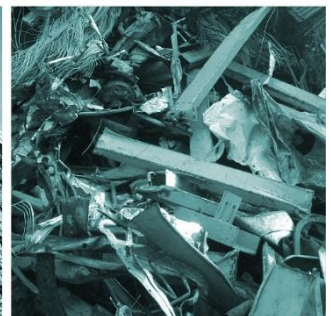
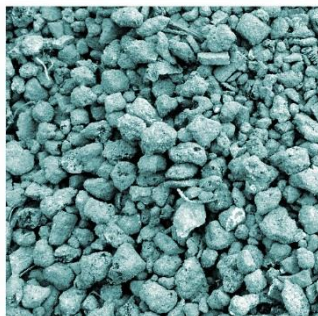
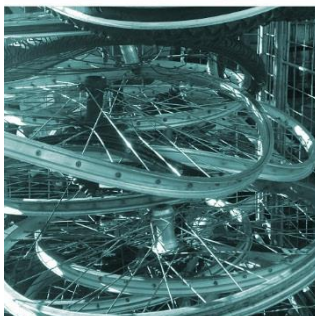
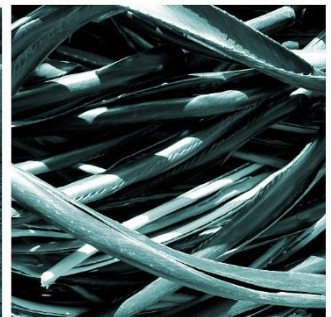
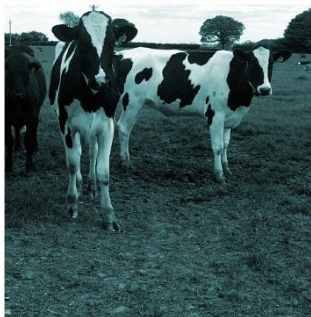


BROCKLESBY LIMITED PERMIT VARIATION

Waste Types to be Accepted

June 2021



Client: Brocklesby Limited
Document Reference: HC1676-10

REPORT SCHEDULE

Operator: Brocklesby Limited

Client: Brocklesby Limited

Project Title: Brocklesby Limited – Permit Variation

Document Title: Waste Types to be Accepted

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Project Manager: Jo Chapman

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1. INTRODUCTION

1.1. Wastes

- 1.1.1. The Applicant is applying to process up to 225,000 tonnes of non-hazardous wastes per annum across all activities at the site. Wastes accepted at the site may be:
- Processed at the esterification plant without the need for prior pre-treatment on site.
 - Subject to physical treatment, heat treatment and/or chemical treatment (pH correction) as pre-treatment before being processed at the esterification plant.
 - May be subject to physical treatment, heat treatment and/or chemical treatment (pH correction) to generate final products for dispatch from site (waste recovery operation).
- 1.1.2. A maximum of 50,000tpa of wastes will be processed in the esterification plant, and a maximum of 50,000tpa of wastes pre-treated at the site will be used within the esterification process.
- 1.1.3. The permit does not currently make facility for operations where wastes may be accepted at the site and used directly in the esterification plant without pre-processing. To accommodate this practice and to provide operational flexibility at the site, the operator now requests that Schedule 2 of the permit be revised to reflect the list of wastes that can be accepted at the site for physical, chemical heat treatment, and treatment through the esterification plant without specifying the site process for which each waste may be processed through. The current method of presentation does not allow for flexibility or combination of treatment methods at the site.
- 1.1.4. The operator is applying to add two new waste codes to the list of wastes that can be processed at the site.
- 1.1.5. The operator exports waste as AD soup via direct pipeline to an adjacent permitted AD facility, and exports AD soups to other sites via tanker.
- 1.1.6. The new waste types to be added to the permit are both included within Appendix B of WRAP's 'Anaerobic Digestate – End of waste criteria for the production and use of quality outputs from Anaerobic Digestion of source-segregated biodegradable waste' and appear on the list of wastes given in the standard rules permits for AD sites.
- 1.1.7. These wastes can therefore be considered to have been 'pre-assessed' as suitable for use in AD and therefore suitable for inclusion in the feedstocks produced at the site for further AD use.
- 1.1.8. The ADQP has restrictions on the wastes that can be accepted under 19 02 10. Only glycerol accepted under this code is permitted under the ADQP. The operator may wish to accept glycerol under this code which may be incorporated into AD soup. In addition to this the operator may wish to accept other wastes under this code that are biodiesel distillation residues that can be blended with other products at the site to go for end uses other than AD feedstock soup. The operator has therefore requested a more generic description for wastes accepted under this code that makes facility for acceptance of both glycerol for AD soup, and other fat/oil-based materials destined for other end uses.

