remove the blended “soup” from the site also connect up to the same carbon filters to treat the air displaced from the vehicle tanker whilst it is loading, prior to release to atmosphere.

The solid biodegradable organic waste reception hall is located in the northern portion of the existing building on site which is aligned in a north to south direction. The liquid waste reception and processing area is located in the existing building on site which runs in an east to west direction.

The proposed schedule of activities associated with the soup production activity is as follows:

Table 6 - Proposed schedule of activities for production of "soup" on site

Activity	Description of specified activity	Limits of specified activity and waste type
Storage of waste pending recovery or disposal	R13: Storage of waste pending the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)	Storage of solid waste in an enclosed building fitted with appropriate odour abatement and on an impermeable surface with a sealed drainage system. Storage of liquid waste in tanks fitted with appropriate odour abatement and on an impermeable surface with a sealed drainage system. Waste types suitable for acceptance are limited to those specified in Table 6.
Treatment of waste pending recovery or disposal	R3: Recycling or reclamation of organic substances which are not used as solvents	R3: Recycling or reclamation of organic substances which are not used as solvents Treatment consisting of sorting, separation, grading, compaction, attrition and blending of organic waste to produce a “soup” for transfer off-site Treatment of solid waste in an enclosed building fitted with appropriate odour abatement and on an impermeable

	surface with a sealed drainage system. Treatment of liquid waste in tanks fitted with appropriate odour abatement and on an impermeable surface with a sealed drainage system. Waste types suitable for acceptance are limited to those specified in Table 6.

It is proposed that the wastes listed in the table below are added to the environmental permit to allow for the acceptance and treatment of biodegradable organic waste to produce a blended waste "soup" for transfer off site. Given that the "soup" shall be transferred off site to anaerobic digestion sites, it is proposed that the waste that is allowed to be accepted onto site for this purpose matches those in the Anaerobic Digestion: Resource Framework. It is proposed that the "soup" produced on site shall leave under EWC code 19 12 12 (other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11).

Table 7 - Proposed additional waste codes to be added in line with the Anaerobic Digestion: Resource Framework

Waste Code	Waste Description
02 Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing	
02 01	Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing
02 01 01	Sludges from washing and cleaning – vegetables, fruit and other crops
02 01 02	Animal tissue waste
02 01 03	Plant-tissue waste
02 01 06	Animal faeces, urine and manure (including spoiled fully biodegradable animal bedding)

02 01 07	Wastes from forestry
02 01 99	Wastes not otherwise specified – spent mushroom compost from commercial mushroom growing only
02 02	Wastes from the preparation and processing of meat, fish and other foods of animal origin
02 02 01	Sludges from washing and cleaning, peeling, centrifuging and separation including wash waters and sludges from secondary food processing or the cook chill sector
02 02 02	Animal tissue waste
02 02 03	Materials unsuitable for consumption or processing including animal gut contents
02 02 04	Sludges from on-site effluent treatment including sludges from gelatine production
02 03	Wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation
02 03 01	Sludges from washing, cleaning peeling, centrifuging and separation (including sludge from production of edible fats and oils, seasoning residues, molasses residues, residues from production of potato, corn or rice starch only)
02 03 04	Materials unsuitable for consumption or processing (including waste from production of edible fats and oils, seasoning residues, molasses residues, residues from production of potato, corn or rice starch only)
02 03 05	Sludges from on-site effluent treatment (including sludge from production of edible fats and oils, seasoning residues, molasses residues, residues from production of potato, corn or rice starch only)
02 04	Waste from sugar processing
02 04 03	Sludges from on-site effluent treatment; sludges from the processing of sugar
02 05	Wastes from the dairy products industry
02 05 01	Materials unsuitable for consumption or processing – biodegradable wastes derived from the processing of dairy products only
02 05 02	Sludges from on-site effluent treatment
02 06	Wastes from the baking and confectionery industry

