Riverside Energy Park

Environmental Statement Technical Appendices

APPENDIX:

K.4

PLANNING INSPECTORATE REFERENCE NUMBER:

EN010093

DOCUMENT REFERENCE:

OPERATIONAL WASTE STATEMENT

November 2018 | Revision 0 | APFP Regulation 5(2)(a)

Planning Act 2008 | Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

CORY
RIVERSIDE ENERGY

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1 Introduction

1.1 Introduction

1.1.1 This Operational Waste Statement has been prepared on behalf of Cory Environmental Holdings Limited (trading as Cory Riverside Energy) ("Cory" or "the Applicant") by Peter Brett Associates (PBA).

1.1.2 The Applicant is applying to the Secretary of State under the Planning Act 2008 (PA 2008) for powers to construct, commission and operate (including maintenance) an integrated Energy Park, to be known as Riverside Energy Park (REP). REP would comprise complementary energy generating development, with an electrical output of up to 96 megawatts (MWe), and will require an electrical connection (the Electrical Connection) to transmit the electricity generated to the transmission network. As REP will be in excess of 50 MWe capacity, it is classified as a Nationally Significant Infrastructure Project (NSIP) under the sections 14 and 15 of the PA 2008 and therefore requires a Development Consent Order (DCO) to authorise its construction and operation.

1.1.3 REP would be located adjacent to an existing Energy Recovery Facility (ERF) operated by the Applicant (referred to as Riverside Resource Recovery Facility (RRRF)) situated at Norman Road in Belvedere within the London Borough of Bexley (LBB). The underground Electrical Connection would run from the REP site and terminate at the Littlebrook substation in Dartford.

1.1.4 A full description of REP and the Electrical Connection (which together are referred to as the Proposed Development) can be found in **Chapter 3** of the Environmental Statement (ES) (**Document Reference 6.1**), and in **Schedule 1** to the draft Development Consent Order (**Document Reference 3.1**).

1.1.5 The purpose of this Statement is to outline the expected waste and outputs arising from REP and identify the proposed management routes for these arisings.

1.1.6 This Statement deals with operational waste only. Waste resulting from the construction of REP is considered separately in the Outline Code of Construction Practice (CoCP) (**Document Reference 7.4**).

1.1.7 This statement is also designed to comply with paragraphs 2.5.77 and 2.5.78 of National Policy Statement EN-3.

1.1.8 REP will manage large quantities of waste for recovery and recycling. However, the facility itself will generate very little waste. The majority of waste and outputs from the processes will be recycled and recovered through existing tried and tested procedures. The anticipated outputs and their expected management routes are outlined in **Sections 2 – 4** of this Statement.

1.2 REP

1.2.1 REP would be constructed on land immediately adjacent to the Applicant's existing RRRF, within LBB and would complement the operation of the existing facility. It would comprise an integrated range of technologies including: waste energy recovery, anaerobic digestion for food and green waste, solar panels and battery storage. The main elements of REP are as follows:

- **Energy Recovery Facility (ERF)**: to provide thermal treatment of Commercial and Industrial (C&I) residual (non-recyclable) waste with the potential for treatment of (non-recyclable) municipal solid waste (MSW);
- **Anaerobic Digestion facility**: to process food and green waste. Outputs from the Anaerobic Digestion facility would be transferred off-site for use in the agricultural sector as fertiliser or as an alternative, where necessary, used as a fuel in the ERF to generate electricity;
- **Solar Photovoltaic Installation**: to generate electricity. Installed across a wide extent of the roof of the Main REP building;
- **Battery Storage**: to store and supply additional power to the local distribution network at times of peak electrical demand. This facility would be integrated into the Main REP building; and
- **Combined Heat and Power Connection (CHP)**: to provide an opportunity for local district heating for nearby residential developments and businesses. REP would be CHP Enabled with necessary on-site infrastructure included within the REP site.

1.3 Structure of the Statement

1.3.1 The Statement is set out in the following format:

- **Section 2**: Operational Waste Arisings
- **Section 3**: Anaerobic Digestion – Operational Output
- **Section 4**: Energy Recovery Facility – Operational Outputs
- **Appendix A:** Example RRRF Procedures

2 Operational Waste Arisings

2.1 Office/ Staff Waste

2.1.1 With the employment of c.85 members of staff at REP, there will be relatively low volumes of waste generated[1]. This will take the form of general office waste including, paper, card, cans, bottles and food waste. Where practicable, waste will be collected separately for recycling at an appropriate off site facility. Residual waste (waste which cannot be recycled) generated by the offices will be fed into the ERF process at REP.

