R. Collard Limited

SUBSTANTIAL VARIATION APPLICATION

EPR/EB3500KB

AUG 2024

PUBLIC

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PROJECT NO. 70063683

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WSP

8 First Street
Manchester
M15 4RP

Phone: +44 161 200 5000

WSP.com

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Prepared by	M. Derbyshire	M. Derbyshire	M. Derbyshire	M. Derbyshire	M Derbyshire	M Derbyshire
Signature	n/a	n/a	n/a			
Checked by				K Phillipson	K Phillipson	K Phillipson
Signature	n/a	n/a	n/a			
Authorised by				K Phillipson	K Phillipson	K Phillipson
Signature	n/a	n/a	n/a			
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1 EPR APPLICATION FORMS & SUPPORTING INFORMATION

The following application forms have been completed and are included in Appendix A:

- Form A: About You
- Form C2: Varying a Bespoke Permit
- Form C3: Varying a Bespoke Installation Permit
- Form F1: Charges and Declarations

Discussions with the Regulator, through the local Installations Regulatory Officer of the Environment Agency (EA), advised that the proposed changes would require a variation to the existing Environmental Permit held by the Site.

WSP have identified this application as a substantial variation to an existing Environmental Permit EPR/EB3500KB due to two principal factors, compared against the EA Regulatory Guidance:

1) Proposed increase in the throughput and processing of the waste but remaining as a waste operation; and
2) Proposal for the acceptance of hazardous waste for storage ahead of treatment and/or disposal off-site.

The content in the application forms is supported by the information provided in this report which is the main supporting document associated with the application for variation. This report has been structured and developed in accordance with guidance available on the GOV.UK webpages for changing an environmental permit.

The Environment Agency's Appropriate Measures have been reviewed and assessed as a part of this variation application. The site undertakes waste activities only.

A detailed review of Best Available Techniques (BAT) is not deemed necessary as the site falls out of Schedule 1 prescribed activities but measures and arrangements for demonstrating BAT have still been broadly considered in support of this application.

3 INTRODUCTION

3.1 REGULATORY CONTEXT

This application has considered both the definition of an installation and a waste activity operation, which are ‘classes’ of regulated facility.

As defined by Regulatory Guidance Note 2 of the Environment Agency a ‘waste operation’, includes activities which are technically linked and could include the treatment and storage of waste batteries and accumulators. Regulation 2 states that a waste operation is the recovery or disposal of waste. Waste is defined as meaning anything that is waste in the Waste Framework Directive 2008/98/EC and not excluded by Article 2(1), 2(2) or 2(3). Each individual operation with an R or D number is a waste operation and each is a regulated facility.

‘Most apt’ rules for deciding an activity description.

General Rules A2.12 Paragraph 2 of Part 1 of Schedule 1 provides rules to allocate activities which appear to be covered by more than one section in Parts A(1), A(2) and/or B. If an activity appears to be described in both Part A(1) and A(2), the “most apt” description must be chosen, which is a matter of judgement. The guidance states that we should consider whether one of the descriptions is more specific or narrow. The allocation of an activity to the most apt description should be undertaken objectively. Where the test is applied the classification may determine not only who regulates, but also the charges for an application. But these are not relevant factors in the decision.

RGN2 – Understanding the meaning of regulated facility, Appendix 1 and 2 defines physico-chemical treatment, relevant to Scheduled Activities: "Physico-chemical treatment" means the physical treatment or chemical treatment or a combination of physical and chemical treatment of waste. Some activities do not meet the description and it is not appropriate to regard them as a listed activity, for example: - The simple handling of waste in a way which does not change the composition of the waste, such as compaction or other re-packing of dry waste (such as cardboard) to reduce air content would not normally be considered to be physico-chemical treatment.

3.2 EXISTING FACILITY

The address of the permitted facility is:

128 Cardiff Road
Reading
Berkshire
RG1 8PQ

The facility is located immediately to the northwest of Reading city centre, on Cardiff Road which is a largely industrialised area with some commercial premises. The National Grid Reference for the site is: SU 70389 74217.

The site is bounded to the north and west by existing Reading WTS buildings and facilities. The eastern boundary comprises a UPS warehouse whilst it is bounded to the south by Cardiff Road. Direct vehicular access to the site is taken from the Trafford Road entrance.

The site lies within Reading Borough Council's (RBC) jurisdiction. The site lies within an area designated as a Core Employment Area. A network of cycle routes is located within the vicinity of the site as is the boundary of Flood Zone 2. Neither of these will be affected by the site's proposed changes and development.

The site does not lie within a conservation area, or adjacent to designated ecological areas or statutory listed buildings. Reading town centre is approximately 1km to the southeast of the site. The nearest residential properties are approximately 500m to the east of the site, off Cardiff Road and the junction of Milford Road. A site location map is shown below in Figure 3-1.

Figure 3-1 - Site Location

Existing watercourses are identified including the River Thames (main river) approximately 600m north of the site and a network of drainage ditches approximately 200m north of the site.

3.3 ABOUT THIS PERMIT VARIATION

A standard rules permit for the facility was issued by the Environment Agency in February 2010, this was subject to variation and update becoming a bespoke environmental permit in October 2018, under the Environmental Permitting (England and Wales) Regulations 2016 (EPR), as amended.

The site is regulated for several specified waste management activities under several recovery and disposal codes, specifically R3, R4, R5 and R13 in addition to D9, D14 and D15.

The existing activities are limited to the descriptions given in Table S1.1 of the environmental permit which includes:

- Physical treatment for disposal or recovery
- Storage and handling of materials on impermeable surfaces with sealed drainage systems
- Limitations of storage and throughput volumes of waste

- Storage of wastes prior to disposal limited to 1 year and recovery 3 years

R Collard are proposing to make the following changes to the site which will need to be included in the environmental permit:

- The construction of an extension to the existing waste recycling centre (building at No. 128), with associated parking and landscaping as shown on the site layout plans (Appendix B).
- Increase the recycling capabilities, with the installation of improved and more efficient sorting and handling plant, operating with lower noise & dust levels than previous plant.
- Increase the waste types capable of being accepted at the site, including the acceptance of specific limited hazardous wastes and healthcare wastes.

A variation to the existing environmental permit is required to reflect the proposed changes at the facility.

4 MANAGING ACTIVITIES

4.1 MANAGEMENT SYSTEMS

An Environmental Management System (EMS) is fully established and implemented at Collard's facility, see Appendix E. The EMS forms part of an integrated management system that is certified to IS9001, ISO14001 and ISO45001 for environment, health, safety and quality standards, see Appendix F.

There will be no overarching changes to the EMS as a result of this permit variation; however relevant operational procedures and processes in relation to the proposed changes (for example waste management procedures for operational activities) will be reviewed and updated where required and implemented on site. These will include start up and shutdown procedures for plant along with key measures for inspection and maintenance.

The original permit application included an environmental risk assessment which identified the risks relevant to the site and, for each risk, it identified:

- The actual or possible hazards from operations
- The source receptor pathway links and detail
- What measures Collards will take to reduce the risks; and
- What the overall risk is (based on a consideration of the probability of exposure and the potential consequences).

This risk assessment has been reviewed and updated to consider the changes proposed on site as part of this environmental permit variation application. The updated risk assessment is provided in Section 8.

The new plant and equipment will be incorporated into a Site Equipment and Maintenance Plan / Statement which is implemented at the facility. This will detail inspection and maintenance timescales, which will be in accordance with the manufacturers' / suppliers' recommendations for the equipment.

The existing legal register will also be reviewed and updated if any new legal compliance obligations are identified as a result of the proposed changes.

Collards will review and update their management system:

- When making changes to the site, operations or equipment that affect the activities covered by the environmental permit.
- Whenever applying to vary the environmental permit.
- After any accident, complaint or breach of the environmental permit.
- If Collards encounter a new environmental problem or issue and have implemented a new control measure.

4.2 TECHNICAL COMPETENCE

Collards will comply with the requirements of an approved competence scheme run jointly by the Chartered Institution of Wastes Management (CIWM) and Waste Management Industry Training and Advisory Board (WAMITAB), as required by the existing conditions set within their environmental permit. Evidence of the Operator meeting this requirement and continued competence is provided within Appendix C.

Collards will review and determine the necessary competence of a staff under their control that affect their environmental performance and ability to fulfil their compliance obligations.

The operator will ensure that relevant persons are competent based on appropriate education, training and experience. Ongoing training needs that are associated with our environmental aspects will be determined and where applicable, Collards will take appropriate actions to acquire the necessary competence.

4.3 EFFICIENT USE OF RAW MATERIALS AND WATER

The operator will review their overall environmental performance on a minimum annual basis, aligned to the requirements written in the site's environmental management system. This includes the consumption and use of both energy, water and raw materials.

The site has the appropriate arrangements and commitment to monitor, measure, analyse and evaluate its environmental performance by understanding:

- What needs to be monitored and measured.
- Methods for monitoring, measurement, analysis, and evaluation, to ensure valid results.
- Site specific criteria against which the operator will evaluate their environmental performance, and appropriate indicators.
- A programme for when monitoring and measuring shall be performed.
- When the results from monitoring and measurement shall be analysed, evaluated and reported.

The operator will evaluate their environmental performance and the effectiveness of the environmental management system, communicating relevant environmental performance information, both internally and externally, as per compliance obligations.

4.4 ENERGY

The Collard Group Aspects and Impacts Register, as shown in Appendix H, includes 'Energy Use' and details of the associated control measures. The site actively monitors and managers their energy efficiency and usage, including schemes such as usage of energy efficient plant.

Below provides details of the site energy efficiency measures plans and KPIs monitored / maintained / reported by the site and their EMS.

- Collards monitors and records its energy usage (annual energy use and greenhouse gas emissions reported as required under the Companies Act Regulations 2013),
- Recycling and landfill rates tracked using PowerBI,

- Plant/vehicles are regularly replaced with the latest models and technologies to promote energy efficiencies as well as production efficiencies,
- Internal maintenance teams for efficiency of repairs/ maintenance,
- Various automated systems installed across offices and sites to reduce energy usage wherever possible.

4.5 WASTE ACCEPTANCE AND MANAGEMENT

The proposed changes on site will alter and increases the wastes accepted at the site. This section details the current (2022) figures for waste currently accepted and stored for recovery/disposal at the site.

Appendix F below includes copies of the site's operational procedures for the acceptance, handling and storage of waste. This includes:

- Waste Storage and Pollution Control
- Waste Storage and Pollution Control Plan
- Fire Prevention Plan
- Site and Equipment Maintenance Procedure
- Waste pre/acceptance / storage and handling procedures
- Accident Prevention and Management Plan
- Picking Line Working Procedure
- Spill Procedure
- Dangerous Good Procedure
- Sampling, Testing and Categorising Waste Fines
- Process of Active Material, Flow Chart

As part of this application the operator has reviewed its operations against the latest guidance for storage, handling and processing of waste including the latest Appropriate Measures guidance. See Section 9.

