

Engreen Environmental Consultants Ltd.

Report Title: Environmental Permit
Application – Site
Information

Client: G.H. BY PRODUCTS (DERBY)
LIMITED

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1 Introduction

1.1 Document Scope

This document provides information in support of the Environmental Permit application for the proposed Park Farm waste storage and transfer facility, located in Willingham-by-Stow. The National Grid Reference for the centre of the site is NGR SK 85925 84325. The following details are provided for the applicant (as listed on the accompanying application forms):-

Company Name	G.H. BY PRODUCTS (DERBY) LIMITED
Company Registration number	09732346
Site Name	Park Farm
Site Address	Park Farm, Gainsborough Road, Willingham by Stow, Gainsborough, DN21 5JX

1.2 Background

The site is located on Park Farm, to the West of Willingham-by-Stow, Lincolnshire. The farm is currently used to rear cattle for food production. Slurry and wash waters from the farm are collected in a dedicated slurry tank at the farm.

The farm slurry tank is also used for the temporary storage of waste prior to recovery to land for agricultural benefit under deployments agreed by the Environment Agency. The waste storage infrastructure on site is to be expanded to include a new lagoon to supplement this existing farm tank. This storage infrastructure will allow the bulking and storage of wastes prior to land spreading at the optimal timings for agricultural benefit.

A Bespoke Environmental Permit is required, as storage of wastes within the lagoon and farm tank fall outside of existing Standard Rules sets.

1.3 Permitting Requirements

The facility is required to apply for an Environmental Permit (EP) in order to comply with the Environmental Permitting (England and Wales) Regulations SI 2016/1154.

1.4 Application Structure

1.4.1 Application Documents

This application comprises of several documents. This Site Information report, P171-R01-F1, should be read in conjunction with the following documents:

- Application Forms;
- P171-R06-F1 – Non-Technical Summary;
- P171-R02-F1 –H1 Assessment;
- P171-R03-F1 – Site Condition Report;
- P171-R04-F1 – EMS Summary;
- P171-R05-F1 – Site Drawings;
- EM 01-003 – Odour Management Plan;
- EM01-004 – Environmental Accident Management Plan;
- EM01-005 – Site Closure Plan;

- EM01-006 – Fugitive Emissions Monitoring Programme.

1.4.2 Report Format

This application document – Site Information – is structured as follows:

- Introduction;
- Process Description;
- Emissions and Monitoring;
- Fugitive Emissions.

1.4.3 Diagrams and Plans

Report reference P171-R05-F1 contains drawings and plans of the site highlighting the Permit boundary and further plans that show sensitive receptors.

2 Process Description

2.1 Introduction

The farm is to be developed to include and permit the following waste storage and transfer infrastructure:

- A covered c.4500 m³ lagoon; and
- A covered c.3800 m³ farm tank,

The lagoon is currently under construction and the farm tank is existing.

This storage infrastructure is to be used to bulk non-hazardous waste prior to transfer for onward recovery, primarily by land spreading. There will be no treatment of the waste, other than incidental mixing of waste streams prior to recovery off site. The main deliveries and collections of wastes at the farm will be made between 5.30am-10pm throughout the week.

The basic process steps involved in this waste storage transfer process are outlined in more detail below.

2.2 Basic Process Steps

Table 2.1 below outlines the Process Flow Diagram for the operation and descriptions of the process steps listed have been detailed below.

Table 2.1 Process Flow Diagram				
Applicable Waste Framework Directive R & D Codes	Site Process		Wastes Removed From Site	Applicable Waste Framework Directive R & D Codes
	Waste Pre-Acceptance			
	↓			
	Waste Acceptance	→	Non-conforming loads	R3 / R10 / R13
	↓			
	Waste Reception			
	↓			
R13	Waste Storage	→	Bulked wastes dispatched off site to customer	R3 / R10 / R13

2.3 Process Step Descriptions

2.4 Accepted List of Wastes

Appendix 1 contains a list of all wastes that site intends to receive and bulk prior to despatch along with their unique List of Waste Code. The procedures and checks below will be in place to prevent non-approved wastes from being delivered to site. Any non-approved waste streams coming on to site will be quarantined and removed off-site for appropriate licensed recovery / disposal.

