

Non-Technical Summary

Babraham Research Campus Ltd

Application Reference: EPR/WE3374AB/A001

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1 INTRODUCTION

This document is the Non-Technical Summary (NTS) that accompanies the application for a bespoke environmental permit for the site located at Babraham Hall, Babraham, Cambridge, CB22 3AT and operated by Babraham Research Campus (BRC). The site is located at National Grid Reference TL 50526 50613.

The application is to encompass several waste activities, including the bulking and storage of non-hazardous and hazardous, clinical, and WEEE wastes for onward transfer to appropriately permitted operations for further recycling or disposal.

Site will also compact dry mixed recyclables and municipal wastes, to be bulked and then for transferred offsite for further recycling. Finally, a small-scale composting operation will be undertaken for the purpose of land-spreading on the surrounding pastureland to facilitate the maintenance and upkeep of the wider BRC estate.

The proposed activities at site are directly linked to the wider BRC site and the research companies that operate within the campus, and all wastes detailed within this document and those supporting the application originate from these facilities.

The proposed operations are in effect a supporting activity to the operation of the research facility; the operations are not commercial in nature and will not take in wastes outside of the wider BRC site.

The volumes of waste stored on site at any one time are limited. In the unlikely event that all wastes are stored at their maximum at the same time there would be no more than 40 tonnes on site.

Maximum annual throughput sought is 5000 tonnes, in reality it is unlikely that this level will be achieved but provides future capacity in the event of expansion of the campus. This NTS summarises the proposed activities to be regulated under the Bespoke Environmental Permit and should be read in conjunction with the other supporting documents included within the application.

2 APPLICATION

This application is for a Bespoke Environmental Permit application under the Environmental Permitting (England and Wales) Regulations 2016 (as amended) for a Waste Operation.

The scope of this application is limited to the bulking and storage of wastes for treatment, transfer, and onward dispatch to an appropriately permitted facility. The wastes received originate entirely from the facilities operating on the wider Babraham Research Campus.

The waste operation in effect serves as a subsidiary operation to centralise the collection of wastes from the research campus, before onward transfer.

The composting operation undertaken is of similar small-scale, utilising the collection of green waste, biodegradable kitchen and canteen waste and autoclaved animal bedding originating from onsite grounds care to produce composting to be spread on the agricultural land part of the wider Babraham facility.

The activity codes as defined in the EU Waste Framework Directive 2008/98 are:

Description of activities	Limits of activities
<p>D15: Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where it is produced)</p>	<p>Treatment of hazardous and non-hazardous waste consisting only of manual sorting, separation, screening, baling, shredding, crushing or compaction of waste into different components for disposal, (no more than 50 tonnes per day) or recovery.</p>
<p>R13: Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)</p>	<p>Physical treatment and composting</p>
<p>R3: Recycling/reclamation of organic substances which are not used as solvents</p>	<p>Temporary storage of hazardous waste pending treatment or disposal shall not exceed 50 tonnes at any one time.</p>
<p>R4: Recycling/reclamation of metals and metal compounds</p>	
<p>R5: Recycling/reclamation of other inorganic materials</p>	

All wastes to be accepted onto site and the associated EWC codes are listed within the application pack.

2.1 Site Location

The site operated by BRC is located within the wider research campus, and situated north-west the village of Babraham. It is located approximately 9 km south-east of Cambridge, 755 m west of the A1307 and, 1.6 km west of the A11. The location is shown on the Permit Boundary Plan (K436.1~20~001), and within Figure 1 below. The site covers an area of approximately 0.3 ha.

Surrounding land use is predominantly parkland, agricultural, and commercial/research in the campus to the east, and residential in the village of Babraham to the south-east. The wider area is also populated by agricultural areas.



