

Swadlincote Energy Recovery Facility (SERF)

Application for Environmental Permit

on behalf of R&P Clean Power Limited

May 2024

Cover Letter

Section I: Environmental Permit Application Forms

Part A

Part B2

Part B3

Part F1

Section II: Technical Description

Section III: Supporting Information

Section IV: Figures

Figure 1: Site Location Plan

Figure 2: General Site Layout

Figure 3: Point Source Emissions to Air and Water

Figure 4: Site Drainage System

Figure 5: Site Surfacing

Section V: Appendices

Appendix 1:	EMS Summary
Appendix 2:	Site Condition Report
Appendix 3:	Best Available Techniques
Appendix 4:	Operating Techniques
Appendix 5:	Environmental Risk Assessment
Appendix 6:	Air Quality Assessment and Air Quality Monitoring Technical Note
Appendix 7:	Odour Management Plan
Appendix 8:	Noise and Vibration Assessment
Appendix 9:	Accident Management Plan
Appendix 10:	Waste Management Plan
Appendix 11:	Fire Prevention Plan
Appendix 12:	Dust Management Plan
Appendix 13:	Raw Material Inventory
Appendix 14:	Heat Opportunities Report
Appendix 15:	Non-Technical Summary
Appendix 16:	Cost Benefit Assessment
Appendix 17:	Cost Benefit Calculations
Appendix 18:	R1 Energy Efficiency Formula
Appendix 19:	CHP Readiness Assessment
Appendix 20:	Climate Change Risk Assessment
Appendix 21:	Greenhouse Gas Assessment
Appendix 22:	Indicative Water Flow Diagram

Revision	Author	Date	Quality Check	Date	Review	Date
1	CAB	Sept. 2023	PBD	Nov. 2023	CJB	Nov. 2023

Disclaimer

This document is part of the Swadlincote Energy Recovery Facility (SERF) Environmental Permit Application and was prepared by Stantec UK Limited (Stantec) for the account of R&P Clean Power Limited (the "Client"). Any reliance on this document by any third party is strictly prohibited. The material in it reflects Stantec's professional judgment considering the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

Section I: Application Forms

Part A

Part B2

Part B3

Part F1

Section II: Technical Description

The information provided in the Technical Description should be viewed in parallel with:

- Non-Technical Summary
- Section I: Application Forms
- Section III: Supporting Information

Section III: Supporting Information

This part of the application provides detailed responses to questions in Section I: Application Forms, where further space is required to provide the necessary information.

Responses are provided only where further information is required, with the question's numbers provided in italics and as stated in the application forms.

The information provided in this section should be viewed in parallel with:

- Section I: Application Forms
- Section II: Technical Description

1 Context and Scope

This application is for a new Installation Environmental Permit and is being made for Swadlincote Energy Recovery Facility (SERF) (the 'Facility') and the associated ancillary equipment, infrastructure, and access. The proposed applicant is R&P Clean Power Ltd. The operation of the Facility once commissioned will be contracted to a third-party operation and maintenance contractor. However, the management of the Facility will reside with R&P Clean Power including the following roles:

- Establishing the operation and management system of the Facility, including the day-to-day management, ensuring regulatory compliance and emergency procedures;
- Key staff appointments and management competence; and
- Financial decision-making.

As part of the Permit Application, the Environment Agency (EA) was contacted for pre-application advice. The reference for this pre-app advice correspondence is EPR/DP3925SK/P002.

The Facility has the capacity to generate 20.5 megawatts (MW) of electrical power, with a connection agreement in place with National Grid Electricity Distribution to export approximately 18.5 MW to the distribution network. The Facility will consist of an inclined mobile grate incineration line.

The accepted wastes are defined with European Waste Catalogue (EWC) waste codes from the List of Wastes (LoW), the wastes are listed below, hereafter referred to as the 'fuel':

- 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 03 01 - Mixed Municipal Waste
- Other wastes listed in Table 1b of Form B3

The maximum annual throughput will be 230,000 tonnes per annum (tpa).