2.4.1 Waste Pre- Acceptance Checks

Prior to accepting the first batch of waste from a new customer, Site Management will complete a Customer Audit Form to:

- establish the process producing the waste; and
- to assess the waste stream against sites permitted accepted list of wastes detailed in Appendix 1.

For proposed wastes that are detailed on the accepted list of wastes, a sample of the waste will be sent for detailed analysis to confirm that the waste will provide agricultural benefit if spread to land.

Following favourable audits and analysis results, customer and waste stream details will be added to a Waste Schedule which will be used as an 'approved suppliers' list.

The Waste Schedule will be developed to include all information to be detailed on the duty of care documentation (Waste Transfer and Commercial Documents) and a Grid Reference for the waste collection point. This schedule will form part of the site's Environmental Management System (EMS).

A Waste Transfer Note Season Ticket will be raised and signed off by all relevant parties. As a minimum, a confirmatory set of waste analysis results will be obtained prior to the expiry of an existing Season Ticket, for that waste stream to remain listed on the Waste Schedule. A new Season Ticket will only be issued where favourable results are obtained.

2.4.2 Waste Acceptance

A Waste Acceptance Procedure will form part of the EMS to be implemented at site. This will ensure that the following checks are undertaken:

2.4.2.1 Delivery Procedures

Only deliveries scheduled by Site Management will be made to the facility. Site Management will instruct drivers of the loads to collect and deliver to site and the store to discharge into.

Drivers of waste deliveries will report to the site office and the following system of checks and controls undertaken:

- Each incoming load will be checked for duty of care documentation (existing Waste Transfer Note Season Ticket and / or Commercial Document (for Animal By-Products only));
- The description of waste and waste carrier details will be checked against the facilities list of wastes and the Waste Schedule referenced above.

This will ensure that documentation and vehicle loads are inspected to ensure no non-conforming materials are being brought into the facility. If waste arrives on-site without all the relevant documentation, this will be addressed by Site Management and the waste handled as detailed in the Non-Conforming Wastes section below.

2.4.2.2 Non-Conforming Wastes

Non-conforming loads intercepted upon entry to site and those identified during unloading will be directed back to the sender. A record of the event will be made following the Incident reporting structure set out in the EMS. The supplier of the waste will be informed in writing and asked to provide results of their investigation into the circumstances of the delivery.

2.4.2.3 Records

All Waste Transfer Notes and Commercial Documents will be stored in the site office in order to ensure compliance with Duty of Care and Permit Reporting requirements.

Records of non-conforming waste will be kept including details of:

- The type of waste;
- Name of the waste producer;
- Date and time of delivery / unloading;
- The carrier registration and name;
- Corrective action taken to deal with the waste.

2.4.3 Waste Reception

Wastes will primarily be delivered in tankers following the sites Waste Delivery Procedure to be included within the EMS.

Accepted loads of wastes will be discharged into the farm tank and / or the lagoon as per instructions issued by Site Management. Site Management will keep a 'live' inventory of the quantity held in each store at any given time.

The store inventory will be actively managed as per the procedures set out in the operator's EMS. The delivery procedures implemented as part of the EMS, require the volumes of the waste streams delivered to the stores and also the volume of waste dispatched, to be recorded and entered into an excel spread sheet. The spread sheet is set up to include the applicable waste analysis. Based on this data the spread sheet is able to calculate the:

- 'Live' nutrient balance of the wastes held in the store;
- Capacity remaining in the store;

This will ensure stores are not overfilled and the necessary free-boards maintained i.e. 0.3 metres of the top of an open storage container or within 0.75 metres of the top of a lagoon. Furthermore, tanker drivers will monitor the level gauges throughout the delivery process to ensure the necessary free-board is not compromised.

2.4.4 Waste Storage and Dispatch

Wastes will be bulked prior to spreading to land for agricultural benefit under deployments to be agreed with the Environment Agency.

Wastes dispatched from site will be classified as follows:

- Where wastes have not been mixed with other streams or have only been mixed with a waste of the same EWC code, then wastes will be dispatched for recovery using the same EWC code the waste was received under.
- Where wastes have been mixed, they will be dispatched for recovery under the following EWC code:
 - 19.02.03 premixed wastes composed only of non-hazardous wastes.

