Consultation on Recyclate Quality Action Plan.

Response by Association for Organics Recycling

1 Introduction

1.1 The Scottish Government has invited comments on its Recyclate Quality Action Plan.

1.2 The Action plan details a range of actions to improve and maintain the quality of recyclable materials collected, sorted and presented to the market in Scotland.

1.3 The Plan focuses on 3 areas: Collection systems and input contamination; Sorting facilities – material sampling and transparency; Material quality benchmarking and standards.

1.4 The Action Plan makes reference to dry recyclables and does not include organics.

1.5 The consultation document, can be found at:
http://www.scotland.gov.uk/Publications/2012/10/6584

1.6 The Association for Organics Recycling is the United Kingdom's membership organisation, working on behalf of its members to raise awareness of the benefits of biological treatment processes and use of the outputs from such processes. The Association is committed to the sustainable management of biodegradable resources by promoting the benefits of composting and other biological treatment techniques for the enhancement of the environment, business and society.

1.7 The Association aims to act as an advocate for the wider biological treatment industry and to represent its views in a constructive dialogue with policy makers. It envisages an industry in which best practice is shared, standards are maintained and surpassed and which makes a positive contribution to safeguarding the environment.

1.8 AfOR currently has approximately 400 members including composting, anaerobic digestion, thermophilic aerobic digestion and mechanical biological treatment operators, local authorities, consultants, technology suppliers, compost users, academics, other membership organisations and individuals.

1.9 The Association welcomes the above consultation and the opportunity to discuss any of the points raised in this response.

2 General comments

2.1 The Plan outlines a number of actions for dry recyclables to improve the overall quality of recovered material. There is no reference to organics or biowastes.

The presence of unacceptable levels of physical contaminants in biowastes collected

and delivered to composting and anaerobic digestion processes is a major concern for the biowaste management industry and markets for its compost and digestate outputs.

In recent years, the biowaste management industry has noted an increasing presence of physical contaminants in the biowastes collections that are delivered to composting and AD sites. An example, specific to composting, is where paper and card wastes are comingled with organic waste. The problem is that many paper and card items contain plastic coatings, metals, inks or other ingredients that tend not to biodegrade enough during typical commercial composting processes. As a result, low-quality compost is produced, which is not compliant with PAS 100: 2011 specification.

The presence of physical contaminants such as plastics, metal, glass, sharps, plastic-coated packaging and other non-compostable / non-digestible items in biowaste collected and delivered to composting and anaerobic digestion sites can significantly undermine the quality of composts and digestates.

This non target material has the potential to significantly reduce the acceptability of composts and digestates in the market place. Farm assurance schemes, food retailers, growing media manufacturers and other end users of composts and digestates will not tolerate physical contaminants in composts and digestates. When these are applied to land grazed by livestock or on which crops are grown for human or animal consumption, the risk may be deemed in certain instances to be unacceptably high.

Ensuring that the quality of composts and digestates to commercial agriculture and horticulture are 'fit for purpose' has been an area of activity rigorously pursued by a number of stakeholders including AfOR and led by the Waste and Resources Action programme (WRAP). There has been a significant body of work commissioned by WRAP to assist in building confidence in the market in order that there is greater acceptance of the suitability of materials such as green waste and food waste derived compost in the marketplace. It is imperative that this good work is not undermined by the application of sub-standard composts or digestates to farm land.

Removing physical contaminants from source-segregated biodegradable wastes delivered to composting facilities (e.g. via picking lines, wind sifting etc.) is costing the industry an estimated £15.6 million to £78 million per annum. The cost of landfilling the process rejects is in the range of £12.8 to £ 19.1 million per annum.[1]

Finally, the presence of physical contaminants in the feedstock materials may result in composts and digestates with a level of contaminants exceeding the PAS 100 and PAS 110 upper limits. This, in turn, will affect the amount of input materials that Local Authorities will be able to claim as 'recycled'. LAs cannot count towards their recycling performances, input materials sent to composting and AD sites that fail to comply with the PAS 100 and PAS 110 specifications.

AfOR strongly urge the Scottish Government to include biowastes in the Action Plan or to make separate provisions for these materials to ensure that high quality inputs are maintained in organics recycling facilities.

2.2 **Action 5** states**:** *The Scottish Government proposes to establish a statutory arrangement such that, from 2014, all MRFs located in Scotland that sort mixed dry recyclate (above a minimum throughput) measure the composition of inputs and outputs at minimum frequencies using a standardised approach and make this information available for dissemination. In taking this approach forward, the overall aim would be to address the current market failure of imperfect information and so improve market efficiency. The new information on quality would provide missing information to suppliers of the material (local authorities) and buyers of the material (reprocessors).'*

[1] These figures have been kindly provided by members of AfOR.

AfOR firmly believe that this should be carried out for biowastes at composting or anaerobic digestion facilities too.

AfOR has worked with the industry to develop a methodology to measure the levels of physical contaminants in the biowastes delivered to biowaste treatment facilities - **'AfOR's protocol to measure physical contaminants in biowastes**'. This can be downloaded from http://www.organics-recycling.org.uk/collections. The aim of this document is to provide operators with a methodology to measure the levels and the types of physical contaminants in delivered loads of biowastes. This will enable operators to:

1. Ascertain and monitor contamination levels in loads of biowaste delivered to organics recycling facilities.
2. Obtain evidence to support the specification or revision of maximum acceptance criteria in contractual arrangements with suppliers.
3. Check compliance with the acceptance criteria specified within existing contractual arrangements.
4. Provide biowaste suppliers with feedback on specific collection rounds that are routinely causing issues with respect to contamination. And
5. Justify the implementation of a differential pricing mechanism based on the results of the assessment carried out.

