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Port of Tilbury IWMTS



Cory Environmental Holdings Limited

Supporting Information – EP Application

Document approval

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Non-technical Summary

Cory Environmental Holdings Limited (Cory) is applying to the Environment Agency (EA) for an Environmental Permit (EP) to construct and operate an Integrated Waste Management Transfer Station (IWMTS) (the 'Facility') at the Port of Tilbury. The Facility will process up to 450,000 tonnes of waste per annum.

Incoming municipal and commercial and industrial (C&I) waste will be delivered to the WTS via road. The waste will then be compacted into containers inside the main building and stored at the quayside for short periods of time, before being transferred off-site via barge for processing at the Riverside Resource Recovery Facility (RRRF) and Riverside Energy Park (REP).

This document and its supporting appendices contain the supporting information for the EP application. They should be read in conjunction with the formal application forms.

Contents

Non-technical Summary	3
1 Introduction.....	6
1.1 Background	6
1.2 The Applicant	6
1.3 The Site.....	6
1.4 The Activities	6
1.5 The Facility	7
1.5.1 Key design parameters	7
1.5.2 Waste handling and storage.....	9
2 Further supporting information	12
2.1 Raw materials.....	12
2.2 Residues	13
2.3 Waste Management.....	13
2.3.1 Waste types	13
2.3.2 Waste acceptance and pre-acceptance.....	16
2.3.2.1 Waste pre-acceptance	16
2.3.2.2 Waste acceptance.....	17
2.3.2.3 Unacceptable wastes.....	18
2.4 Site Drainage	19
2.5 Emissions.....	20
2.5.1 Emissions to air.....	20
2.5.2 Emissions to water/sewer	21
2.5.3 Contaminated water.....	21
2.5.4 Odour.....	21
2.5.5 Noise	22
2.5.6 Monitoring.....	22
2.6 Legislative requirements.....	22
2.6.1 Waste Treatment Industries BREF.....	22
2.6.2 Additional EA guidance.....	28
2.7 Management.....	29
2.7.1 Environmental Management System (EMS).....	30
2.7.1.1 General requirements	30
2.7.1.2 Personnel	30
2.7.1.3 Competence, training and awareness	31
2.7.1.4 Accident management.....	32
2.7.2 Operating and maintenance procedures.....	32
2.8 Site closure plan	32
2.8.1 General requirements	32
2.8.2 Specific details	33
2.8.2.1 Disposal routes	33
Appendices	34
A Plans and Drawings	35

B	Site Condition Report	36
C	Environmental Risk Assessment.....	37
D	Fire Prevention Plan	38
E	Odour Management Plan.....	39
F	Noise assessment and management plan.....	40
G	EMS Certificate	41

1 Introduction

1.1 Background

Cory Environmental Holdings Ltd (Cory) is proposing to develop an integrated waste management transfer station (the 'Facility') at the Port of Tilbury, to compact waste into containers prior to transfer for processing at Cory's Riverside Resource Recovery Facility (RRRF) and Riverside Energy Park (REP), once this is operational.

1.2 The Applicant

Cory Environmental Holdings Ltd (Cory) will develop and operate the Facility and is a registered company in England (company number: 05360864). Cory is one of the UK's leading resource management, recycling and energy recovery companies. Cory handles around 1 million tonnes of waste and recyclable materials each year and operates multiple waste transfer stations adjacent to the River Thames.

Cory currently operates a fleet of five tug vessels, more than 50 barges and over 1,500 containers, with additional barges also being constructed. Cory uses its fleet of carbon-efficient barges pulled by tug vessels to transport waste to the RRRF for processing. Transferring waste by barge reduces congestion on the roads of London, and the treatment of the waste in RRRF enables the waste to be turned into energy and useful construction materials (from IBA aggregate). The arrangement minimises the proportion of the London's waste which is sent to landfill whilst providing power to a significant number of homes.

1.3 The Site

The Site is located at Berth 36/38 at the Port of Tilbury, on the North bank of the River Thames, approximately 26 miles east from the centre of London. The main building of the Facility is located at an approximate grid reference of TQ 63095 76004.

Access to the Facility will be via an existing access road located to the northeast of the Facility and running adjacent to the eastern façade of the main building. The access roads link to the A1089 which runs approximately 500m to the northeast of the Facility.

Site Boundary and Site Location drawings for the Facility are presented within Appendix A.

1.4 The Activities

Three specified waste management activities, as defined in the Waste Framework Directive, will be undertaken at the Facility. Table 1 below lists the propose activities for the Facility:

Table 1: Proposed activities

Reference	Description
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where it is produced)
D14	Repackaging prior to submission to any of the operations numbered D1 to 13
R13	Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)

Reference	Description
D13	Blending or mixing prior to submission to any of the operations numbered D1 to D12

The main activities to be undertaken at the Facility are the bulking/compaction and storage of up to 450,000 tonnes of non-hazardous waste each year prior to transfer off-site. All permitted activities will take place within the Site Boundary, with all bulking and compaction activities undertaken within the main building.

1.5 The Facility

1.5.1 Key design parameters

The Facility will accept up to 450,000 tpa of non-hazardous waste for bulking and subsequent transfer off-site. It is anticipated that the average hourly throughput will be approximately 72 tonnes of waste per hour.

The main components of the Facility are set out as follows:

- weighbridges and gatehouse;
- welfare facilities, office and admin buildings;
- car parking;
- main processing building including waste compaction facilities;
- logistics corridor and storage yard; and
- quayside for loading and unloading operations.

Waste will be delivered to site, via road, in a mixture of refuse collection vehicles (RCVs) and articulated lorries. The vehicles will enter the site via a weighbridge which will record the mass of waste that is being delivered to site. Vehicles will enter and exit the main building through two roller shutter doors located to the north of the building. Once the vehicles have entered the main building, the vehicles will reverse into one of ten bays and deposit waste onto a designated conveyor belt system within the main building, before leaving the site. It is anticipated that between 25 – 30 vehicles will access the site each hour, with each vehicle able to hold an average of 10 tonnes of waste.

Once waste has been deposited, it will be transported along a step conveyor, and up an inclined conveyor into the compactors, where the waste will then be compacted. Space will be allowed for the installation of equipment for metals separation from the incoming waste, but this has not been included for at this stage. A bag splitter will be installed within the system to split any large bags of waste prior to compaction. There will be 10 ‘compactors’ which will each be capable of processing around 30 tonnes of waste each hour. The compactors will use a ram to force the waste into the containers. The Facility has been designed to provide sufficient capacity to allow for 450,000 tpa of waste throughput, allowing for downtime for maintenance activities.

Empty containers will be delivered to the quayside by the incoming barges. The empty containers will be unloaded from the barges using a gantry crane and stored on the quayside, awaiting transfer to the main building using the container transfer system. The empty containers will be stacked within the main building within a dedicated storage/stacking area using an overhead crane. There will be sufficient space for the storage of empty containers stacked within the main building, to ensure a continued supply of empty containers to be fed to the compactors. The containers will be

transferred from the container storage/stacking area to the waste processing lines using an overhead crane.

Each container will have the capacity to hold approximately 13 tonnes of waste and will be around 6m in height. It is anticipated that the Facility will process around 120 – 130 containers each day. Therefore, it is expected that up to 1,690 tonnes of waste will be processed each day. Taking into account the annual capacity of the Facility, it is expected that approximately 33,600 containers will be processed each year.

