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Applicant details	DLR Holdings Limited Cumberland Street Hull HU2 0PP
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1 Introduction

1.1 General

DLR Holdings (the 'applicant') has requested that Reva Environmental Ltd (the 'agent') prepares an Environmental Permit (EP) variation application, for its waste treatment and transfer facility a Cumberland Street, Hull, Humberside, HU2 0PU.

The site is located in an industrial area, approximately 1 km to the north of Kingston Upon Hull, at National Grid Reference TA 09944 30064. The site setting is described on Drawing DLR_EP-003 provided in **Appendix A** of this variation application (2020).

The facility operates various waste treatment and transfer activities, in 7 separate buildings across the site. The activities are described in Section 1.4 below.

1.2 Current Site Status

The facility is currently authorised by EP ref. EPR/GB3209MW/T001 which was granted on 5 June 2018. The EP history is shown in **Table ASR1**.

Table ASR1: Permit History

Description	Date	Details
Original licence issued – EAWML 60981	02/02/1994	Original permit issued to Ken Rooms Limited
Transfer EPR/FP3296SU	15/01/2010	Permit transferred to Ken Rooms (Hull) Limited
Variation determined EPR/FP3296SU/V002	11/12/2012	Varied permit issued
Variation determined EPR/FP3296SU/V003	05/06/2018	Varied permit issued, to add waste codes, increase annual throughput from 5000 to 25000 tonnes, and to add a condition requiring a fire prevention plan
Transfer EPR/ GB3209MW/T001	05/06/2018	Permit transferred to DLR Holdings Limited

The current EP, and all previous variation notices noted changes to conditions on the original licence; none were full consolidated EPs. The original licence allows the treatment and transfer of scrap metal, and residual contents of incoming containers. Variation V003 incorporated additional waste types, including plastics, waste paints and varnishes, packaging, and used absorbent/filter materials.

1.3 Application Objective

The objectives of this application are threefold:

- To provide detailed information of the activities being undertaken in each area of the site, including location and process description of new treatment plant;
- To provide details of the additional water treatment plant infrastructure, to be transferred from another site, to improve treatment capabilities. This changes the existing waste operation to a listed activity – 5.3 Part A(1)(a)(ii); and
- To add a number of new waste types to the permitted waste list, either for transfer and treatment (transfer in original packaging or bulking up and transfer) or for use in the existing processes (e.g. washing).

The first objective does not inherently change the existing permitted activities; these remain waste operations, but more detail is provided for clarity. The third objective requires the consideration of additional risks introduced by the proposed new waste types.

Whilst the site is currently operated at a storage capacity of <50 tonnes, DLR recognises that there is the capability, with the reorganisation of the plant and equipment on site, to store more than 50 tonnes of hazardous waste at the site. This application therefore also seeks to add a second new listed activity:

- Section 5.6 Part A(1)(a) – Temporary storage of hazardous waste with a total capacity exceeding 50 tonnes pending activities listed in Section 5.3.

The addition of the 5.3 and the 5.6 activities will change the existing EP from one for Waste Operations to one for an Installation, with the existing other waste operations being directly associated activities (DAA) to the new listed activities.

1.4 Process Description

The key process areas are set out in turn below and a set of process flow diagrams for each of the activities are provided in **Appendix B**. Their locations are shown on **Figure ASR1** below (the extent of the proposed EP boundary line is shown in green).

