



Management Plan

Whites Recycling Limited



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SITE DETAILS

Whites Recycling Limited
Brickfields Way
Thetford
Norfolk
IP24 1HX

OPERATOR DETAILS

Whites Recycling Limited
The Mine Site
South Witham
Lincolnshire
NG33 5QN

PERMIT REFERENCE

EPR/PP3902LU

DOCUMENT REFERENCE

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DRAWINGS

REFERENCE	TITLE
K390.2~20~001	Permit Boundary Plan
K390.2~20~002	Sensitive Receptors Plan (1km)
K390.2~20~003	Site Setting Plan (2km)
899-002	General Arrangement Plan (Rev E)
P10120 003 R3	Schematic Arrangement of Odour Control System, Ropenhurst (April 2022)
26826_01_230_01	Drainage Strategy
889-006	P&ID (Rev A)

APPENDICES

APPENDIX	REFERENCE	TITLE
Appendix A	K390.2~11~001	Environmental Risk Assessment
Appendix B	K390.2~09~008	Accident Management Plan
Appendix C	K390.2~09~007	Complaint Form
Appendix D	K390.2~09~005	Odour Management Plan
Appendix E	K390.2~19~001	Odour Report Form
Appendix F	26826-04-NA-01	Acoustics Assessment

1. INTRODUCTION

This document forms the Management Plan that accompanies the application for a Bespoke Environmental Permit (EPR/PP3902LU) for a Part A (1) Installation operated by Whites Recycling Limited.

This Management Plan reflects operations to be conducted in accordance with the parameters outlined as part of the Environmental Permitting Regulations 2016 (as amended). This Management Plan should be read in conjunction with the other supporting Management System documents.

The scheduled activity for the Wastewater Treatment Plant is: Section 5.4 Part A (1) (a) (ii) Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day (or 100 tonnes per day if the only waste treatment activity is anaerobic digestion) involving physico-chemical treatment.

The Installation will process wastewater collected from food and drink manufacturers. The facility will receive approximately 400 m³ of wastewaters per day for treatment and eventual discharge to sewer. All treatment is undertaken within the process building whilst both treated and raw effluent are stored outside in a bunded area in sealed storage tanks.

The site is operated by Whites Recycling Ltd and is located at Brickfields Way, Thetford, Breckland, Norfolk, IP24 1HX. The location is shown on the Permit Boundary Plan (K390.2~20~001) and the National Grid Reference (NGR) for the site is TL 86728 84213 (Easting 586728, Northing 284213). The site lies in a commercial area to the north of Thetford town centre and to the east of the A1066 which connects to the A11. The proposed site covers approximately 0.12 ha. The surrounding area is predominantly a commercial and industrial setting, with agricultural land further to the north and residential areas and the town centre to the south. This is shown on the Site Setting Plan (2 km) (K390.2~20~003).

The application has been prepared by WISER Environment on behalf of the applicant and operator, Whites Recycling Limited.

2. SCOPE OF MANAGEMENT PLAN

The site is operated in accordance with an approved Management System which is a set of policies, procedures, practices, plans, and other documents describing how the operator will minimise the risk of pollution from the activities covered by the environmental permit.

The aim of this Management Plan is to summarise the management practices, standard operating procedures and the effluent treatment process which will be implemented on site and maintained to ensure the parameters set out within the bespoke environmental permit are met.

The Management Plan is produced in accordance with the Environment Agency's guidance listed below;

- Develop a management system: Environmental Permits (August 2022 - <https://www.gov.uk/guidance/develop-a-management-system-environmental-permits>)
- Control and monitor emissions for your Environmental Permit (May 2021 - <https://www.gov.uk/guidance/control-and-monitor-emissions-for-your-environmental-permit>)

Benefits of operating an effective and efficient Management System are to ensure sustainable business practices, reduce risks and losses, reduce operational costs, to help obtain business, maintain good reputation, and to ensure legal compliance.

A controlled copy of this Management Plan will be always available onsite. Whites Recycling Limited will ensure that all relevant authorisations and supporting documentation are provided to all personnel responsible for the management or control of the site.

The locations of the documentation will be made known to all relevant personnel, be readily available and available for inspection by regulatory bodies when the site is open.

3. SITE INFRASTRUCTURE

3.1. Site Security

The site entrance will be equipped with a barrier and fencing preventing access outside operational hours. CCTV will monitor the site 24/7 and be accessible by site management.