Once a container is full of compacted waste, it will be automatically disconnected from the compactor, and the full containers transferred from the compaction bays to the quayside using the container transfer system. At the quayside, the containers will be stacked on the quayside using the gantry crane prior to loading onto barges. The site layout can be seen within the Site Boundary drawing presented within Appendix A. An indicative process schematic of operations at the Facility is presented in Figure 1 below.

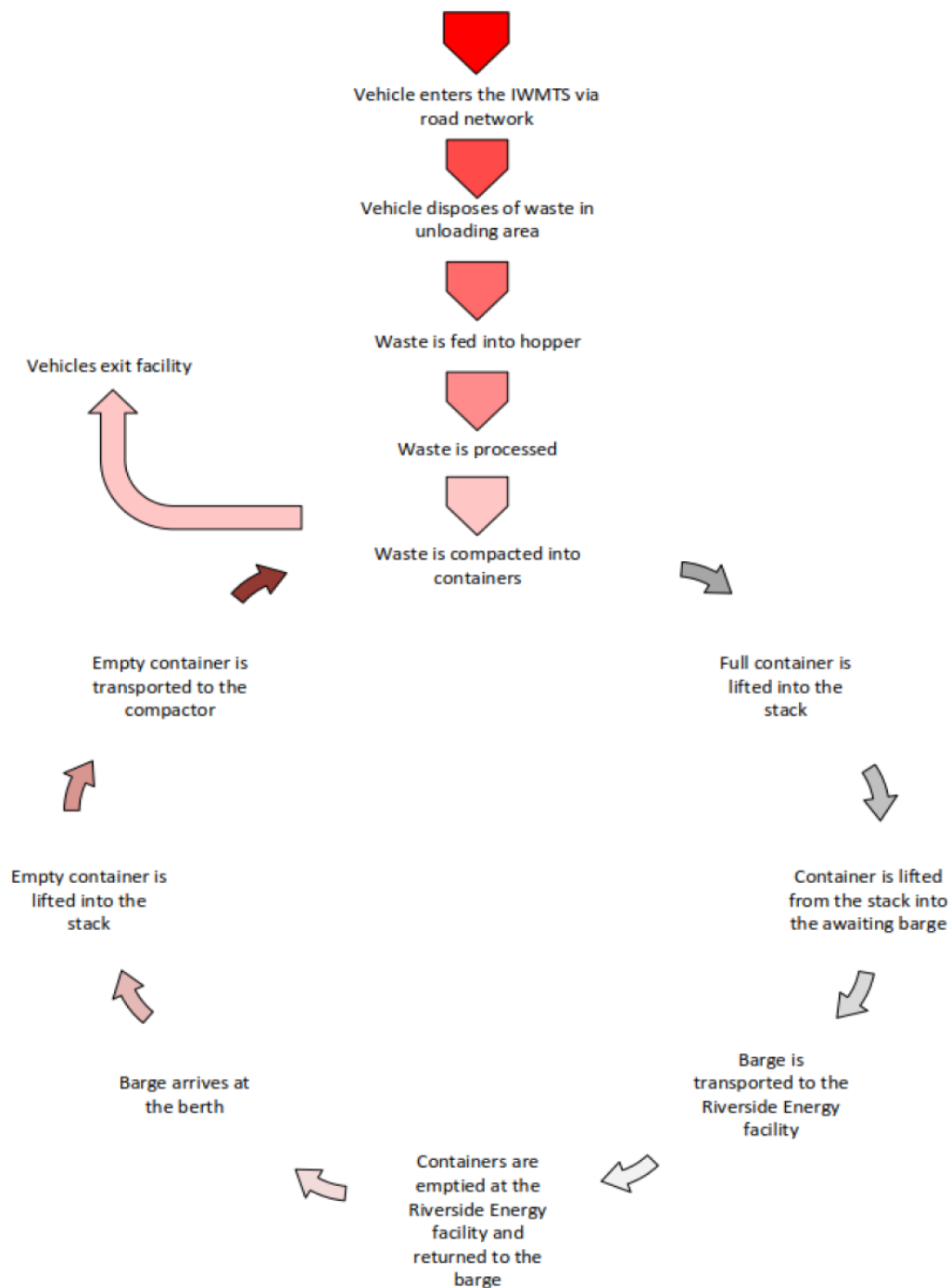


Figure 1: Indicative process schematic

1.5.2 Waste handling and storage

All waste processing activities will be undertaken within the main building. The main building will be equipped with roller shutter doors which will be kept shut unless a waste delivery is occurring.

As stated within section 1.5.1, waste will be deposited onto a step conveyor, which will lead up an inclined conveyor to the feed hopper for the compactors. There will be 10 compactors, which will use hydraulic metal rams to crush and compact the waste, reducing its volume. The compacted waste will then be automatically loaded into containers. Once a container is full of compacted waste, it will be automatically disconnected from the compactor, and the full containers transferred

from the compaction bays to the quay via an automated trolley system. The containers will then be lifted into the quayside stack using a retractable crane for storage prior to export off-site.

All waste treatment activities are proposed to take place inside the main building. The majority of waste delivered to the site will be deposited directly onto the conveyor belt system prior to processing. A small quantity of loose waste will be stored within the main building at the site, as a redundancy measure, and to ensure quick and efficient start-up of the facility each day. The main processing building will have contained drainage with falls to the process drainage system. Therefore, all potential leachate from waste stored and processed (e.g., the compaction system) within the main building will be contained.

Waste containers will be stored on hardstanding at the quayside. It is expected that the maximum waste storage capacity for waste stored within containers at the quayside will be approximately 1,950 tonnes, equivalent to around 150 containers. Containers will be labelled clearly with relevant dates, waste characteristics and a unique reference number to enable cross-referencing. The containers will be enclosed, sealed metal containers which minimises the potential for pollution or litter to migrate off-site (including emissions of odour). Furthermore, the nature of the containers provides a fire barrier between the waste that is stored, and the metal from which the containers are constructed will provide sufficient waterproofing against rain.

Sector guidance S5.06 states the following with regards bulk storage of waste: *“Bulk storage vessels should be located on an impervious surface that is resistant to material being stored, with sealed construction joints within a bunded area with a capacity at least 110% of the largest vessel or 25% of the total tankage volume, whichever is the greater”*. It can be confirmed that the containers will be stored on an impervious surface. The containers will be fully enclosed metal containers and will also be stored upon an area with contained drainage (i.e. bunding) with links to the process drainage system. Arrangements will be in place to seal the drainage system in a significant spill event or to contain used firewater. Further information is provided within the Fire Prevention Plan – refer to Appendix D. Furthermore, containers will not be used beyond their specified design life or used in a manner or for substances for which they are not designed. The containers will undergo regular inspections before re-use at the Facility.

The Facility will operate primarily on a “first-in, first-out” policy. Waste will be stored within the main building and by the quayside for a maximum retention time of 3 days, before being transferred off-site for processing at the RRRF/REP. However, waste is not typically expected to be stored within the building for longer than 1 day (this includes the small amounts of loose waste as described above). Furthermore, the anticipated storage time for containers in the yard is assumed to be around 2 days, with storage provisions allowing for stacking of containers up to 3 containers high. However, as stated above, the maximum retention time will be 3 days.