Analysis of the wastes will be provided to the Environment Agency to demonstrate agricultural benefit of spreading the material as part of the deployment application. As a minimum, confirmatory

analysis of any waste mix held within either store will be taken on a quarterly basis and include an assessment of Nitrogen, Available Nitrogen, Phosphate and Potassium.

Waste Transfer Note Season Tickets will be in place for all agreed deployments prior to the dispatch of bulked materials off site. Commercial Documents will also accompany any bulked material containing Animal By-Products.

In the event that bulked materials are sent off site for recovery by other means e.g. Anaerobic Digestion, site will obtain copies of all necessary Permits and Licenses prior to dispatch, to ensure their Duty of Care requirements are met.

3 Emissions and Monitoring

3.1 Introduction

This Section of the report identifies potential emissions from site and details the monitoring methods to be implemented, where relevant.

3.2 Emissions to Air

3.2.1 Point Source Emissions

There are no point source emissions to air associated with the Site.

3.3 Fugitive Releases to Air

Fugitive emissions to air for this facility are expected to be minimal. Other than odour, the only potential sources for fugitive emissions are:

- ammonia losses from stored material - Both stores are covered to minimise the potential for fugitive losses. Therefore, the potential for fugitive ammonia releases to impact on sensitive receptors is considered to be insignificant.
- potential release of trapped gases from the lagoon liners venting system - As a precautionary measure, the lagoon has been fitted with a gas vent system under the liner, to capture and discharge any build-up of gases to prevent bubbling of the liner.

Further detail and assessment of fugitive releases has been dealt with in the Environmental Risk Assessment & EAMP respectively as referenced in Section 1.4.1 of this report.

3.4 Point Source Releases to Water

There are no point source releases to water or sewer from site.

3.5 Fugitive Releases to Land and Water

There will be no fugitive releases to land and / or water under normal operations as both the farm tank and the lagoon have been designed and constructed to meet Livestock manure and silage storage infrastructure for agriculture (C759) requirements. The stores will also be maintained in line with the C759 standard to ensure their operation continues to meet best available technique.

The lagoon is to be fitted with a leak detection system. Furthermore, both stores will be included as part of a thorough infrastructure monitoring programme that will be designed to ensure there is no loss of integrity to the systems designed to prevent fugitive emissions to land and to controlled waters. The infrastructure monitoring programme will form part of the Fugitive Emissions Monitoring Programme within the EMS. Further detail has been provided within the draft Fugitive Emissions Monitoring Programme in EM01-006.

3.6 Emission Controls

The emissions identified above have not identified the need for any further emission controls.

4 Fugitive Emissions

4.1 Introduction

The Environmental Risk Assessment as referenced to in Section 1.4.1 of this report has demonstrated that fugitive emissions from the proposed facility are anticipated to be insignificant. The following sections discuss source and control techniques for noise, dust and odour emissions.

4.2 Noise

Following the Environmental Risk Assessment within report reference P171-R02-F1, the potential for noise emissions from site activities impacting on receptors beyond the site boundary is considered to be insignificant.

The hours of operation of the site are as per existing usage and any operation of plant and equipment outside of these hours must be agreed in advance with the Local Planning Authority.

4.3 Noise Sources

Table 4.1 below provides detail as to the changes in noise sources at the site.

Table 4.1 – Site Noise Sources					
Source	Nature of Source	Hours of Operation	Nature of Noise	Contribution to Site	Noise Control Techniques
Waste Delivery / Dispatch Vehicles	Heavy goods vehicle engines. Reversing alarms. Noise from vehicle pumps during transfer.	During all hours of process operations.	Intermittent Vehicle motor noise, including reversing alarm noise. Pumping noise.	Medium	Drivers requested not to excessively rev their engines. Engines of standing vehicles to be turned off. Vehicles maintained under contract.
Maintenance Activities	Pumps used to remove rain water from floating covers.	During all hours of process operations.	Intermittent Pumping noise.	Medium	Pumps maintained as per manufactures instructions.

Definitions

- High** Noise detectable and distinguishable from background, with significant possibility of causing nuisance
- Medium** Noise detectable and likely to be distinguishable from general background, but not expected to cause nuisance
- Low** Noise likely to be undetectable and undistinguishable from general background

4.4 Environmental Noise Surveys

Owing to the low number of nearby receptors and their distance from site, combined with the low noise production from the site there is no requirement for environmental noise surveys.