1.1 Site Location

The site of the proposed SERF is in South Derbyshire at Cadley Hill, approximately 2km west of Swadlincote, Derbyshire (Figure 1). The Facility is centred at National Grid Reference SK268 190, with the nearest postcode at DE11 9EN.

The Facility is on a relatively low-lying strip of land which incorporates an existing Materials Recovery Facility (MRF), and land to the immediate west of the existing operation of the MRF. Part of the western extent of the Facility has previously been used as a rail yard. The ERF development and associated access road is approximately 3.24 ha and currently contains woodland and low-lying scrub vegetation forming part of the Cadley Hill Railway Area Local Wildlife Site (LWS).

The Facility is accessed from a roundabout on the A444 eastwards along the A514 Cadley Road turning north through Appleby Glade and Cadley Hill Industrial Estate (under the A444) onto Keith Willshees Way. There is no public access to the Facility and no public rights around the perimeter.

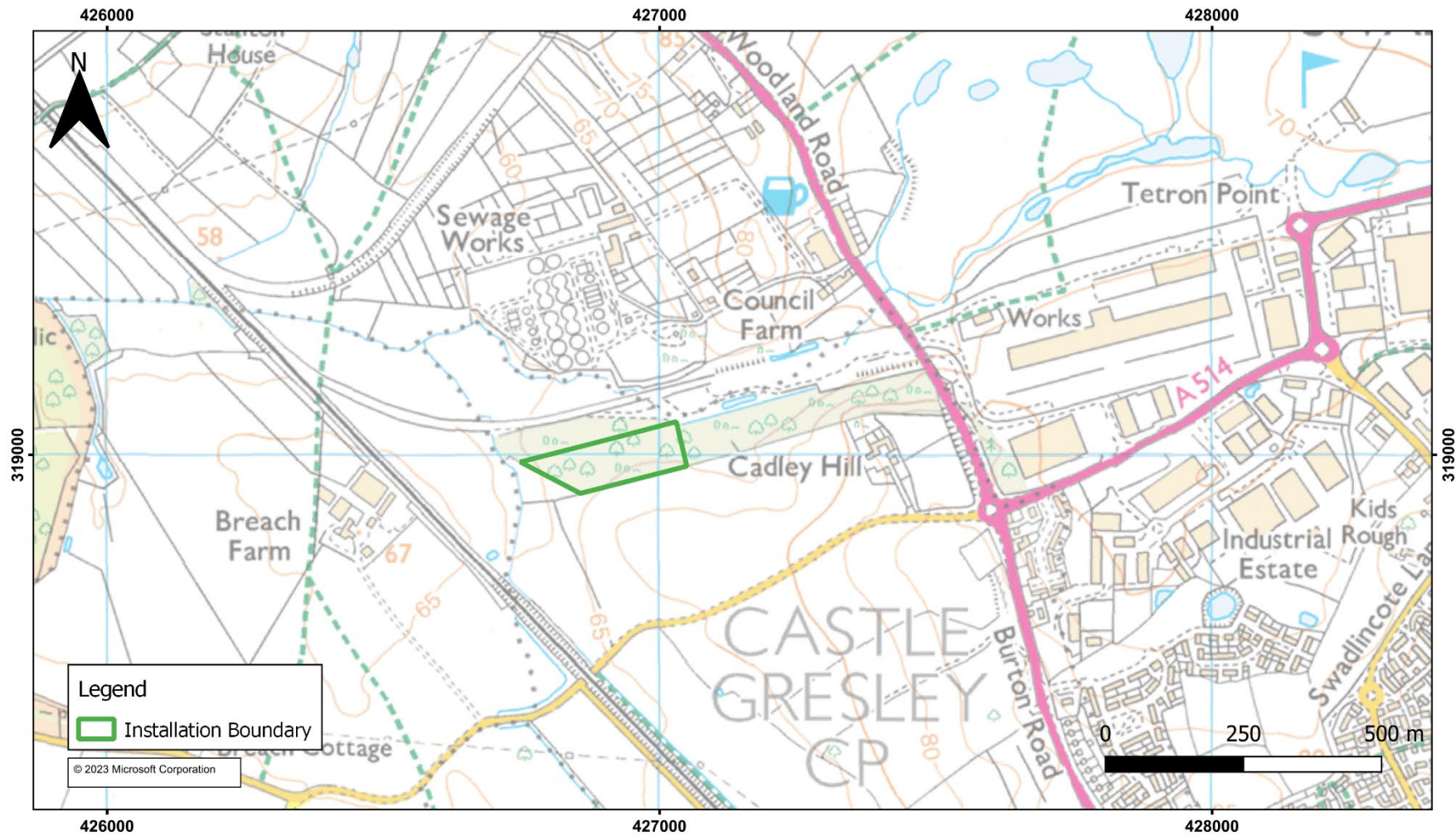


Figure 1: Site Location Plan

1.2 Operator Details

The proposed Environmental Permit for the Facility will be held by R&P Clean Power Limited (Company Number 12632942) (the Operator)¹. Companies House Director details, including dates of birth for all directors and secretaries, is included in Table 1.

Table 1: Companies House Director Details

Name	Position	Date of Birth
Olivier Georges Andre D'Oelsnitz	Director	[REDACTED]
Adam James Hinds	Director	[REDACTED]

1.3 Planning Summary

The planning application seeks full planning permission for the following proposed development, Swadlincote Resource Recovery Park (SRRP):

“The proposed construction and operation of the Swadlincote Resource Recovery Park (SRRP) comprising an Energy Recovery Facility (ERF) and Aggregate Recovery Facility (ARF) together with ancillary infrastructure including grid connection cable and works, private electrical wire provision, substation, CHP off-take provision, internal vehicular circulation and yard areas, weighbridges, car parking, new access road, temporary construction compound and laydown area, security fencing and gates, drainage, landscaping and off-site habitat compensation and biodiversity net gain”.

1.4 Summary of Facility Activities

The Facility will consist of a single Schedule 1 ‘Installation Activity’, as defined within the relevant Environmental Permitting Regulations, and a number of ‘Directly Associated Activities (DAA)’. These are summarised within Table 2.