2.1.2 Any food waste generated on site will be collected in designated food waste containers and will be added to the inputs of the Anaerobic Digestion element of REP.

2.2 Maintenance Waste

2.2.1 Maintenance of REP will give rise to small volumes of general waste in the form of air filters, scrap metal, insulation material, oils and chemicals. These will be recycled wherever possible, or managed in accordance with the relevant regulations and consigned off site.

Contractors

2.2.2 The majority of maintenance will be carried out by appointed contractors. All contractors will receive a formal induction and *Contractor Compound Guidance.* This will provide further details on waste disposal requirements whilst they work on site which will be specific to the nature of the work undertaken on the Applicant's behalf. In particular, contractors will be encouraged to re-use, reduce or recycle material wherever practicable. Any waste generated, will be placed into designated containers that will be provided by REP and disposed of or recycled accordingly.

2.3 Hazardous Waste

2.3.1 If any hazardous waste is identified at any stage of operation, including incoming hazardous waste or hazardous waste generated on site, it would be managed in accordance with standard waste auditing procedures and the appropriate Hazardous Waste Regulations. All waste on site will be managed in accordance with appropriate duty of care legal requirements that are applicable during the operation of REP. This would include ensuring that the waste is appropriately contained and minimised.

[1] British Standards estimate that 50 L of generated waste per employee should be accounted for each week. 75 x 50 = 3,750L of mixed waste per week

3 Anaerobic Digestion – Operational Outputs

3.1.1 The Anaerobic Digestion element of REP would be capable of processing up to 40,000 tonnes per annum (tpa) (based on current technology) of food and green waste. This process would result in two main outputs: biogas, and digestate (both a liquid and a solid). Further details of the Anaerobic Digestion process is provided within **Chapter 3** of the ES (**Document Reference 6.1**).

3.1.2 The biogas resulting from the Anaerobic Digestion process would be passed through a gas-upgrading system (biogas to biomethane) integrating a buffer gas storage tank based on membrane technology, suitable for Compressed Natural Gas (CNG) production and/or for injection into a local gas network. CNG can be used as a fuel for vehicles, including through conversion of on-site vehicles (which shuttle waste containers within the site). The onsite infrastructure required to transmit or store CNG gas for vehicle fuel or to achieve injection into the gas network would form part of REP. If a CNG option is not feasible then REP would incorporate a "CHP engine" which would use the biogas to generate electricity and heat, which could be used to support the anaerobic digestion process or added to energy export from the other parts of REP.

3.1.3 The digestate (up to 17,200 tonnes per year) would, in line with the waste hierarchy, be first transported off-site for use as a fertiliser in the agricultural sector. Should this not be possible, it would be used as a fuel for REP to generate electricity. REP would incorporate a digestate drying, storage and loading room to process (through maturation) suitable solid digestate to meet the standards required for agricultural use. In the event that the composition of the feedstock (resulting in longer maturation time), or the throughput requirements exceed the processing capacity of the Main REP Building room, the semi-processed compost would be transported to a 3rd party site to complete its maturation. The tipping hall and loading room operate at negative air pressure to control odour, with process air being eliminated in the ERF combustion process.

3.1.4 Rejected material from this process (kitchen caddy liners etc.) will, where appropriate, be recovered within the ERF process at REP.

4 Energy Recovery Facility – Operational Outputs

4.1.1 Treatment of the received residual waste within the ERF will result in two main outputs. These are Incinerator Bottom Ash (IBA) – approximately 25% of throughput, and Air Pollution Control Residue (APCR) – approximately 3% of throughput. Further details of the ERF process is provided within **Chapter 3** of the ES (**Document Reference 6.1**).

4.1.2 Paragraphs 2.5.77 and 2.5.78 of National Policy Statement EN-3 requires Applicants to describe and consider available capacity for dealing with the residues from the Proposed Development.