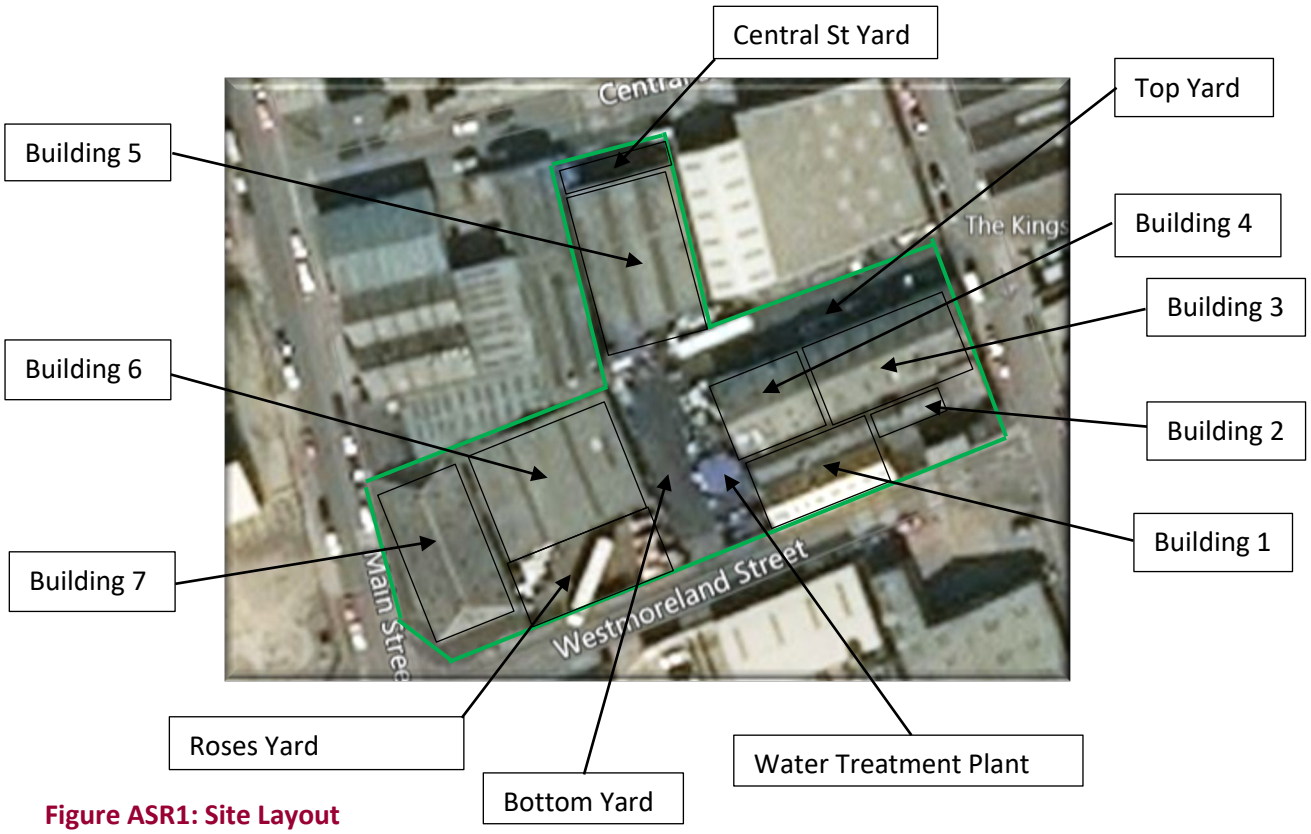

Figure ASR1: Site Layout

1.4.1 Buildings 1 and 2

Buildings 1 and 2 are open to each other, with a shared structure and roof. Recent renovations have been carried out on this building, including replacement of the floor surface, installation of drainage systems, and a new roof. The two areas are delineated as follows.

The intention for Buildings 1 and 2 is to use them for the storage of non-flammable waste, however this may be subject to change in the future as the business evolves, so the area is designed with other activities in mind to future proof it.

1.4.2 Building 3

The activity comprises the shredding of soft wastes, such as oily rags, clothing, confidential waste, soft contaminated packaging etc. These are delivered in various containers including IBCs and bags. Prior to being placed onto the conveyor, the wastes are emptied onto a sorting conveyor via a load platform where non-conforming items are removed by manual picking.

Non-conforming items include hard materials such as metal, glass, cardboard, wood, or rigid plastic. These items are removed and are either transferred to other parts of the site for processing (e.g. metal and plastic) or segregated and stored pending transfer off site for recovery.

The remaining waste that is suitable for processing is placed onto the feed conveyor belt which moves it into the shredder unit. Local exhaust ventilation (LEV) will be installed above the shredder unit to remove any VOCs and/or particulates from the process; the system will be fitted with an appropriate filter. The shredder unit has an integral washer unit, and the waste is fed through it via a screw system.

Liquid effluent from this process is collected under the shredder, and transferred to the on-site waste water treatment plant (WTP). The wash water is recirculated a number of times, depending on the nature of the waste being processed (i.e. the quality). If required, liquid collected from the shredder can be recovered and returned to the customer. Sludges/solids are collected and bulked up for off-site disposal.

The processed waste is transferred off site for recovery.

1.4.3 Building 4

This building has historically been used for drum washing and crushing (for non-reusable drums) and until recently housed a large metal shredder unit. The shredder plant has now been removed from site and there is no intention to replace it however the building will still be used for the drum disposal system (DDS). The building will also house the de-header line (DHL) that has to date been operated in Building 3.

This process comprises the receipt of sealed steel drums that contain residual paints (to various levels) – these are referred to as 'heavy bottom paints'. Whilst the paints can be recovered, the steel drums have been deemed to be 'end of life' and cannot be re-used.

The drums are placed into the de-header line (DHL), pictured in **Figure ASR2**, which removes the lids (which can't be manually removed) and drains the drum contents into an IBC placed below the unit. The collected paint is bulked up and returned to the supplier for recovery. The drums are then roller conveyed into a drum wash unit then onto a drum crusher. The cleaned, crushed drums are bulked up and transferred off site for metal recovery.

The wash plant in this building can also be used to clean steel and plastic drums that are in a suitable condition to be returned to customers for re-use.

Liquid effluent from this process is collected in the integrated tank of the wash plant, and transferred to the on-site waste water treatment plant (WTP). The wash water in the wash plant is recirculated a number of times, depending on the nature of the waste being processed (i.e. the quality).

Figure ASR2: De-Header Line (DHL)

Normal practice at the site is that all drums accepted into Building 4 are 'end of life', and any drums fit for refurbishment / re-use will be transferred to another DLR site for washing and exchanging.

1.4.4 Building 5

Building 5 is used purely for the storage of flammable and hazardous/non-flammable waste materials, with appropriate segregation. These are generally in palletised (and wrapped) drums, in IBCs, or in small proprietary containers. The location of waste materials is determined by their hazards and each 'row' is kept separate from the next, as shown in **Figure ASR3**. The waste includes waste that has been processed at the site, for example liquids from the compactor in Building 6, or from the paint recovery unit in Building 4.