4.4.1 Noise Control Techniques

As all site equipment will form part of planned preventative maintenance regimes, further noise reduction measures are deemed unnecessary. The EMS will include a noise monitoring procedure and recording form that will be instigated immediately upon receipt of a complaint or incident on site. In the event of significant future noise complaints at the facility, site management would look to develop and implement a Noise Management Plan in consultation with the EA site inspector.

4.5 Vibration

The site is not anticipated to be a source of vibration noticeable off-site. Basically the site does not use equipment of the type known to be a source of external vibration, e.g. large rotating equipment (fans etc) and impulse driven machinery (hammer mills etc). What equipment there is will be installed in accordance with manufacturer's instructions to ensure that it remains well-balanced and does not create vibration due to out-of-balance forces. The preventative maintenance regime will supplement this to ensure that equipment remains correctly balanced and adjusted to prevent vibrations developing.

4.6 Dust

The Environmental Risk Assessment has demonstrated the potential for dust emissions from the undertaking of all waste activities at site and impacting on receptors beyond the site boundary to be insignificant. This is due to the fact the only potential source of dust is as a result of vehicle movements on site and the distance from the permit boundary of identified sensitive receptors.

4.7 Odour

Due to the odorous potential of some of the waste streams to be bulked at site, there is the potential for odour releases at this facility. However, the Environmental Risk Assessment as referenced in Section 1.4.1 of this report has demonstrated that odour emissions from the site are anticipated to be insignificant. An Odour Management Plan has been developed as part of the site's EMS and is included as part of this Permit application.

Appendix 1: Accepted List of Wastes

Appendix 1 – Accepted List of Wastes	
EWC Code	Waste Categories
2 WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPARATION AND PROCESSING	
02 01 Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing	
02 01 01	Soils and sludges from washing and cleaning fruit and vegetables only
02 01 06	Farmyard manure and slurry, horse manure and soiled bedding made from plant tissue only
02 01 99	milk from agricultural premises only
02 01 99	untreated wash waters from cleaning fruit and vegetables on farm only
02 01 99	slurry and manure and soiled bedding from any premises except abattoirs, soiled biodegradable bedding not made from plant tissue, soiled bedding desiccants only
02 02 wastes from the preparation and processing of meat, fish and other foods of animal origin	
02 02 01	untreated wash waters and sludges from washing and cleaning from abattoirs, poultry preparation plants, rendering plants or fish preparation plants only
02 02 01	wash waters and sludges from secondary food processing or the cook chill sector
02 02 02	blood and gut contents from abattoirs, poultry preparation plants, rendering plant or fish preparation plants only
02 02 04	sludges from on-site effluent treatment plant from abattoirs, poultry preparation plants, rendering plants or fish preparation plants only
02 02 99	slurry and manure and soiled bedding from abattoirs including soiled biodegradable bedding not made from plant tissue and soiled bedding desiccants only
02 02 99	washwaters from animal by-product handling and processing plants that meet the waste water treatment requirements in the ABPR
02 02 99	processed animal by-product material from rendering plants
02 02 99	catering waste
02 03 wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation	
02 03 01	sludges from washing and cleaning produced during food preparation and processing only
02 03 01	wash waters and sludges from secondary food processing or the cook chill sector
02 03 01	sludges from washing, cleaning, peeling, centrifuging and separation
02 03 02	wastes from preserving agents
02 03 03	wastes from solvent extraction
02 03 04	biodegradable materials unsuitable for consumption or processing only
02 03 05	effluent from the on-site treatment of wash waters from cleaning fruit and vegetables on farm only
02 03 05	sludges from on site effluent treatment
02 03 99	untreated wash waters from cleaning fruit and vegetables on farm only
02 03 99	biodegradable wastes not otherwise specified from the processing of such materials including those from secondary food processing or the cook-chill sector
02 04 wastes from sugar processing	
02 04 03	sludges from on-site effluent treatment
02 04 99	biodegradable wastes not otherwise specified derived from the processing of sugar
02 05 wastes from the dairy products industry	