4.1.3 The Applicant has considerable experience in the management of the operational residual waste outputs from the ERF process. The Applicant is part of the group of companies that operates RRRF, which is located adjacent to the REP site. As part of RRRF's operation, long term contracts are in place for the recycling of both of Incinerator Bottom Ash (IBA) (e.g. Ballast Phoenix) and Air Pollution Control Residue (APCR) (e.g. Carbon8). There are established markets within the construction sector for IBA and APCR and therefore the Applicant anticipates similar contracts would be put in place for the IBA and APCR from REP.

Table 4.1: Outputs from treatment of residual waste within ERF

	Riverside Energy Park Throughput tpa	IBA tpa (25%)	APCR tpa (3%)
Maximum Throughput	805,920	201,500	25,500
Nominal Throughput	655,000	163,750	19,650

Incinerator Bottom Ash

4.1.4 IBA is the material left over after waste has combusted. This would be collected within REP, after which it would be transported off site using sealed containers via the River Thames. The IBA would be delivered, by barge, to the existing IBA Facility at the Port of Tilbury for treatment/recycling, metal will be extracted for recycling with the remainder to be used as secondary aggregate within the construction sector. As referred to above, and as is the case for RRRF, the Applicant expects that the IBA from REP would be recycled into the construction industry through a long term contract.

Air Pollution Control Residue

4.1.5 APCR results from the treatment of exhaust gas from energy recovery. Ammonia, hydrated lime, powdered activated carbon and water is injected into the gas flow to neutralise acids and capture any heavy metal particles. Once filtered, the APCR is what remains. This would be collected within REP, after which it would be taken off site by road in sealed containers to be processed and recycled.

4.1.6 The APCR would then be treated by a company such as Carbon8[2] at their site in Brandon, Suffolk. This type of technology allows this waste to be converted into carbon negative secondary aggregates used by in the construction sector, and has recently been recognised in a United Nations Environment Report[3] and acknowledged as making *"a demonstrable contribution to the developing European circular economy"*.

Non-Compliant Waste

4.1.7 The majority of residual waste arriving at REP will arrive from one of the Applicant's four feeder riparian waste transfer stations. When loading waste into containers at the transfer stations, any non-compliant, or unacceptable waste (for example engine blocks, gas canisters) will be identified and removed wherever practicable. All bulk waste deliveries received on site will be managed in accordance with standard Tipping Hall operation procedures and safe working practices. Should any waste arrive that is not suitable for treatment at the ERF, this will be managed in accordance with standard waste auditing procedures to inspect and remove unacceptable waste from site. Examples of procedures used within the operational RRRF are included in **Appendix A.**

4.1.8 All drivers will also be issued with site rules and guidance for using the tipping hall and vehicles loading wastes or residues.

[2] Carbon8 Aggregates recognised by the United Nations (July 2018) http://c8a.co.uk/carbon8-aggregates-recognised-by-the-united-nations/

Appendix A Example Waste Auditing Procedures

Number	RRR-WI-023
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Work Instruction WI-023
WASTE INSPECTION

Interfaces IMS Manual
RRR-OP-001 RRRL EfW Safety Rules
RRR-SRI-001 Risk Assessment
RRR-SRI-002 Application of the Safety Rules and Work Control
RRR-RC-035 Waste Delivery Inspection Record

References Health and Safety at Work etc. Act 1974, Section 2 and 3
PPC Permit No. BK0825UT variation No. RP3432UT
The European Waste Catalogue (EWC)
Waste (England and Wales)Regulations 2011
The Hazardous Waste (England and Wales) Regulations 2005
The Hazardous Waste (England and Wales) (Amendment)Regulations 2009
The List of Wastes Regulations 2005
Electricity at Work Regulations 1989
BS EN ISO 18001
OHSAS 18001

Objective This **Work Instruction** defines the methods for inspecting waste loads and removal of unacceptable waste from site.

Scope This shall apply to waste delivered and stored at the Riverside Resource Recovery Ltd (RRRL) facility at Belvedere.

Appendix A **Permitted Waste**

Appendix B **Prohibited Waste**

1.0 DEFINITIONS

Words in bold text are defined terms under the **Company Safety Rules** - RRR.OP.001.

Waste Code. The six digit code referable to a type of waste in accordance with the List of Wastes (England) Regulations 2005, and in relation to hazardous waste, includes the asterisk.