Figure ASR3: Storage in Building 6

Figure ASR4: Drainage Channel

There is a sealed internal drainage system within Building 5 (shown in **Figure ASR4**) and this is contained, pumped and may be directed to the WTP on site.

Two areas at the front of the building, either side of the main access door, are designated for quarantined wastes. These are clearly marked and delineated from the storage of other wastes within this building.

1.4.5 Building 6

The area is open but is used for three separate activities, this are at either end of the building to retain access. The building has an LEV system, comprising carbon filtration.

1.4.5.1 Activity 1 – Compaction

This area will be used to process paints received in small containers. The compactor unit, shown in **Figure ASR5**, is in place here and the waste placed directly into the hopper for crushing.

Figure ASR5: Small Paints Compactor Unit

The resultant liquids are collected in an IBC and transferred either to Building 1 or Building 5, depending on whether the paint is solvent based or not. The resultant solids will comprise either crushed metal or crushed plastic. Crushed metals will be transferred to Building 4 as they can be processed in the drum disposal system; crushed plastics will either go to Building 7 for shredding, granulation and washing or transferred off site for shredding and granulation at another DLR site.

1.4.5.2 Aerosol Destruction

Aerosols will be received in UN metal drums for shredding. DLR is currently reviewing the technology options available, but can confirm that the chosen option will be a proprietary unit that will allow the recovery of aerosol gases and metals from the waste stream. An example of one of the options being considered is shown in **Figure ASR6**. This unit takes all types of aerosol cans and shreds them into small pieces that can be sent off to be recycled. Each shredded piece is ½-1 inch wide and no longer than 3-4 inches. The liquid from the cans is contained in a tank that can be pumped out to remote drums or tanks.

Waste is loaded into the overhead hopper into to the shredding mechanism. A forklift is used to load waste in the drums. The VOCs are removed with a vacuum blower and directed via a filter system (e.g. thermal oxidiser or carbon filter). The shredded metal will pass out of the shredder into a collection bin for recovery.

Figure ASR6: Example of Aerosol Shredding Unit

1.4.5.3 Oil Filter Processing

The applicant is also intending to install an oil filter processing plant, again a proprietary full process plant. Incoming filters are stored in the Main Yard. The intention is to process them in a plant that drains and shreds the filters, in order to recover the metal content of the waste stream.

Whilst the plant has not yet been selected, an example plant is shown in **Figure ASR7**. Plants typically incorporate a feed conveyor for the filters, transferring the waste into a shredding unit which facilitates the drainage of any residual oil in the filters, and then into a magnetic separator to enable recovery of the metal content.

Figure ASR7: Example Oil Filter Recycling Plant

1.4.6 Building 7

This building houses the small plastics recycling line. Waste is conveyed into an enclosed shredder unit. From the shredder, the waste is conveyed into the granulator unit. The shredded and granulated waste is then transferred through a pre-wash unit. The installation of this new wash plant will enable the processed waste to be pre-washed prior to being transferred off site for re-processing/recovery.

There is an LEV system which currently serves the small plastics plant.

Liquid effluent from this process is collected in the integrated tank of the wash plant, and transferred to the on-site waste water treatment plant (WTP). The wash water in the wash plant is recirculated a number of times, depending on the nature of the waste being processed (i.e. the quality). It can be sent off-site for disposal if required.

The building is accessed, via a ramp, from Westmorland Street or internally via a loading platform from the adjacent Building 6.

1.4.7 Water Treatment Plant (WTP)

The WTP is located to the west of Building 4, in the Bottom Yard.

1.4.7.1 Effluent management

Effluent from around the site is managed as follows.

- All drum wash waters are retained in the integrated steel holding tanks contained inside the drum washing units. These are transferred via IBC to the WTP for further on-site treatment however wash water is recirculated as many times as it can be whilst remaining suitable in terms of quality.
- Where wash waters are contaminated beyond a level that is suitable for treatment at the on-site WTP, they are pumped into IBCs for settlement and sampled. Depending on the nature of the effluent, it is transferred to either Building 1/2 or Building 5 pending transfer off site for disposal.
- The drum washing units are located within the confines of concrete impervious bunded buildings which are contained by drains and sumps.
- When the wash waters are to be changed the waste effluent is pumped from the holding tanks and directly into suitable IBCs.
- A series of sumps around the yard areas collected potentially contaminated rain water run-off. The contents of the sumps are pumped out regularly and transferred to the WTP for treatment.
- There is no direct discharge to foul sewer from any of the individual activities/buildings. All wash waters are inspected, sampled and/or analysed prior to feeding into the site WTP for further suitable treatment before discharge to foul sewer under consent.

The system failure mechanism for losing wash waters from the washing units is the impervious bund, drainage and sump system.

One of the key reasons for the variation application is to enable the upgrade of the existing WTP in order to both improve the process and allow re-use of the treated water.

