

Regulation of Anaerobic Digestion of Waste April 2011.

1. Introduction

The type of waste fed, the capacity of the facility to process material and whether the operation is classed as disposal or recovery all influence how anaerobic digestion (AD) facilities are regulated. The attached flowchart is designed to allow regulators and operators to determine the type of authorisation required for the AD facility and how the resulting waste or product streams should be regulated.

2. Facilities processing animal waste with a treatment capacity of more than 10 tonnes per day.

Any facility processing animal waste with a capacity of more than 10 tonnes per day will require a part A permit under the Pollution Prevention and Control Regulations (NI) 2003 ('the PPC Regulations') whether or not the operation is deemed to be recovery or disposal. Paragraph (c) of section 6.8 to the PPC Regulations includes the following definition:

'Disposing of or recycling animal carcasses or animal waste otherwise than by incineration falling under section 5.1 of the Part of this Schedule at plant with a treatment capacity exceeding 10 tonnes per day of animal carcasses or animal waste or, in aggregate, of both.'

In this context animal waste is any waste consisting of animal matter that has not been processed into food for human consumption. Animal manure and slurry is excluded from the definition of animal waste.

(Note that category 1 animal by products cannot be composted or transformed in a biogas plant.)

3. Other facilities processing wastes with a capacity of more than 50 tonnes per day.

3.1. Facilities processing wastes with a capacity of more than 50 tonnes per day may require a PPC permit (if the operation is classed as disposal) or a Waste Management Licence (WML) if the operation is classed as recovery under current legislation.

3.2 Recovery Processes.

Manure, slurry and non waste feedstock.

If the only feedstock to the plant is agricultural manure and slurry alone or manure and slurry along with non waste materials, NIEA considers that spreading digestate to land should not be subject to a greater degree of regulation than untreated manure and slurry. NIEA has therefore taken a regulatory position in line with that adopted by the Environment Agency that such operations should be considered to be recovery and the resulting digestate should not be considered as a waste.

Other feedstocks.

If the AD process produces biogas and a quality digestate to be spread on agricultural land, then NIEA considers that the digestion process represents recovery of waste and the facility would be regulated under a WML (unless carried on as part of an activity requiring a PPC permit).

This means that an AD process can be classed as recovery whether or not the resulting digestate is a waste. If the digestate meets the AD digestate quality protocol it would not be considered a waste and subsequent spreading to land would not require a WML exemption. If the digestate does not meet the quality protocol then a WML exemption will be required in order to spread it to land.

3.3 Disposal Processes.

If the AD process has a feedstock other than manure / slurry and non wastes and does not produce both a biogas and quality digestate for spreading to agricultural land as a fertiliser, then the process will be classed as disposal. The facility would be regulated under a PPC permit, and the digestate would be regulated as a waste.