Acceptance and storage of all hazardous waste will be in accord with Appropriate Measures, with limits to the storage times and volumes.

Acceptance, handling and storage of hazardous wastes will be within the site building, in specific dedicated storage vessels including IBCs and 4 Yard Skip upon a fully sealed and impermeable surface with a sealed drainage system. Where liquid waste is accepted this will be within fully bunded areas and vessels with 110% capacity of total volume stored. The site will not exceed 10 tonnes at any one time for storage or handling of hazardous wastes, ensuring the activity remains a waste operation. There will be a processing / handling limit of 3,500 tonnes of hazardous waste per year.

Table 4-1 – Accepted Waste Streams

Waste Type and Origin	Size / Fraction	Storage Details	Max pile size (m3)	Storage time / restriction
Baled plastic	Baled	Under canopy	450	7 days
Baled cardboard	Baled	Under canopy	750	7 days
Baled cans / bottles	Baled	Under canopy	200	7 days
Wood	>150mm	Bay - impermeable surface	750	7 days
Hard Plastics	>150mm	Bay - impermeable surface	750	7 days
UPVC Windows	>150mm	Bay - impermeable surface	750	7 days
Plasterboard	>150mm	Bay - impermeable surface	400	7 days
Mixed Metals	>150mm	Open skip container, impermeable surface	60	7 days
Glass	>150mm	Bay – impermeable surface	400	7 days
Textiles	>150mm	Container, impermeable surface	5	7 days
Gas Bottles	>150mm	Secure cage within yard	2	7 days
General Mixed Waste	30-150mm	Waste reception building and bay, impermeable surface	300	7 days
Plastics	30-150mm	Within waste processing building, bays, impermeable surface	450	7days
Paper & card	30-150mm	Within waste processing building, bays, impermeable surface	384	7 days
Plastic Film	30-150mm	Within waste processing building, bays, impermeable surface	384	7 days

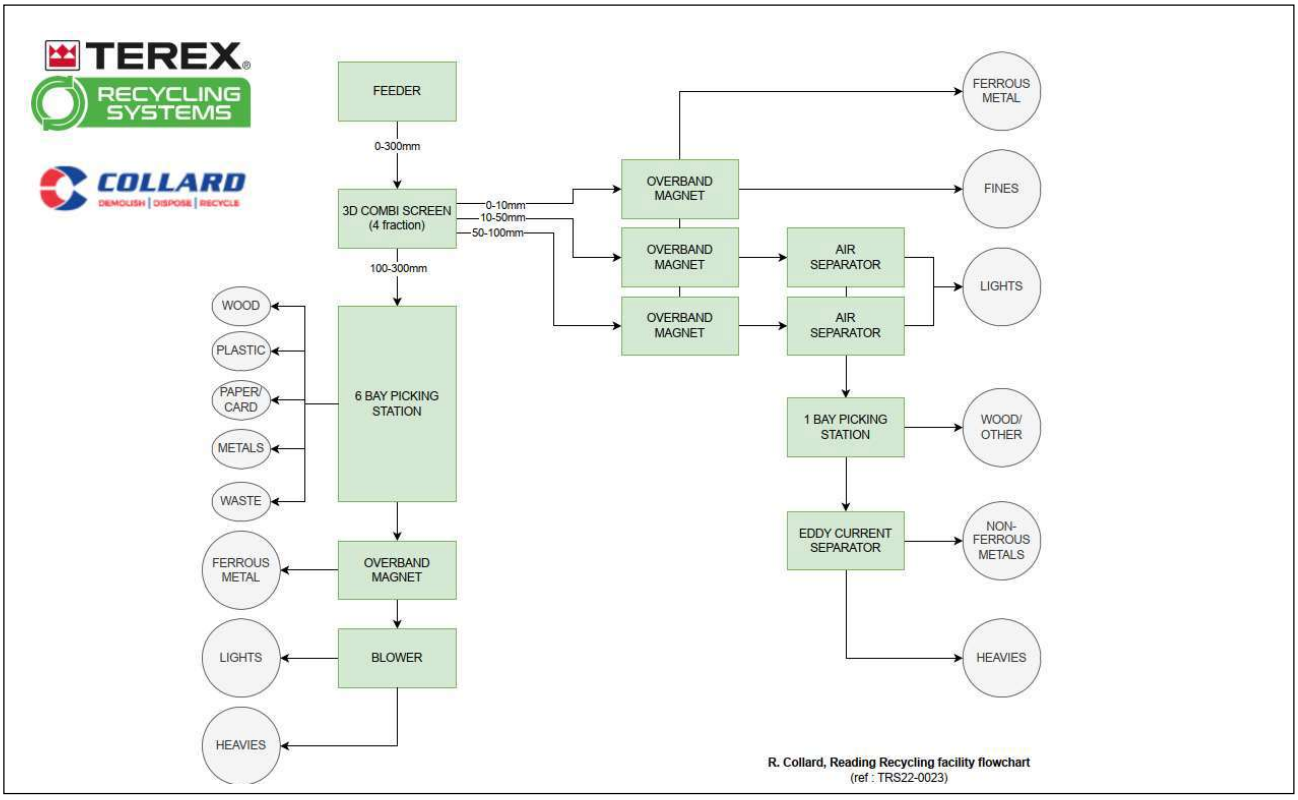
5 OPERATIONS

5.1 EXISTING OPERATIONS

As an Operator, R Collard Ltd, has experience as a supplier for the acceptance of waste from demolition, waste management, skip hire, ready-mixed concrete, metal recycling and scrap cars.

This site is classed as a household, commercial and industrial waste transfer station with waste collection vehicles deployed into the local area to pick up and collect waste materials before they are transported to the site, weighed, categorised, and deposited into the buildings and storage bays on site. Black back and recyclable wastes are stored ahead of being subject to separation and storage for further recovery / disposal (as shown in Figure 5.1).

Figure 5-1 – Process Flow Diagram



In summary, the current site process includes the delivery, sorting, handling and storage of waste for future recovery and/or disposal; the principle and most apt description of the site activities, as per the guidance set out within Regulatory Guidance Note 2, is Recovery.

The existing environmental permit was recently varied from a Standard Rules SR2008 No.3 permit to a bespoke waste operation environmental permit. This variation application is not changing the facility types, i.e. a bespoke waste operation, but is requested additional waste throughput tonnage and the acceptance of specific hazardous wastes as detailed in Section 8.3.

The site's processing line has been upgraded seeing improved performance and environmental benefits including improved operational efficiency of the plant as well as reduced operational noise and dust levels (see appendix J).

Sorting Line - Process description

Material is pre-sorted with a material handler to remove any abnormal oversize material before being loaded into the feed hopper, which has a variable belt speed to control the feed rate of material into the plant. Material is then transported by a series of conveyor belts to a vibrating screen which uses screen media to separate the material by size into the following fractions:

- 0-10mm “fines”
- 10-50mm “midsize”
- 50-100mm “midsize”
- >100mm “oversize”

0-10mm fines are collected and transported by a series of conveyor belts to a storage bay, whilst passing beneath an over-band magnet which removes any ferrous metals present and discharges to a storage container.

10-50mm midsize fraction is transported by conveyor belt to air separation, whilst passing beneath an over-band magnet which removes any ferrous metals present and discharges to a storage container.

50-100mm midsize fraction is transported by conveyor belt to air separation, whilst passing beneath an over-band magnet which removes any ferrous metals present and discharges to a storage container.

Parallel air separators remove any light materials from the 10-50mm and 50-100mm fractions respectively. The light fraction is blown from the material stream using an adjustable fan and separation drum and is collected in lights bay with mesh enclosure for containment.

Heavy fractions from both air separators are collected and conveyed through a manual quality control station where operatives can remove any remaining heavy contaminants (e.g., dense wood etc) which is dropped via chutes into the storage bay beneath.

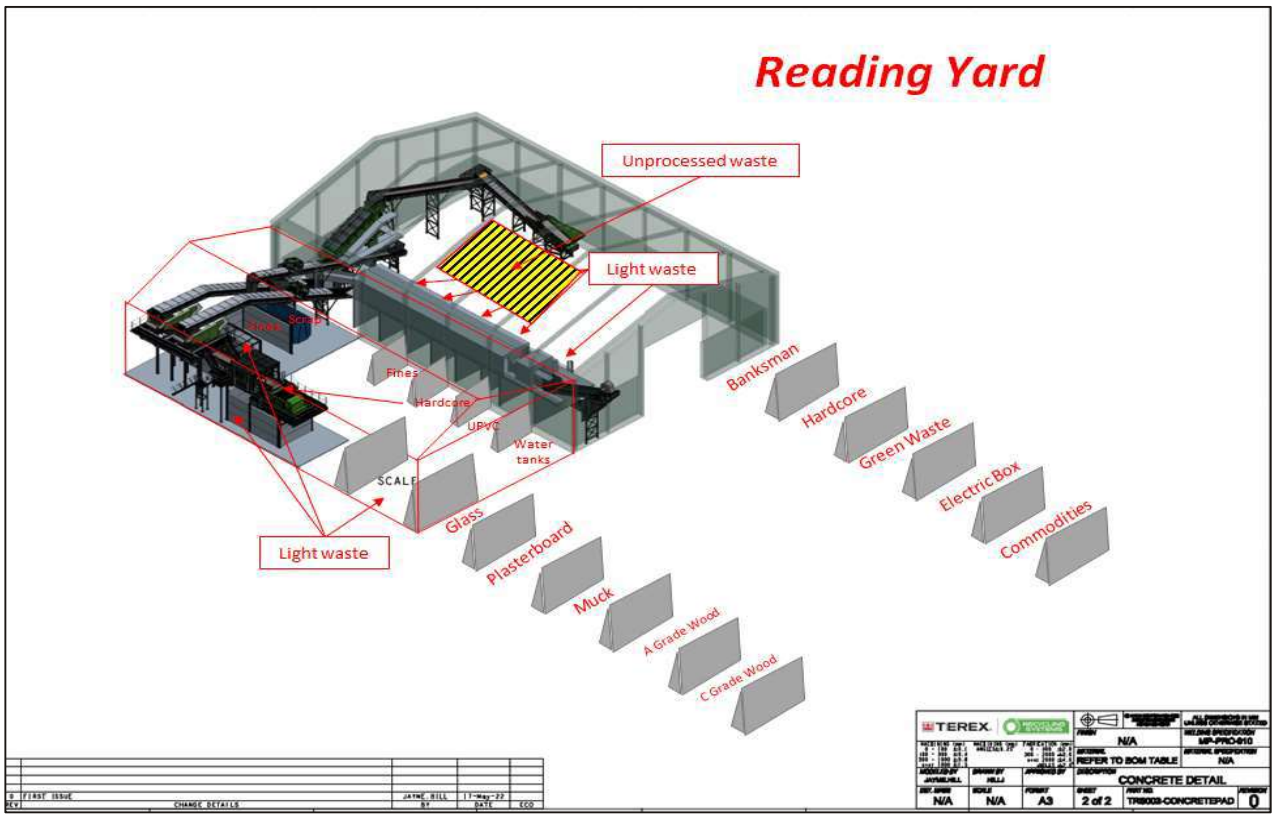
After manual quality control, the heavy fraction is fed onto an eddy current separator which uses a high-speed rotor with magnets to remove ferrous metal which is discharged to a container and the clean heavy fraction drops to a storage bay beneath.