Any visitors to site will be required to report to reception and complete the Visitor's log complete with contact details, purpose of visit and the arrival/departure time. Any visitor will be met by a member of staff whilst delivery vehicles will be met and inspected upon entrance to site.

3.2. Site Information

At the site entrance a notice will display relevant information including but not limited to:

- The permit holder's name;
- Emergency contact numbers for permit holder/operator
- A statement that the site is permitted by the Environment Agency;
- The permit number; and
- Environment Agency national numbers 03708 506 506 and 0800 80 70 60 (incident hotline) and any other relevant number subsequently notified by the Agency in writing.

3.3. Site Office And Welfare

Within the main processing building a welfare/office area shall be constructed equipped with a control room/driver's area, WC, laboratory, and motor control centre (MCC). Within the control room a copy of planning permission, the Environmental Permit and this Management Plan will be kept.

Operational measures such as a site diary and a visitors' book will be used to record and significant events such as visits by the Environment Agency, engineering works and any other important information related to the compliance of the conditions outlined within the Environment Permit.

3.4. Surfaces

The treatment and storage of waste is undertaken upon an impermeable surface. Tankers will only be off-loaded within the main processing building and nowhere else on site. The building has been designed to prevent the escape of effluent and the perimeter is contained and tanker entrances protected by a ramp.

3.5. Drainage

The main process building will contain all treatment, discharge of effluent and offloading of raw effluent. All internal drainage is directed to a drain sump located within the north-eastern corner of the processing building (see drawing 899-002). The concrete pad on which the effluent storage tanks are located shall be contained by a reinforced concrete wall specially designed for the containment of effluent. The containment area will supply containment for 110% of the largest storage tank. There will be no access flood gates and pedestrian access shall be via a set of stairs over the wall (see General Arrangement Plan View 899-002).

3.6. Uncontaminated Roof Water

The main process building shall be designed to ensure the collection of rainwater to be directed to a surface water drainage system with a geo-cellular tank with a maximum capacity of 323 m³. The specification of the tank has been designed with a 20% climate change allowance and for all storm events up to and including a 1 in 100 storm event. A proposed hydro-brake shall be installed prior to the discharge to an existing surface water sewer per an agreement with Anglian Water. The full design is illustrated within Drawing 26826_01_230_01.

3.7. Construction Procedures and Supervision

Any construction, infrastructure improvements or replacement at the site will be undertaken by specialist contractors. Where required a suitably qualified engineer will inspect any works to ensure that all necessary standards and specifications are met.

3.8. Maintenance and Inspection

Daily inspections of site infrastructure are undertaken by the Technically Competent Manager (TCM) or a person appointed by the TCM. Inspections and all corrective/preventative actions are logged in the Site Diary.

4. OPERATIONS

The scope of the Management System extends to all operations associated with the acceptance, handling, storage, and treatment of waste at the site. The wastes permitted to be accepted at the facility are detailed within Section 11 of the application.

All operations and working practices are regularly reviewed and improved where necessary. There are robust mechanisms in place for the investigation of incidents/accidents if they occur.

4.1. Activities

The site shall be operated under a Bespoke Environmental Permit (EPR/PP3902LU) for a Wastewater Treatment Plant (WwTP). The Schedule 1 activity falls under Section 5.4 Part A(1) (a) (ii) Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day (or 100 tonnes per day if the only waste treatment activity is anaerobic digestion) involving physico-chemical treatment.

Methods of operation are given in broader detail in the following sections of this Management Plan.

The general objective of the site is to facilitate the collection of non-hazardous liquid waste to be recovered removing as much of the suspended solids within the effluent as possible prior to discharge to the sewer.

It is also proposed for site to accept and store the same types of waste for bulking before onward transfer to a suitably permitted facility.

4.2. Waste Reception and Acceptance

The main reception building offers an unloading area for two tankers. Prior to any acceptance of waste, all the relevant documentation verified. All details taken from incoming deliveries shall be recorded within the Site Diary or similar document.

Waste shall only be accepted if the appropriate documentation is provided including valid Waste Carrier Registration and the relevant Waste Transfer Note. All loads shall be pre-booked, and no ad-hoc deliveries will be accepted. If non-conforming loads are identified they shall be refused entry to site, and details recorded within the Site Diary. All drivers must be wearing appropriate PPE prior to undertaking the unloading process.