Figure 1 Aerial image of the site, showing the permit boundary in green

2.2 Environmental Setting

The environmental setting of the site is summarised in Table 1. A more detailed description of the site setting can be found in the Environmental Risk Assessment (ERA) (K436.1~09~002) within Section 02 of the application pack:

Table 1 Summary of Site Setting

RECEPTOR	DESCRIPTION AND LOCATION
Humans and Property	<p>Site is located in the wider Babraham Research Campus and accessible from the main entrance of the A1307, or the access off Rowley Lane. The nearest residential properties are located, approx. 135 m south of the site boundary.</p> <p>The A1307 lies approximately 755 m north-east of site and connects to the A11 located approximately 1.6 km south-east of the site boundary.</p>
Surface Water	<p>The primary feature is the River Granta located approximately 225 m east of site; several ponds and surface water ditches are located across the wider Babraham Research Campus and in surrounding areas.</p>
Groundwater	<p>There is a Secondary A Aquifer within the superficial deposits on site which overlays a Principal aquifer within the bedrock.</p> <p>These aquifers are capable of supporting water storage which may support water supply and base river flow. Site sits on a high groundwater vulnerability area.</p>
Designated Sites	<p>The closest designated site is Sawston Meadows SSSI located approximately 1.8 km SW from the site boundary.</p>
Non-Statutory Designated Sites	<p>Several non-statutory designations are located within 1 km of the site perimeter; these mainly consist of Biodiversity Action Plan priority habitat sites of deciduous woodland, traditional orchards, lowland meadow, and coastal/floodplain grazing marsh.</p> <p>The closest (deciduous woodland) are situated approx. 5 m south-east of site.</p>
Geology	<p>Superficial geology on site consists of River Terrace Deposits, 1 to 2 – sand and gravel. This sedimentary deposit is formed during the Quaternary period. Bedrock geology on site consists of Zig Zag Chalk Formation originating from the Cenomanian Age.</p>
Flooding	<p>Site is located in Flood Zone 1 and has a low probability of flooding from the rivers and the sea.</p> <p>Long term flood risk is also predicted as very low risk.</p>

3 PERMITTED OPERATIONS

The permitted site operated by BRC will undertake several waste activities, namely the bulking, storage, and treatment of various wastes originating from collections from the wider campus facility and the various businesses who are tenants.

All waste streams will arrive to site source-segregated to be stored in designated areas on site within sealed containers. Loads will be stored until an economic load is achieved to be sent for onward recycling where appropriate or disposal at suitably permitted facilities.

Site benefits from an impermeable surface on which three buildings sit, with a dedicated access point into the yard area.

The yard area at the front of the site is where waste compaction operations are undertaken alongside storage for municipal waste. A small section of the building in the south-west corner is used for storage of WEEE wastes. Part of the building located on the northern boundary is used for the storage of containerised clinical wastes. The western corner on site is reserved for the composting operation, which is undertaken in a specifically designed compost shredder. These activities and storage areas are indicated on the Site Layout Plan (K436.1~20~003).

The description in Section 3.1 of this document represents a summary of the waste acceptance process. The written Management System submitted as part of this application provides a detailed overview of the associated collection processes per waste stream accepted.

3.1 Waste Acceptance

Various waste streams are accepted onto site and collected through daily collections from the adjoining BRC facilities and the associated tenants. All wastes accepted originate from this source with no wastes accepted from outside companies.

3.1.1 Clinical Wastes

Tenants as part of the wider BRC are provided with clear instructions on the disposal of biological and clinical wastes. The various clinical wastes accepted are subject to daily collections by BRC staff and as clinical waste, all material once collected is matched to the electronic records kept by tenant companies to ensure waste is categorised correctly once on site.

No wastes are collected unless the appropriate form declaring the contents of the bagged waste is accompanying and the official sticker is placed on the bag.

These wastes are loaded into sealed 770/1100 litre bins, appropriately labelled and stored on site until an economic load is developed. At this point collections are organised for dispatch of the waste to an appropriately permitted facility.

Waste consignment notes are generated on dispatch to these contractors.

3.1.2 Hazardous Wastes

All waste oils and liquids and used COSHH container wastes are generated from use within BRC workshops and maintenance facilities. On receipt these wastes are transferred directly to sealed oil drums stored on bunded surfaces.