The nature of the waste received at the site will be predominantly municipal solid wastes with some smaller amounts of commercial and industrial wastes. It is acknowledged that some wastes, such as food wastes and other biodegradable wastes, have the potential to attract pests. However, these are expected to be present in only small quantities due to source segregation of the waste. As stated above, only small quantities of waste will be stored within the main process building, for periods typically less than 24 hours. Furthermore, the doors to the main building will be kept shut. Therefore, the potential to attract pests will be minimised. Waste stored outside will be in fully enclosed containers and as such is not expected to attract pests.

Procedures will be in place as part of documented management systems for the regular inspection and maintenance of storage areas. Furthermore, daily inspections of the condition of containers will be undertaken, with any damages or leaks immediately addressed. A high standard of housekeeping will be maintained in all areas and spill kits will be available in suitable locations.

2 Further supporting information

2.1 Raw materials

The main raw material to be used at the Facility is non-hazardous waste, which will be delivered to the Facility via road. The compactors will be powered by mains electricity. Maintenance materials such as oils and greases will be used in small amounts and stored in appropriately bunded areas. Water will be used for washdown purposes and welfare facilities.

Table 2: Types and amounts of raw materials

Material	Estimated storage capacity	Estimated annual throughput	Description
Non-hazardous waste	1,950 tonnes in containers at quayside	450,000 tonnes per annum	Non-hazardous municipal solid waste with small amounts of commercial and industrial waste
	<450 m ³ loose within main building ¹		
Mains water	N/A	14,400 m ³	Mains water will be used for welfare facilities and washdown activities
Maintenance oils and greases	N/A	<100 tonnes per annum	Various maintenance materials will be used for equipment and plant on-site
Diesel	5,000 litres	63,000 L	For use in plant and equipment including on-site vehicles
Hydraulic fluid	5,000 litres	5,000 L	For use in plant and equipment including the compactor system

Various materials will be used for the operation and maintenance of plant and equipment on-site. These will be supplied to standard specifications offered by main suppliers. All chemicals will be handled in accordance with COSHH Regulations as part of the quality assurance procedures and full product data sheets will be available on-site. Liquid chemicals will be stored within bunded areas, with the secondary containment having a volume of 110% of the stored capacity. Any spillages will be cleaned up in accordance with documented procedures on-site. Any gas bottles used on-site will be kept secure in dedicated area(s).

Periodic reviews of all materials used will be made in the light of new products and developments. Any significant change of material, where it may have an impact on the environment, will not be made without firstly assessing the impact and seeking approval from the EA. Cory will maintain a detailed inventory of raw materials used on-site and have procedures for the regular review of new developments in raw materials.

¹ Equivalent to approximately 146 tonnes, assuming a density of 325 kg/m³ for MSW

2.2 Residues

The operation of the Facility is not anticipated to give rise to significant quantities of residues. Any material which is rejected from the Facility ('unacceptable' waste – refer to section 2.3.2.3) will be transferred off-site for processing in line with the waste hierarchy.

2.3 Waste Management

2.3.1 Waste types

The Facility will accept predominantly municipal solids wastes (MSW) in addition to small amounts of commercial and industrial (C&I) waste. The proposed list of EWC codes which will be processed at the Facility is presented in Table 3.

Table 3: List of EWC codes

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 03	Plant tissue waste
02 01 04	Waste plastics (except packaging)
02 01 07	Waste from forestry
02 02	Wastes from the preparation and processing of meat, fish and other foods of animal origin
02 02 03	Materials unsuitable for consumption or processing
02 03	Wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea, and tobacco preparation and processing; converse production, yeast and yeast extract production, molasses preparation and fermentation
02 03 04	Materials unsuitable for consumption or processing
02 05	Wastes from the dairy products industry
02 05 01	Materials unsuitable for consumption or processing
02 06	Wastes from the baking and confectionery industry
02 06 01	Materials unsuitable for consumption or processing
02 07	Wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)
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, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04
03 03	Wastes from pulp, paper and cardboard production and processing

Code	Waste description
03 03 01	Waste bark and wood
03 01 08	Wastes from sorting of paper and cardboard destined for recycling
04	Wastes from the Leather, Fur and Textile Industries
04 02	Wastes from the textile industry
04 02 21	Wastes from unprocessed textile fibres
04 02 22	Wastes from processed textile fibres
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 05	Composite packaging
15 01 06	Mixed packaging
15 01 09	Textile packaging
15 02	Absorbents, filter materials, wiping cloths and protective clothing
15 02 03	Absorbents, filter materials, wiping cloths and 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 19	Plastic
16 02	Wastes from electrical and electronic equipment
16 02 16	Components removed from discarded equipment other than those mentioned in 16 02 15
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
17	Construction and Demolition Wastes (including excavated soil from contaminated sites)
17 02	Wood, glass and plastic
17 02 01	Wood
17 02 03	Plastic
18	Wastes from Human and Animal Health Care and/or Related Research (except kitchen and restaurant wastes not arising from immediate health care)
18 01	Wastes from natal care, diagnosis, treatment or prevention of disease in humans

Code	Waste description
18 01 04	Wastes whose collection and disposal is not subject to special requirements in order to prevent infection (for example dressings, plaster casts, linen, disposable clothing, diapers)
18 02	Wastes from research, diagnosis, treatment or prevention of disease involving animals
18 02 03	Wastes whose collection and disposal is not subject to special requirements in order to prevent infection
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 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 waste
19 05 03	Off-specification compost
19 06	Wastes from anaerobic treatment of waste
19 06 04	Digestate from anaerobic treatment of municipal waste
19 06 06	Digestate from anaerobic treatment of animal and vegetable waste
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 07	Wood other than that mentioned in 19 12 06
19 12 08	Textiles
19 12 10	Combustible waste (refuse derived fuel)
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 08	Biodegradable kitchen and canteen waste
20 01 10	Clothes
20 01 11	Textiles
20 01 25	Edible oil and fat
20 01 32	Medicines other than those mentioned in 20 01 31
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 38	Wood other than that mentioned in 20 01 37
20 01 39	Plastics
20 01 41	Wastes from chimney sweeping

Code	Waste description
20 01 99	Other fractions not otherwise specified
20 02	Garden and park wastes (including cemetery waste)
20 02 01	biodegradable waste
20 02 03	Other non-biodegradable wastes
20 03	Other municipal wastes
20 03 01	Mixed municipal waste
20 03 02	Waste from markets
20 03 03	Street-cleaning residues
20 03 07	Bulky waste

With regards wastes accepted under EWC code 20 01 99, this is expected to comprise typical municipal sanitary or 'offensive' wastes such as hygiene waste and sanitary protection like nappies and incontinence pads. This will only be accepted in small quantities representative of 'typical' municipal solid waste.

Checks will be made on paperwork accompanying each delivery in accordance with the documented waste pre-acceptance and acceptance procedures in place at the site – refer to section 2.3.2. Waste which arrives at the site which is not in accordance with the specifications listed above will be rejected and will not be accepted for processing at the site – refer to section 2.3.2.3.

2.3.2 Waste acceptance and pre-acceptance

Cory will implement documented and robust waste acceptance and pre-acceptance procedures to ensure that only suitable waste is accepted and processed at the Facility. The waste acceptance procedures will form part of the documented management systems for the Facility. The waste acceptance procedures will ensure appropriate actions are implemented to ensure that waste crossing the weighbridge meets the requirements of the EP.