Appendix 1 – Accepted List of Wastes	
EWC Code	Waste Categories
02 05 01	biodegradable materials unsuitable for consumption or processing
02 05 02	sludges from on-site effluent treatment
02 05 99	biodegradable wastes not otherwise specified derived from the processing of dairy products
02 06 wastes from the baking and confectionery industry	
02 06 01	biodegradable materials unsuitable for consumption or processing
02 06 02	wastes from preserving agents
02 06 03	sludges from on-site effluent treatment
02 06 99	biodegradable wastes not otherwise specified from the processing of materials used in baking and confectionary
02 07 Wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)	
02 07 01	wastes from washing, cleaning and mechanical reduction of raw materials
02 07 02	wastes from spirits distillation
02 07 03	wastes from chemical treatment
02 07 04	materials unsuitable for consumption or processing.
02 07 05	sludges from on-site effluent treatment
02 07 99	biodegradable wastes not otherwise specified from the processing of the raw materials used in the production of such beverages only
03 WASTES FROM WOOD PROCESSING AND THE PRODUCTION OF PANELS AND FURNITURE, PULP, PAPER AND CARDBOARD	
03 03 wastes from pulp, paper and cardboard production and processing	
03 03 05	de-inked paper sludge and de-inked paper pulp from paper recycling only
03 03 09	lime mud waste
03 03 10	fibre rejects and sludges including mineral based fillers and coatings only
03 03 11	sludges from on-site effluent treatment other than those mentioned in 03 03 10
04 WASTES FROM THE LEATHER, FUR AND TEXTILE INDUSTRIES	
04 01 wastes from the leather and fur industry	
04 01 07	sludges from on-site effluent treatment free of chromium
04 02 wastes from the textile industry	
04 02 10	organic matter from natural products only
04 02 15	biodegradable wastes from finishing other than those containing organic solvents only
04 02 20	sludges from on-site effluent treatment other than those mentioned in 04 02 19
05 WASTES FROM PETROLEUM REFINING, NATURAL GAS PURIFICATION AND PYROLYTIC TREATMENT OF COAL	
05 01 Wastes from petroleum refining	
05 01 10	activated sludges from on-site oil refinery biological effluent treatment plants other than those mentioned in 05 01 09
07 WASTES FROM ORGANIC CHEMICAL PROCESSES	
07 07 wastes from the MFSU of fine chemicals and chemical products not otherwise specified	
07 07 12	sludges from on-site effluent treatment other than those mentioned in 07 07 11
10 WASTES FROM THERMAL PROCESSES	
10 01 waste from power stations and other combustion plants	
10 01 07	flue gas gypsum (sludge) only
16 WASTES NOT OTHERWISE SPECIFIED IN THE LIST	

Appendix 1 – Accepted List of Wastes	
EWC Code	Waste Categories
16 03 Off-specification batches and unused products	
16 03 06	out of date and out of specification beverages only
16 10 aqueous liquid wastes destined for off-site treatment	
16 10 02	washwaters from animal by-product intermediate plants that meet the waste water treatment requirements in the ABPR
17 CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)	
17 05 Soil (including excavated soil from contaminated sites), stones and dredging spoil	
17 05 06	Dredging spoil other than those mentioned in 17 05 05
19 WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE	
19 05 wastes from the aerobic treatment of waste	
19 05 99	liquor and digestate from aerobic treatment of source segregated biodegradable waste only
19 06 wastes from anaerobic treatment of waste	
19 06 03	liquor from anaerobic treatment of non-source segregated biodegradable waste
19 06 04	whole digestate and fibre digestate from anaerobic treatment of non-source segregated biodegradable waste
19 06 05	liquor from anaerobic treatment of source segregated biodegradable waste
19 06 06	whole digestate and fibre digestate from anaerobic treatment of source segregated biodegradable waste
19 06 06	whole digestate and fibre digestate from anaerobic treatment of source segregated biodegradable waste and sludges from treatment of urban waste water only
19 08 waste from waste water treatment plants	
19 08 05	treated sludges from treatment of urban waste water
19 09 wastes from the preparation of water intended for human consumption or water for industrial use	
19 09 02	sludges from water clarification
19 13 wastes from soil and groundwater remediation	
19 13 04	sludges from soil remediation other than those mentioned in 19 13 03