>100mm oversize material is conveyed from the vibrating screen through a 6 bay manual picking station, where operatives can sort out target materials and drop it via chutes into storage bays beneath (for example wood, cardboard, plastic etc).

After manual sorting, material is conveyed beneath an over-band magnet to remove any ferrous metals present. As material drops off the end of the conveyor a blower removes any remaining light material via a chute into lights bay with mesh enclosure for containment and the clean heavy fraction drops into a storage bay below.

Section 5.2 provides further detail on improvements and upgrade to the site’s waste processing plant. Figure 5-2 below shows the site layout plan.

Figure 5-2 - Layout Plan



5.2 PROPOSED CHANGES TO OPERATIONS

OVERVIEW

The site is located at 124 Cardiff Road, Reading. The nearest post code is RG1 8PQ and approximate grid coordinates are 470519, 174152. The site is located within an area comprising mixed commercial and light industrial units.

The site requires an extension to the permit boundary (new site area is approximately 0.12Ha) as shown in the site layout plan, Appendix B. The proposed works have to date included the demolition of an existing single storey commercial building and its replacement with a new, larger shed plus external staff carparking. The proposed shed will abut an existing shed onsite to extend the waste sorting and storage facilities already provided within that building, as shown in the site layout plan, Appendix B.

Immediately surrounding the new shed within the overall site, is the existing shed to the west, outdoor compound to the north and staff parking to the south. Access to the new carparking will be from Cardiff Road which forms the southern WTS and site boundary.

The site processing plant has been upgraded and installed for the sorting of waste in line with current practices with no changes to the activities associated with this plant.

Figure 5-2 above provides a process flow diagram to reflect the site practices; the use and installation of picking and processing conveyors does not change any of the regulated activities.

The addition of both specific and limited hazardous and clinical / healthcare wastes (see Section 8.3 for details) for the purpose of storage only ahead of off-site recovery and/or disposal will be a new element of operation that the Operator is seeking to include within their existing permit. This activity will be regulated as a waste operation and the hazardous waste throughputs and total storage volume will be below the thresholds of the Part A1 Scheduled Activities (i.e. less than 10 tonnes per day and less than 50 tonnes stored on site at any one time).

The total waste throughput for the site is being requested to be raised to 150,000 tonnes per annum as a result of this variation, with this being principally focused on an increase in processing capacity of the sorting line for current non-hazardous waste streams. The site will accept no more than 3,500 tonnes per annum of hazardous wastes (including clinical / healthcare / Waste Electrical and Electronic Equipment (WEEE) wastes) whilst being limited to less than 10 tonnes per day acceptance.

SITE DRAINAGE

DRAINAGE & EMISSIONS TO WATER

There will be no new emissions to water as a result of this variation.

The site has existing connections to a Thames Water sewer for their foul water. There will be no change associate with this connection. The site also has a connection to a Thames Water sewer for surface water also located on Cardiff Road, which has an existing soffit connection from the site. The drainage plan (see Appendix B) shows the connections from the site. Surface water from the new building and associated area will be harvested and recycled principally to be used for dust suppression within the existing shed with capture, storage, treatment and pumping of rainwater to the existing sprinkler system. Rainwater harvesting infrastructure will be sited within the proposed new shed with storage provided within existing infrastructure (tank).

The existing site building remains unchanged by this variation and currently has two surface water downpipes. A western downpipe that discharges at the southern end of the building to a connection to the sewer. The eastern downpipe from the building is partially contained within the building with the lower section running external to discharge to the surface & outfall.

FIRE PREVENTION PLAN

Collards have an approved fire prevention plan, which has been reviewed as part of this submission. The measures and approach remain appropriate, with the site activities being managed through the existing management system and in accord with appropriate measures. The approach to managing waste and the reducing the risk of fire will, in principle, be the same as previously and currently employed on site for existing activities and operations.

The site has a comprehensive fire detection and suppression system, details of which can be found in Appendix G of this application. Plans detailing the location of surveillance equipment and heat detection sensors, high level alarms and call points are found in Appendix B.

The Fire Prevention Plan is intended to be used as a stand-alone working document for operational staff on a day-to-day basis. It outlines the main potential fire sources associated with the proposed activities to be incorporated within the waste operations; the mitigation measures to be used to reduce the risk of fire; and the monitoring and reporting methods to be used when activities are operational. It is reviewed regularly and revised as required. It has been reviewed as part of this submission and is included in Appendix G of this application.

6 EMISSIONS AND MONITORING

6.1 POINT SOURCE EMISSIONS TO AIR

There are no existing point source emissions to air detailed in the current environmental permit (Schedule 3) and there are no new point source emissions to air proposed through this variation. Therefore, no further assessment is required.

Section 8 of this report (Environmental Risk Assessment) provides detailed information about the possible environmental impacts from the current and proposed activities on site.

6.2 POINT SOURCE EMISSIONS TO WATER

There are no new or existing point source emissions to water from the facility. There will be no new point source emissions to water as a result of the proposed changes in this permit variation.

6.3 POINT SOURCE EMISSIONS TO SEWER

There are no point source emissions to sewer from the facility that are not covered in the original permit. There will be no new point source emissions to sewer as a result of the proposed changes in this permit variation.

6.4 EMISSIONS OF SUBSTANCES NOT CONTROLLED BY EMISSION LIMITS

FUGITIVE EMISSIONS

Potential fugitive emissions to water are reviewed under three headings as follows:

- Sub-surface structures and sumps.
- Containment including bunds and secondary / tertiary containment; and
- Storage areas for IBCs, drums etc.

SUB-SURFACE STRUCTURES AND SUMPS

No new sub-surface structures will be installed as part of the changes being applied for in this environmental permit variation application.

CONTAINMENT

Table 6-1 details the new rainwater harvest tanks being applied for in this environmental permit variation application along with the proposed containment measures. Details of the only other existing tank on site is also below.

Table 6-1 – Containment

Tank / Equipment	Description & Capacity	Detail & Number
Rainwater Harvest Tanks	12,500 litre	X 2 (25,000 litre total volume)
Fuel Tank (for site plant)	9,000 litre	Self-bunded 110%, fill points within bund / catch trays, double skinned, level control and visual display and remote monitoring.

The containment measures detailed in the above table are considered appropriate to satisfy the requirements of appropriate measures and best available techniques in relation to emissions of substances not controlled by emission limits.

The rainwater harvest tank and fuel tank are subject to regular inspections as part of the site's planed and preventative maintenance regime, to ensure its integrity is maintained and functional.

STORAGE AREAS FOR IBCS, DRUMS, BAGS ETC.

The whole site is covered by an impermeable surfacing and sealed drainage system with clearly separated and segregated areas for waste storage according to type, properties, and hazard association. Bunding and kerbing are utilised as containment measures for localised storage areas. The overall site footprint will increase because of this variation with the construction of a new waste processing building. Clinical and healthcare waste accepted on site will be stored within the processing building in designated bays within appropriate cages / containers as per the healthcare waste guidance and appropriate measures. WEEE waste will be stored in a designated lockable container upon an impermeable surface within a designated bay.

FUGITIVE EMISSIONS TO AIR

Techniques to minimise such emissions are managed through the site's operating techniques and procedures including management plans that form part of the Environmental Management System (see appendices). Fugitive emissions are, and were previously, evaluated to be negligible and unlikely to occur beyond the site boundary. The proposed changes as part of this permit variation application will not result in any increased impacts in terms of fugitive emissions to air. The site carries out personnel and boundary dust monitoring to monitor operational dust levels.

DRAINAGE

There will be no new foul water streams generated. There will be no change to existing streams. There are no plans to add new welfare facilities and no additional sources of industrial wastewater will be created by the proposed activities subject to this variation application.

Surface water will be harvested and used for dust abatement, as part of the current activities undertaken on site, reducing the need and use of mains water.

Surface water management for the site will be a combination of rainwater harvesting for reuse and subsequent attenuation and controlled discharge to the Thames Water sewer network for any residual runoff.

Rainwater will be harvested from the new building roof for storage within the surface water holding tank (a repurposed former weigh-station), before being reused and pumped into the dust suppression system (sprinkler system).

If the surface water runoff volumes exceed the capacity of the rainwater harvesting system, then this will be directed to the existing surface water connection to Thames Water's public Surface Water sewer.

6.5 ODOUR

Waste operations can generate odour dependant on the nature of wastes stored, activities undertaken, and management of the waste defined by an Operator's site procedures.

Specific to Cardiff Road, the site does not accept loads that are likely to cause nuisance or are highly odorous, whilst they do accept waste capable of causing odour.

Management and rejection of wastes is defined within Collard's operating procedures with wastes being inspected and rejected where potential nuisance issues or non-compliance with the environmental permit could be caused. The site itself only stores non-putrescible waste externally, with minimal potential for odours. Furthermore, the storage facilities available at the site are fit for purpose and aligned to Appropriate Measures for the waste sector. Whilst the site will accept some wastes capable of generating odour including recyclables for the process line these will be contained, managed, and sorted within a purpose built, self-contained buildings, therefore, the potential for odour generation is deemed to be medium to low, as identified and described in the Environmental Risk Assessment.

The proposed changes as part of this permit variation application are not anticipated to have any increased impacts in terms of emissions of odour, due to the existing measures, update operating techniques and management of the activities and their whereabouts on site.

The existing facility has not been required or requested to provide an odour management plan during its existing operations and has not been subject to any significant volumes of complaints during its operation.

Nonetheless, potential odour releases from the proposed activities are considered in the environmental risk assessment provided in Section 8.

6.6 MONITORING

There will be no changes to the monitoring arrangements as a result of this permit variation application. There are no new point source emissions or significant changes to existing infrastructure.

7 RECORDS, REPORTING AND NOTIFICATION

7.1 RECORDS, REPORTING AND NOTIFICATION

Details on the arrangements for recording, reporting and notifying the Environment Agency will not change as a result of the permit variation being applied for. Compliance is maintained through the site's certified Environmental Management System.

7.2 INSTALLATION CONFLICT OR ISSUES

None. The applicant is the only permit holder on the installation.

