

Developing a quality protocol for Anaerobic digestion

Nina Sweet

Anaerobic Technical Specialist – Waste and
Resources Action Programme.

The role of WRAP

WRAP helps individuals, businesses and local authorities to reduce waste and recycle more, making better use of resources and helping to tackle climate change.

Specifically:

- **Minimising household waste** (e.g. food and packaging)
- Promotion of **consumer recycling**
- Increasing **collections** of recyclate
- Increasing recycling **infrastructure**
- Creating **markets for recyclate**

Food waste



Why are we interested in food waste

- 6.7 Mt/y Household
- ~ 4.1 Mt/y Industrial
- ~ 3.0 Mt/y Food service and restaurants
- ~ 1.6 Mt/y Supermarkets
- ~ 1-3 Mt/y other commercial & agriculture
- Total: 16-18 Mt/y
- ~ 4 times our body weight/year

Recycling options

- Home Composting
- In-Vessel Composting
- Anaerobic Digestion
- Thermophilic Aerobic Digestion

Anaerobic digestion

- Huge potential for treating food waste
- Produces biogas and a digestate
- Biogas = renewable energy
- Digestate = fertiliser or soil conditioner =

WASTE



Currently

- Duty of care when transporting
- Licence for storage
- Exemption from waste management licensing for spreading

The Quality Protocol

for the production and use of quality
outputs from anaerobic digestion from
source-segregated biodegradable waste

Three main purposes of a protocol

- Clarifies when waste controls are no longer required
- Ensures environmental protection
- Provides users with certainty that the product conforms with a standard

To achieve a Quality Protocol we must ensure

- There must be recognised standard in place and outputs must reach the standard
- The materials are used in defined markets
- That there is no environmental harm

Three potential outputs of the work programme

- A Quality Protocol
- A regulatory low risk position
- Clarification of existing regulatory position.

Why do we need a QP for the digestate?

- Use as a waste is seen as a barrier to the widespread use of the material
- Use as a defined product will bring certainty to digestate quality
- Brew protocols project



Working together to develop solutions for the outputs from AD

Close collaboration between

WRAP

Environment Agency

Industry- Renewable Energy Association, The
Composting Association, Environmental Service
Association

Funded by BREW and Renewables East

The good news...

- Exposure pathway assessment - complete
- Financial impact assessment - complete
- Technical report - complete
- Quality Protocol - drafted
- Consultation planned for end March/early April 08
- Published Autumn 08
- <http://qpyr1.dialoguebydesign.n>



QP highlights

- Two markets
 - Agriculture
 - Land restoration



- Meet the proposed PAS110 for quality digestate
- Record keeping in line with the compost QP

Challenges

- Gaps in the data
- Lots of aspiration but little experience of the use of digestate in some markets
- Consultation will need to address some key questions.
 - Markets
 - Use
 - Cost

Stakeholders Events for QP

Opportunity to raise issues and to work to resolve them during the consultation period

Locations:

Cardiff – 13th May 2008

London – 16th May 2008

Glasgow – 23rd May 2008

Venues TBC

Standard – PAS 110

- Sets out how to produce digestate
- Key to the success of the ADQP
- Lots of detail on what a quality digestate is and how it should be produced

Need to ensure that:

- Waste inputs are correct
 - Material is 'properly' digested
 - Quality of digested material is right
 - Contamination is minimised or prevented
 - Process is fully controlled
-
- But – the standard is **not** about markets for the digestate, or how to use them.

PAS 110 Timetable

- Resolution of review group meeting in late April/early May 2008
- PDF available for review – comments through QP consultation
- Completion within the timetable for completion of the QP

Thank you

- To industry for all the help that they have given us so far
- To the REA for the work that the new QP will be built on

- And, to everyone for the help that they will give us to finalise the documents through consultation.

Moving forwards

Growing Markets

- Quality Protocol for outputs of AD
- Markets: Agriculture, Regeneration & Forestry
- Trials planned
- Framework Agreement: Retailers & Assured Farm Produce Schemes
- Marketing & Work with Producers
- Map of arisings, processing capacity & land bank

Growing capacity for food waste treatment

- Organics Capital Funding Programme launched 4th April
- new or expansion of an existing facility
 - In-Vessel Composting, Anaerobic Digestion or Thermophilic Aerobic Digestion
 - must be ABPR compliant
 - must be able to produce outputs to the published standards
 - must be operational no later than end December 2010

Organics Capital Funding Programme

■ Feedstock

- Eligible feedstocks must be source segregated organic material
- Particular focus on food waste from commercial & industrial and municipal sources

Timetable

- Launch programme 4th April 2008
- 10-12 weeks application period - deadline 1.30pm 30th June
- Assessments happen during July.
- Applicants advised early August
- Subject to funding - this will be first of 3 rounds of funding.
- Applies to England, Scotland and N.I. only (a separate AD programme running in Wales).
- Workshops
 - Edinburgh 25th April 2008
 - Leeds 28th April 2008
 - Birmingham 30th April 2008

Conclusions

- WRAP here to help
- Please contact us: www.wrap.org.uk; 0808 100 2040

Learn more

Get more information about WRAP and its programmes:

Website: www.wrap.org.uk



WRAP Helpline: 0808 100 2040