Waste acceptance is broadly divided into two key stages:

- 'Stage 1' procedures undertaken prior to delivery of the waste to the site (waste pre-acceptance); and
- 'Stage 2' procedures undertaken upon delivery of waste to the site (waste acceptance).

Further details on the acceptance procedures are presented within sections 2.3.2.1 to 2.3.2.3 below. It can be confirmed that the procedures and waste tracking system will be designed in accordance with the requirements of sector guidance note S5.06.

2.3.2.1 Waste pre-acceptance

The waste pre-acceptance or 'screening' stage will involve the provision of information and representative samples of the waste, to allow Cory to initially determine the suitability of the waste before arrangements are made to accept the waste at the site.

For each new waste enquiry, a comprehensive characterisation of the waste will be undertaken. Verifications of written information provided by the waste producer will be undertaken, and a visit made to the waste producer if required. Representative samples of the waste will be undertaken to determine the composition, with any deviations from the initial characterisation of the waste fully investigated and justified. Samples will not be taken in the case that sampling and analysis has already been completed by a third party and Cory has sufficient written information from them.

In addition to the above, Cory will obtain information relating to the type of process producing the waste, the expected quantities of waste, the form the waste takes (solid/liquid etc), any obvious hazards and storage requirements. Following the overall characterisation of the waste, an assessment will be made of its suitability for processing at the Facility.

With each waste enquiry, a record will be raised and given a unique reference number. Should the enquiry result in waste arriving at the Facility, the reference number will 'follow' the waste during acceptance checks and subsequent waste processing. Once the waste has entered the bulking/compaction process, the tracking of individual waste loads will not be feasible. However, suitable records will be kept to ensure sufficient knowledge of generally what wastes have entered the container.

Waste transfer notes will accompany the waste deliveries to the site. The waste transfer note will typically contain information relating to the following aspects of the waste:

- waste composition;
- type and quantity of waste;
- containment method of the waste;
- contact details for waste carrier and identify of waste producer/collector;
- any handling requirements or particular hazardous; and
- applicable EWC codes.

Should the accompanying transfer note not provide comprehensive and detailed information relating to the waste, the waste delivery will be rejected, and the waste carrier contacted. It is important to ensure that a suitable (and correct) note is provided with the waste as this will accompany the waste once it is transferred off-site for processing at RRRF/REP.

Furthermore, should the transfer note identify the waste as being unacceptable for processing (i.e. not in accordance with the permitted wastes for the Facility), the waste delivery will be rejected.

Information taken during waste pre-acceptance checks will be recorded and retained at the site for cross referencing and verification at the second stage of waste acceptance. Records will be kept for a period of 3 years.

Regular audits will be undertaken of waste suppliers to ensure that only waste under the agreed specifications is delivered to the Facility. This will include more detailed checks of the waste types produced and will ensure a representative analysis of the waste produced.

2.3.2.2 Waste acceptance

The second waste acceptance stage relates to acceptance procedures when the waste arrives at the site, to confirm the nature and characteristics of the waste. The majority of waste characterisation work is undertaken during pre-acceptance checks (refer to section 2.3.2.1 above) and the second stage of acceptance checks serve to confirm the characteristics of the waste that have already been identified.

A pre-booking system will be in place at the Facility to ensure that waste arrives in scheduled slots. In addition to the pre-acceptance checks, this will minimise the time the delivery vehicle is kept waiting.

Upon arrival at the site, the date and time of the receipt of waste will be recorded and the waste type/unique identification number confirmed. The accompanying waste transfer note will be reviewed to confirm the waste quantities, producer, EWC codes etc.

The key issues to be addressed during waste acceptance checks at the site include the following:

- traffic control;
- weighing of the waste delivery at the weighbridge;
- inspection of transfer note and paperwork accompanying the waste delivery;
- verification and compliance testing to confirm identity of the waste, including periodic assessment of consistency with pre-acceptance information;
- keeping of records in relation to producer details, any analysis results and treatment methods if appropriate;
- procedures for unloading of waste to allow inspection and sampling if necessary; and
- procedures for visual inspection of waste as it is unloaded.

Once a waste delivery has been accepted, the vehicle will enter the main building and deposit waste onto a designated conveyor belt system before leaving the site. Waste deliveries will be supervised by suitably trained staff and will take place within areas covered by CCTV. Inspection, unloading and sampling areas will be marked on the site plan and have suitably contained drainage.

As the waste will be bulked into a container, the earliest date of arrival of the bulked wastes will be transposed from the original waste loads onto the bulked container. It is most likely that wastes bulked into the containers will have been received on the same day.

As stated within section 1.5.1, a small amount of loose waste will be stored on the floor of the main building as a contingency measure. The waste will be stored on an impervious surface with contained drainage.

Waste will not be accepted at the site and will be rejected if sufficient storage/processing capacity is not available (for example if the waste processing and compaction system is not operational).

2.3.2.3 Unacceptable wastes

Cory will have clear and unambiguous criteria set out for the rejection of wastes, alongside a written procedure for tracking and reporting non-compliance. This will include notification to the waste producer/customer, and in the unlikely event that the waste has already been accepted at the site for processing, notification to the EA.

'Unacceptable' wastes would typically comprise the following:

- liquids and Slurries;
- hazardous Waste;
- salts;
- chemical residues;
- explosives;
- un-shredded bulky waste;
- bricks;
- concrete and Demolition Waste;
- plasterboard;
- non-combustible solid pieces;
- radioactive wastes;
- bulky combustible pieces, inert material and electrical waste;
- fine dusty materials; and
- batteries.

The wastes listed above are not in accordance with the list of permitted wastes for the Facility. Furthermore, they are listed as 'unacceptable' wastes in accordance with the waste specification for RRRF and as such would be inappropriate for bulking into containers at the Facility.

Waste identified as unacceptable when reviewing the accompanying paperwork during acceptance checks will be immediately rejected from the site. In the unlikely event that unacceptable waste is accepted at the site, further measures will be in place for the segregation and subsequent transfer off-site of the waste, described below.

A clear policy will be in place for the subsequent storage and disposal of unacceptable wastes. The policy will include identification of any hazards posed by rejected wastes and labelling of rejected wastes with information necessary to allow proper storage and segregation. Records will be kept of unacceptable wastes to enable Cory to contact the supplier to prevent reoccurrence.

A dedicated quarantine area will be reserved for the storage of 'unacceptable' waste that has been identified once it has already been unloaded at the site, prior to transfer off-site. Waste will not be stored within the quarantine area for a period of longer than 5 days. The quarantine area will be situated on impermeable hardstanding and will have contained drainage.

In the unlikely event that non-compliant waste is unloaded onto the conveyor (this could include bulky waste), the system will be halted, and the non-compliant waste removed and stored in the quarantine area prior to transfer off-site.

2.4 Site Drainage

Uncontaminated surface water runoff from building roofs and external areas of hardstanding will be discharged, via a surface water drainage system, to the dock and subsequently the River Thames.

Any process effluents, such as washdown from within the main building, will be discharged to sewer in accordance with a Trade Effluent Consent to be obtained from the Sewerage Undertaker.