Table 2: Activities

Type of Activity	Schedule 1 Reference	Description of Activity
Installation	5.1 Part A1(b)	The incineration of non-hazardous waste in a waste incineration plant
Waste Storage	DAA	Storage of fuel pending incineration and combustion residues prior to disposal
Process Effluent Treatment	DAA	Treatment of process effluents

¹ <https://find-and-update.company-information.service.gov.uk/company/12632942>

Type of Activity	Schedule 1 Reference	Description of Activity
Generation of Electricity	DAA	Operation of steam turbine

The Facility includes:

- Waste reception arrangements;
- Waste storage;
- Fuel oil and air supply systems;
- Furnace;
- Boiler;
- Steam turbine/generator set;
- Facilities for the treatment of exhaust gases;
- Storage of solid residues prior to disposal and/or recovery; and
- Devices and systems for controlling and monitoring operations and emissions.

The key features of the Facility are summarised in Table 3 below:

Table 3: Facility's Key Features

Waste throughput, tonnes/line	230,000/annum
Waste processed	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 03 01 - Mixed Municipal Waste Other wastes listed in in Table 1b of Form B3
Number of lines	1
Furnace technology	Grate
Auxiliary fuel	Diesel – 590 tonnes per annum

Acid gas abatement	Hydrated lime
NOx abatement	SNCR (Urea)
Reagent consumption	Urea – 967 tonnes per annum Hydrated lime – 3,850 tonnes per annum PAC – 61 tonnes per annum
Flue gas recirculation	Yes (subject to technology supplier's design)
Dioxin abatement	Activated carbon
Stack	Height - 60 metres Diameter - 2.2 metres
Flue gas	Normalised volume flow rate – 48.1 Nm ³ /s Actual exit velocity – 16.8 m/s Exhaust temperature - 145°C
Electricity generated	Approximately 20.5 MW
Electricity exported	Approximately 18.5 MW

1.5 Overview of Facility Activities

The Facility will contain the following processes:

- Waste acceptance – fuel delivered to the Facility and stored within an enclosed building;
- Fuel loading – fuel is loaded into the feed hopper;
- Combustion – the fuel is combusted within a specially designed furnace and the hot gases used in a boiler to raise steam for the generation of electricity and heat; and
- Emissions – the combustion gases are treated by a combination of techniques before being released to atmosphere.

