Acorn Bioenergy Operations Limited, Devon Green Power AD Plant, Permitted Activities, July 2026

Table 1 details the proposed permitted waste types for the anaerobic digestion facility.

Table 1 – Proposed Permitted Waste Types

Waste code	Description
02 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	Sludges from washing and cleaning – vegetables, fruit and other crops
02 01 03	Plant-tissue waste
02 01 06	Animal faeces, urine and manure (including spoiled fully biodegradable animal bedding)
02 01 99	– wastes not otherwise specified (Only spent mushroom compost or discarded mushrooms from commercial mushroom cultivation)
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, cleaning, peeling, centrifuging and separation
02 03 04	Materials unsuitable for consumption or processing
02 03 05	Sludges from on-site effluent treatment
02 04 Wastes from sugar processing	
02 04 03	Sludges from on-site effluent treatment

Waste code	Description
02 05 Wastes from the dairy products industry	
02 05 01	Materials unsuitable for consumption or processing – biodegradable wastes derived from the processing of dairy products only
02 05 02	Sludges from on-site effluent treatment
02 06 Wastes from the baking and confectionery industry	
02 06 01	Materials unsuitable for consumption or processing
02 06 03	Sludges from on-site effluent treatment
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 04	Materials unsuitable for consumption or processing
02 07 05	Sludges from on-site effluent treatment
16 Wastes not otherwise specified in the list	
16 10	Aqueous liquid waste destined for off-site treatment
16 10 02	Untreated wash waters from cleaning fruit and vegetables on farm only
16 10 02	Sludges from washing and cleaning fruit and vegetables on farm only

Waste code	Description
16 10 02	Milk and dairy waste milk from agricultural premises only
16 10 02	Liquor or leachate from a composting or anaerobic process that accepts waste input types listed in these standard rules or composting and anaerobic digestion standard rules only, and in compliance with Animal By-Products Regulations
19 Wastes from waste management facilities, off-site wastewater treatment plants and preparation of water intended for human consumption/industrial use	
19 06 Waste from the anaerobic treatment of waste	
19 06 03	Liquor from anaerobic treatment of municipal waste (from a process that accepts wastes listed in these standard rules or anaerobic digestion standard rules only) and made up of previously pasteurised and stabilised batches only
19 06 04	Digestate from anaerobic treatment of source segregated biodegradable waste (from a process that treats wastes which are listed in these standard rules only and pasteurised)
19 06 05	Liquor from anaerobic treatment of animal and vegetable waste (from a process that accepts wastes which are listed in this table only) and made up of previously pasteurised and stabilised batches only
19 06 06	Digestate from anaerobic treatment of animal and vegetable waste
19 06 06	Unpasteurised digestate from anaerobic treatment of animal and vegetable waste (for seeding purposes only)

Table 2 details the proposed Listed Activity and Directly Associated Activities at the Devon AD Plant.

Table 2 – Proposed Listed & Directly Associated Activities

Permitted Activities	Description of Activity	Limits of activity
Listed Activity - Schedule 1 of the EPR under S5.4 A(1) (b) (i).	Recovery or a mix of recovery and disposal of non-hazardous waste with a treatment capacity exceeding 100 tonnes a day involving biological treatment. Under Waste Framework Directive (WFD) Annex II operations, the listed activity is R3 – recycling and reclaiming organic substances which are not used as solvents.	a) treatment of waste by anaerobic digestion, in accordance with waste types listed under Table 1. b) the maximum throughput of animal wastes* shall be no more than 10 tonnes each day. c) No hazardous waste will be accepted
Directly Associated Activity (DAA) - Storage of waste pending recovery or disposal	Under WFD Annex II operations, activity is R13 – storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced).	Storage of up to 270 tonnes of solid chicken manure waste on an impermeable surface with sealed drainage (inside the Manure reception building with air handling and emissions abatement plant). Storage of liquid wastes, namely liquid slurry and other non-hazardous liquid wastes pending treatment in 2 No. 400 m^3 Liquid Feedstock / Process Water Tanks within secondary containment system. Storage of silage liquor and dirty water pending treatment in 1 No. Process Water Lagoon (1,150m^3) with leak detection, 1 No. 100 m^3 Process Water Tank and 2 No. 400 m^3 Liquid Feedstock / Process Water Tanks within secondary containment system.