02 06 01	Materials unsuitable for consumption or processing – biodegradable wastes from the processing of materials used in bakery and confectionery
02 06 03	Sludges from on-site effluent treatment; sludges from the processing of materials used in baking and confectionery
02 07	Wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)
02 07 01	Wastes from washing, cleaning and mechanical reduction of raw materials Wastes from washing, cleaning and mechanical reduction of raw materials – biodegradable wastes from the processing of the raw materials used in the production of such beverages only (wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa))
02 07 02	Wastes from spirits distillation – spent grains, hops and whisky filter sheets and cloths, yeast and yeast like residues, sludge from production process, or malt husks, malt sprouts, yeasts and yeast-like residues only
02 07 04	Material unsuitable for consumption or processing – biodegradable wastes from the processing of the raw materials used in the production of such beverages only (wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa))
02 07 05	Sludges from on-site effluent treatment – sludges from the production of alcoholic and non- alcoholic beverages (except coffee, tea and cocoa)
03 Wastes from wood processing and the production of panels and furniture	
03 03	Wastes from pulp, paper and cardboard production and processing
03 03 10	Fibre rejects, fibre-, filler- and coating-sludges from mechanical separation
03 03 11	Sludges from on-site effluent treatment other than those mentioned in 03 03 10
04 Wastes from the leather, fur and textile industries	
04 02	Wastes from the textile industry
04 02 10	Organic matter from natural products such as grease and wax
04 02 21	Wastes from unprocessed textile fibres
07 Waste from organic chemical processes	

07 01	Wastes from the manufacture, formulation, supply and use of basic organic chemicals
07 01 08*	Glycerol waste from bio-diesel manufacture from non-waste vegetable oils
15 Waste packaging; absorbents, wiping cloths, filter materials and protective clothing not otherwise specified	
15 01	Waste packaging, absorbents, filter materials, wiping cloths and protective clothing
15 01 01	Paper and cardboard packaging (excluding veneers, plastic coatings or laminates) certified to EN 13432 or equivalent certified compostable standard
15 01 03	Wooden packaging – virgin timber only
15 01 05	Composite packaging meeting EN 13432 or equivalent certified compostable or digestible standard
16 Wastes not otherwise specified in this list	
16 10	Aqueous liquid waste destined for off-site treatment
16 10 02	Untreated wash waters from cleaning fruit and vegetables on farm only
16 10 02	Milk and dairy waste milk from agricultural premises only
16 10 02	Liquor or leachate from a composting process that accepts waste input types listed in these standard rules or composting and anaerobic digestion standard rules only and in compliance with Animal By Products Regulations
16 10 02	Digestate or liquor form an aerobic process that only accepts the waste input types allowed by the AD Resource Framework and meets the Animal By-Products Regulations
19 Wastes from waste management facilities, off-site waste water treatment plants and preparation of water intended for human consumption / industrial use	
19 02	Wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation
19 02 03	Premixed wastes composed only of non-hazardous wastes (must only come from the input types allowed by this resource framework and be segregated from and uncontaminated by any other waste types.)
19 02 06	Sludges from physico/chemical treatment other than those mentioned in 19 02 05 (must only come from the physical treatment or pH adjustment of the input types allowed by this resource framework and be segregated from, and uncontaminated by, any other waste type)