1.5.1 Waste Acceptance

The material to be processed by the Facility will primarily comprise of wastes with the following EWC codes:

- 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 03 01 - Mixed Municipal Waste

It will however be possible for the Facility to process smaller quantities of other waste types from time to time. A list of proposed EWC Codes for inclusion in the permit is provided in Table 4 below.

Table 4: EWC codes of wastes to be processed at the Facility.

EWC Codes	Description of Waste
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 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 02 04	sludges from on-site effluent treatment
02 06	Wastes from the baking and confectionery industry
02 06 01	Materials unsuitable for consumption or processing
02 06 03	sludges from on-site effluent treatment
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
03 03 07	Mechanically separated rejects from pulping of waste paper and cardboard
03 03 08	Wastes from sorting of paper and cardboard destined for recycling
Wastes from leather, fur and textile industries	
04 02	Wastes from the textile industry
04 02 10	Organic matter from natural products (for examples grease, wax)
04 02 21	Wastes from unprocessed textile fibres
04 02 22	Wastes from processed textile fibres

EWC Codes	Description of Waste
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 which is contaminated and would otherwise be destined for landfill
15 01 03	Wooden packaging which is contaminated and would otherwise be destined for landfill
15 01 05	Composite packaging
15 01 06	Mixed packaging which is contaminated and would otherwise be destined for landfill
15 01 09	Textile packaging
Construction and demolition wastes (including excavated soil from contaminated sites)	
17 02 01	Wood which is contaminated and would otherwise be destined for landfill
Wastes from human or animal health care and/or related to research (except kitchen and restaurant wastes not arising from immediate health care)	
18 01 04	Wastes whose collection and disposal is not subject to special requirements in order to prevent infection (for examples dressings, plaster casts, linen, disposable clothing, diapers)
Wastes from waste management facilities, off-site wastewater treatment plants and the preparation of water intended for human consumption and water for industrial use	
19 02	Wastes from physical/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)
19 02 03	Premixed wastes composed only of non-hazardous wastes
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 08	Waste water treatment plants not otherwise specified
19 08 01	screenings
19 08 05	sludges from treatment of urban waste water
19 08 12	sludges from biological treatment of industrial waste water other than those mentioned in 19 08 11
19 08 14	sludges from other treatment of industrial waste water other than those mentioned in 19 08 13
19 08 99	wastes not otherwise specified
19 09	Preparation of water intended for human consumption or water for industrial use
19 09 02	sludges from water clarification
19 12	Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified

EWC Codes	Description of Waste
19 12 01	Paper and cardboard which is contaminated and would otherwise be destined for landfill
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
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 (rejects from materials recovery plants only)
20 01 10	Clothes
20 01 11	Textiles
20 01 38	Wood other than that mentioned in 20 01 37 (rejects from materials recovery plants only)
20 01 39	Plastics (rejects from materials recovery plants only)
20 02	Garden and park wastes (including cemetery waste)
20 02 01	Biodegradable waste
20 03	Other municipal wastes
20 03 01	Mixed municipal waste
20 03 02	Waste from markets
20 03 04	septic tank sludge
20 03 06	waste from sewage cleaning
20 03 99	Municipal Waste not otherwise specified

All fuel will be delivered by road in covered vehicles. A weighbridge installed at the entrance to the Facility will record the tonnage of material brought in. The delivery and receipt of all material will be in accordance with waste acceptance procedures, to ensure that only materials which meet the required specification are accepted. Delivery vehicles will be routed to the reception building, where fuel will be unloaded into an internal storage bunker.