1.4.7.2 Existing WTP

The WTP currently comprises a holding tank, and a set of treatment tanks. The former allows some initial settlement to take place, and sludge from the bottom of the tank can be drained off. The latter comprises a tank in which pH adjustment is carried out, a separate tank where an anti-coagulant is dosed into the effluent, and a further tank where a mechanical scraper skims oils from the top of the effluent (a dissolved air flotation (DAF) plant). The effluent then moved to a final settlement tank. The oils and sludges removed from the process are pumped into IBCs and placed in Building 1/2 or Building 5 pending removal.

The treated effluent is discharged to sewer under trade effluent consent, which limits it to 7 m^3/day.

1.4.7.3 Proposed WTP

The intention is to upgrade the existing WTP, using plant that has been historically operated at the applicant's site in Leeds but where it is no longer required. There is also a possibility that a new ultrafiltration unit will be installed. Details of both are provided in order to ensure that future-proofing is achieved with the varied EP.

The location will remain the same but will expand to fill more of the yard area, as shown in **Drawing DLR-EP-002 Site Layout Plan.**

The additional plant will result in the following changes to the existing WTP:

- A tower settlement tank will be installed and will take effluent from the existing holding tank. This will allow an improved level of settlement and a higher level of sludge removal.
- A sludge collection tank will be installed. This will take sludge from both the existing holding tank and the newly installed tower settlement tank.
- The existing DAF plant will be replaced. The replacement DAF plant is larger in capacity and incorporates the mechanical skimmer and sludge removal in one tank, instead of the current separate tank system.
- A screw press will be installed. This will press the effluent and will produce a solid filter cake that can be transferred off site as a solid waste.
- Two water tanks will be installed. Depending on the quality of the resultant treated effluent, it will be discharged to one of these. One is a 'dirty water' tank, the other is a 'clean water' tank. Where the treated effluent is of a quality that it can be used in the waste washing processes, it will be pumped to the clean water tank and reused. Where it does not meet the quality requirements, it will be pumped to the dirty water tank and either re-processed in the WTP or discharged to sewer (where the discharge consent limits are met).

The proposed ultrafiltration system is an additional add on and is essentially a polishing plant. It works by passing the effluent through a membrane filter to separate solids from the solution. Its installation will enable the further processing of the treated effluent either to ensure compliance with the trade effluent consent limits and/or to enable the re-use of the effluent as wash water.

The plant has the capacity to process over 10 tonnes per day of effluent, therefore needs to be included in the EP as a listed activity under Section 5.3 Part A(1)(a)(ii).

1.4.8 Yard Areas

The external yard areas are used as follows:

- Central St Yard – This can be accessed from Central Street and is currently used for access to Building 5, for outgoing wastes.
- Roses Yard – This provides access to Buildings 6 and 7 and is used for the storage of incoming waste pending processing, and other raw materials such as pallets, as shown in **Figure ASR8**. It can be accessed directly from Westmoreland Street to the south.
- Top Yard – This is accessed directly from Cumberland Street and is an access and egress route for waste deliveries and collections.
- Bottom Yard – This is accessed from Westmoreland Street to the south, and houses the Water Treatment Plant. There is also a proprietary tank for the storage of clean roof run-off, as shown in **Figure ASR9**.

Figure ASR8: Roses Yard (view from the east)

Figure ASR9: Rainwater Storage Tank in Bottom Yard

2 Application Form

An application for a variation to an existing Waste Operation EP requires the completion of the EA application form parts A, C2, C3 and F1. Details have primarily been provided on the form however this section provides additional supporting information and signposts to supplementary documents provided in support of the application.

The completed application form is provided at the front of this EP application document. Online pre-application advice was sought from the Environment Agency. A copy of the response document, and results of the habitat screening, is provided in **Appendix C** of this application.

2.1 Form Part A

Contact details for the agent and the applicant are provided in this part of the application form. As required by Question 4 in Appendix 1 of the form, details are provided for the named Directors as follows:

- David Lee Roebuck (Director) – Date of Birth: [redacted]
- Gareth Francis Worthy (Director) – Date of Birth: [redacted] and
- David Cuckney (Director) – Date of Birth: [redacted]

2.2 Form Part C2

2.2.1 Question 3

Question 3 refers to the applicants ability as an operator. It is confirmed that in response to Question 3a, the relevant persons have not been convicted of any relevant offences nor declared bankrupt.

Regarding Question 3b, copies of the relevant COTC certificates (including certificates of continuing competence) are provided in **Appendix D** of this application. None of the competent managers provide technical competence for other sites.

Question 3d specifically relates to management systems. The applicant operates the current facility in accordance with a set of internal documents and procedures that comprises its integrated management system (IMS). This is not currently accredited however the applicant has engaged a specialist to bring the system into line with, and secure accreditation for, ISO 9001 (quality), ISO 14001 (environment) and ISO 45001 (health and safety). A summary of the existing system is provided in **Appendix E** of this application.

2.2.2 Question 4

Question 4 requires confirmation of the sewerage undertaker where a discharge is part of the activity being applied for. There is a consent at the facility currently (ref. E/76/109C) dated 13 August 2001.

A copy of the discharge consent from Yorkshire Water Services Limited is provided in **Appendix F** of this application. The existing consent is for the discharge of trade effluent from the on-site water treatment plant (WTP) and limits the discharge to 7.5 m^3 in any 24 hour period and a discharge rate of 1.3 litres per second.