This methodology is based on the method recommended and successfully implemented by the Italian Composting Association (CIC). It describes:

- ✓ how a representative sample should be obtained from a load of biowaste delivered to a biowaste facility;
- ✓ how the sample should be sorted to differentiate compostable from non-compostable fractions; and
- ✓ how the results of the assessment should be reported.

AFOR recommend that the protocol is carried out every three months for at least the first year to establish a robust benchmark for biowaste quality. During subsequent years, measurement of contamination levels can be reduced to twice yearly unless contamination levels are high, in which case the frequency of sampling should remain every three months.

AfOR would be happy to discuss further how this protocol could be used in Scotland to assess the quality of biowastes by quantifying the level of non-compostable or non-digestable material being collected with biowaste by local authorities in Scotland.

2.3 Section 56 and 57 state '*Of central importance is the availability of information on what constitutes typical levels of non-target and non-recyclable material in dry recyclate (paper, card, plastics, metals and glass) that have been collected as separate material streams' and 'One option to obtain this information is to undertake a wide-ranging survey of existing facilities that receive separately collected material. This could be done at either the bulking or waste transfer stations that receive material from the collection vehicles or at reprocessors where such materials are subsequently received for processing. To ensure that the data is robust it is suggested that this information should come from a survey of UK facilities rather than just Scotland. Both Defra and the Welsh Government have indicated that they are willing to participate in a UK-wide study*'

Action 10 states '*The Scottish Government therefore propose that ZWS and WRAP*

undertake a UK-wide study of waste transfer / bulking stations to determine the typical quality of each of the key recyclate streams. Under this proposal, the survey would be repeated on a fixed cycle (e.g. 3-5 years) to keep the information up to date.'

AfOR believe that the above should be carried out for biowaste too. We believe that when considering the amount of waste recovered for the purposes of the targets set under the Waste (Scotland) Regulations 2012 should be the weight of the input to a composting or anaerobic digestion facility minus rejects (including plastics, metals, glass, oversized items and where appropriate non-degraded corn starch bags).

AfOR believes that input material tonnages claimed as 'recycled' should only be those source-segregated input materials suitable to be processed through composting or anaerobic digestion (targeted materials) and, thus, that can be turned into quality products.

AFOR have developed a simple excel spreadsheet that can be used to calculate the recycling rates achieved through a composting facility that may be accepting biowaste from multiple local authorities. Firstly, it calculates the percentage of contamination attributed to each local authority based on the total tonnage processed, the proportion of tonnage supplied by an organisation and the contamination level (from the above mentioned protocol). Then the weighbridge records of rejects sent for disposal can be used to calculate the rejects attributed to each organisation and finally the total recycling rate calculated using the calculated reject tonnes disposed of as a percentage of the biowaste tonnes delivered from the organisation. This spreadsheet is attached.

It is absolutely fundamental that future guidance for Local Authorities on how to calculate composting targets and report them into the Waste Data Flow includes a mechanism to encourage Local Authorities to reduce the levels of contaminants in biowaste delivered to composting, AD and other biowaste treatment sites. Failing to do this only encourages the collection of inappropriate 'contaminant' materials which cost significant sums to remove at an appropriate stage after delivery to the composting / AD sites.

2.4 AFOR are planning to submit a proposal to Zero Waste Scotland in early 2013 for a project aiming to:

- Assess the purity of biowaste by quantifying the level of non-compostable/non-digestable materials being collected with biowaste by local authorities.
- Compare how non-compostable/non-digestable materials vary in volume and type between different collection systems and between rounds in the same local authority.
- Train local authorities and processors in the assessment techniques for measuring non-compostable materials.
- Establish a system of ongoing monitoring of non-compostable/non-digestable materials.

A similar system has been operating in Italy for the past three years which has provided every stakeholder with essential information and has also led to a reduction in rejects.

3 Comments on specific questions

AfOR has replied only to those questions that are thought to be of more relevance to AfOR's members.

Q1 – Do you support our proposals to improve transparency in testing and reporting of MRF inputs and outputs?

We have little dealings with MRFs but we believe that these should apply to biowaste inputs as outlined above.

Q2 – Do you agree with the scope of the Code of Practice and do you agree that it should be made mandatory?

We believe that there needs to be a protocol for the measurement of physical contamination in biowastes and it should be mandatory.

Q3 - Do you have a view on how best to make test results available to those that need to see them?

The results from assessing contamination need to be reported back to the waste supplier, i.e. the local authority to enable them to take measures to reduce the levels of contamination.

Q4 - Do you support the proposals for creating a transparent approach to benchmarking separate collection systems to support compliance with the Waste (Scotland) Regulations 2012? If not, what alternatives do you consider could fulfil a similar role?

We believe this should apply to biowastes too.

Q6 – Do you have views on any other proposals the Scottish Government should consider to improve the quality of materials and support continued investment in closed loop systems for materials in Scotland?

As outlined in detail above, AFOR strongly believe that the Recyclate Quality Action plan should include biowastes or separate provisions should be made for these materials to ensure that high quality inputs are maintained in organics recycling facilities.

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