Foul effluents from welfare facilities will also be discharged to sewer via a separate connection.

An indicative water flow diagram is presented within Figure 2 below.

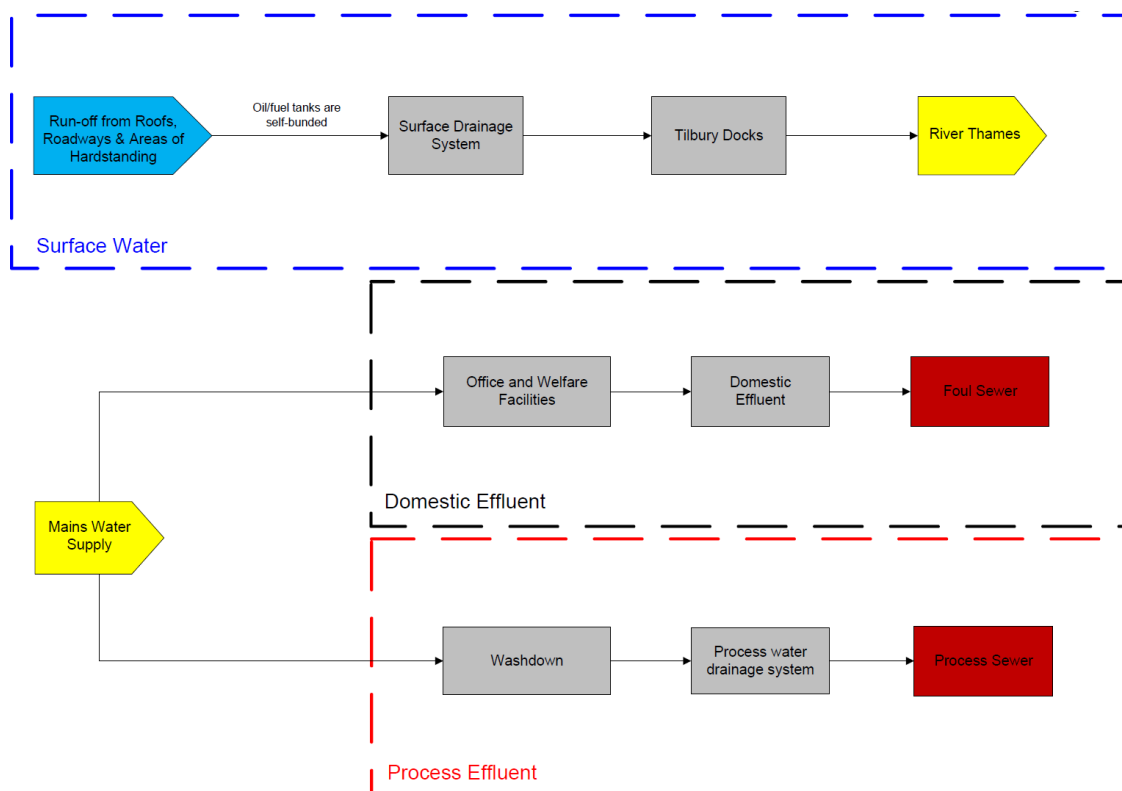


Figure 2: Indicative water flow diagram

2.5 Emissions

The point source emissions from the Facility are presented in Table 4 below.

Table 4: Proposed emission points

Emission point reference	Source
W1	Surface water drainage
S1	Process effluents

An emission points drawing is presented within Appendix A. The final locations of emissions points will be subject to the detailed design and construction of the Facility – if required, the emission points drawing will be updated to reflect any changes made to the drainage arrangements during detailed design.

2.5.1 Emissions to air

There will be no point source emissions to air from the Facility.

Fugitive emissions of dust and litter have the potential to occur during waste unloading, processing and storage operations, however these will be minimised wherever possible. Further information on measures in place at the Facility to minimise dust and litter emissions is presented within the Environmental Risk Assessment – refer to Appendix C.

2.5.2 Emissions to water/sewer

As described within section 2.4, uncontaminated surface water runoff from building roofs and external areas of hardstanding will be discharged, via a surface water drainage system, to the dock and subsequently the River Thames.

Any process effluents, such as washdown from within the main building, will be discharged via a process drainage system to sewer in accordance with a Trade Effluent Consent to be obtained from the Sewerage Undertaker.

Foul effluents from welfare facilities will also be discharged to sewer via a separate connection.

2.5.3 Contaminated water

Waste unloading and processing will take place within the main building, which will have contained drainage. The container storage area at the quayside will be bunded with contained drainage. Any chemicals or oils/lubricants used for maintenance activities will be stored in bunded areas, with liquid chemicals having secondary containment capacity to contain whichever is the greater of 110% of the tank capacity or 25% of the total volume of materials being stored, in case of failure of the storage systems. The diesel and hydraulic fluids will be stored in self-bunded tanks.

In the unlikely event of a spillage or leak that has the potential to cause environmental harm, site management will be informed and the event recorded in accordance with the documented management systems for the site. The relevant regulatory authorities (Environment Agency / Health and Safety Executive) will be informed if required (i.e. if the spillage or leak is significant) in accordance with management procedures. The effectiveness of the emergency response procedures will be subject to management review and will be revised and updated as appropriate following any major spillages.

Spill kits will be located at easily accessible locations. A site drainage plan, including the location of process and surface water drainage, will be made available on-site following completion of detailed design.

2.5.4 Odour

The storage and handling of waste is considered to have potential to give rise to odour. The Facility will be designed in accordance with the requirements of EA Guidance Note H4: Odour. The Facility will include a number of controls to minimise odour during normal operation and periods of shutdown.

Waste will only be unloaded and processed once within the main building. Roller shutter doors to the main building will be kept shut when waste deliveries are not occurring. Furthermore, waste will not be stored at the site for longer than 3 days.

During normal operation of the Facility, regular inspections may be undertaken to monitor for odour and may include the following:

- olfactory checks for odour in the main building and external waste storage areas; and
- monitoring the positions of louvres (e.g. keeping the doors to the main building shut when no waste deliveries are occurring).

An Odour Management Plan has been undertaken for the Facility and is presented within Appendix E.

2.5.5 Noise

The design of the Facility will take into consideration any noise requirements and will minimise the noise impacts associated with the Facility. Due to the industrialised location of the site, it is not expected that the operation of the Facility will introduce any significant noise impacts compared to operations currently undertaken at the port.

'Noisier' plant items such as the compactors will be installed within the main building. The doors to the main building will be kept closed when deliveries are not occurring. Vehicle arrivals are expected to peak between 0900 and 1500 each day and weekends will have reduced operations for approximately 6 hours on Saturdays and Sundays. Regular maintenance of plant items will be undertaken in accordance with preventative maintenance procedures.

Should any mobile plant be required to be used on site, this will be operated and maintained in accordance with the manufacturer's instructions, whilst complying with the latest standards including those on noise emissions.

Noise level checks will be carried out regularly in operational areas where high noise levels may be present, with early warning of increasing noise levels resulting in a noise reduction or mitigation program.

A noise assessment and management plan has been undertaken for the Facility – this is presented within Appendix F.

2.5.6 Monitoring

Process effluent which is discharged to sewer will be monitored, if necessary, in accordance with the relevant requirements of the Trade Effluent Consent.