There may be the option to accept sludge wastes and, if such opportunity materialises prior to construction of the Facility, a dedicated tank for the storage of sludges will be incorporated in the design (location to be confirmed).

1.5.2 Fuel Loading

Material is collected from the bunker using a remotely operated grab and deposited into the furnace feeding hopper. Operation of the grab is automated with a computer controlling operations and ensuring the optimal use of the fuel, although it can be operated in various manual modes if necessary.

During operation in fully automatic mode, the level of material inside of the bunker will be mapped and recorded using radar-based sensors to monitor the level of material and provide fuel on a first-in first-out basis to the hopper as it is required precisely and continuously.

If sludge wastes are processed at the Facility, a pumping system will be provided to transfer the sludges from the storage tank into the waste feeding hopper.

1.5.3 Combustion Process

The fuel will be fed into the combustion chamber by a hydraulic pusher located on an inclined furnace grate to which air is provided by fans for the combustion process. The gas temperature in the combustion chamber is automatically maintained and adjusted by the plant distributed control system (DCS).

The hot gases exit the combustion chamber and enter the boiler where they transfer heat by evaporating water to raise steam, which is directed to the steam turbine for the generation of electricity. After passing through the turbine the steam passes to the air condenser and is recycled for reuse in a new cycle.

Appendix 4 of this application provides further details on the SERF's operating techniques.

1.5.4 Point Source Emissions

1.5.4.1 Point Source Emissions to Air

The major emissions to air from the combustion process include nitrogen oxides, acid gases (such as sulphur dioxide, hydrochloric acid, and hydrofluoric acid) and particulates. In addition, it is necessary to control the emission of carbon monoxide, metals, dioxins, furans, and other volatile organic compounds (VOCs). The Facility is designed with systems in place to ensure that emissions of all these elements are acceptable and below the BAT-AEL limit values. The Air Quality Assessment concluded that air quality impacts of the Facility will be 'not significant'. Appendix 6 is an Air Quality Assessment, and an Air Quality Monitoring Technical Note.

Point source emissions to air from the Facility are shown in Table 4.

Table 5: Point Source Emissions to Air

Asset	Substance Monitoring	Notes
Stack (A1)	NO _x SO ₂ CO Particulate matter VOC (expressed as TOC) HCl HF	See Appendix 6 Air Quality Monitoring Technical Note

	NH ₃ Cd and Tl Hg As, Co, Cr, Cu, Mn, Ni, Pb, Sb, V PCDD/Fs Dioxin-like PCBs PAHs A N ₂ O	
Backup Diesel Generator (A2)	NO _x CO	See Appendix 6 Air Quality Monitoring Technical Note

1.5.4.2 Point Source Emissions to Surface Water, Groundwater, and Sewer

There is one point source emission to surface water from the Facility. This is shown as point S1 in Figure 3 Point Source Emissions to Air and Water, provided as part of the Environmental Permit application. Foul waters arising from domestic water use will drain to a new private package treatment plant. Treated flows will discharge to the proposed swale and wetland area which can provide further polishing ahead of outfall to the downstream watercourse. The final discharge of treated foul waters will be in accordance with the general binding rules for small sewage discharges with effect from 2 October 2023.

The Facility has been designed with the aim to reduce the water consumption, as much as feasible. Any excess process effluents will be collected for removal from the Facility under a suitable waste collection contract. More details of the water supply on-site can be found in Appendix 22 Indicative Water Flow Diagram.

1.6 Management

R&P Clean Power will operate an Environmental Management System (EMS) in line with prevailing Environment Agency (EA) guidance – How to Develop a Management System: Environmental Permits (2020)² and BAT³ (see Appendix 3 for full Best Available Techniques assessment). A summary of the EMS is shown in Appendix 1.

1.7 Monitoring

The Operator will conduct regular monitoring as part of their inspection regime, which will include observing and actioning any potential risks to the environment from fugitive emissions e.g., litter,

² Develop a management system: environmental permits - GOV.UK (www.gov.uk)

³ Best Available Techniques (BAT) Reference Document for Waste Incineration

mud, dust, noise, and odour. The Environmental Risk Assessment (Appendix 5) provides further information in regard to reducing the risk of fugitive emissions.