- 1.1.9. The operator does not yet have specific sources of these new wastes identified but these can be provided on request if required when identified.
- 1.1.10. In the event that potential waste streams for the two new codes are found, a full pre-acceptance evaluation of the waste will be undertaken as outlined in the site's waste acceptance procedures detailed as an appendix to the BAT assessment submitted with this variation as HC1676-18
- 1.1.11. These new wastes have been considered in the HC1676-08 Environmental Risk Assessment.
- 1.1.12. This variation application includes an increase in the annual wastes processed at the site. The operator has installed an enlarged capacity replacement tank farm at the site and as such the maximum combined storage capacity for incoming non-hazardous wastes has increased from the 1010m³ currently stated in the Tables in Schedule 2 of the permit, to 4,400m³, which represents the total capacity of the new tank farm.
- 1.1.13. The operator is applying to remove the currently permitted hazardous waste code listed in Table S2.7 from the permit.
- 1.1.14. The operator will carry out chemical treatment of the wastes accepted at the site. This process is currently permitted on the site permit but is currently specified for hazardous wastes. The operator will continue to carry out the chemical treatment process already undertaken at the site for hazardous wastes (pH correction) but on the non-hazardous waste feedstocks received at the site. The pH correction process aids the splitting of oils and fats. It is anticipated that this would be a primarily method of treatment for some waste types that would require some acid addition to aid fat/oil separation. However, once the operator has processed oils and fats from a range of wastes via a range of processes at the site, the final mixture of residues are likely to be subject to a further extraction of an oily layer by the pH correction process before the final mixture is then dispatched as an AD soup. This would mean that the process would potentially be applied to residues of all waste types that have been taken on to site.
- 1.1.15. This is another reason why the operator now requests that the list of wastes that can be accepted at the site be decoupled from specific treatment equipment/processes at the site, since the method of process definition cannot be sufficiently flexible to reflect site operations.

2. LIST OF WASTES

2.1. Wastes to be accepted

- 2.1.1. The following list of non-hazardous wastes may be accepted at the facility for treatment by physical, chemical or heat treatment, or for treatment via the Schedule 1, Section 4.1 A(1) (a) (ii) esterification process with or without pre-treatment at the site.
- 2.1.2. The operator will process up to a maximum of 225,000t of waste per annum at the site as a whole.
- 2.1.3. The operator will process a maximum of 50,000t per annum of wastes through the esterification plant.
- 2.1.4. The operator will have a combined maximum storage capacity of 4,400m³ for non-hazardous wastes as accepted at the site (the capacity of the new tank farm), and a combined total site storage capacity of 6,000m³, compared to the former total site total storage capacity of approx. 3,000m³.
- 2.1.5. New waste codes to be added to the permit as part of this variation application are shown in bold.

EWG Code	Description
02 02 01	Sludges from washing and cleaning
02 02 03	Materials unsuitable for consumption or processing
02 02 04	Sludges from onsite effluent treatment
02 03 01	sludges from washing, cleaning, peeling, centrifuging and separation
02 03 04	materials unsuitable for consumption or processing
02 03 05	sludges from on-site effluent treatment
02 05 01	materials unsuitable for consumption or processing
02 05 02	sludges from on-site effluent treatment
02 06 01	materials unsuitable for consumption or processing
02 06 03	sludges from on-site effluent treatment
07 01 99	Wastes not otherwise specified (limited to soap wastes from the manufacture of biodiesel)
15 02 03	Absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02 (limited to diatomaceous earth filter cake containing biodiesel)
16 10 02	Aqueous liquid wastes other than those mentioned in 16 10 01
16 10 04	Aqueous concentrates other than those mentioned in 16 10 03
19 02 10	Combustible wastes other than those mentioned in 19 02 08 and 19 02 09 (New Code to be added)

EWC Code	Description
19 08 09	Grease and oil mixture from oil/water separation containing only edible oils and fats (New Code to be added)
20 01 25	Edible oil and fat



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