4.3. Storage of Waste

Three vessels shall be provided for the storage of effluent on site. These tanks are located on the eastern side of site, encapsulated by a reinforced concrete wall and floor. Each vessel will have a working capacity of 225 m³ with a 6 m diameter and a wall height of 9.7 m (see drawing

899-004). Under normal circumstances, two vessels are allocated for the storage of raw effluent whilst the remainder is earmarked for DAF clarified effluent or effluent that does not require on-site processing prior to release.

Each vessel will be glass-lined, steel panelled construction providing corrosion resistant characteristics. This specification of tank is commonly used for the balancing of raw effluent. Each vessel shall also be equipped with a glass reinforced plastic (GRP) roof designed to contain any odorous gases whilst the breather vents from the storage tanks shall be directed towards an odour control facility (see Drawing P10120 003 R3).

To reduce any possibility of effluent becoming anaerobic an externally mounted venturi aerator shall be equipped to each tank. This is designed to mix and aerate the contents of the storage tanks. Hydrostatic level sensors shall also be installed at ground level to allow the monitoring of effluent levels within the storage tanks whilst pH meters will monitor the pH of the respective effluent.

4.4. Waste Treatment

General effluent reception will consist of a discharge to a basket type screen with a pitched wire basket designed for the collection of large debris. A level sensor equipped with a high-level alarm shall be used to automatically control the operation of the transfer pumps. The self-priming pumps will be used to transport raw effluent to a screen.

Effluent will arrive to site within tankers and from a variety of sources. A reception station within the process building shall be able to receive two tankers to offload effluent. Self-priming trash pumps shall draw the raw effluent directly from the tankers whilst a solid manifold will allow flexible hoses to be used.

Raw effluent shall be delivered to a rotary, drum type screen, fitted with a 1.0 mm wedge wire drum, designed to allow the screened solids to fall into a Eurobin below at ground level ready for disposal from site. The screened effluent meanwhile would flow into the transfer tank, and from the tank into one of the main effluent storage tanks.

A dissolved air flotation (DAF) system will take on screened raw effluent via centrifugal type pumps, capable of delivering up to 20 m³/hour. These pumps would be installed on a duty/standby basis. The desired flow rate shall be set on the control system. It is likely that chemical treatment shall remove the majority of suspended solids contained within the effluent.

A bypass pipeline shall be installed to allow effluent from either raw effluent tank to be pumped into the final effluent tank prior to discharge to the sewer.

A serpentine flocculator would be provided to ensure the efficient coagulation of effluent, pH control and subsequent flocculation. Firstly, a coagulant would be dosed at a rate proportional to flow. A pH probe would be installed at the end of the flocculator to enable acid or caustic to be injected to automatically control the pH of the coagulated effluent to the desired value. Finally, a flocculant solution would be dosed at a rate proportional to flow to flocculate the suspended solids.

Only one pump would be provided for each of the caustic, acid and coagulant dosing pumps. A common boxed standby unit would be provided which could be used for all the above duties.

Effluent shall then enter the main compartment of the DAF vessel where a recycled stream of aerated effluent shall be injected allowing the flocculated solids to quickly rise and form a sludge within the clarifier. Scrapers draw this floating sludge into a compartment where it is pumped to the sludge tank.

The sludge tank is located within the main process building; to address the possibility of odorous gases being released the sludge tank shall be connected to a passive carbon filter.

Clarified effluent shall be drawn through a manifold on the base of the clarifier and passed over an adjustable weir; this optimises the consistency of waste sludge thus reducing disposal costs.

Clarified effluent will be collected within a transfer tank and pumped into the treated effluent tank.

The full process from reception to discharge to sewer is illustrated within the P&ID drawings (see 889-006).

4.5. Release to Sewer

The treated effluent shall be released at a controlled rate under gravity to the sewer, the gravity line is linked to a new connection into the Anglian Water sewer running along Brickfields Way. A flowmeter and sampler shall be used to monitor the discharge of effluent to meet the requirements outlined by Anglian Water Plc.

5. SITE AND EQUIPMENT MAINTENANCE PLAN

Daily inspections of plant and equipment are carried out with all corrective/preventative actions logged in the Site Diary.