When an economic load is developed collections are organised for dispatch of the waste to an appropriately permitted facility.

Waste consignment notes are generated on dispatch to these contractors.

3.1.3 Waste Electrical and Electronic Equipment (WEEE)

WEEE waste generate from campus activities is collected from the tenants when requested, and transported to the dedicated storage bay, where is stored until an economic load is developed.

At this point collections are organised for dispatch of the waste to an appropriately permitted facility.

Waste transfer notes and/or waste consignment notes are generated on dispatch to these contractors.

3.1.4 Dry Mixed Recyclables (DMR) and municipal waste

Dry mixed recyclables, mainly consisting of paper and cardboard, and glass. Along with residual municipal waste generate from site activities these are collected from the tenants on a daily basis and stored in the dedicated area of the site.

Both waste streams are compacted and stored in 32 yard compactor skips to reduce their size. A 40 yard open skip is for additional storage of municipal waste.

When an economic load is available, collections are organised for dispatch of the waste to an appropriately permitted facility. Normally this would be at least every two weeks.

Waste transfer notes are generated on dispatch to these contractors.

3.1.5 Compostable Wastes

Waste accepted on site for the composting operations are the following:

- Green waste from ground care operations (EWC code 02 01 03, 02 01 07).
- Biodegradable kitchen and canteen waste (EWC code 20 01 08, 02 03 01).
- Autoclaved animal bedding (EWC code 02 01 06, 18 02 03). The waste is autoclaved before being put out for collection by the producers and therefore it arrives to site sterilised.

The incoming material is temporarily stored in sealed 770/1100 litre bins before being loaded by a bin lift mechanism into composters for processing.

The compost produced by this process is used directly on the campus's own pasture field at a rate not exceeding 12 tons per hectare.

3.2 Waste Processing

Waste processing is limited on site, related to the compaction of DMR and municipal wastes, to maximise payloads, and a small-scale composting operation to facilitate the maintenance and upkeep of the wider BRC estate.

All wastes originate from the tenants on the campus or the maintenance of the wider site. Other waste activities, as described, relate to the storage and bulking of wastes before onward transfer to appropriately permitted facilities.

3.2.1 Composting

Composting operations are minor in scale and undertaken within the western corner of site within static fully sealed composters with capacity of 6 to 8 tonnes each.

The incoming material is temporarily stored in sealed 770/1100 litre bins before being loaded by a bin lift mechanism into one of the composters.

The material is then loaded within one of the composters, until 50% of the composter capacity is achieved.

The waste is then mixed with manure and water to capacity, aerated and mixed for a minimum of two weeks, and up to four weeks.

Whilst one of the composter is running, the other composter is used for storage of the subsequent loads, until 50% of the capacity is reached and the process is repeated.

The compost produced by this process is used directly on the campus's own landholding.

The composting process on site is very small in scale:

- The annual throughput of the composting process is 110 tonnes per year.
- The maximum amount of compostable waste stored at any one time is 20 tonnes.

3.3 Site Management

The operator, Babraham Research Campus Limited, will manage and operate the activities:

- a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints;
- b) using sufficient competent persons and resources, and
- c) with records demonstrating compliance.

Any person having duties that are or may be affected by the matters set out in the Environmental Permit shall have access to a copy of it.

The operator shall comply with the requirements of an approved competence scheme.

4 RISK ASSESSMENT & MANAGEMENT

An Environmental Risk Assessment (ERA) (K436.1~09~002) is included in Section 02 of the application pack. The ERA details the key management measures for the protection of the environment, with regards to emissions to surface water, groundwater, land, and air (including noise and odour).

The application pack also includes both a dedicated Fire Prevention Plan (K436.1~09~003) and an Odour Management Plan (K436.1~09~004) detailing appropriate control measures to deal with both the possibility of combustion and to mitigate potential odour emissions.

The site is operated by Babraham Research Campus Limited, in accordance with a written Management System to reflect and control site operations, environmental management, emissions, and monitoring. The Management System defines operational and maintenance procedures and details requirements in the event of an accident or incident.