1.8 Raw Materials

The main raw materials anticipated to be stored at the ERF include the following:

- Fuel;
- Auxiliary fuel;
- Urea (40% solution);
- Hydrated Lime ($\text{Ca(OH)}_2(\text{s})$); and
- PAC (powdered activated carbon).

Further details for the raw materials used within the proposed Facility, including maximum amount stored on-site and annual throughput, are included in the Raw Material Inventory (Appendix 13).

1.9 Waste

Waste produced on-site is taken away by a registered waste carrier for disposal and/or recovery. Appendix 10 is a Waste Management Plan for the Facility. The following waste streams are produced on-site:

- Incinerator Bottom Ash (IBA); and
- Air Pollution Control (APC) residues.

1.10 Energy

The Facility will generate electricity from the operation of a steam turbine, with a gross electrical efficiency of 30.3%. When operating at full load the Facility will export 18.5 MW of electricity to the public distribution network operated by National Grid Electricity Distribution. The Facility has also been designed to be CHP ready (see Appendix 19 CHP Readiness Assessment) – which means that it is capable of exporting heat to process or district heating loads that may be available in the vicinity of the Facility. A Heat Opportunities Report and Heat Mass Balance – Energy Efficiency Calculation are included within the application as Appendix 14.

A calculation has been undertaken in accordance with the R1 methodology using the “Proforma for determining energy efficiency using R1”. Appendix 18 shows the R1 Energy Efficiency Formula.

1.11 Environmental Impacts

Receptors were identified using local knowledge of the area, appropriate web-based searches, and other existing information to assess the impact of the Facility on the surrounding environment. The Environmental Risk Assessment (Appendix 5) includes the potential impacts posed by the Facility and the mitigation measures in place to minimise any impacts on the environment.

1.12 Environmental Accidents / Incidents

R&P Clean Power will operate an Accident Management Plan (AMP) (Appendix 9) which will form

part of the EMS for the Facility. The AMP includes how the Operator identifies and manages environmental accidents and incidents which may occur on the Facility e.g., breakdown of equipment, spills / leaks, fires, flooding, vandalism, etc. A Fire Prevention Plan (FPP) is also included as part of the application (Appendix 11).

1.13 Odour Management

The potential for odour arising from the Facility has been recognised, particularly during the delivery and offloading of fuel, and mitigation techniques have been included as detailed within the odour management and risk assessment which is included within the Odour Management Plan accompanying the application (Appendix 7).

1.14 Noise and Vibration Management

A Noise and Vibration Assessment (Appendix 8) has been prepared in accordance with prevailing EA Guidance and in line with BAT Conclusion 37. The Noise and Vibration Assessment concludes that the risk posed to nearby sensitive receptors is low.

Vehicles on-site are screened from receptors and deliveries take place during daytime hours only, to prevent the potential for night-time disturbance.

1.15 Dust Management

A Dust Management Plan (Appendix 12) has been developed to detail the measures that will be employed to control dust emissions and manage the potential environmental impacts from dust that could arise during the operation of the Facility. The risk assessment included in the management plan indicates that the residual risk of dust releases should not be significant when the management procedures are correctly implemented.

1.16 Site Closure

A Site Condition Report has been prepared as part of the Permit Application. This Site Condition Report (Appendix 2) has been prepared in accordance with EA H5 'Site Condition Report' Guidance.