3.4 Future changes to legislation.

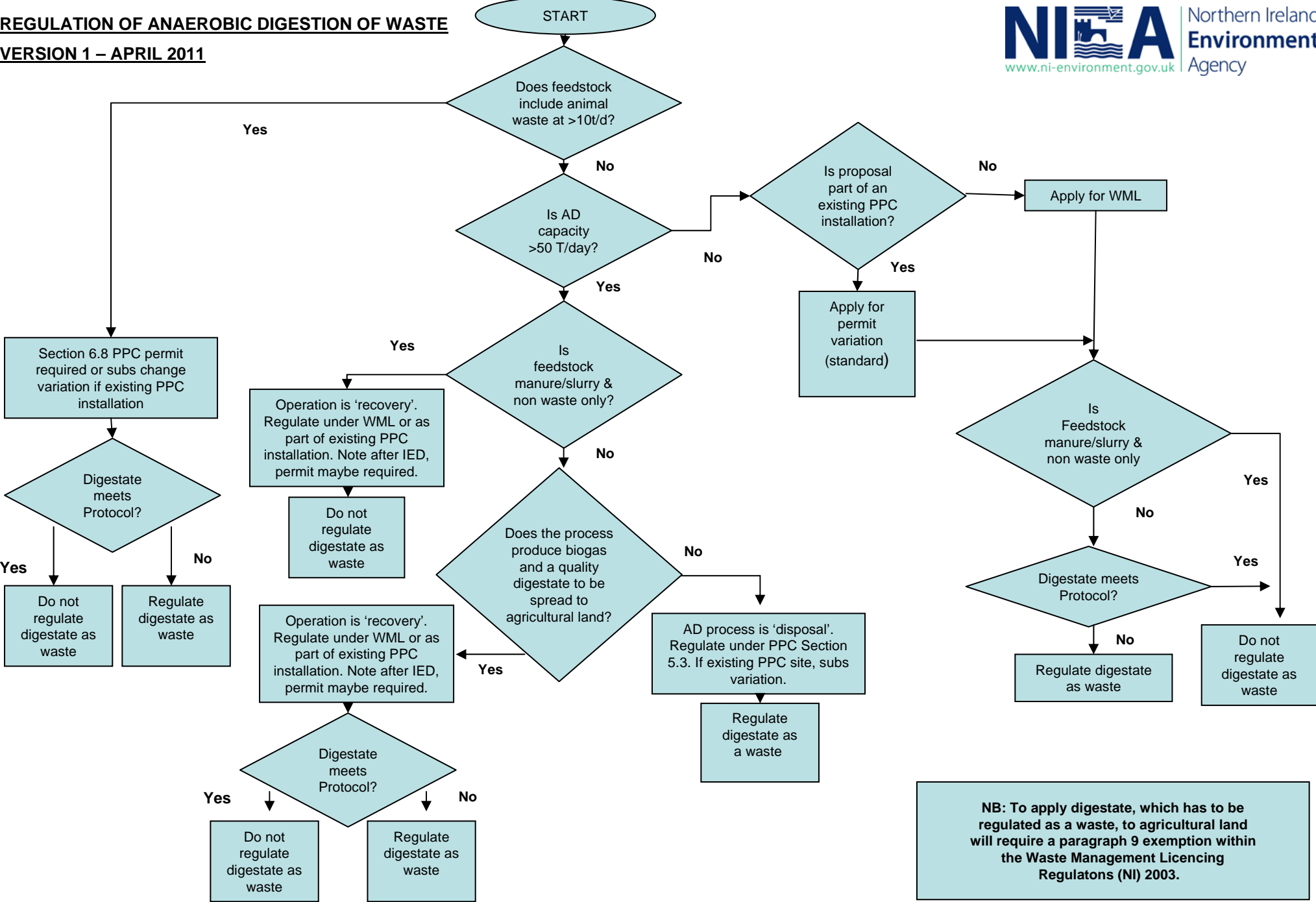
Under the Industrial Emissions Directive (IED) there will be some changes to definitions of waste activities. This means that some recovery activities will also require a PPC permit. This will apply to most recovery activities with a capacity of more than 75 tonnes per day, but where AD is the only treatment process employed a higher threshold of 100 tonnes per day will apply.

4. Other facilities with a capacity to process wastes at less than 50 tonnes per day.

If capacity to process material is below 50 tonnes per day, the AD facility will be regulated under a WML, whether it represents recovery or disposal, unless it is carried on as part of a PPC activity. If the digestate meets the AD quality protocol OR if the only feed is manure and slurry or manure and slurry plus non wastes, then no WML exemption will be required for spreading it to land. In all other cases a WML exemption will be required for spreading digestate

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NB: To apply digestate, which has to be regulated as a waste, to agricultural land will require a paragraph 9 exemption within the Waste Management Licencing Regulations (NI) 2003.

Supplementary Information

NIEA definition of Animal Waste for the purposes of Anaerobic Digestion

For the purposes of PPC section 6.8A(b)

- The NIEA define “animal waste” as any waste consisting of animal matter that has not been processed into food for human consumption.
- Animal manure and slurry is excluded from the definition of animal waste.
- Category 1 animal by-products cannot be composted or transformed in a biogas plant.