Uncontaminated surface water is collected from the yard areas, and from building roofs, and is collected in a rainwater storage tank in the corner of the Bottom Yard. This is shown on **Figure ASR8**. The water is reused at the site, within one of the washing processes.

Full details of the drainage network at the site are provided on **Drawing DLR-EP-004.**

2.2.3 Question 5

Question 5a requires site plans to be provided in support of the application. These are provided in **Appendix A** of this application and are as follows:

- Drawing DLR-EP-001: Site Location Plan
- Drawing DLR-EP-002: Site Layout Plan
- Drawing DLR-EP-003: Site Setting
- Drawing DLR-EP-004: Site Drainage Plan
- Drawing DLR-EP-006: Fire Management Plan

Question 5c requires the provision of a non-technical summary. This has been produced and is provided in **Appendix G** of this application.

Question 5d requires the provision of a fire prevention plan (FPP) where the activities include the storage of combustible waste. When the EP variation (V003) application was made in 2017, the EA took the opportunity to apply the requirement for an FPP to the applicant. An FPP was produced and submitted to the EA in response to the Schedule 5 Notice for that application and was accepted in June 2018. As this variation application (2020) seeks to confirm the location and description of some new items of equipment at the site (to carry out the already authorised activities), the FPP has been revisited and updated to reflect this. A copy of the updated FPP is provided in **Appendix H** of this application.

Question 5e requires a site report to be produced if the application seeks to add an installation. The variation application (2020), whilst not changing the nature of the activities, does introduce a new listed activity, taking the EP from a waste operation to an Installation. A Site Condition Report has therefore been produced for the area and is provided in **Appendix I** of this application.

2.2.4 Question 6

Question 6 requires the provision of an environmental risk assessment. A qualitative risk assessment has been generated for the facility, following the EA's source-pathway-receptor approach. A copy of this is provided in **Appendix J** of this application.

A quantitative risk assessment has not been completed at this stage. The key point source emissions are the vents from the LEV systems (filtered) and the discharge to sewer. With respect to the emissions to air, the LEV systems are under review and new equipment being installed. As such, there is no data available yet to run a model.

It is proposed that the varied (and consolidated) EP includes a condition requiring monitoring to be carried out, and for an H1 assessment of the LEV stacks to be completed once 12 months' data has been collected.

2.3 Form Part C3

2.3.1 Question 1b

The following waste types are to be accepted at the site; a table has been generated for each key activity: waste transfer, waste treatment, and for acceptance into the WTP. Tables ASR2, ASR3 and ASR4 build on the existing waste list in the current EP, and add the following:

- Additional waste codes that are similar to those already permitted;
- Waste codes that were omitted in error in the previous EP application; and
- New waste codes relating to repeated customer enquiries i.e. market demand.

Colour coding has been applied to show those wastes that are:

- Absolute non-hazardous (un-coloured);
- Absolute hazardous (annotated in red);
- Mirror entry hazardous (annotated in blue); and
- Mirror entry non-hazardous (annotated in green).

Both mirror entries have been included, where applicable, to allow flexibility depending on the actual classification of the incoming waste stream.

Table ASR2: Permitted Waste List – Waste Transfer Activities

EWC Code	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 04	Waste plastics (except packaging)
06	**Wastes from Inorganic Chemical Processes**
06 01	Wastes from the MFSU of acids
06 01 01*	Sulphuric acid and sulphurous acid
06 01 02*	Hydrochloric acid
06 01 03*	Hydrofluoric acid
06 01 04*	Phosphoric and phosphorous acid
06 01 05*	Nitric acid and nitrous acid
06 01 06*	Other acids
06 02	Wastes from the MFSU of bases
06 02 01*	Calcium hydroxide
06 02 03*	Ammonium hydroxide
06 02 04*	Sodium and potassium hydroxide
06 02 05*	Other bases
06	**Wastes from inorganic chemical processes**
06 03	Wastes from the MFSU of salts and their solutions and metallic oxides
06 03 14	Solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13
07	**Waste from organic chemical processes**
07 01	Wastes from the MFSU of basic organic chemicals
07 01 01*	Aqueous washing liquids and mother liquors
07 02	Wastes from the MFSU of plastics, synthetic rubber and man-made fibres
07 02 13	Waste plastic
07 05	Wastes from the MFSU of pharmaceuticals
07 05 13*	Solid wastes containing hazardous substances
07 05 14	Solid wastes other than those mentioned in 07 05 13
07 06	Wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics
07 06 01*	Aqueous washing liquids and mother liquors
07 06 03*	Organic halogenated solvents, washing liquids and mother liquors
07 06 04*	Other organic solvents, washing liquids and mother liquors
07 06 10*	Other filter cakes and spent absorbents
08	**Wastes from the manufacture, formulation, supply and use (MFSU) of coatings (paints, varnishes and vitreous enamels), adhesives, sealants and printing inks**
08 01	Wastes from MFSU and removal of paint and varnish
08 01 11*	Waste paint and varnish containing organic solvents or other hazardous 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 or other dangerous substances
08 01 14	Sludges from paint or varnish other than those mentioned in 08 01 13
08 01 15*	Aqueous sludges containing paint or varnish containing organic solvents or other dangerous substances