All site equipment will be maintained, and records kept, as a minimum, in accordance with the manufacturer's instructions.

6. ACCIDENT PREVENTION AND MANAGEMENT

Potential accidents and incidents have been identified within the Environmental Risk Assessment (ERA) (K390.2~11~001, Appendix A) where management procedures and controls are identified to reduce any identified risk. In addition to this a separate Accident Management Plan has been written and is appended to this Management Plan (Appendix B).

Control measures detailed within the ERA include:

- All vehicles delivering waste are sealed tankers.
- Waste deliveries shall be overseen by a competent individual.
- Unloading of waste is not undertaken until appropriate PPE is worn.
- All waste is stored either in sealed tanks or containers.
- Appropriate training regarding process and plant operation is given.
- Limited vehicle movements on site limits risks of accidents.
- Vehicles and process equipment are maintained in accordance with their maintenance schedules or when applicable.
- Storage tanks are checked as part of daily site inspections for integrity or signs of leakage.

7. COMPLAINTS

All complaints received concerning the permitted site will be dealt with in accordance with the Management System. Complaints will be recorded on the Complaints Form (Appendix C).

On receipt of a complaint the TCM, or their nominated person, will investigate the complaint to see if the cause can be rectified swiftly. Where additional time is required to undertake repair or replacement of infrastructure which has caused the complaint, the complainant will be contacted with details on the actions being taken and the estimated timescale for completion.

All complaints will be acknowledged and investigated, with resultant actions reported to the complainant and the Environment Agency (if required).

8. STAFF COMPETENCE AND TRAINING RECORDS

The site shall be overseen and managed by a Technically Competent Manager (TCM) holding the relevant Operator Competence Certificate qualification.

The TCM will be responsible for the day-to-day operations at the site, and to ensure that site personnel operate the site in compliance with the Environmental Permit. They will be responsible for ensuring adequate training of staff has been undertaken.

The TCM will report any problem, or potential problem, to Senior Management as well as the Environment Agency.

The TCM will attend site in accordance with the attendance criteria specified within 'Environmental Management – Guidance: Legal Operator and Competence Requirements: environmental permits' available on the GOV.UK website.

All new site staff are taken through an Induction Process covering all areas of site operations including: Emergency procedures, PPE, all site operations, company policies, and all relevant conditions of the Environmental Permit.

To ensure safe operation of the site, all site operators are trained in the use of site plant and equipment.

Operator training is reviewed regularly through refresher courses to ensure continued competence in their daily tasks.

9. KEEPING RECORDS

9.1. Records and Reporting

The Environmental Permit shall require the creation and retention of specific records; Condition 4.1 details how these are to be kept and for how long.

Records required by the Permit will be retained for at least 6 years unless they relate to off-site environmental effects, matters which affect the condition of the land and groundwater when they shall be retained until permit surrender.

9.2. Notifications

Condition 4.3 specifies under what circumstances the Environment Agency must be notified. Reference should be made to the Environmental Permit to confirm exact requirements.

9.3. Security

Records shall be kept securely within the site office. Where records are held electronically, they shall be backed up on a regular basis and a copy held off site.

9.4. Availability

In accordance with Condition 4.1.1, all records required under the terms of the Permit shall:

- Be legible;
- Be made as soon as reasonably practicable;
- If amended, be amended in such a way that the original and any subsequent amendments remain legible or are capable of retrieval; and
- Be retained, unless otherwise agreed with the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until Permit surrender:
 - off-site environmental effects; and
 - matters which affect the condition of land and groundwater

10. ENVIRONMENTAL MANAGEMENT

The following sections should be read in conjunction with the Environmental Risk Assessment (ERA) (K390.2~11~001).

10.1. Litter Control

Owing to the nature of the waste accepted and treated on site it is unlikely that litter or debris shall be generated in any significant quantities by the permitted activities.

Litter and debris practices and controls are detailed within the ERA (Appendix A). In summary the measures include:

- All vehicles delivering waste are sealed tankers.
- Daily inspections of site surfaces shall remove any litter or debris and prevent spread.
- All waste is stored in sealed tanks or containerised after treatment.

10.2. Odour Control

An Odour Management Plan (OMP) (K390.2~09~005, Appendix D, Section 10) has been developed outlining management practices and control measures employed on site to reduce and where possible prevent odour from being released from the site.