19 02 10	Glycerol not designated as hazardous – excludes 19 02 08
19 05	Wastes from aerobic treatment of solid wastes
19 05 01	Non-composted fraction of municipal and similar wastes
19 05 02	Non-composted fraction of animal and vegetable wastes
19 05 03	Off-specification compost
19 06	Waste from the anaerobic treatment of waste
19 06 03	Liquor from anaerobic treatment of municipal waste (must only come from the input types allowed by this resource framework, must come from a facility that is independently certified as complying with BSI PAS 110, must be in pasteurised and stabilised batches that are authorised by the Animal and Plant Health Agency and must not contain wastes that come from mechanical biological treatment facilities.)
19 06 04	Digestate from anaerobic treatment of municipal waste (must only come from the input types allowed by this resource framework, must come from a facility that is independently certified as complying with BSI PAS 110, must be in pasteurised and stabilised batches that are authorised by the Animal and Plant Health Agency and must not contain wastes that come from mechanical biological treatment facilities.)
19 06 05	Liquor from anaerobic treatment of animal and vegetable waste (must only come from the input types allowed by this resource framework, must come from a facility that is independently certified as complying with BSI PAS 110, must be in pasteurised and stabilised batches that are authorised by the Animal and Plant Health Agency and must not contain wastes that come from mechanical biological treatment facilities.)
19 06 06	Digestate from anaerobic treatment of animal and vegetable waste (must only come from the input types allowed by this resource framework, must come from a facility that is independently certified as complying with BSI PAS 110, must be in pasteurised and stabilised batches that are authorised by the Animal and Plant Health Agency and must not contain wastes that come from mechanical biological treatment facilities.)
19 08	Wastes from wastewater treatment works
19 08 09	Grease and oil mixture from oil and water separation containing only edible oils and fats
19 08 12	Sludges from biological treatment of industrial waste water (from a process that treats wastes which are listed in these standard rules only)

19 12	Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 12	Other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11 (must only come from the input types allowed by this resource framework, be segregated from, and uncontaminated by, any other waste type and be biodegradable waste).
20 Municipal wastes (household waste and similar commercial, industrial and institutional wastes) not including separately collected fractions	
20 01	Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions)
20 01 01	Paper and cardboard (excluding veneers, plastic coatings or laminates) meeting EN 13432 or equivalent certified compostable or digestible packaging only
20 01 08	Biodegradable kitchen and canteen waste containing compostable plastics meeting EN 13432 or equivalent certified compostable or digestible packaging (Category 3 ABPR waste only)
20 01 25	Edible oils and fats
20 02	Garden and park wastes (including cemetery waste)
20 02 01	Biodegradable waste
20 03	Other municipal wastes
20 03 01	Mixed municipal waste – only separately collected biodegradable wastes of types listed within this table
20 03 02	Waste from markets, allowed only if source segregated biodegradable fractions, such as plant material, fruit and vegetables

2.3 Capacity

It is proposed that the annual throughput of the site remains at a maximum of 249,999 tonnes. As Waste Organics do not plan to operate any of the other listed activities, it is expected that this is made up entirely of the proposed new wastes listed in Table 7 above for the production of a blended waste “soup”. However, Waste Organics would like to retain the flexibility of carrying out the existing permitted activities. The total throughput at site would remain at 249,999 tonnes per year.

3.0 OPERATING PROCEDURES

3.1 Waste Acceptance

Only wastes listed within the tables above and as described by the supplier will be accepted at the Site. All incoming vehicles delivering feedstock to the facility will enter via the entrance and proceed to the weighbridge. Documentation will be checked by the operative in the weighbridge to ensure that the material being delivered is of the correct type and has an EWC code that is listed in the environmental permit. All loads arriving on site must be accompanied by the correct documentation. The relevant documentation will be signed by the operative to confirm the acceptance/receipt of the material prior to the driver being allowed to proceed to the specific storage area i.e. solid biodegradable organic waste reception hall or liquid waste reception hall.

Where possible, an operative will undertake a visual inspection of the material arriving on site to ensure that it conforms with requirements. Upon passing the visual inspection the vehicle will be directed to the correct area on site to deliver the feedstock.

The vehicle, once unloaded, will be weighed out and the weighbridge ticket/waste transfer note will be completed. Vehicles that are removing blended waste “soup” from site shall also be weighed in and out and the weighbridge ticket/waste transfer note will be completed.

Copies of all waste transfer notes will be stored on site for 3 years and, if required, all records will be made available to the EA on request.

Full details of the waste acceptance procedure can be seen in document reference OP02 – Waste Acceptance Procedure.

3.2 Operational Hours

It is not proposed to amend the current operating hours which will remain as for the existing operations, namely 24 hours a day, 7 days a week.

3.3 Technical Standards and Control Measures

Waste Organics will be operating to appropriate measures. A documented list of technical standards that will be operating is provided in Section 5 below.