08 01 16	Aqueous sludges containing paint or varnish other than those mentioned in 08 01 15*
08 01 17*	Wastes from paint or varnish removal containing organic solvents or other hazardous substances
08 01 18	Wastes from paint or varnish removal other than those mentioned in 08 01 17
08 03	Wastes from MFSU of printing inks
08 03 12*	Waste ink containing dangerous substances
08 03 13	Waste ink other than those mentioned in 18 03 12*
08 03 14*	Ink sludges containing dangerous substances
08 03 15	Ink sludges other than those mentioned in 18 03 14*
08 03 17*	Waste printing toner containing dangerous substances
18 03 18	Waste printing toner other than those mentioned in 08 03 17*
08 04	Wastes from MFSU of adhesives and sealants
08 04 09*	Waste adhesives and sealants containing organic solvents or other dangerous substances
08 04 10	Waste adhesives and sealants other than those mentioned in 08 04 09*
08 04 11*	Adhesive and sealant sludges containing organic solvents or other dangerous substances
08 04 12	Adhesive and sealant sludges other than those mentioned in 08 04 11*
08 04 13*	Aqueous sludges containing adhesives or sealants containing organic solvents or other dangerous substances
08 04 14	Aqueous sludges other than those mentioned in 08 04 13*
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	Plastic shavings and turnings
12 01 06*	Mineral based machining oils containing halogens (except emulsions and solutions)
12 01 07*	Mineral based machining oils free of halogens (except emulsions and solutions)
12 01 09*	Machining emulsions and solutions free of halogens
12 01 10*	Synthetic machining oils
12 01 16*	Waste blasting material containing dangerous substances
12 01 17	Waste blasting material other than those mentioned in 12 01 16*
13	**Oil wastes and wastes of liquid fuels**
13 01	Waste hydraulic oils
13 01 01 *	Hydraulic oils, containing PCBs
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 05	Oil / water separator contents
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
13 07 02*	petrol
13 07 03*	Other fuels (including mixtures)
13 08	Oil wastes not otherwise specified
13 08 02*	Other emulsions
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 10*	Packaging containing residues of or contaminated by hazardous 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 hazardous substances
15 02 03	Absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing other than those mentioned in 15 02 02*
16	**Wastes not otherwise specified in the 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 07*	Oil filters
16 01 12	Brake pads other than those mentioned in 16 01 11*
16 01 13*	Brake fluids
16 01 14*	Antifreeze fluids containing dangerous substances
16 01 15	Antifreeze fluids other than those mentioned in 16 01 14*
16 01 19	Plastic
16 01 21*	Hazardous components other than those mentioned in 16 01 07 to 16 01 11 and 16 01 13 and 16 01 14
16 02	Wastes from electrical and electronic equipment
16 02 11*	Discarded equipment containing chlorofluorocarbons, HCFC, HFC
16 02 13*	Discarded equipment containing hazardous components other than those mentioned in 16 02 09* to 16 02 12*
16 03	Off-specification batches and unused products
16 03 03*	Inorganic wastes containing hazardous substances
16 03 04	Inorganic wastes other than those mentioned in 16 03 03
16 03 05*	Organic wastes containing hazardous substances
16 03 06	Organic wastes other than those mentioned in 16 03 05
16 05	Gases in pressure containers and discarded chemicals

16 05 04*	Gases in pressure containers (including halons) containing dangerous substances
16 05 05	Gases in pressure containers other than those mentioned in 16 05 04
16 05 07*	Discarded inorganic chemicals consisting of or containing dangerous substances
16 05 08*	Discarded organic chemicals consisting of or containing dangerous substances
16 05 09	Discarded chemicals other than those mentioned in 16 05 06*, 16 05 07* or 16 05 08*
17	**Construction and demolition wastes (including excavated soil from contaminated sites)**
17 02	Wood, glass and plastic
17 02 03	Plastic
17 02 04*	Glass, plastic and wood containing or contaminated with dangerous substances
18	**Wastes from human or animal healthcare and/or related research**
18 01	Wastes from natal care, diagnosis, treatment or prevention of disease in humans
18 01 06*	Chemicals consisting of or containing dangerous 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
19	**Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use**
19 12	Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 04	Plastic and rubber
19 12 11*	Other wastes (including mixtures of materials) from mechanical treatment of waste containing dangerous substances
19 12 12	Other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11
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 13*	Solvents
20 01 14*	Acids
20 01 15*	Alkalines
20 01 19*	Pesticides
20 01 23*	Discarded equipment containing chlorofluorocarbons
20 01 25	Edible oil and fat
20 01 27*	Paints, inks, adhesives and resins containing dangerous substances
20 01 28	Paints, inks, adhesives and resins other than those mentioned in 20 01 27*
20 01 29*	Detergents containing dangerous substances
20 01 30	Detergents other than those mentioned in 20 01 29*
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*
20 01 39	Plastics