7.3 SITE CLOSURE PLAN

Site closure will be accounted for through the site's environmental management system with an appropriate site closure plan being written and approved by the regulator during any surrender process. The facility was assessed as part of the original permit application, and this should be referred to for details of any proposed closure management measures in the event of future site closure and surrender of the environmental permit.

8 ENVIRONMENTAL RISK ASSESSMENT

8.1 INTRODUCTION AND OVERVIEW OF SECTION

This section provides an assessment of the potential significant local environmental effects associated with the proposed changes using the Environment Agency's latest guidance.

Section 8 of this application contains the Environmental Risk Assessment tables completed as part of the variation application for the facility. These have been created to reflect the proposed changes being made to the site.

8.2 SITE ACTIVITIES

The site will accept hazardous and non-hazardous wastes, separating and storing for future off-site recovery and/or disposal. The total throughput will be limited to maximum of 150,000 tonnes per annum.

The Operator has installed an improved processing line to improve performance and efficiency of the plant operation and activities. It will enable the site to handle the proposed throughputs of waste for acceptance at the site, which currently treats and processes a mixture of household, commercial and industrial waste.

Operations are limited to waste activities in the form of physical treatment including manual and mechanical sorting/ separation and screening of waste for disposal (no more than 50 tonnes per day) or recovery. The Operator has stated that the volumes of waste stored, in addition to the proposed handling operations will continue in the same vein as currently conducted on site and will not meet the definitions or throughputs of any Schedule 1 Activities.

Specific limitations, set by the Regulator (the Environment Agency) within the existing permit and associated with the activities will remain without change, including all waste to be treated and stored on impermeable surfaces with fully sealed drainage systems. Wastes shall be stored for no longer than 1 year prior to disposal or 3 years prior to recovery and shall not exceed 75 tonnes per day and no more than 50 tonnes per day of non-hazardous waste.

A site Layout Plan is included in the existing permit or Appendix A to the original permit application report.

An updated site layout plan to show the changes being applied for in this permit variation application has been included in Appendix B.

8.3 HAZARD IDENTIFICATION

The proposed activity is for the storage and sorting of non-hazardous and hazardous wastes both within purpose-built buildings and external bays located on impermeable surfaces with a sealed drainage system.

This variation is seeking to add the following waste codes, to the current accepted list of wastes detailed within Environmental Permit EPR/EB3500KB.

Table 8.1 – Proposed new waste codes

Waste Code	Description
18-01-01	Sharps [except for 18-01-03].
18-01-03*	Sharps and related wastes including cytotoxic and cytostatic contaminated, other medicinally contaminated or non-medically contaminated. Infectious clinical waste (no chemicals or pharmaceuticals) - orange bag.
18-01-04	Outer dressings and protective clothing like masks, gowns and gloves that are contaminated with body fluids, and sterilised laboratory waste. Plaster and similar wastes, for example from dentistry and fracture clinics.
18-01-06*	Laboratory chemicals and photochemicals – other chemicals (hazardous). Infectious clinical wastes (yellow bag)
18-01-07	Laboratory chemicals and photochemicals – other chemicals
18-01-08*	Cytotoxic and cytostatic medicines
18-01-09	Other Medicines
18-02-01	Sharps [except 18-02-02].
18-02-02*	Animal healthcare waste including sharps and related wastes including cytotoxic and cytostatic contaminated, other medicinally contaminated or non-medically contaminated. Infectious clinical waste (no chemicals or pharmaceuticals) - orange bag.
18-02-03	Animal healthcare waste including plaster and similar wastes, for example from dentistry and fracture clinics
18-02-04	Animal healthcare waste including outer dressings and protective clothing like masks, gowns and gloves that are contaminated with body fluids, and sterilised laboratory waste
18-02-05*	Animal healthcare waste including Infectious clinical wastes (yellow bag).
18-02-06	Animal healthcare waste including laboratory chemicals and photochemicals – other chemicals
18-02-07*	Animal healthcare waste including sharps and related wastes including cytotoxic and cytostatic contaminated, other medicinally contaminated or non-medically contaminated.
18-02-08	Animal healthcare waste including other medicines
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11
20 01 13*	Solvents
20 01 14*	Acids
20 01 15*	Alkalines
20 01 17*	Photochemicals
20 01 19*	Pesticides
20 01 21*	Fluorescent tubes and other mercury-containing waste
20 01 23*	Discarded equipment containing chlorofluorocarbons
20 01 25	Edible oils and Fats

Waste Code	Description
20 01 26*	Oil and fat other than those mentioned in 20 01 25
20 01 27*	Paint, inks, adhesives, and resins containing hazardous substances
20 01 28	Paint, inks, adhesives, and resins other than those mentioned in 20 01 27
20 01 29*	Detergents containing hazardous substances
20 01 30	Detergents other than those mentioned in 20 01 29
20 01 33*	Batteries and accumulators included in 16 06 01, 16 06 02 or 16 06 03 and unsorted batteries and accumulators containing these batteries
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 hazardous substances
20 01 99	Other fractions not otherwise specified – including hygiene waste and sanitary protection like nappies and incontinence pads

These wastes will be handled and accepted in accord with the defined appropriate measures and sector guidance set out for the waste industry, as dictated by site operational procedures and the Operator's management system. Operations will not change or deviate from those typically undertaken on site at the present, with the site ultimately acting as a transfer station before wastes go on to their final recovery or disposal facilities.

Notwithstanding, it is considered that non-hazardous wastes will continue to form the majority of wastes stored and handled on site because of current contracts, plant and operations already established and put in place, but the ability to accept the additional wastes will support business growth and legally permit the storage and processing of small quantities of hazardous waste.

The operator will only accept suitable wastes capable of being processed and stored at the site. The waste acceptance procedure stipulates the approach and process for acceptance of wastes and that they must be capable of being stored in a bay / container / defined area without risk of contamination or breach of containment (see Appendix F).

The principal risks identified from the storage of the proposed additional wastes have been identified as:

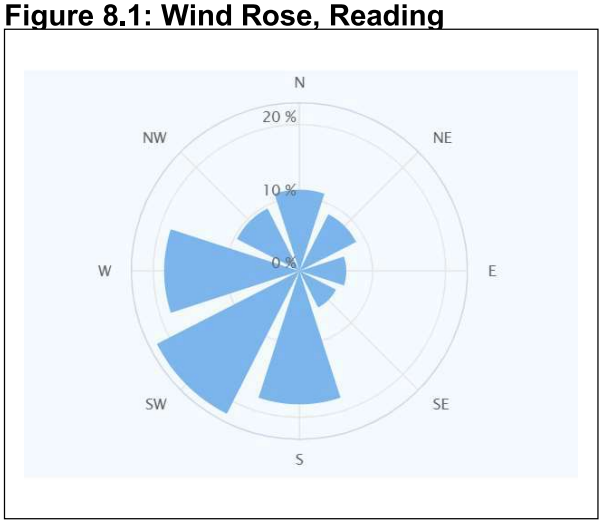
- Noise and vibration – from delivery vehicles to the site; use of plant machinery.
- Dust emissions – the handling and storage of waste may generate dust in dry conditions that may be dispersed by wind towards receptors. Dust may contain hazardous contaminants. This will be mitigated through use of appropriate measures, defined in the operating procedures and an on-site dust suppression system recycling captured rainwater runoff.
- Potential for fugitive emissions to air of volatile organic compounds (VOCs).
- Contaminated run off entering ground or drainage system.
- Odour emissions – odours associated with putrescible wastes, contamination of waste, non-conforming waste loads.

- Mud on road – increase in vehicle movements to and from the site may increase mud deposited on the access road and public highway.
- Accidents – failure of the sealed drainage system, mixing of incompatible waste streams or failure of waste acceptance controls.

Wind Direction

In the case of risk from odour, noise and dust, meteorological conditions affect dispersion rates. Information has been obtained from the Met Office and World Weather relating to wind speed and direction for the monitoring station considered most representative for the area, which is Tilehurst. Wind data is shown in Figure 8.1 below, showing that the principal wind direction is usually, south westerly:

Figure 8.1: Wind Rose, Reading



The data shows that wind prevails predominantly from the southwest but also significantly from the west and south. The prevailing winds at the site are from the west-south-west and south-west, based on regular observations recorded at the 'Reading' monitoring station between February 2012 and January 2023.

Assessment of Risks

Overall risk is a combination of the severity of an event and the likelihood of occurrence. Probability of occurrence is defined as:

- Probable – expected to occur based on previous occurrences
- Likely – expected to occur due to proposed changes
- Possible – this may occur, it may or may not have happened occasionally in the past
- Unlikely – not expected to occur
- Very Unlikely – has never and is not expected to occur

The magnitude of risk is determined by the probability of exposure and the severity of the consequences, whereby:

- High – severe and long-lasting environmental effects to the wider locality
- Medium – effects to the local environment and community

- Low - minor, short lived effects just beyond the site boundary
- Negligible – no discernible effect beyond the site boundary

An event could have a high probability of occurring but have minor environmental consequences; therefore, it will be designated as a low risk. Likewise, a risk with severe consequences could be unlikely to occur and will be designated as a low risk. A high-risk designation would be assigned to an event that has severe consequences and is expected to occur.

Risks are assessed in Table 8.2 below. The assessment takes account of the proposed changes to be introduced by this permit variation and current operations, baseline conditions and indicates where mitigation may be required. Risks assessed as medium or high will require mitigation and control measures.

