



## Residue Management Plan

### Overview

The prime function of the depackaging and anaerobic digestion facility is to capture the energy potential from waste feedstocks which for the waste feedstocks in question is the optimum waste management solution in terms of the waste hierarchy.

### Waste Hierarchy



### Review and Improvement

The General Manager is responsible for reviewing the following Residue Management Plan Table (Table 1 below) annually in line with the Document Control & Record Keeping Procedure (LRBE-SOP-02) to identify any changes to residues and their fate including opportunities for reduction and improvement of environmental outcomes in line with the waste hierarchy. The plan will be reviewed more frequently in light of any major changes.



*Residue Management Plan*

The residues produced by the depackaging and anaerobic digestion processes including management in line with the waste hierarchy and areas for potential improvement and future review are detailed in Table 1 below:

Table 1: Residue Management Plan Table

<b>Residue Type</b>	<b>Approximate tonnage per year (tonnes)</b>	<b>Reduction measures</b>	<b>Management in line with waste hierarchy</b>	<b>Potential improvements to be considered in line with waste hierarchy</b>
Pallets holding packaged food waste	40	Pallets essential to hold waste securely during transportation to site.	Pallets sent for reuse	No improvement opportunities foreseen.
Primary packaging off pallets	20	Reduction measures not feasible.	This waste will be separated into cardboard and plastic and recycled where possible.	If there is excess primary packaging e.g. shrink wrap this could be notified to the waste producer
Dried glass packaging	5	Reduction measures not feasible.	Sent for recycling	No improvement opportunities foreseen.
Dried metal packaging	3	Reduction measures not feasible.	Sent for recycling	No improvement opportunities foreseen.
Dried mixed packaging from depackaging line	1,560	Reduction measures not feasible	Recycling not currently feasible. Energy from waste is currently the optimum waste management solution	Operator to keep abreast of recycling opportunities for mixed plastic waste stream (Animal by-product restrictions apply)



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Grit from depackaging process	260	Reduction not possible. It is desirable to remove as much grit as possible from the feedstocks to minimise grit entering anaerobic digestion process.	The grit will be collected in a sealed skip. Management of this waste stream will be optimised in line with the waste hierarchy. If the waste properties are appropriate it will be sent off site for landfill cover / restoration.	If the material is suitable for landfill cover or restoration then no further improvement opportunities foreseen.
Drained IBCs and drums (liquid waste)	10	Reduction measures not feasible.	Drums and IBCs are cleaned and returned to producer for reuse where possible.	No improvement opportunities foreseen.
Waste oil (CHPs)	5	The oil within the CHPs is routinely tested and only changed when required. Reduction not possible	The waste oil is recycled	No improvement opportunities foreseen.
Spent carbon filter material	6	Hydrogen sulphide levels are checked every 15 minutes before and after the carbon filters. In checking the efficacy of the filters, it can be ensured that the carbon filter material is not changed until required.	The type of carbon filter material used cannot currently be reactivated. Waste carbon filter material sent for disposal.	Consider use of an alternative carbon filter material that can be reactivated. Operator is in discussions with a company who supply carbon filter material that can be reactivated.
General waste from office and welfare areas	1	Controlled versions of documents maintained on company server with staff access to reduce paper use (and ensure version control).	Waste separated for recycling where possible e.g. paper.	Consider electronic waste transfer note system.



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Food waste from office and staff welfare area	0.5	Provision of fridge for storage of staff food.	Food waste managed through depackaging / anaerobic digestion facility on site.	No improvement opportunities foreseen.
Sewage from cesspit	30	Dual flush toilets	This waste is sent to a sewage treatment plant for disposal	No improvement opportunities foreseen.
Spent spill kit material	1	Minimisation of spillages through staff training on Standard Operational Procedures	Spill kits used for hazardous materials (oil or fuel) will necessarily be managed as hazardous waste. Spillages of feedstock or digestate will be contained and processed on site where possible.	No improvement opportunities foreseen.