4.0 ENVIRONMENTAL IMPACT AND CONTROL MEASURES

It is recognised that all facilities have an impact on the environment around them. Consequently, Waste Organics will be employing process management and monitoring techniques which will mitigate the environmental impact within the following areas.

4.1 Odour

Due to the types of waste proposed to be accepted and the activity proposed to take place i.e. the acceptance of solid and liquid biodegradable organic wastes for the production of a "soup" for transfer off-site, odour could be considered to be an issue. A full odour impact assessment has been carried out and the site has in place a comprehensive odour management plan, produced in line with the Environment Agency's latest odour guidance Odour management: comply with your environmental permit – Guidance – GOV.UK. It should be highlighted here that the site has odour abatement measures in place serving the solid waste reception hall, tank farm and vehicle tanker loading point. It should also be noted that the site is located within a large industrial estate and immediately adjacent to the site is Knostrop Sewage Treatment Works, Yorkshire Water's largest waste water treatment works. The nearest residential receptor is located approximately 1km to the north of the site.

4.2 Noise and Vibration

A Noise Impact Assessment and Noise Management Plan has been produced for the facility. There are other industrial properties in the immediate vicinity of the facility. Given these distances and the operational hours of the facility, noise is considered a potential issue within this permit application with controls provided within the Noise Management Plan.

4.3 Drainage and Containment

The two buildings on site are served by an impermeable surface with sealed drainage system. Any liquid that is deposited or spilled in these areas are collected within the drainage system and used in the "soup" making process. Externally, any surface water generated by rain falling on the concrete between the site entrance and the buildings used for biodegradable organic waste treatment is collected by a separate surface water drainage system which directs surface water to an interceptor before being discharged into the surface water drain serving Knowsthorpe Road. The tank farm located within one of the buildings on site is fully bunded in line with the CIRIA C736 guidance.

The site is not located within a Source Protection Zone.

4.4 Sensitive Receptors

There are no designated sensitive ecological receptors (e.g., Site of Special Scientific Interest, Ramsar Site, Special Areas of Conservation and Special Protected Area) within 1km of the site's boundary. The nearest designated ecological receptor is the Leeds-Liverpool Canal SSSI located approximately 6.4km northwest of the site. The Halton Moor Local Nature Reserve is located approximately 920m north-northeast of the site. Industrial receptors are located directly adjacent to the site in all directions. The nearest residential receptor is located approximately 1km to the north of the site.

5.0 TECHNICAL STANDARDS SUMMARY

WRM Ltd are acting consultants for Waste Organics who have commissioned WRM to produce a list of Technical Standards that the site will be working to during the operational lifetime of the recycling facility.

Waste Organics are proposing to accept a number of new non-hazardous wastes to process through the solid and liquid waste treatment process to produce a waste "soup" as outlined within this document. The table below presents a list of technical documents, with reference, for the production of a waste "soup" for transfer off site. These documents have been utilised in order to put this permit variation application together and will continue to be in use as point of reference during the operational life of the permitted site. Documents have been sourced from both regulatory bodies and industry led organisations, such as the Organics Recycling Group (ORG).

Table 8 – Technical Standards Summary

Non-hazardous Waste Treatment – Technical Standards	
Technical Guidance Note	Document Reference
Develop a management system: environmental permits	DEFRA and EA Guidance
Controlling and monitor emissions for your environmental permit	DEFRA and EA Guidance
Industry guide for prevention and control of odours at biowaste processing facilities	REAL
General guide to pollution prevention	EA Pollution Prevention Guidance

Control and monitor emissions for your environmental permit	EA Guidance
Non-hazardous and inert waste: appropriate measures for permitted facilities	EA Guidance
Biological waste treatment: appropriate measures for permitted facilities	EA Guidance
Best Available Techniques (BAT) Reference Document for Waste Treatment 2018 (BREF)	Industrial Emissions Directive 2010/75/EU (Integrated Pollution Prevention and Control)
Anaerobic Digestion: Resource Framework	EA Framework