Table 8.2 – Environmental Risk Assessment

Hazard	Receptor	Pathway	Risk & Risk Management	Probability of Exposure	Consequence	What is the overall risk?
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence.
Noise & Vibrations from vehicles - delivering and moving waste for storage and processing including in/out of storage bays Noise & Vibration from processing operations	Residents, industrial / commercial neighbours, users of footpaths	Air (noise) Vibration (ground)	Low Processing activities to take place within enclosed building, purpose built to reduce potential impact from operations. Regular maintenance of site surfaces & repair of potholes to minimise noise generated by empty vehicles. A maximum site speed limit (10 mph), lessening engine noise. Idling or queueing vehicles will be advised to shut off their engines (no idling policy). Restriction of operating times as per planning conditions.	Unlikely: The closest residents are over 500m away with an other businesses and properties between the site and the residents. Intermittent exposure for footpath users, not distinguishable from other vehicle noise associated with the industrial estate and roads. Neighbouring commercial / industrial properties do not conduct noise sensitive operations and are unlikely to distinguish from other traffic noise.	Nuisance to residents: more frequent instances of noise & vibration from increased incoming & outgoing vehicles during operations.	Negligible.
Windblown dust contaminated with non/hazardous substances, generated from incoming vehicles and stockpiles.	Residents, industrial / commercial neighbours, users of footpaths	Air	Low Dust management and reduction is managed through the site procedures and management system. Vehicles delivering waste will be covered Materials can be damped down in storage to reduce dust if very dry Covered storage and storage in bays will reduce potential for wind whipping of dust Maintenance of site surfaces	Unlikely: Prevailing winds away from closest neighbouring properties. Additionally, there are significant shields (building) between the site and the neighbouring properties. The closest commercial neighbours are not sensitive to site activities.	Deposit of dust on surfaces including vehicles and properties. Potential to impact local roads / traffic. Airborne dust causing respiratory problems to local residents / business users.	Negligible.
Odour release during delivery of waste and storage in	Residents, industrial / commercial neighbours, users of	Air -Diffusion of odour from offloading and	Low Vehicles delivering waste will be	Unlikely: waste not considered to be at risk, with quick turnaround	Nuisance and complaints.	Low

Hazard	Receptor	Pathway	Risk & Risk Management	Probability of Exposure	Consequence	What is the overall risk?
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence.
reception area	footpaths	stockpiled waste	covered, as appropriate. Waste acceptance procedures to prevent acceptance of malodorous waste.	times, volume limits and arrangements for storage. Operations undertaken in accord with site procedures and EMS.		
Emission of VOCs from incoming waste and stockpiles	Residents, industrial / commercial neighbours, users of footpaths	Vaporisation and dispersal	Low Waste pre/acceptance procedures to minimise acceptances of contaminated materials and arrange for appropriate storage and transport of accepted wastes.	Unlikely: Waste will be transported and stored appropriately with correct labelling and signage. Limited storage times.	Contribution to reduction in air quality. Nuisance Respiratory irritation and reduced air quality.	Negligible
Emission of contaminants to ground / water from waste.	Ground / Groundwater (underlying aquifer)	Seepage – loss of containment	Low Appropriate storage Sealed drainage systems and surfaces Internal building and storage bays, with use of bunds as appropriate. Implementation of operational procedures and management systems, with enforcement through site staff,	Unlikely: waste will be deposited / collected, processed and stored & treated on a sealed surface with contained drainage.	Contamination of ground and groundwater affecting quality and/or aquatic life.	Negligible.
Mixing of wastes	Compliance Ground / Groundwater Air quality	Chemical reactions. Localised contamination via seepage / fugitive emissions.	Implemented EMS Waste procedures to minimise risk of inappropriate storage and mixing of wastes. Dedicated quarantine areas. Duty of care process fully embedded and implemented on site. Rejection and quarantine process	Possible: Waste will be transported and stored appropriately with correct labelling and signage. Limited storage times.	Non-compliance	Low

Hazard	Receptor	Pathway	Risk & Risk Management	Probability of Exposure	Consequence	What is the overall risk?
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence.
			and procedures			
Wastes / Mud / Dusts carried onto roads and public highways from HGVs	Surrounding roads and neighbourhood	Carried out on the wheels/body of vehicles	Medium The site and wider area are impermeable surfacing including concrete surfaces and provides a clean running surface. A road sweeper is in regular use to clean up any waste/mud deposited on the access roads Very good compliance history as operator of transfer station. Complaints logged and managed via the EMS.	Possible: waste will be deposited / collected, processed and stored & in line with procedures including the visual inspection of vehicles following transfer. Use of vehicle wash equipment.	Nuisance	Low
Receipt of unsuitable material for storage and processing	Compliance Ground / Groundwater Air quality	Seepage Dispersion	Waste pre/acceptance procedures to minimise risk of unsuitable materials entering the site. Dedicated quarantine areas. Duty of care process fully embedded and implemented on site. Rejection and quarantine process and procedures	Possible: Waste will be transported and stored appropriately with correct labelling and signage. Limited storage times.	Non-compliance Contamination of ground / fugitive emissions / odour Return / recovery / disposal route and organisation, with duty of care traceability.	Low
Site based spills – drain blockages, vehicle fuel spills, bund over-topping.	Ground / groundwater	Seepage into ground / groundwater via unmade ground	Visual inspections Maintenance planning Plant regularly maintained and checked spill kits available on site for minor spillages	Possible / Unlikely	Localised low-level contamination	Negligible
Fire (including arson, self-combustion, ignition sources, incompatible wastes and	Residents, industrial / commercial neighbours,	Fire spread, localised to site, waste piles and	Management of waste including appropriate storage, timeframes for storage, location of waste types and	Possible: Fire would be limited to the combustible waste,	Fire damage, smoke emissions into the atmosphere affecting	Low

Hazard	Receptor	Pathway	Risk & Risk Management	Probability of Exposure	Consequence	What is the overall risk?
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence.
chemical reactions)	residents and public	combustibles, incompatible wastes, chemical reaction, arson, heat generation and self combustion.	management by technically competent person. Security measures in place on site to reduce or limit threat of arson / intruders etc. Fire detection and suppression systems installed on site Inspection of wastes, plant and vehicles Plant and vehicles subject to regular maintenance and operated by trained personnel only All vehicles are fitted with fire extinguishers to be used to tackle a small-scale vehicle fire Approved fire prevention plan implemented on site.	buildings and vehicles, some wastes are non-combustible.	local workplaces & residents	
Attraction of pests such as rodents and flies	Residents, industrial / commercial neighbours, residents and public	Air Drainage infrastructure	If management procedures are adhered to low risk of pests. Pest management measures employed at site and quick turnaround of putrescible wastes. Sealed containers and storage systems utilised on site, subject to integrity checks.	Possible - Pests will be attracted to waste and if so, would be subject to pest control measures that would prevent any issues outside the site boundary.	Nuisance Disease Infrastructure damage	Low
Biohazard / Waste contamination	Site Staff	Inhalation / Ingestion / adsorption / absorption / Injury	Only small volumes of healthcare / clinical waste are proposed to be stored on site for transfer. The procedures will meet appropriate measures and healthcare guidelines. Packaging / containers will not be opened for inspection or bulking and therefore interaction with waste will	Possible / Unlikely: All care and attention will be given to adhere to operational instruction and procedures. This will limit interaction with wastes and ensure waste vessels /	Disease Biohazards	Low

Hazard	Receptor	Pathway	Risk & Risk Management	Probability of Exposure	Consequence	What is the overall risk?
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence.
			be kept to an absolute minimum, where possible there will be no manual interaction with these wastes directly. Good hygiene practices will also be followed by staff and cleaning / disinfectant cycles implemented.	containers are of a sound integrity before being accepted onto site.		
Failure of plant and equipment	Neighbours - nuisance issue to local neighbours and surroundings. Business – ability to process waste will impact on both economic elements and reputation.	Air / Localised issues	Accident management plan and contingency plan include provision for wastes to be diverted to other sites in the event of such a scenario. Timeframes and volumes of waste (maximum) that can be stored and held on site are defined within the procedures.	Unlikely. Maintenance plan in place and accessible spares but plant breakdown or maintenance works. Contingency plans in place for such an event. Staff aware and trained in response.	Inability to process waste and continue operations, leading to waste having to be removed from site and re-directed. Increase nuisance issues, odour, dust pests etc. Certain waste types turning putrescible. Commercially impactful Reputationally damaging	Low.
Failure of containment (including bund failure)	Ground / groundwater Neighbours - nuisance issues (through odour / dust)	Air / Land / Water	Pre-acceptance and acceptance procedures ensure that waste is brought to site in a standard fit for processing and handling. Procedures are in place for both rejection of waste loads and quarantine of waste where there are issues with both integrity of packaging / misinformation / discrepancies etc Appropriate storage areas according to waste types, sealed systems for drainage and bunding etc	Unlikely. Procedures and management plans will reduce the risk of failures of containment in addition to maintenance schedules and site inspection s/ audits. Staff use mechanical aids where interacting with waste and PPE as a further measure.	Increase nuisance issues, odour, dust pests etc Exposure to staff (could be harmful) Commercially impactful Reputationally damaging	Low.

Hazard	Receptor	Pathway	Risk & Risk Management	Probability of Exposure	Consequence	What is the overall risk?
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence.
Incompatible substances encountering each other	Neighbours Disruption to local community Ground / groundwater	Air / land	Appropriate storage and infrastructure Site and waste inspections Waste inventory EMS – emergency and contingency plan.	Unlikely – wastes will be managed from acceptance to transfer. Regular infrastructure and waste inspections. Appropriate procedures and practice implemented on site.	Fire & Explosion Risk to human health Breach of Containment	Low.
Unwanted reactions and runaway reactions	Site Staff Local environment and surrounds	Breach of containment or mixing of incompatible wastes	Waste is subject to a waste storage plan managed by technically competent staff. Waste will be brough to site in appropriate form and containers and will be subject to pre-acceptance and acceptance procedures. The site will hold a register of materials and liquids stored and ensure that all wastes are appropriately managed. Wastes will be subject to regular integrity checks and inspections.	Unlikely Limited wastes being brought onto the site which is controlled through the environmental permit. Procedures and management in place to ensure good waste management practice is implemented on site. Accident and emergency management plan has been developed and implemented on site to cover these scenarios.	Increase nuisance issues, odour, dust pests, fire, explosions etc Exposure to staff and locals (could be harmful to human health) Commercially impactful Reputationally damaging	Low.
Vandalism and arson	Staff / Site Security Business – reputation and loss of assets	Breach of boundary fence / gated entrances	The site has 24/7 security measures in place with boundary checks, cctv. secure fencing and lockable facilities and plant.	Unlikely Damage theft or plant / materials Management plans have been written and implemented on site detailing the security	Commercially impactful Reputationally damaging Staff safety	Medium - Low

Hazard	Receptor	Pathway	Risk & Risk Management	Probability of Exposure	Consequence	What is the overall risk?
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence.
				requirements that will be maintained on site as a minimum and what to do in the event of arson or vandalism.		
Extreme weather conditions, for example flooding or very high winds	Site infrastructure Neighbours Local Environment	Air / land / water	Wastes will be managed according to their type. Sensitive wastes with specific needs shall be stored internally under cover whilst other waste can be stored externally. The management system in place will ensure that storage arrangements are adhered to. Waste can be moved in extreme conditions. The site has sealed drainage systems and regulated outfalls, so risk of flooding is low.	Low	Commercially impactful Ability to function and operate. Impact on waste storage areas.	Negligible / low.
Decommissioning plant and buildings	Land / groundwater	Contamination of land / water through disturbance and decommissioning / demolition activities	Any demolition or decommissioning activities would be undertaken by competent persons. All wastes and materials would be removed from site as appropriate. Plant has been installed and operated on impermeable surfaces.	Low	Legacy issues, if not planned appropriately or undertaken by competent persons. Reputational damage and costly.	Low.

9 BEST AVAILABLE TECHNIQUES [BAT]

9.1 REVIEW OF BAT

The proposed activities do not meet the thresholds for Schedule 1 activities specific to waste storage and treatment, instead the operations proposed fall under the definition of a waste operation, meaning that BAT does not apply but sector specific Appropriate Measure do.