The main control is the design of the main process building which has been constructed to allow two tankers to fully enter and roller shutter doors to be closed during the deposit of waste. Waste shall only be unloaded once the roller shutter doors have been closed.

The reception building will be subject to an extractive odour abatement system, capable of 3 air changes per hour, allied to carbon filters (see Drawing P10120 003 R3). Carbon filters are impregnated with chemical additives to effectively treat odorous compounds.

Any odour complaints received at site shall be investigated by the TCM or Site Manager in accordance with the approved OMP. The findings of any investigation shall be recorded within an Odour Report Form (K390.2~19~001, Appendix E) and the corrective actions logged within the Site Diary.

10.3. Dust Control

Owing to the nature of waste accepted the possibility of dust and particulate generation is limited. Nevertheless, operations are conducted to ensure that any minimal risk is negligible and traffic routes shall be swept when required. Process equipment shall be regularly cleaned to remove any particulates.

10.4. Noise Control

The design of the site ensures that all treatment processes take place within the main building; only air extraction plant and venturi aerators will be located outside of the process building, which limits the emission of noise from the process. Most of the noise shall resonate from vehicle movements on site. Operations are only carried out within permitted hours.

An independent noise assessment was commissioned and found that the noise levels from site would have a LOW impact on the surrounding sensitive receptors both during the daytime and through the night. The assessment was conducted on the presumption that all static plant on site would operate at full capacity all the time; in reality there is likely to be periods where plant are scaled back. In this scenario noise levels are likely to be reduced further. For a full description of results consult the noise assessment report in full (Appendix F).

Given these factors no further actions are needed to tackle noise on site than those already implemented.

10.5. Pests, Vermin, Birds

Owing to the nature of the process and waste accepted it is unlikely that pests, vermin, and birds shall pose an issue. All waste is containerised and delivered by sealed tankers whilst storage tanks are checked daily for integrity and any signs of leakage. Pest contractors will be employed if necessary and bait stations situated around the perimeter.

10.6. Mud and Debris

Given the nature of waste delivered it is unlikely mud and debris will pose a significant risk however daily inspections by site staff will ensure that the entrance and exit to site is maintained to a good standard. Where appropriate vehicles shall be cleaned to limit mud and debris.

11. EMISSIONS AND MONITORING

Operational measures have been taken to control emissions of substances not controlled by emissions limits. As an installation Best Available Techniques (BAT) applies and will control the implementation of emission controls. These controls and how BAT applies to the process are discussed in more detail within the technical description and BAT Assessment (K390.2~09~004, Section 09) which should be read in conjunction with this Management Plan.

These measures are specified within this Management Plan as well as the ERA (K390.2~11~001, Section 05) and OMP (K390.2~09~005, Section 10) appended to this Management Plan.

12. EMISSIONS TO AIR, WATER OR LAND

The treated effluent shall be released at a controlled rate under gravity to the sewer, the gravity line linked to a new connection into the Anglian Water sewer running along Brickfields Way. A Monitoring Certification Scheme (MCERTS) flowmeter and sampler shall be used to monitor the discharge of effluent to meet the requirements outlined by Anglian Water Plc. The site is limited to a maximum daily flow rate of 400 m³ per day.

13. REVIEW THE MANAGEMENT PLAN

The Management Plan will be reviewed at least annually or following any substantial change in site operations.

Other activities which may prompt a review of the Management Plan are any variations to the Environmental Permit, accident, complaint, breach, or a change in the site setting or sensitive receptors.

Where the review conducted results in changes required these will be documented and maintained with the site records.

14. SITE CLOSURE

Whites Recycling Limited will plan for the closure of the site through maintaining the Site Condition Report provided in **Section 08** of the Application pack.

The Site Condition Report (K390.2~09~002) will be supplemented with records of site maintenance and development, following pollution incidents records of actions taken and any remedial works and verification reports undertaken shall be kept, as well as any monitoring results.

The information collated during the lifetime of the permit will be utilised to prepare the surrender Site Condition Report (K390.2~09~002) to ensure that the site operation has not caused a detrimental impact to the surrounding environment.

15. AVAILABILITY OF THE MANAGEMENT PLAN

All site and operational staff shall be trained in the contents of the Management Plan to ensure the compliance and consistent operation of the site.

A copy of the Management Plan shall be made available within the site office for reference purposes and is available on request to interested parties.



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