Permitted Activities	Description of Activity	Limits of activity
		Storage of digestate liquor in in 1 No. Separated liquor storage tank (1,507 m^3) within the secondary containment system. Storage of digestate fibre within the fibre bunker located in the Separation Hall (within the Manure Reception Building), with a maximum storage capacity of 500 m^3 at any one time.
DAA - Physical and chemical treatment of waste	Under WFD Annex II operations, activity is R3 – recycling and reclaiming organic substances which are not used as solvents.	Pre-treatment of manures within liquid feed system and by maceration and slurries by maceration prior to anaerobic digestion (all within enclosed systems). Heat treatment of digestate within Pasteurisation tanks (greater than 70°C for 1 hour). Separation of whole digestate in the 2 No. mechanical separators with an expected daily process requirement to separate approximately 258m^3/tonnes per day. Digestate separation and storage of the resultant fibre is undertaken within the Separation Hall which forms part of the Manure Reception Building. Chemical addition for desulphurisation and trace element supplementation.
DAA - Gas combustion to produce heat and power	Under WFD Annex II operations, activity is R1 – use principally as a fuel or other means to generate energy.	Burning of biogas or natural gas in 2 No. combined heat and power engines (CHPs) with an aggregated net rated thermal input of 4,065 kWth. Burning of natural gas or biogas in an emergency boiler with a net rated thermal input of 609 kWth. The aggregated net rated thermal input of the CHP engines and emergency boiler is approximately 4,674kWth / 4.67 MWth.

Permitted Activities	Description of Activity	Limits of activity
DAA – Treating biogas and biomethane	Under WFD Annex II operations, activity is R3 – recycling and reclaiming organic substances which are not used as solvents.	Gas storage and drying. Gas cleaning and upgrading to biomethane by cooling, compression, scrubbing via carbon filters and filtration. Injection of biomethane via grid entry unit (GEU) to the National Gas Grid.
DAA – Recovering, treating and storing cardon dioxide	Under WFD Annex II operations, activity is R3 – recycling and reclaiming organic substances which are not used as solvents.	Gas cleaning and production of carbon dioxide (CO_2). Treatment of CO_2 via compression; drying, filtration and liquefaction. Storage of CO_2 in 2. No CO_2 storage tanks (100 m^3 each) pending removal off site via a transfer filling station.
DAA - Using an emergency flare	Under WFD Annex I operations, activity is D10 – incineration on land.	Use of the emergency flare to burn surplus biogas and biomethane in emergency conditions or during extended maintenance activities.
DAA – Storage of raw material and waste generated on site	This activity relates to storing waste generated on site and raw materials.	Raw materials will be stored securely, away from vehicle impact and with secondary containment as appropriate. Waste generated on-site will be stored securely pending collection and removal to an appropriate regulated facility.
DAA - Surface water collection, storage and discharge	Collection and discharge of clean surface water.	Collection of rainwater from building roofs and clean external concrete areas. Storage of clean rainwater within a below-ground attenuation tank constructed using cellular storage crates.

Permitted Activities	Description of Activity	Limits of activity
		Treatment of surface water via a full retention separator where appropriate. Discharge of excess clean water to surface water ditch.
DAA - Dirty water collection and storage	Collection and reuse of dirty water.	Collection and storage of dirty water from dirty areas including Manure reception building, silage clamps, secondary containment area and dirty yard areas to ancillary process water storage tanks and Process water lagoon to use in the anaerobic digestion process.
DAA - Air treatment and release	Collection and treatment of air to reduce emissions to air.	Collection of air from the Manure reception building via an air handling system. Treatment of air in emissions abatement plant via sulphuric acid scrubber (to reduce ammonia) and a double layer carbon filter for removal of hydrogen sulphide, VOCs and residual odorous compounds, prior to discharge via the main emissions stack 16.10m high)

* 'animal waste' means any waste consisting of animal matter that has not been processed into food for human consumption. This does include, blood, feathers, uncooked butchers waste and any other animal waste that is not catering waste or former foodstuffs. This does not include faecal matter from animals.