Permitted Waste Types. Waste types that are permitted to be received at the facility according to the Permit, see Appendix A. Codes other than the six digit numbers are for reference only and NOT part of the permitted types.

Prohibited Waste. Waste types prohibited by the permit, see Appendix B.

2.0 PROCEDURE

2.1 Waste Received via Riverside Jetty supplied by Cory Environmental Ltd

Waste delivered in this manner is subject to 'duty of care' auditing and inspection at the receiving Waste transfer station being either Northumberland Wharf, Walbrook Wharf, Smugglers Way or Cringle Dock.

2.2 Waste Recieved via Road Delivery

2.2.1 Upon arrival at site, the driver must produce a waste transfer note for the load being carried, this will include details of the carrier, source of waste, the Waste Code (EWC) and a summary description of the waste.

2.2.2 The weighbridge operator shall inspect the documentation provided. If the documentation is incorrect or does not reflect the RRRL Permit, the driver shall be requested to leave the site without discharging the load.

2.2.3 Subject to the documentation being acceptable the driver will weigh in and proceed to the tipping hall.

2.2.4 The waste may be inspected as follows;

- Instruct driver to park in designated area of the Tipping Hall.
- Ensure all other vehicles are excluded from the inspection area by use of barriers or closing of the Tipping Hall entrance door.
- Under the direct supervision of the Tipping Hall supervisor, instruct the driver to discharge the load on to the Tipping Hall floor in a designated area.
- Using either JCB front loading shovel or JCB Telescopic Handler, sift through and inspect the waste, completing the Waste Delivery Inspection Record RRR-RC-035.
- If the waste is determined acceptable then move the waste directly into the waste bunker using the machinery described above.

2.3 Unacceptable / Prohibited Waste Procedure

2.3.1 Unacceptable / Prohibited waste is defined in the Site Rules and Guidance for Drivers of vehicles using the Tipping Hall (Document Ref RRR-WI-008).

2.3.2 If the waste is rejected the driver and the haulier shall be notified before attempting to re-loading the waste into the vehicle that has attempted the delivery.

2.3.3 The rejection must be immediately reported to the Duty Shift Team Leader who should then be present for the remainder of the inspection and re-loading. The non conformance section of the Waste Delivery Inspection form must be completed.

2.3.4 If it is not possible to reload the waste then the load must be moved to the back loading skip or a designated quaranteen area of the Tipping Hall.

2.3.5 As soon as possible, the Plant or Operations Manager must be informed along with the HSEQ Manager and the Cory Environmental Technical Manager.

2.3.6 When a complete load of bulk road waste has been rejected, the Commercial Manager must be informed without delay in addition to those in 2.3.5.

2.3.7 Arrangements for the disposal of the quarantined / prohibited waste will be determined by the Cory Environmental Technical Manager in line with the Regulatory requirements.

2.3.8 When prohibited waste has been identified, and dependant upon the circumstances and amount involved, notification may be required to the Environment Agency. This should be considered only by the Plant Manager, Operations Manager or HSEQ Manager.

2.3.9 Unacceptable waste observed in the waste storage pit should be removed as follows;

- Inform Duty Shift Team Leader and Plant/Operations Manager.
- Ensure that a large skip (Roll-on/off) is in place underneath the Back Load Hopper.
- Collect the unacceptable waste with the waste grab.
- Lower the grab to the back loading hopper.
- Ensure persons are clear of the back loading skip and position a sentry in a safe position before discharging the grab load into the skip.
- The waste shall be removed from site in compliance with Regulatory requirements.

2.4 Frequency of Inspection

2.4.1 Incoming loads shall be considered for inspection as follows:

• Compacted Local Authority waste	4 per year
• Bulk transfer station waste	2 per month
• Other road waste	2 per year

2.4.2 The frequency in 2.4.1 should not preclude the carrying out of additional inspections when the outcome of inspections gives concern or the nature of waste causes plant operational deviations.