2.6 Legislative requirements

Appropriate measures will be taken to ensure that the waste hierarchy (in accordance with Article 4 of the Waste Framework Directive) is applied to the generation of waste as a result of activities undertaken at the Facility. As the waste which is accepted at the Facility will have undergone prior separation to extract recyclates, the transfer of the waste for recovery at the RRRF/REP will ensure that it avoids disposal.

As the waste will undergo mechanical compaction at the Facility, some of the legislative requirements of the Waste Treatment Industries (WTI) BREF will apply to the Facility. A review of the relevant BAT conclusions listed within the WTI BREF has been undertaken and is presented within section 2.6.1 below.

The requirements of sector guidance note S5.06 have been taken into consideration for the design and operation of the Facility, with sections 1.5 and 2 (and the environmental assessments presented within the Appendices to this report) providing further detail on measures in place at the site to reduce pollution. Additional EA guidance which may also be relevant to the Facility has been considered within section 2.6.2 below.

2.6.1 Waste Treatment Industries BREF

A review has been undertaken of the WTI BREF BAT conclusions that are relevant to the activities and operations undertaken at the Facility. This is presented within Table 5 below.

Table 5: Waste Treatment Industries BREF BAT conclusions

#	BAT conclusion	How the Facility will comply
1	BAT is to implement and adhere to an Environmental Management System which incorporates the features listed within the BREF.	An EMS certified to the ISO 14001 standard will be in place at the Facility. Further detail on the proposed EMS is presented within section 2.7. Therefore, it is understood that the Facility will meet the requirements of BAT 1.
2	BAT is to implement all of the techniques listed within the BREF to improve the overall environmental performance of the plant.	<p>It can be confirmed that the following techniques will be implemented at the Facility in accordance with the BREF:</p> <ul style="list-style-type: none"> • waste characterisation and pre-acceptance procedures (refer to section 2.3.2.1); • waste acceptance procedures (refer to section 2.3.2.2); and • waste tracking system (refer to section 2.3.2). <p>An output quality management system will not be required at the Facility as no further treatment of the waste will be undertaken apart from compaction/bulking. Furthermore, waste segregation will not be required due to the inert and non-hazardous nature of the waste that will be accepted at the site. Waste will not be intentionally mixed or blended – the waste will be compacted/bulked together and due to its non-hazardous and relatively inert nature it is not expected that any compatibility issues will arise.</p> <p>Waste arriving to the site will be pre-processed to have recyclates extracted (at a materials recycling facility or similar) and will not undergo any further sorting at the site. Any waste identified as obviously non-compliant upon visual inspection when loading onto the conveyor will be extracted and stored in a quarantine area prior to removal from the site.</p> <p>Taking the above into consideration, it is considered that the Facility will meet the relevant requirements of BAT 2.</p>
3	BAT is to establish and maintain an inventory of wastewater and waste gas streams as part of the EMS.	There will not be any waste gases arising as a result of operations undertaken at the Facility. As part of the EMS, the main sources and general characteristics of

#	BAT conclusion	How the Facility will comply
		wastewater streams will be identified. Therefore, it is understood that the Facility will comply with the requirements of BAT 3.
4	BAT is to use all of the techniques listed within the BREF to reduce environmental risk associated with the storage of waste.	<p>The BREF lists the following techniques to reduce risks from waste storage:</p> <ul style="list-style-type: none"> a) Optimised storage location – As the existing layout of the buildings and berth at the site will be utilised, optimisation of waste storage locations is limited. However, any loose waste will be stored within the main building, and containerised waste will be stored on areas of hardstanding with minimal potential for fugitive emissions. b) Adequate storage capacity – The Facility has been designed to incorporate adequate storage capacities when taking into account the quantity of wastes to be processed and the short retention times of waste at the site. The maximum waste storage capacity of the site will be clearly established and not exceeded. Residence times of waste will be clearly established and waste stored will be regularly monitored against maximum storage capacities and residence times. c) Safe storage operation – Equipment used for loading, unloading and storing waste will be clearly documented and labelled, and waste containers will be inspected to ensure they are fit for purpose. It is not expected that any waste sensitive to heat / light / water will be received at the site. <p>It is understood that technique (d) does not apply as the Facility will not receive hazardous waste.</p> <p>Taking the above into consideration, it is considered that the Facility will comply with the requirements of BAT 4.</p>

#	BAT conclusion	How the Facility will comply
5	BAT is to set up and implement handling and transfer procedures.	Handling and transfer procedures will be in place as part of the documented management systems at the site. Handling and transfer of waste will be carried out by competent staff, who will ensure that procedures are duly documented and validated prior to execution and verified after execution. A number of measures will be taken to prevent, detect and mitigate spills – refer to the Environmental Risk Assessment presented within Appendix C. Handling and transfer procedures will be risk-based, considering the likelihood of accidents and incidents and their environmental impact. Taking the above into consideration, it is understood that the Facility will comply with the requirements of BAT 5.
6, 7, 8	BAT 6, 7 and 8 relate to the monitoring of emissions from the site.	It is currently understood that monitoring of emissions from the site will not be required, and therefore the requirements of BAT 6, 7 and 8 do not apply to the Facility. However, Cory will comply with any monitoring conditions set in the EP should the EA choose to implement these.
10	BAT 10 is to periodically monitor odour emissions.	It can be confirmed that regular olfactory monitoring will be undertaken at the site in accordance with the EMS. Further information on odour monitoring is presented in the Odour Management Plan – refer to Appendix E.
11	BAT is to monitor the annual consumption of water, energy and raw materials as well as the annual generation of residues and waste water, with a frequency of at least once per year.	In accordance with the requirements of the EP, Cory will monitor annual consumption of water, energy and raw materials in addition to the generation of any residues. Therefore, the operation of the Facility will comply with the requirements of BAT 11.
12	BAT is to implement and regularly review an odour management plan as part of the EMS.	An Odour Management Plan for the Facility in accordance with the requirements of BAT 12 is presented within Appendix E.
13	BAT is to use one or a combination of techniques listed within the BREF to reduce odour emissions.	It can be confirmed that residence times will be minimised at the Facility – it is not expected that waste will be stored at the site for longer than 72 hours. Therefore, it

#	BAT conclusion	How the Facility will comply
		is understood that the Facility will comply with the requirements of BAT 13.
14	BAT is to use an appropriate combination of the techniques given in the BREF to reduce diffuse emissions to air.	<p>It can be confirmed that the Facility will implement the following techniques to reduce diffuse emissions:</p> <ul style="list-style-type: none"> • limiting traffic speed; • selection and use of high integrity equipment (e.g. the compactor); • appropriate selection of construction materials to prevent corrosion; • storing and handling loose waste within an enclosed building; • regular preventative maintenance; and • washdown of waste processing areas. <p>Taking the above into consideration, it is understood that the Facility will comply with the requirements of BAT 14.</p>
17	BAT is to implement and regularly review a noise and vibration management plan as part of the EMS.	A noise management plan for the Facility has been produced – refer to Appendix F.
18	BAT is to use one or a combination of the techniques given in the BREF to reduce noise and vibration emissions.	<p>The Facility will implement the following techniques to reduce noise and vibration:</p> <ul style="list-style-type: none"> • Appropriate location of equipment – The waste compaction system will be located within an enclosed building with roller-shutter doors. • Plant and equipment will be regularly inspected and maintained. • Equipment will be operated by experienced staff. <p>Further detail is provided in the Noise Management Plan – refer to Appendix F. Taking the above into consideration, it is understood that the Facility will comply with the requirements of BAT 18.</p>
19	BAT is to use an appropriate combination of the techniques given in the BREF to optimise water consumption, reduce wastewater generation and to prevent/reduce emissions to soil and water.	<p>The Facility will implement the following techniques in accordance with the requirements of BAT 19:</p> <ul style="list-style-type: none"> • monitoring of water consumption to highlight abnormal usage and regularly review techniques to reduce overall water consumption; • use of trigger controls on washdown hoses;