However, given the close alignment of BAT and relevant appropriate measure, a broad assessment against the BAT conclusions for waste treatment, August 2018 (EU 2018/1147) has been undertaken and is presented in below:

BAT Reference	Requirement	BAT Compliant	Document Reference / Detail
1	Implement an Environmental Management System	Yes	Reading Material Recycling Facility - Environmental Management System
2	Use of pre-acceptance procedures	Yes	Reading Material Recycling Facility - Environmental Management System
2	Use of acceptance procedures	Yes	Reading Material Recycling Facility - Environmental Management System
2	Waste tracking and inventory	Yes	Reading Material Recycling Facility - Environmental Management System
2	Output quality management system	Yes	Reading Material Recycling Facility - Environmental Management System
2	Waste segregation	Yes	Reading Material Recycling Facility - Environmental Management System
2	Waste compatibility	Yes	Reading Material Recycling Facility - Environmental Management System
2	Sort incoming solid wastes	Yes	Reading Material Recycling Facility - Environmental Management System
3	Maintain an inventory of wastewater and gas streams	n/a	
4	Waste storage: Optimised storage locations	Yes	Reading Material Recycling Facility - Waste Storage and Pollution Control Plan 2021
4	Adequate storage capacity	Yes	Reading Material Recycling Facility - Waste Storage and Pollution Control Plan 2021
4	Safe storage operation	Yes	Reading Material Recycling Facility - Waste Storage and Pollution Control Plan 2021
4	Separate areas for storage and handling packaged hazardous waste	Yes	Reading Material Recycling Facility - Waste Storage and Pollution Control Plan 2021
5	Use of waste handling and transfer procedures	Yes	Reading Material Recycling Facility - Environmental Management System
6&7	Monitoring emissions to water from wastewater streams	n/a	No emissions.
8	Monitor channel emissions to air	n/a	No emissions.
9	Monitor diffuse emissions	n/a	No requirement to monitor set in the permit. EMS specifies inspections and protocols adopted by the site.
10	Periodically monitor odour emission	Yes	Reading Material Recycling Facility - Environmental Management System
11	Monitor annual consumption of water, energy, raw materials, and generation of waste	Yes	Reading Material Recycling Facility – Section 6 - Environmental Management System
12	Emission to air (odour): setup and implement odour management plan	n/a	

BAT Reference	Requirement	BAT Compliant	Document Reference / Detail
13	Minimise odour emissions using prescribed techniques	Yes	Containment of operations within purpose-built building. Adoption and implementation of appropriate measures and operating procedures as containment within: Reading Material Recycling Facility - Environmental Management System
14	Reduce diffuse emissions to air - proscribed techniques (as relevant): a) minimise the number of potential diffuse emission sources d) containment, collection and treatment of diffuse emissions e) dampening g) cleaning of waste treatment areas	Yes	Reading Material Recycling Facility - Environmental Management System
15	Use of flaring for non-routine operations or safety reasons	n/a	
16	Reduction of emissions from flaring	n/a	
17	Noise and vibration – noise and vibration management plan: applicability restricted to cases where noise of vibration nuisance at sensitive receptors is expected and/or has been substantiated	n/a	
18	Reduce noise and vibration emissions: prescribed techniques	Yes	Installation of more efficient and modern processing line. Existing procedures and measures will continue to be implemented on site to monitor and mitigate potential sources of noise and vibration.
19	Optimise water consumption, reduce volume of wastewater generated to prevent emissions to soil and water: water management	Yes	Please see Reading Material Recycling Facility - Site and Equipment Maintenance Plan 2021
19	Optimise water consumption, reduce volume of wastewater generated to prevent emissions to soil and water: water recirculation	Yes	Reading Material Recycling Facility – Section 6 - Environmental Management System
19	Optimise water consumption, reduce volume of wastewater generated to prevent emissions to soil and water: impermeable surfaces	Yes	Reading Material Recycling Facility – Section 6 - Environmental Management System
19	Optimise water consumption, reduce volume of wastewater generated to prevent emissions to soil and water: reduce impacts from overflows and failures of tanks / vessels	Yes	Reading Material Recycling Facility – Section 6 - Environmental Management System
19	Optimise water consumption, reduce volume of wastewater generated to prevent emissions to soil and water: roofing and waste storage and treatment areas	Yes	Reading Material Recycling Facility – Section 6 - Environmental Management System
19	Optimise water consumption, reduce volume of wastewater generated to prevent emissions to soil and water: segregation of water streams	Yes	Reading Material Recycling Facility – Section 6 - Environmental Management System
19	Optimise water consumption, reduce volume of wastewater generated to prevent emissions to soil and water: adequate drainage infrastructure	Yes	Reading Material Recycling Facility – Section 6 - Environmental Management System
19	Optimise water consumption, reduce volume of wastewater generated to prevent emissions to soil and water: design and maintenance provision to allow leak detection and repair	Yes	Reading Material Recycling Facility – Section 6 - Environmental Management System
19	Optimise water consumption, reduce volume of wastewater generated to prevent emissions to soil and water: appropriate buffer storage capacity	Yes	Reading Material Recycling Facility – Section 6 - Environmental Management System
20	Treatment of wastewater; Emission levels for direct discharge into receiving water body	n/a	
20	Emission limits for indirect discharge into receiving water bodies	n/a	

BAT Reference	Requirement	BAT Compliant	Document Reference / Detail
21	Emissions from accident and incidents: a. protection measures	Yes	Reading Material Recycling Facility – Section 6 - Environmental Management System
21	Emissions from accident and incidents: b. management of accidental emissions	Yes	Reading Material Recycling Facility – Section 6 - Environmental Management System
21	Emissions from accident and incidents: c. incident / accident registration and assessment systems.	Yes	Reading Material Recycling Facility – Section 6 - Environmental Management System
22	Material efficiency: substitution of raw materials with waste	n/a	
23	Energy efficiency	Yes	Reading Material Recycling Facility – Section 6 - Environmental Management System
24	Reuse of packaging	Yes	Reading Material Recycling Facility – Environmental Management System

Beyond the scope of proposed activities: BAT 25/26/27/28/29/30/31/32/33/34/35/36/37/38/39/40/41/42/43/44/45/46/47/48/49/50/51/52/53

Below are the appropriate measures for the general management required for a regulated facility with an environmental permit transferring healthcare waste, which have been reviewed against the Operator's Environmental Management System and Operating Procedures.

Health Care Waste: appropriate measures for permitted facilities	
General Management: - Management System	Reading Material Recycling Facility - Environmental Management System, Revision 04 [2021], which includes: - management commitment, including from senior managers - an environmental policy that is approved by senior managers and includes the continuous improvement of the facility's environmental performance The operator annually plans and establishes the resource, procedures, objectives, and targets for environmental performance. This is considered alongside financial planning and investment to ensure consideration is given to key environmental needs and improvements. The overarching environmental management system includes: - staff structure and relevant responsibilities - staff recruitment, training, awareness, and competence elements - company communication policy and procedures - consultation with employee involvement and roles - documentation, and effective process control through operational procedures - maintenance programmes (proactive and reactive) - management of change - emergency preparedness and response - legal register and auditing of management systems to ensure legal compliance including with environmental legislation The Operator's Environmental & Permitting Advisor will monitor the site's compliance record and check environmental performance organising for the site to take corrective or preventative action where required. This will include paying particular attention to: - Where appropriate, monitoring and measurement - learning from incidents, near misses and mistakes, including those of other organisations - records maintenance - both internal or external auditing of the management system to confirm it has been properly implemented and maintained in accordance with the requirements of the appropriate International and British Standards. As per the roles and responsibilities, senior managers will review the management system to check it is still suitable, adequate and effective.

Health Care Waste: appropriate measures for permitted facilities	
	The operator is committed to reviewing the development of cleaner technologies and their applicability to site operations. This is in part the purpose of this variation application with the replacement of the waste processing line. All new plant will be assessed and included the site's environmental impact and aspect register and assessment including the consideration of both operational life and eventual decommissioning. As per the above tables the operator has and will continue to compare the site's performance against relevant sector guidance and standards, this will be undertaken on a minimum four yearly basis, known as sectoral benchmarking. The site has and will maintain the following documentation: - accident management plan - site layout and infrastructure plan - site condition report - fire prevention plan
General Management: - Staff Competence	Reading Material Recycling Facility - Environmental Management System, Revision 04 [2021] – Section 4 The site is always operated by an adequate number of staff with appropriate qualifications and competence, details are included in the site EMS & included in Appendix C demonstrating that the site has appropriately qualified managers for the waste activity who are members of a government-approved technical competency scheme. All design and maintenance of infrastructure, plant and equipment is carried out by competent people.
General Management: - Accident Management Plan	Reading, Accident Prevention and Management Plan (see Appendix I) The Accident Prevention and Management plan provides detail for dealing with any incidents or accidents that could result in pollution. The plan alongside the environmental risk assessment identifies and assesses the risks the facility poses to human health and the environment, which includes, consideration of: - waste types - vessels overfilling - failure of plant and equipment (for example over-pressure of vessels and pipework, blocked drains) - failure of containment (including bund failure) - failure to contain firefighting water - preventing incompatible substances encountering each other - unwanted reactions and runaway reactions - vandalism and arson - extreme weather conditions, for example flooding or very high winds The site has assessed the risk of accidents and their possible consequences. See Environmental Risk Assessment. Consideration and identification of fire risks has been considered and included in both the risk assessment and fire prevention plan, which was previously accepted and approved by the Regulator. All of the below has been considered, where appropriate, as part of this application. - arson or vandalism - self-combustion, for example due to chemical oxidation - plant or equipment failure and electrical faults - naked lights and discarded smoking materials - hot works (for example welding or cutting), industrial heaters and hot exhausts - reactions between incompatible materials - neighbouring site activities - sparks from loading buckets - hot loads deposited at the site Through the site environmental management system and accident management plan, the operator has defined the roles and responsibilities of the staff involved in managing accidents, providing clear guidance on how to manage accident scenarios. The plan identifies employees who will act as an emergency co-ordinator and who will take lead responsibility for implementing the plan. Training employees in emergency preparedness and response is part of the site's training matrix and needs, to ensure they can perform their duties effectively and safely and know how to respond to an emergency. The Emergency Management Plan and Fire Prevention Plan establishes how the site will communicate with relevant authorities, emergency services and neighbours (as appropriate) both