Appendix A
Permitted Waste (March 2012)

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, vegtables, cereals, edible oils, cocoa, coffee, tea, and tobacco preparation and processing; converse production, yeast and yeast extract production, molasses preparation and fermantation**
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 beveages (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	Sawduct, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04
03 03	**Wastes from pulp, paper and cardbord production and processing**
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

Code	Waste Description
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**
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

Code	Waste Description
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
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

Only wastes having the EWC included in Table S3.2 of Permit Variation EPR/BK0825IU/V003 and thereby in this list may be accepted by Cory Riverside.

Appendix B
Prohibited Waste (March 2012)

Code	Waste Description
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 04	Sawdust, shavings, cuttings, wood, particle board and veneer containing dangerous sunstances
13	Oil Wastes and Wastes of Liquid Fuels (except edible oils, and those in chapters 05, 12 and 19)
	All wastes
14	Waste Organic Solvents, Refrigerants and Propellants (except 07 and 08)
	All Wastes
15	Waste Packaging; Absorbents, Wiping Cloths, Filter Materials and Protective Clothing not otherwise specified
15 02	Absorbents, filter materials, wiping cloths and protective clothing
15.02.02	Absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances
16	Wastes not otherwise specified in the list
16 02	Wastes from electrical and electronic equipment
16.02.15	Hazardous components removed from discarded equipment
16 03	Off-specification batches and unused products
16.03.03	Inorganic wastes containing dangerous substances
16.03.05	Organic wastes containing dangerous substances
16 06	Batteries and accumulators
16 08	Spent catalysts
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
19.12.06	Wood containing dangerous substances
19.12.11	Other wastes (including mixtures of materials) from mechanical treatment of waste containing dangerous substances
20	Municipal Wastes (Household waste and similar commercial, industrial and institutional wastes) Including separately collected fractions
20 01	Separately collected fractions (except 15 01)
20.01.21	Fluorescent tubes and other mercury-containing waste
20.01.23	Discarded equipment containing chlorofluorocarbons
20.01.31	Cytotoxic and cytostatic medicines
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 37	Wood containing dangerous substances

These wastes are cross referenced in the list of permitted wastes due to their physical similarity; their exclusion is due to the presence of dangerous substances.

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Work Instruction WI-034
TIPPING HALL OPERATIONS

Interfaces IMS Manual
MSOMA training pack.
RRR-WI-022_Discharge of Waste From ISO Containers_
RRR-JT - Terberg Waste Operation
RRR-WI-020_Prepardness and Response Plan_Issue_1.1
RRR-RC-035_Waste delivery inspection
Waste Container Defect Report v8
Vehicle inspection sheets
Applicable Site Safety Rules

References: Health and Safety at Work etc Act 1974, Section 2 and 3
ISO 14001
OHSAS 18001

Objective: To carry out safe and controlled operations within the RRRL Tipping Hall.

Scope: This shall apply to **Riverside Resource Recovery Ltd (RRRL)** at Belvedere.

Exceptions: None

Definitions:

Stick up – ISO Containers that are unable to discharge.

Backloading skip – Skip stored beneath the bulky waste chute (11BAM1)

Shunt – The act of vehicle movement while discharging.

General Notes

- Report all defects to Jetty Supervisor and duty Shift Team Leader.
- No cab units or trailers to be parked in tipping hall overnight.
- No vehicles are to 'shunt' when discharging waste.

Health, Safety and Environmental Precautions:

- All RRRL staff, contractors and visitors attending the tipping hall **SHALL** wear site specific PPE at all times.
- All RRRL staff, contractors and visitors attending the tipping hall **SHALL** make themselves known to the tipping hall supervisor before entering the area.
- Tipping hall operations **SHALL** be conducted from within the confines of the demarcated area only. All traffic movements must cease prior to pedestrian access to any area outside of this demarcation.

- Any person outside of a vehicle without site specific PPE will be instructed to return to their cab to collect their PPE and issued with a Safety Infringement Notice for failure to comply with site rules. If no PPE is available they will not be permitted to discharge their load and informed they are not to return to RRRL until such time they can comply with site rules. Jetty & Site Manager to be informed of this occurrence.

- Any personnel not adhering to the site rules will have a Safety Infringement Notice issued against them. Repeat offenses will lead to a site ban.

- RRRL Tipping Hall Supervisor must be present in the tipping hall during the hours of 07:00 – 19:00 and be available for radio contact during those times.

- Tipping Hall Supervisor must have read and understood all risk assessments and work instructions associated to the tipping hall operations.