#	BAT conclusion	How the Facility will comply
		<ul style="list-style-type: none"> • use of impermeable surfaces for waste storage and handling areas; • use of suitable secondary containment for any liquid materials such as oils/greases; • roofing of loose waste storage and treatment areas; • segregation of clean surface water from process or foul effluents; • provision of adequate drainage infrastructure; • design and maintenance provisions as part of documented management systems to allow for detection and repair of leaks; and • provision of appropriate (buffer) storage capacity for wastewater. <p>Taking the above into consideration, it is understood that the Facility will comply with the requirements of BAT 19.</p>
20	BAT is to treat wastewater using an appropriate combination of the techniques given in the BREF to reduce emissions to water.	Excess process effluents will be discharged to sewer. There will be no discharges of wastewater to any surface waters. Therefore, it is understood that the requirements of BAT 20 do not apply to the Facility.
21	BAT is to use all the techniques given in the BREF as part of the accident management plan.	<p>It can be confirmed that accident management as part of the EMS will include for the following techniques in accordance with the BREF:</p> <ul style="list-style-type: none"> • Protection measures (e.g. against vandalism, fire) and accessibility of relevant control equipment in emergency situations. • Management of incidental/accidental emissions (e.g. containment measures for maintenance materials such as oils/lubricants, procedures for spillages, etc). • Incident/accident registration and assessment system. <p>Taking the above into consideration, it is understood that the Facility will comply with the requirements of BAT 21.</p>

#	BAT conclusion	How the Facility will comply
23	BAT is to use both of the techniques given in the BREF to use energy efficiently.	As part of the documented management procedures in place at the site, Cory will implement an energy efficiency plan or similar which will determine the specific energy consumption of the activities and set key performance indicators on an annual basis. The aim of the plan will be to improve the energy efficiency of the site. Furthermore, Cory will maintain an energy balance record or similar which will provide a breakdown of energy consumption (e.g. consumption from the grid). The site energy usage will be reported to the EA on an annual basis in accordance with the requirements of the EP.
24	BAT is to maximise the reuse of packaging as part of a residues management plan.	As stated within section 2.2, it is not anticipated that significant quantities of residues will be generated at the site. However, the waste containers which the waste is compacted into will be re-used – they will be emptied at the RRRF/REP and cleaned if required, before being returned to the Facility for re-use. Therefore, this is understood to be in accordance with the requirements of BAT 24.

Taking the above into consideration, it can be confirmed that the Facility will comply with the relevant requirements of the WTI BREF.

2.6.2 Additional EA guidance

In addition to the requirements of sector guidance note S5.06, the following guidance was published as a consultation draft in September – November 2020:

- *“Appropriate Measures for Permitted Facilities that take Non-Hazardous and Inert Waste”* (Consultation Draft, 2020).

Once the final guidance has been published, it will apply to the operation of the Facility. Therefore, any ‘new’ requirements of the consultation draft in addition to the requirements of S5.06 and the BREF, have been reviewed in the context of the Facility.

The guidance states that *“you should consider the potential impacts of climate change when selecting a site”*. A climate change risk assessment has been undertaken in accordance with EA guidance and is presented with the supporting Application Forms to the application.

A new requirement introduced by the guidance is for the location of access doors on buildings to be opposite to sensitive receptors where possible. As can be seen from the site layout drawings (refer to Appendix A), the main access doors to the waste processing building are located on the southern side of the building, whereas the nearest sensitive receptors are located to the north and east of the Facility. This further reduces the risk for fugitive emissions from the main building to impact nearby sensitive receptors.

The guidance describes how a contingency plan or similar must be implemented to allow for periods of shutdown and maintenance. It can be confirmed that documented procedures as part of the site management systems will allow for contingency measures during periods of shutdown, including the following;

- continued compliance with permit limits;
- procedures to stop accepting waste until the site has restarted or has the capacity to process the waste;
- knowledge of planned shutdowns at waste management facilities to which the Facility will transfer waste; and
- consideration of whether facilities that waste will be redirected to in periods of shutdown can take waste at short notice/are authorised to do so.

Contingency measures will also be in place for waste treatment (i.e. the compaction and bulking) equipment. Spare parts will be kept on site as appropriate, regular preventative maintenance will be undertaken, etc.

Other than the requirements described above, the majority of the guidance includes for the same measures as described in S5.06. It can be confirmed that the operation of the Facility will be undertaken in accordance with the requirements of both EA guidance notes.

2.7 Management

Cory will demonstrate environmental and social responsibility by operating the Facility to high environmental, health and safety and professional standards. The Facility will be designed and constructed following the latest regulations, standards and guidance. This will incorporate risk management techniques and studies prior to construction and thorough commissioning/testing of the Facility before it is fully operational.

The operation of waste facilities in accordance with a written and effective system of management is a key technique for ensuring that all appropriate pollution prevention and control techniques are delivered reliably and on an integrated basis. Cory currently operates a number of its sites in accordance with the ISO 14001 standard for environmental management systems (EMS) as part of its ongoing commitment to sustainable and responsible development and to regulatory compliance. Measures are undertaken to ensure that this is communicated, understood and effectively maintained throughout the organisation.

It is proposed to extend the scope of Cory's current EMS certification to include for the operation of the Facility. A site-specific EMS will be developed to form part of the Facility's integrated management system that establishes an organisational structure, responsibilities, practices, procedures and resources for achieving, reviewing and maintaining the company's commitment to environmental protection.

Cory regards the ISO 14001 certification to be of considerable importance and relevance to a waste facility. It is an assurance to the local authority, regulator, neighbours, and others alike that the Facility operation is undertaken in strict compliance with the regulations in force and with the management seeking continual improvements. It requires the company to work in a transparent way, to maintain and improve the confidence of regulators and neighbours, and to have a proactive approach to environmental improvement.

Further detail on the management systems for the Facility are presented within the sections below.

2.7.1 Environmental Management System (EMS)

The EMS will be accredited to the ISO 14001 standard, which will serve as a demonstration to regulators that the Facility is operated to a high standard. A certificate of registration confirming accreditation to ISO 14001 for Cory's current operations is presented within Appendix G. It can be confirmed that the scope of the EMS will be extended to allow for the operation of the Facility.

The EMS will enable Cory to maintain compliance with regulatory requirements and manage all significant environmental impacts that may arise from the operation of the Facility. As the Facility will be a 'specified waste management operation', the Operator of the Facility will meet the required technical competencies in accordance with the requirements of EPR5.06.