20 01 40	Metals

Table ASR3: Permitted Waste List – Waste Treatment Activities

EWC Code	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 04	Waste plastics (except packaging)
06	**Wastes from Inorganic Chemical Processes**
06 01	Wastes from the MFSU of acids
06 01 01*	Sulphuric acid and sulphurous acid
06 01 02*	Hydrochloric acid
06 01 03*	Hydrofluoric acid
06 01 04*	Phosphoric and phosphorous acid
06 01 05*	Nitric acid and nitrous acid
06 01 06*	Other acids
06 02	Wastes from the MFSU of bases
06 02 01*	Calcium hydroxide
06 02 03*	Ammonium hydroxide
06 02 04*	Sodium and potassium hydroxide
06 02 05*	Other bases
06	**Wastes from inorganic chemical processes**
06 03	Wastes from the MFSU of salts and their solutions and metallic oxides
06 03 14	Solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13
07	**Waste from organic chemical processes**
07 01	Wastes from the MFSU of basic organic chemicals
07 01 01*	Aqueous washing liquids and mother liquors
07 02	Wastes from the MFSU of plastics, synthetic rubber and man-made fibres
07 02 13	Waste plastic
07 05	Wastes from the MFSU of pharmaceuticals
07 05 13*	Solid wastes containing hazardous substances
07 05 14	Solid wastes other than those mentioned in 07 05 13
07 06	Wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics
07 06 01*	Aqueous washing liquids and mother liquors
07 06 03	Organic halogenated solvents, washing liquids and mother liquors
07 06 04*	Other organic solvents, washing liquids and mother liquors
07 06 10*	Other filter cakes and spent absorbents
08	**Wastes from the manufacture, formulation, supply and use (MFSU) of coatings (paints, varnishes and vitreous enamels), adhesives, sealants and printing inks**
08 01	Wastes from MFSU and removal of paint and varnish
08 01 11*	Waste paint and varnish containing organic solvents or other hazardous 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 or other dangerous substances
08 01 14	Sludges from paint or varnish other than those mentioned in 08 01 13

08 01 15*	Aqueous sludges containing paint or varnish containing organic solvents or other dangerous substances
08 01 16	Aqueous sludges containing paint or varnish other than those mentioned in 08 01 15*
08 01 17*	Wastes from paint or varnish removal containing organic solvents or other hazardous substances
08 01 18	Wastes from paint or varnish removal other than those mentioned in 08 01 17
08 03	Wastes from MFSU of printing inks
08 03 12*	Waste ink containing dangerous substances
08 03 13	Waste ink other than those mentioned in 18 03 12*
08 03 14*	Ink sludges containing dangerous substances
08 03 15	Ink sludges other than those mentioned in 18 03 14*
08 03 17*	Waste printing toner containing dangerous substances
18 03 18	Waste printing toner other than those mentioned in 08 03 17*
08 04	Wastes from MFSU of adhesives and sealants
08 04 09*	Waste adhesives and sealants containing organic solvents or other dangerous substances
08 04 10	Waste adhesives and sealants other than those mentioned in 08 04 09*
08 04 11*	Adhesive and sealant sludges containing organic solvents or other dangerous substances
08 04 12	Adhesive and sealant sludges other than those mentioned in 08 04 11*
08 04 13*	Aqueous sludges containing adhesives or sealants containing organic solvents or other dangerous substances
08 04 14	Aqueous sludges other than those mentioned in 08 04 13*
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	Plastic shavings and turnings
12 01 06*	Mineral based machining oils containing halogens (except emulsions and solutions)
12 01 07*	Mineral based machining oils free of halogens (except emulsions and solutions)
12 01 09*	Machining emulsions and solutions free of halogens
12 01 10*	Synthetic machining oils
12 01 16*	Waste blasting material containing dangerous substances
12 01 17	Waste blasting material other than those mentioned in 12 01 16*
13	**Oil wastes and wastes of liquid fuels**
13 01	Waste hydraulic oils
13 01 01 *	Hydraulic oils, containing PCBs
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 05	Oil / water separator contents
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
13 07 02*	petrol
13 07 03*	Other fuels (including mixtures)
13 08	Oil wastes not otherwise specified
13 08 02*	Other emulsions
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 10*	Packaging containing residues of or contaminated by hazardous 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 hazardous substances
15 02 03	Absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing other than those mentioned in 15 02 02*
16	**Wastes not otherwise specified in the 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 07*	Oil filters
16 01 13*	Brake fluids
16 01 14*	Antifreeze fluids containing dangerous substances
16 01 15	Antifreeze fluids other than those mentioned in 16 01 14*
16 01 19	Plastic
16 01 21*	Hazardous components other than those mentioned in 16 01 07 to 16 01 11 and 16 01 13 and 16 01 14
16 02	Wastes from electrical and electronic equipment
16 02 11*	Discarded equipment containing chlorofluorocarbons, HCFC, HFC
16 02 13*	Discarded equipment containing hazardous components other than those mentioned in 16 02 09* to 16 02 12*
16 03	Off-specification batches and unused products
16 03 03*	Inorganic wastes containing hazardous substances
16 03 04	Inorganic wastes other than those mentioned in 16 03 03
16 03 05*	Organic wastes containing hazardous substances
16 03 06	Organic wastes other than those mentioned in 16 03 05
16 05	Gases in pressure containers and discarded chemicals