Health Care Waste: appropriate measures for permitted facilities	
	before, during and after an accident. The site has appropriate emergency procedures, including for safe plant shutdown and site evacuation. The site has post-accident procedures that include assessing the harm that may have been caused by an accident and future remedial actions and non-conformity management. The Emergency Management Plan includes provision to test the plan by carrying out emergency drills and exercise to an agreed frequency with senior management, and in accord with the written management system.
General Management: - Accident Prevention Measures	Reading, Accident Prevention and Management Plan (see Appendix I) As per the site layout plan and operating procedures, waste will be sorted and segregated appropriately, keeping apart incompatible or segregated wastes and substances by their hazardous properties. The site will segregate incompatible waste types into bays or store them in dedicated buildings and separated drainage. The site has designed the layout and infrastructure to ensure that measures are in place to prevent containers falling over into other storage areas. Preventing accidental emissions: the site will ensure they contain the following (where appropriate) and route to the appropriate effluent management system (where necessary): - process waters (not relevant) - site drainage waters - emergency firefighting water - chemically contaminated waters (not appropriate) - chemical spills The site has implemented spill contingency procedures to minimise the risk of an accidental emission of raw materials, products and waste materials, and to prevent their entry into water / effluent systems. As per the approved fire prevention plan, emergency firefighting water collection system does take account of additional firefighting water flows and foams. The risk assessment and site procedures demonstration that the operator has considered and planned for accidental releases or emissions from infrastructure including overflows and vents. The site has adequate security and security measures in place (including staff) to prevent, entry by vandals and intruders, damage to equipment, theft, fly-tipping, arson. This includes site security personnel, CCTV and fencing. The site fire prevention plan demonstrates the Operator's meeting appropriate measures for fire prevention including the defined objectives of: - minimise the likelihood of a fire happening - aim for a fire to be extinguished within 4 hours - minimise the spread of fire within the site and to neighbouring sites The plan also includes details of how fires can be detected, managed and extinguished including the infrastructure and processes to be followed. The site has suitable procedures and provisions to store the permitted and requested new hazardous waste forms including fire resistant stores, alarm procedures and firefighting systems. The facility has demonstrated that it has enough water supplies to extinguish fires. The site has separate drainage systems and isolated storage areas, including those of flammable waste storage areas to prevent fire spread. The site is weekly inspected and regularly cleaned to prevent the spread of dirt and waste in addition to the potential for build-up of loose combustible material around the site and plant, equipment, and other potential sources of ignition. As provided in the proposed plant layout and updated specifications (Appendix J) plant control is fully documented including the procedure and process for in an emergency: - alarms, emergency stops - process trips and interlocks Control devices are easy to access and operate in an emergency situation, and the plant is maintained to ensure it is kept in a good state including through the use of a preventive maintenance programme and a control and testing programme.

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	Signage and suitable barriers are used on site, to prevent moving vehicles damaging equipment. Necessary procedures are in place to avoid incidents due to poor communication between operating staff during shift changes and following maintenance or other engineering work, including permit to work systems and handover logs. The Operator will keep an up-to-date record of all accidents, incidents, near misses, changes to procedures, abnormal events, and the findings of maintenance inspections. The Operator will carry out investigations into accidents, incidents, near misses and abnormal events and record the steps taken to prevent their reoccurrence As part of the site EMS the Operator will maintain an inventory of substances, which are present, and which could have environmental consequences should they fail to be contained. As per the operating techniques and procedures, the site will check raw materials and wastes to make sure they are compatible with other substances held on site including those that they may accidentally encounter.
General Management: - Contingency plan and procedures	Reading, Accident Prevention and Management Plan - Jan 2021 The site holds an implemented contingency plan ensuring compliance with all environmental permit conditions and operating procedures during maintenance or shutdown on site. The site's EMS and operating procedures ensures that the site does not exceed storage limits and that they apply appropriate measures for storing and handling waste, as per this review. The site will only accept permitted waste for processing, otherwise waste that is not compliant with the conditions of the permit will be quarantined. The maintenance schedule and systems detail in advance planned shutdowns at the waste management facility and where waste will be transferred in the event that it needs redirection. The plan includes details of who and where can take the waste at short notice and are authorised to do so in the quantities and types likely to be needed – in addition to carrying out their existing activities. The site is aware of its requirement to not discount alternative disposal or recovery options based on extra cost or geographical distance if doing so means they could exceed the site's permitted storage limits or compromise storage procedures. All storage volumes and limits include that of contingency scenarios and will be authorised for this storage and have the appropriate infrastructure in place. There will be no treatment on site. The management system includes procedures for auditing performance against all of these contingency measures and for reporting the audit results to the site management.
General Management: - Plant Decommissioning	Reading Material Recycling Facility - Site and Equipment Maintenance Plan The Operator has considered the decommissioning of the plant at the design stage and has made suitable plans to minimise risks during later decommissioning. This is included in the site's Environmental Risk Assessment. As part of the site's EMS a decommissioning plan will be maintained to demonstrate that: - plant will be decommissioned without causing pollution - the site will be returned to a satisfactory condition as per the Site Condition Report Guidance and requirements. The decommissioning plan includes details on: - how asbestos or other potentially harmful materials will be removed, unless we have agreed it is reasonable to leave such liabilities to future owners - methods for dismantling buildings and other structures, and for protecting surface water and groundwater at construction and demolition sites - any soil testing needed to check for any pollution caused by the site activities, and information on any remediation needed to return the site to a satisfactory state, as defined by the initial site report - the measures proposed, once activities have definitively stopped, to avoid any pollution risk and to return the site of operation to a satisfactory state (including, where appropriate, measures relating to the design and construction of the plant) - the clearing of deposited residues, waste and any contamination resulting from the waste treatment activities. - All equipment taken out of use will be decontaminated and removed from the site.

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Waste pre-acceptance, acceptance, and tracking	Reading Material Recycling Facility - Environmental Management System, Waste Acceptance Procedure [Pr061] and flow charts The site's operational procedures include those covering the appropriate measures for pre-acceptance procedures, seeking and confirming key waste data (including its composition) before it arrives at the site. This is undertaken through the Operator's duty of care approach, which confirms that the waste is technically and legally suitable for site and follows a risk-based approach, considering: - the source and nature of the waste - its hazardous properties - potential risks to process safety, occupational safety and the environment (for example, from odour or other emissions) knowledge about the previous waste holder(s) The Operator will ensure that waste producers are aware of segregating and packaging waste following the Safe Management of Healthcare Waste (HTM 07 01). Where HTM 07 01 does not specify the colour of packaging for a particular type of waste, the waste producer should use the most appropriate colour. They should take into account the nature of the waste and the waste disposal or recovery route needed. For example, it should be: - yellow if the waste requires waste incineration - orange if alternative treatment is appropriate - black or black and yellow if municipal incineration is appropriate or an additional non-conflicting colour code. Where this guidance is applied, the Operator will seek additional information from the producer(s), confirming the segregation practices and colour-coding they have used to ensure that the waste stream is fully understood and sent for appropriate treatment. The following written information will be sought and collected when receiving customer queries: - details of the waste producer (for example, medical practice) including address and contact details - the specific source of the waste – for example, pharmacy, veterinary, primary care, dental, acute care, laboratory - details of the waste streams and types produced, including their quantity, physical form, composition, properties, classification, and description. Where appropriate and before healthcare wastes arrive and are accepted at the site the Operator will ask for a representative waste pre-acceptance audit report from the waste producer. This will not be required for: - waste produced at domestic premises - waste produced at care homes that do not provide nursing care healthcare wastes from non-healthcare activities – as classified under chapter 20 of the LoW. The Operator will obtain and assess a waste pre-acceptance audit report before taking delivery of the first batch of waste from each medical practice. The site will then do this at the following minimum frequencies, every: - 12 months for each medical practice that produces 5 tonnes or more of clinical waste in any calendar year - 2 years for each veterinary practice, dental practice and laboratory that produces less than 5 tonnes of clinical waste in any calendar year - 5 years for other healthcare waste producers The audit report will no longer be valid for pre-acceptance purposes: - once the time intervals are exceeded - if the producer makes significant changes to on-site practices - if the waste changes - if the operator finds that the waste received contains significant non-conformances to the pre-acceptance information – for example, it contains a waste type that was not included in the pre-acceptance audit of the producer Staff reviewing the report and making decisions on acceptability of waste will have the relevant technical skills and competence, see technical competence addendum. If the audit report is acceptable, the Operator will technically assess the suitability of the wastes for site transfer, to maintain legal compliance. Non-acceptable wastes will be rejected or quarantined before rejection. The site will keep records that relate to pre-acceptance for a minimum of 3 years in a computerised process control system, including: - audit reports

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	- assessment of the reports - additional information received - ensuring assessment that the waste is acceptable Only technical staff will undertake the assessment of audit reports and acceptability of wastes. The waste facility operator is responsible for making sure they carry out appropriate pre-acceptance checks and subsequent assessments on the waste received from each producer. The operator must be able to get (without unreasonable delay) a copy of the pre-acceptance audit report and assessment about any individual producer. This may be needed for operational reasons or because an Environment Agency officer asks to see it. Waste acceptance procedures are implemented on site and conform to the Appropriate Measures for acceptance of non-hazardous, hazardous, and healthcare / clinical waste. These procedures check that the characteristics of the waste received matches the information obtained during waste pre-acceptance. This is to confirm that the waste is as expected and can be accepted. If it is not, then waste is non-conforming waste and will be rejected. The site's procedures follow the suggested risk-based approach, considering: - the source, nature and age of the waste - the waste's hazardous properties - potential risks to process safety, occupational safety and the environment (for example, from odour and other emissions) - knowledge about the previous waste holder(s) Other than in an emergency (for example, taking waste resulting from an emergency incident clean-up), the operator will only receive pre-booked wastes onto site that have been adequately checked and pre-accepted which are consistent with the pre-acceptance information and procedures. All relevant storage areas (quarantine, reception and general) have the physical capacity needed for the waste received. The Operator will visually check waste containers and packages and verify them against pre-acceptance information and transfer documentation before accepting them on site. Each consignment of waste will be weighed on arrival to confirm the quantities against the accompanying paperwork, or alternative reliable systems may be used (for example, based on volume). The operator will record the weight as part of the waste tracking system. The Operator will check and validate all transfer documentation and resolve discrepancies before they accept the waste (as identified in the waste acceptance procedure). The person carrying out waste acceptance checks (the visual inspection of the waste) is trained to identify and manage any non-conformances in the loads received and complying with the environmental permit. The Operator will NOT open healthcare waste bags, sharps boxes, rigid bins or similar packages during the thorough visual check for non-conforming items. The waste pre-acceptance checks determine their contents. The site will minimise the manual handling of healthcare and clinical wastes using mechanical unloading technologies where it is possible and practicable to do so. Once offloaded, and as soon as practicable to do so, the operator will assess the waste and verify it for acceptance. Thorough visual checks of all loads of waste received will be undertaken to identify any non-conforming items. If a specific customer has no non-conformances for 3 months or 6 collections (whichever is the longer period) the checks will be reduced to a spot check of 1 cart, bulk container or pallet in 10. Where a non-conformance is observed the Operator will take measures to prevent a recurrence (including contacting the customer) and reinstate thorough visual checks on all loads from that customer until there are no non-conformances for the period stated above. Typically, waste is visually checked during cart-to-cart transfers or unloading or tipping operations. It is directly inspected by the trained operatives. On arrival, bagged waste must be in, or unloaded into, carts or other rigid, leak proof bulk containers for storage and handling around the site. Securely closing the lid of the cart or other bulk container when not loading waste into or out of it. On arrival, rigid containers (bins or boxes) must be in, or unloaded onto, enclosed bulk containers (for example, carts) or pallets for storage and handling around the site. To prevent spillages, they must be stored and handled in an upright, stable and controlled manner, as far as it is practicable to do so.