Form B3 Supporting Information

Table 1b – types of waste accepted and restrictions

EWC Codes	Description of Waste
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 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 02 04	sludges from on-site effluent treatment
02 06	Wastes from the baking and confectionery industry
02 06 01	Materials unsuitable for consumption or processing
02 06 03	sludges from on-site effluent treatment
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
03 03 07	Mechanically separated rejects from pulping of waste paper and cardboard
03 03 08	Wastes from sorting of paper and cardboard destined for recycling
Wastes from leather, fur and textile industries	
04 02	Wastes from the textile industry
04 02 10	Organic matter from natural products (for examples grease, wax)
04 02 21	Wastes from unprocessed textile fibres
04 02 22	Wastes from processed textile fibres
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 which is contaminated and would otherwise be destined for landfill
15 01 03	Wooden packaging which is contaminated and would otherwise be destined for landfill
15 01 05	Composite packaging
15 01 06	Mixed packaging which is contaminated and would otherwise be destined for landfill
15 01 09	Textile packaging

EWC Codes	Description of Waste
Construction and demolition wastes (including excavated soil from contaminated sites)	
17 02 01	Wood which is contaminated and would otherwise be destined for landfill
Wastes from human or animal health care and/or related to research (except kitchen and restaurant wastes not arising from immediate health care)	
18 01 04	Wastes whose collection and disposal is not subject to special requirements in order to prevent infection (for examples dressings, plaster casts, linen, disposable clothing, diapers)
Wastes from waste management facilities, off-site wastewater treatment plants and the preparation of water intended for human consumption and water for industrial use	
19 02	Wastes from physical/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)
19 02 03	Premixed wastes composed only of non-hazardous wastes
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 08	Waste water treatment plants not otherwise specified
19 08 01	screenings
19 08 05	sludges from treatment of urban waste water
19 08 12	sludges from biological treatment of industrial waste water other than those mentioned in 19 08 11
19 08 14	sludges from other treatment of industrial waste water other than those mentioned in 19 08 13
19 08 99	wastes not otherwise specified
19 09	Preparation of water intended for human consumption or water for industrial use
19 09 02	sludges from water clarification
19 12	Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 01	Paper and cardboard which is contaminated and would otherwise be destined for landfill
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
Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions	
20 01	Separately collected fractions (except 15 01)

EWC Codes	Description of Waste
20 01 01	Paper and cardboard (rejects from materials recovery plants only)
20 01 10	Clothes
20 01 11	Textiles
20 01 38	Wood other than that mentioned in 20 01 37 (rejects from materials recovery plants only)
20 01 39	Plastics (rejects from materials recovery plants only)
20 02	Garden and park wastes (including cemetery waste)
20 02 01	Biodegradable waste
20 03	Other municipal wastes
20 03 01	Mixed municipal waste
20 03 02	Waste from markets
20 03 04	septic tank sludge
20 03 06	waste from sewage cleaning
20 03 99	Municipal Waste not otherwise specified

Form B3 Supporting Information

Table 2 – Emissions (releases)

Point source emissions to water (other than sewers)

Foul flows generated by the Facility will be treated on-site. The treated effluent will be discharged via the proposed SuDS outfall route which connects to the downstream watercourse. The estimated maximum daily discharge remains below 5 m³/day and therefore is subject to General Binding Rules.

Figures

Figure 1: Site Location Plan

Figure 2: General Site Layout

Figure 3: Point Source Emissions to Air and Water

Figure 4: Site Drainage System

Figure 5: Site Surfacing

Appendices

Appendix 1: EMS Summary

Appendix 2: Site Condition Report

Appendix 3: Best Available Techniques

Appendix 4: Operating Techniques

Appendix 5: Environmental Risk Assessment

Appendix 6: Air Quality Assessment and Air Quality Monitoring Technical Note

Appendix 7: Odour Management Plan

Appendix 8: Noise and Vibration Assessment

Appendix 9: Accident Management Plan

Appendix 10: Waste Management Plan

Appendix 11: Fire Prevention Plan

Appendix 12: Dust Management Plan

Appendix 13: Raw Material Inventory

Appendix 14: Heat Opportunities Report

Appendix 15: Non-Technical Summary

Appendix 16: Cost Benefit Assessment

Appendix 17: Cost Benefit Calculations

Appendix 18: R1 Energy Efficiency Formula

Appendix 19: CHP Readiness Assessment

Appendix 20: Climate Change Risk Assessment

Appendix 21: Greenhouse Gas Assessment

Appendix 22: Indicative Water Flow Diagram