2.7.1.1 General requirements

The scope of the EMS will include, but not be limited to, the following:

- an environmental policy;
- identification of potential environmental impacts;
- documented procedures to control operations that may have an adverse impact on the environment;
- ensuring adequate responsibility, authority and resources to management necessary to support the EMS;
- defined procedures for identifying, reviewing and prioritising items of plant and equipment for which preventative maintenance regimes are appropriate;
- establishing preventative maintenance programmes (and associated auditing) to cover all plant and equipment whose failure could lead to environmental impacts (including infrastructure such as pipework, drainage, bunds etc);
- documented procedures for monitoring relevant emissions or environmental impacts;
- establishing performance indicators to measure the effectiveness of the procedures;
- monitoring, measuring and analysing the procedures for effectiveness; and
- implementing actions as required based on the results of auditing to ensure continual improvements of the processes.

Where applicable, documented procedures will detail specifically how each activity will be controlled. These will be contained in an Environmental Procedures Manual and identified related documents.

Cory will adapt and extend the scope of their current environmental policy to apply to the Facility. The environmental policy acts as a commitment to continual improvement of Cory's operations including a commitment to comply with relevant legislation.

2.7.1.2 Personnel

Cory will ensure that sufficient numbers of staff, in various grades, are provided to manage, operate and maintain the plant on a continuous basis. Staff roles may include, but not be limited to, managers, technical operatives and engineers, security officers, administrators, weighbridge operatives, shift leaders, etc.

A 'general manager' or similar will have overall responsibility for management of the site and compliance with the operating permit.

An 'operations manager' or similar will have day-to-day responsibility for the operation of the plant, to ensure that the plant is operated in accordance with the permit and that the environmental impact of the plant's operations is minimised.

A 'maintenance manager' or similar will be responsible for the management of maintenance activities, for maintenance planning and for ensuring that the plant continues to operate in accordance with its design.

2.7.1.3 Competence, training and awareness

Cory aims to ensure that any persons performing tasks for it, or on its behalf, which have the potential to cause significant environmental impact, are competent on the basis of appropriate education and training or experience.

Systems to assess competence and provide training for relevant staff will be provided. These may cover, but not be limited to, the following:

- Awareness and importance of regulatory implications of the EP for the activities and operations undertaken at the site;
- awareness of potential environmental effects from operation under normal and abnormal circumstances (e.g., periods of shutdown);
- awareness of the need to report any significant deviations from the EP;
- prevention of accidental emissions and action to be taken when accidental emissions occur; and
- roles and responsibilities in achieving conformity with the requirements of the EMS.

Skills, competencies and training requirements for staff will be documented and recorded as part of the internal management systems at the site. Where industry standards or codes of practice for training exist (such as WAMITAB), these will be complied with. Cory will identify the minimum competencies required for each role. These will then be applied to the recruitment process to ensure that key roles and responsibilities are satisfied. Particular attention will be paid to potential candidate's experience, qualifications, knowledge and skills.

Staff induction programmes will be location/job role specific but will include, as a minimum, the induction of:

- the Environmental Policy;
- the requirements of the Environmental Permit;
- the Health and Safety Policy and Procedures; and
- the EMS Awareness Training.

Cory will be required to train staff during the construction/commissioning of the Facility prior to commencement of full operations. Line Managers will be required to identify and monitor staff training needs as part of the appraisal system. The training needs of employees will be addressed using on-the-job training, mentoring, internal training and external training courses/events. As stated above, records of training will be documented and recorded, with industry standards or codes of practice for training complied with where relevant.

For any contractors working on-site, potential environmental risks will be identified where relevant and instructions provided to the contractors.

2.7.1.4 Accident management

The scope of the EMS will include for an 'accident management plan' or similar in accordance with the requirements of S5.06, which will identify the likelihood and consequences of any accidents and identify actions or measures to prevent accidents and mitigate any consequences. Written procedures will be in place for handling, investigating, communicating and reporting actual or potential non-compliance (e.g. complaints) with operating procedures/emission limits. Any incidents will be investigated thoroughly and documented, with the regulatory authorities informed if the incident is significant. Near misses will be reported and suitable corrective action/mitigation measures implemented and followed up.

2.7.2 Operating and maintenance procedures

In addition to the EMS described above, an operating and maintenance (O&M) manual or similar will be developed for the Facility. The O&M procedures will include, but not be limited to the following aspects:

- comprehensive description of the Facility including operating hours and design details;
- as-built drawings of the Facility;
- maintenance and service plans;
- staffing and staff responsibilities;
- waste acceptance and pre acceptance procedures;
- waste storage and handling procedures;
- copies of any guaranties/warranties/certificates; and
- health and safety procedures.

2.8 Site closure plan

The design life of the Facility will be subject to future technical and commercial considerations, however the expected lifetime will be between 30 – 50 years. When the Facility has reached the end of its operational life, it may be adapted for an alternative use or demolished as part of a redevelopment scheme and cleared and left in a fit-for-use condition. The responsibility for this may well rest with other parties if the Facility is sold. However, Cory recognises the need to ensure that the design, the operation and the maintenance procedures facilitate decommissioning in a safe manner without risk of pollution, contamination or excessive disturbance to noise, dust, odour, groundwater and surface watercourses.

Therefore, the Facility will be designed with consideration for eventual site decommissioning and demolition. The operation of the Facility will be undertaken in a manner as not to lead to deterioration of the site.

A Site Closure Plan will be prepared towards the end of the operational life of the Facility. The following sections provide a summary of the main measures to be considered within the closure plan to ensure the objective of safe and clean decommissioning.

2.8.1 General requirements

The general requirements associated with the implementation of the Site Closure Plan will include, but not be limited to, the following:

- underground pipework to be avoided except for supply and discharge utilities such as towns water, sewerage lines and gas supply;
- safe removal of all chemicals and any hazardous materials;
- adequate provision for drainage, vessel cleaning and dismantling of pipework;
- disassembly and containment procedures for insulation, materials handling equipment and other equipment without significant leakage, spillage, release of dust or other hazardous substances;
- where practicable, the use of construction material which can be recovered (such as metals);
- methodology for the removal/decommissioning of components and structures to minimise the exposure of noise, disturbance, dust and odours and for the protection of surface and groundwater; and
- groundwater sampling and testing of sensitive areas if deemed appropriate to ensure the minimum disturbance.

2.8.2 Specific details

The specific details associated with implementation of the Site Closure Plan will include, but not be limited to, the following:

- a list of recyclable materials/components and current potential outlet sources;
- a list of materials/components not suitable for recycling and potential outlet sources;
- a list of materials to go to landfill with current recognised analysis, where appropriate;
- a list of all chemicals and hazardous materials, location and current containment methods; and
- A Bill of Materials detailing total known quantities of items throughout the site such as:
 - steelwork;
 - plastics;
 - cables;
 - concrete and civils materials;
 - oils;
 - any chemicals/consumables;
 - contained water and effluents; and
 - any residues/wastes.

2.8.2.1 Disposal routes

Each of the items listed within the Bill of Materials will have a recognised or special route for disposal identified; e.g. Landfill by a licensed contractor, disposal by high sided, fully sheeted road vehicle or for sale to a scrap metal dealer, disposal by skip/fully enclosed container, dealer to collect and disposal by container.

Appendices

A Plans and Drawings

B Site Condition Report

C Environmental Risk Assessment

D Fire Prevention Plan

E Odour Management Plan

F Noise assessment and management plan

G EMS Certificate

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