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	When using pallets, containers must be stable, stacked upright no more than 2.2m high, and secured with shrink wrap. The containers must not extend beyond (over-hang) the sides of the pallet. The shrink wrap must be clear or transparent to identify waste types, damaged containers, leaks or spillages and incorrectly stacked containers. The site has clear and unambiguous criteria used for rejecting non-conforming wastes and a written procedure for recording, reporting and tracking non-conforming wastes, including notifying the relevant customer or waste producer to prevent reoccurrence. The site has written procedures for dealing with wastes held in quarantine, and a maximum storage volume. The maximum storage time takes into account the potential for odour generation, insect infestation and storage conditions. Quarantine storage is separate from all other storage and clearly marked as a quarantine area. For healthcare and clinical wastes, the site has a dedicated waste quarantine area located within the site buildings. Quarantine storage must be for a maximum of 5 working days. The waste offloading, reception and quarantine areas have an impermeable surface with self-contained drainage to prevent any spills entering the storage systems or escaping off site. All surfaces must be of a type and quality that can be disinfected effectively. **Waste Tracking:** The site uses a computerised tracking system to hold up to date information about the available capacity of the waste quarantine, reception, general and bulk storage areas of the facility. There is pre-booking system and process to make sure that there is enough waste storage and process capacity for the incoming acceptable waste. The waste tracking system must hold all the information generated during: - pre-acceptance - acceptance - storage - repackaging - treatment - removal off site This information is readily accessible. The site creates records to reflect deliveries and despatches. the tracking system will also operate as a waste inventory and stock control system, with data primarily captured through the duty of care process. It must include this information as a minimum: - the date the waste arrived on site - the original producer's details (or unique identifier) - details of all previous holders - a unique reference number - waste pre-acceptance and acceptance information - the package type and size - the intended treatment or disposal route - accurate records of the nature and quantity of wastes held on site, including all hazards and identifying the primary hazards - where the waste is physically located on site - where the waste is in the designated disposal route - the names of staff who have taken any decisions about accepting or rejecting waste streams and who have decided on recovery or disposal options - details that link each healthcare waste container accepted to its consignment or transfer note - details of any non-conformances and rejections The tracking system is also able to report: - the total quantity of waste present on site at any one time - an indication of where a batch or consignment of waste is located based on a site plan - the quantity of waste on site compared with the limits authorised by the permit - the length of time the waste has been on site Where the site receives loose, packaged collected from multiple premises the site systems and procedures will allow the operator to: - track the waste back to the original load received at the facility - see associated waste acceptance information and records Where the site has individual packages of waste (for example, bags or boxes) to be added to a bulk container or pallet at the facility, the waste labelling and tracking system will record this along with the date of the earliest package received

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	The site will store back-up copies of computer records off site. Records must be readily accessible in an emergency. The site will hold acceptance records for a minimum of 2 years after it has been removed off site. Some records will be kept for longer as required for other purposes, for example, hazardous waste consignment notes.
Healthcare Waste Storage, handling, and segregation	No individual bags and containers of healthcare waste (for example, bins and boxes) will be stored loose. Bagged waste will be stored and handled on site in fully enclosed, lockable, rigid, leak-proof and weatherproof bulk containers. Rigid waste containers will be sealed and in good condition. Stored and handled in an upright position to prevent or, where that is not practicable, to minimise the risk of spillages. Bulk containers will have a lid that can be securely closed whenever they contain any waste, except when waste is being loaded into or unloaded from them. The site's maximum storage capacity and designated storage areas are defined and known and will not be exceeded, which is regularly monitored to check against the allowed maximum capacity. Waste will not be stored near sensitive receptors or perimeters and all waste will be stored within the security protected site to prevent unauthorised access and vandalism. Sensitive wastes will be stored away from the influence of ambient conditions and external factors. The site will store and handle all pharmaceutical, chemical, anatomical and palletised wastes securely within designated areas of the site's secure building. The site will store and handle infectious wastes, offensive wastes that are not pharmaceutical, chemical, anatomical or palletised wastes in the secure building. The operator will not store or hold wastes on site in vehicles or vehicle trailers, unless they are being received or prepared for imminent transfer. The operator will maintain the integrity of waste packaging at all times and minimise waste handling. The site will never throw, walk on or handle healthcare wastes in a way that might damage the packaging. The Operator will store waste in a way that protects its integrity and prevents or, where that is not possible, minimises the risk of packaging failing. The site will store different healthcare wastes according to waste type and destination, to prevent physical contact or a leak from one contaminating another waste type or its packaging. The site will store all bulk waste containers in a way that allows safe and easy access for inspection at all times and minimises the need to remove others that may be blocking access, maintaining safe access (inspection aisles) to at least one side of palletised wastes and so that labels and markings are easy to see and continue to be legible. The operator has clearly defined and established maximum storage times for wastes held on site. Ensuring that they are removed from the site as soon as possible. Wastes will not be stored on site for longer than these maximum storage times. The maximum storage times for different types of healthcare waste follows the guidance (up to 7 days if outside, or for up to 14 days if stored in a building): - infectious clinical waste - offensive waste - treated waste from alternative treatment plant (for example, autoclave floc) Refrigerated anatomical waste can be stored for up to 14 days, store unrefrigerated anatomical waste for up to 24 hours, or up to 72 hours if over a weekend. The site will store the following waste types for up to 6 months: - cytotoxic and cytostatic drugs - other medicines or drugs - dental amalgam - other chemicals or other wastes The operator will prioritise off-site transfer of waste based on:

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	its type - age on arrival - date of arrival - duration of storage on site Following the first-in, first-out principle and also identify and prioritise wastes with a higher risk of causing odour, litter or pest problems. The site will not open and repackage (bulk) individual waste packages and containers (for example bags, bins, boxes and blister packs), unless the packaging is designed to be reused. Where the site receives waste in damaged packaging it will be recorded as a non-conformance and repackaged and labelled as appropriate. Any repackaging will be in accord with the condition set within the environmental permit. Unless specifically authorised by the environmental permit, there will be no mixing of hazardous waste with other categories of hazardous waste, or with other wastes or materials. Once emptied, bulk containers will be checked to make sure the site has removed all of the waste and then clean them inside and out and disinfect containers that have held infectious wastes. Inspections of bulk containers will be undertaken before any transport and reuse ensuring: - they have been cleaned and disinfected - they are physically sound - the locking mechanism works Where necessary and appropriate, the methods used for cleaning and disinfecting surfaces and containers will: - physically remove contamination - be capable of achieving disinfection across the broad spectrum of micro-organisms with the parameters used (time, concentration, temperature, quantity) - not produce emissions of pathogenic bioaerosols or chemical agents or must make sure these emissions are contained and managed appropriately. - contain wash-waters within an impermeable area and either discharge them to foul sewer or dispose of them appropriately off site - prevent run-off into external areas or to surface water drains - prevent healthcare waste items from being discharged to water (including to sewer) Inspections and measures employed on site will monitor, record, and manage any potential occurrences or issues with pests / vermin. The site will have suitable procedures, equipment, and broad-spectrum disinfectants to deal with the chemical and biological spillages that may arise from waste types accepted at the facility. All staff will be aware of their location and trained in their use. No compaction of healthcare waste will take place on site.
Emissions control and appropriate measures - Fugitive emissions to air - Emissions of noise and vibration - Fugitive emissions to land and water	Reading Material Recycling Facility – Environmental Management System, Revision 04 [2021] There are no new emission points as a result of this permit variations. Only fugitive emissions have the potential for generation through the site activities and these will be monitored and managed through the established site management systems, management plans and operational procedures. This includes the sites proactive maintenance plan for site plant.
Emissions monitoring and limits	n/a
Process efficiency - Energy efficiency - Raw materials - Water use - Waste minimisation, recovery and disposal	Reading Material Recycling Facility – Section 6 - Environmental Management System, Revision 04 [2021] The operator will monitor and review the annual quantity of: - water, energy, and raw materials used - residues and wastewater produced

WSP has undertaken a review of the relevant appropriate measures for the storage and handling of hazardous and non-hazardous waste, including WEEE waste. The site has an established management system with relevant management plans and operational procedures which

demonstrate how the sites meet appropriate measures for these waste types for both existing and the proposed new practices.

Hazardous Waste and Waste Electrical and Electronic Equipment (WEEE): appropriate measures for permitted facilities	
General Management: - Management System	Refer to Reading Material Recycling Facility - Environmental Management System – Section 4
General Management: - Staff Competence	Refer to Reading Material Recycling Facility - Environmental Management System– Section 4
General Management: - Accident Management Plan	Refer to Reading, Accident Prevention and Management Plan - Jan 2021
General Management: - Accident Prevention Measures	Refer to Reading, Accident Prevention and Management Plan - Jan 2021
General Management: - Contingency plan and procedures	Refer to Reading, Accident Prevention and Management Plan - Jan 2021
General Management: - Plant Decommissioning	Refer to Reading Material Recycling Facility - Site and Equipment Maintenance Plan 2021
Waste pre-acceptance, acceptance, and tracking	Refer to Reading Material Recycling Facility - Environmental Management System and Operating Techniques.
General Waste Storage, handling, and segregation - Storage duration and capacity Additional storage requirements specific for WEEE - Gas discharge lamps - Flat panel display equipment - Cathode Ray Tube equipment - Small mixed WEEE waste - Photovoltaic panels	Refer to Reading Recycling Facility - Accident Prevention and Management Plan 2021
Waste treatment appropriate measures	n/a – no treatment activities on site.
Emissions control and appropriate measures - emissions to air - Emissions of noise and vibration - Fugitive emissions to land and water	Reading Material Recycling Facility – Environmental Management System There are no new emission points as a result of this permit variation. Only fugitive emissions have the potential for generation through the site activities and these will be monitored and managed through the established site management systems, management plans and operational procedures. This includes the sites proactive maintenance plan for site plant.
Emissions monitoring and limits	n/a – no point source emissions as a result of this permit variation application.
Process efficiency - Energy efficiency - Raw materials - Water use - Waste minimisation, recovery and disposal	Reading Material Recycling Facility – Section 6 - Environmental Management System The operator will monitor and review the annual quantity of: - water, energy, and raw materials used - residues and wastewater produced