- Each waste delivery vehicle positioned on the tipping apron **SHALL** have a clear tipping bay either side of them.

- No person **SHALL** cross the 3m 'yellow line' in front of the tipping bays when any of the 12 tipping bay doors are open. Permission to be granted from Jetty Supervisor or duty Shift Team Leader.

- Site speed limits to be adhered to. Any vehicle thought to be 'speeding' will have its registration taken and reported to the Jetty supervisor and duty Shift Team Leader.

- In the event of a fire alarm all vehicle operations **SHALL** be stopped. All persons within the tipping hall are to be evacuated to the fire muster point and the tipping hall door to be closed. Permission to re-enter the location **SHALL** be granted by the Incident Controller **ONLY**.

- Mobile plant required to maintain the tipping bay areas **SHALL** be granted access when **NO** waste delivery vehicles are discharging into the waste reception bunker. See instruction overleaf for waste inspections and compacted loads.

- Mobile plant **SHALL** only be operated by authorised personnel.

- If odour is detected outside of the tipping hall report it to Jetty Supervisor and duty Shift Team Leader **immediately**.

- Good housekeeping standards to be maintained within the tipping hall, approach road and access ramp at all times.

- In the event of an oil spill and if safe to do so, identify the source and isolate. Contain the spillage using the spill kit provided, inform Jetty Supervisor and dispose of any residue according to company policy

Essential Equipment:

- Radio communication

Special Competence:

- Trained and competent RRRL working as tipping hall supervisor **ONLY**.

Procedure

1.0 Prior to Tipping Hall Operations:

1.1 Carry out all daily checks on mobile plant, complete documentation accordingly.

1.0 Ensure spill kit is available and well stocked.

1.1 Confirm radio communication to waste crane operator.

2.0 Tipping Priorities:

2.1 Tipping Bays 1,2,3 are to be given priority to Bexley Council RCV's (Dust Carts).

2.2 Tipping Bays 5,6,7,8 are to be given priority to RRRL containers.

2.3 Tipping Bays 10,11,12 are to be given priority to Bexley Council Bulker lorries.

This is a guide only. It can be amended as required to best suit operation.

- Bexley Council are contracted to have a 15minute site attendance time, please attempt to satisfy this requirement where possible. If this cannot be achieved please inform the Operations Manager immediately.

- Tipping bay doors **SHALL** only to be operated by the tipping hall supervisor, available tipping bays to be communicated to the waste crane operator.

3.0 Vehicles Entering the Tipping Hall:

3.1 All vehicles attending the tipping hall **SHALL** have received a Tipping Hall Induction and adhere to the site rules at all times.

3.2 Vehicles entering the tipping hall will be called in from their **STOP** position by the tipping hall supervisor and assigned a tipping bay to discharge into.

3.3 All vehicles departing the tipping hall **SHALL** be in a road worthy condition with no fluid leaks or known defects.

3.4 All vehicles when departing the tipping hall **SHALL** have all doors / tailgates secured, with all security sheeting fitted and secure.

4.0 Vehicles Exiting the Tipping Hall:

4.1 Tipping hall supervisor to visually confirm that all RRRL waste containers exiting the tipping hall have:

- Operating handle retaining pin securely in position.
- Rear door clamps engaged.
- Rear door retaining pin in position.
- Door threshold clear of waste and debris.

4.2 Tipping hall supervisor to visually confirm that all bulk vehicles exiting the tipping hall have:

- Sheeting / netting covering their load in position.
- All doors closed.
- Door threshold clear of waste and debris.

5.0 Load Inspections:

5.1 All bulk delivery vehicles **SHALL** be inspected for non-conforming waste types and be documented accordingly.

5.2 This **SHALL** be carried out in a suitably demarcated area (to be determined by the Jetty Supervisor or Manager) of the tipping hall. All vehicle movements are to be coordinated by the tipping hall Supervisor during these inspections.

5.3 Bulk vehicles are to discharge their load within the confines of the demarcated area. When unloaded the vehicle driver **SHALL** secure his vehicle and return to his cab until instructed by the tipping hall supervisor to depart site.