16 05 04*	Gases in pressure containers (including halons) containing dangerous substances
16 05 05	Gases in pressure containers other than those mentioned in 16 05 04
16 05 07*	Discarded inorganic chemicals consisting of or containing dangerous substances
16 05 08*	Discarded organic chemicals consisting of or containing dangerous substances
16 05 09	Discarded chemicals other than those mentioned in 16 05 06*, 16 05 07* or 16 05 08*
17	**Construction and demolition wastes (including excavated soil from contaminated sites)**
17 02	Wood, glass and plastic
17 02 03	Plastic
17 02 04*	Glass, plastic and wood containing or contaminated with dangerous substances
19	**Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use**
19 12	Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 04	Plastic and rubber
19 12 11*	Other wastes (including mixtures of materials) from mechanical treatment of waste containing dangerous substances
19 12 12	Other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11
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 13*	Solvents
20 01 14*	Acids
20 01 15*	Alkalines
20 01 19*	Pesticides
20 01 23*	Discarded equipment containing chlorofluorocarbons
20 01 25	Edible oil and fat
20 01 27*	Paints, inks, adhesives and resins containing dangerous substances
20 01 28	Paints, inks, adhesives and resins other than those mentioned in 20 01 27*
20 01 29*	Detergents containing dangerous substances
20 01 30	Detergents other than those mentioned in 20 01 29*
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*
20 01 39	Plastics
20 01 40	Metals

Table ASR4: Permitted Waste List – Into Waste Treatment Plant

EWC Code	Description
16	**Wastes not otherwise specified in the list**
16 10	Aqueous liquid wastes destined for off-site treatment

16 10 01*	Aqueous liquid wastes containing dangerous substances
16 10 02	Aqueous liquid wastes other than those mentioned in 16 10 01*

In Section 2.1.3 of the BAT Assessment in **Appendix K** of this EP Application (Table BAT1), the following information is provided for each of the waste types included in the tables above:

- Storage/process location(s);
- Maximum quantity stored at any one time; and
- Maximum storage time

2.3.2 Question 3

Question 3c requires details of the raw materials used at the site in support of the listed activity. These are provided in Section 2.4 of the BAT Assessment provided in **Appendix K** of this EP Application.

2.3.3 Question 4

This requires information regarding monitoring of any point source emissions. Following the augmentation of existing, and installation of new, LEV equipment, the site will have the following filtered vents:

- The compactor unit in Building 6. This will include a carbon filter to remove any VOCs from the process;
- Small plastic shredder / granulator in Building 7. Whilst there is a ventilation system in this building, the operator intends to augment this to cover the whole process line; and
- Shredder in Building 3. This will include a carbon filter to remove any VOCs from the process.

Air extraction and LEV systems are inspected daily for functionality and condition. This includes checking the integrity of joints, pipework, motors, fans, seals etc. Filters are removed and inspected weekly and changed as required but at a minimum quarterly.

2.3.4 Question 6

Questions 6a - 6c require the provision of information in support of the applicant's measures taken to improve the energy efficiency of the activities being permitted. This is discussed in detail in the BAT Assessment, provided in **Appendix K** of this application.

Question 6d refers to the need to submit information on, and justification for, the use of raw and other materials, including water. This is discussed in detail in the BAT Assessment, provided in **Appendix K** of this application.

2.4 Form Part F

The application fee has been identified using the April 2019 EA Charging Scheme. The application seeks to permit a new installation, including two new listed activities. As such, in accordance with Part 2, Paragraph 9(4) of the scheme, the fee for a variation where the application is to authorise the operation of an activity which is not already authorised by that permit, the charge is the permit application charge applicable to that activity. This is applied to the first (highest charge) activity, any subsequent ones are charged at 10% of the application fee applicable to that activity.

The activity charge for the physico-chemical treatment of hazardous waste is ref. 1.16.1 in Table 1.16. The application charge for this is £16,001.

This activity charge for the temporary storage of hazardous waste is ref. 1.16.4 in Table 1.16. The application charge for this is £13,519 but this is reduced to 10% as a secondary listed activity so the fee is £1,352.

The EA's pre-application screening process has identified that the River Humber lies within 2 km of the site and is designated as a SPA, SAC, SSSI and Ramsar. The application fee therefore also includes the fee for the EA to review the habitats assessment. This is activity ref. 1.19.2 in Table 1.19. The fee for this is £779.

The proposed addition of new waste codes to the EP presents new fire risks. As such the existing Fire Prevention Plan (which has already been subject to review and approval by the EA) has been updated and re-submitted for the purposes of this variation application (2020). The application fee is required to include a cost for the EA to review the FPP submitted. This is activity ref 1.19.3 in Table 1.19. The fee for this is £1,241. This has been paid in full however it is noted that the existing FPP has already been subject to full review so the full fee may not be proportionate to the EA review work required at this application stage. Should the EA agree, it is requested that the applicant is provided with the requisite refund, albeit partial.

The total application fee is £19,373.00. Payment of the application fee has been made by the applicant, by BACs, reference PSCAPPDLRHO001.