5.4 Load inspection **SHALL** be carried out in the following manner:

- No unauthorised personnel to be present within the load inspection area.
- Discharged load is to be drawn across the floor to an appropriate depth enabling a thorough visual inspection from vehicle cab or ground level.
- Hazardous or unidentifiable waste (e.g. gas cylinders, flammable liquids, suspicious items…etc) found during the inspection are to be reported **immediately** to the Jetty Supervisor, who will coordinate its safe removal with assistance from the tipping hall supervisor.
- All non-conforming waste is to be removed from the inspected load, mechanical assistance (appropriate plant vehicles) is to be utilised through this process. All material removed is to be stored in the 'back loading' skip or scrap metal skips accordingly.
- When satisfied that all non-conforming waste has been removed, deposit waste into an open tipping bay, as directed by tipping hall supervisor.
- Waste inspection document to be completed and stored in the document folder.

6.0 RRRL Container 'stick up':

When a compacted load ('stick up') is identified follow the instruction below:

6.1 Secure the container door in the open position with use of the door retaining bar and pin.

6.2 Re-enter the Terberg and communicate situation to the tipping hall supervisor, who will coordinate the situation dependant on tipping hall activities.

6.3 Tipping hall supervisor **SHALL** ensure the area between the Terberg with the compacted load and the waste inspection area is clear of all vehicles and prevents further movement. When area is clear, instruction will be given to proceed to the waste inspection area.

6.4 Once vehicle is secure within the inspection area the tipping hall Supervisor can allow tipping operations to continue.

6.5 Terberg driver **SHALL** remain in his vehicle during this operation.

6.6 Waste inspection operator is to make safe the vehicle he was operating prior to the 'stick up', carry out a pre start check (if not completed at start of shift) of the telescopic handler (loadall) and communicate to the Terberg operator, confirming vehicle is secure prior to freeing the compacted waste.

6.7 On completion the waste inspection operator informs tipping hall Supervisor that load is now free and floor area is clear for manoeuvring Terberg out of inspection area.

6.8 Terberg operator will discharge the remainder of the load in to the designated tipping bay.

If unable to secure the container door inform Jetty Supervisor who shall coordinate the operation and remove the defected container from circulation once clear.

7.0 Vehicle Breakdowns:

7.1 Mechanical Failure

7.1.1 Inform Jetty Supervisor of situation immediately.

7.1.2 Vehicle driver to contact third party contract firm requesting maintenance assistance.

7.1.3 Vehicle driver to remain within his cab at all times.

7.1.4 One bay either side of the vehicle in question are to be demarcated with use of barriers; this is to be carried out by the tipping hall supervisor who has controlled the flow of traffic.

7.1.5 If safe to do so tipping hall operations are to continue in available tipping bays.

7.1.6 Tipping hall supervisor to inform weighbridge security of situation and arrival of maintenance vehicle.

7.1.7 Vehicle to be removed from site at the earliest possible opportunity.

7.1.8 On arrival of maintenance assistance, this demarcation area is to be extended to TWO bays on the repair side of the vehicle (i.e, if vehicle broken down on bay 3 and the repair can only take place from the nearside of the vehicle then bays 1&2 are to be demarcated along with bay 4) . On completion vehicle is to vacate site and information forwarded to Jetty & Site Manager and Operations Manager.

7.2 Oil Leak

7.2.1 Inform Jetty Supervisor of situation immediately.

7.2.2 Vehicle driver to remain within his cab at all times.

7.2.3 In the event of an oil spill; if safe to do so, identify the source and isolate, contain the spillage with the spill kits provided, inform Jetty Supervisor. On completion dispose of all waste material according to company policy.

7.2.4 If vehicle remains operational without further loss of oil, allow it to vacate site.

7.2.5 If vehicle not operational follow steps 7.1.2 – 7.1.8 above.

8.0 Replacing 'Backloading' skip:

When replacing the 'back loading skip', tipping hall supervisor is to coordinate the area and direct operations accordingly.

9.0 End of shift procedure:

- Ensure tipping hall floor is clear of all waste arising's.
- Ensure tipping bay doors are closed.
- Re-paint the 3m exclusion zone line.
- Re fuel all mobile plant as required.
- Report all mobile plant defects to Jetty Supervisor and Duty Shift Team Leader.
- Shut tipping hall door and turn off isolator.