

During last few years JRC worked out, with support of stakeholders, criteria under which conditions digestate and compost could cease to be waste as in article 6 of waste framework directive (2008/98/EC) is stipulated. The work was done in order of European Commission and the final report “End-of-waste criteria for biodegradable waste subjected to biological treatment (compost & digestate)” is available under <http://ipts.jrc.ec.europa.eu/publications/pub.cfm?id=6869>

The process was very fruitful and many raised questions and uncertainties could be solved during discussion process hence European Biogas Association is in favor of this final document but there are still minor points which may lead to misunderstandings or problems during legal introduction. These points are:

- Clarification that also not waste streams are allowed feedstock
- Required time temperature profiles
- Sanitation criteria for digestate
- Requirement of operating an Quality managements system
- Minimum measurement frequency
- Analyzing frequency of PAH
- Biodegradability of 90 % within 6 month through digestion or composting
- Usually no need for analyzing electrical conductivity

#### **Clarification that also not waste streams are allowed feedstock (page 172)**

The big advantage of the biogas technique is the great ability to use different kinds of biodegradable feedstock. There are plants running on mono feedstock like manure, carbon containing waste water, biodegradable waste, energy crops etc. but mostly of the plants are using a mixture of feedstock. At the moment “only” different biodegradable waste streams are allowed as feedstock. It is important to make clear that also not polluted biodegradable feedstock not underlying waste frame work directive is also allowed. If only non-waste material (e.g. energy crops and manure) is used, the requirements of EoW criteria do not have to be fulfilled but only the requirements of EU fertiliser regulation and eventually of ABPR (e.g. for manure)

#### **Required time temperature profiles. (page 170)**

The requirements for the optimal treatment process vary in technique, biologic and sanitation. As most plants want to produce high quality digestate and place it on market it is necessary that End of Waste criteria does allow the already in practice used and through national authorities allowed time temperature profiles. Only digestate coming from animal- by-products, for which the ABP regulation requires special sanitation efforts, the ABP regulation should apply. Making sure that changes of ABP regulation requirements doesn't cause a change of coming “End of Waste regulation for biodegradable waste” best option would be to write down that feedstock underlying the ABP regulation has to fulfill requirements of ABP regulation. A possible wording could be:

*Digestate coming from feedstock underlying animal-by-product regulation has to fulfill time temperature profiles and sanitation requirements of current ABP regulation (1069/2009/EC in combination with 142/2011/EC).*

### **Sanitation criteria for digestate**

Creating different requirements for the same demand through different laws should be avoided. It should be also considered that a change of requirements in one regulation would cause a change of “End of Waste regulation for biodegradable waste”. As animal by product regulation is important for sanitation requirements “End of Waste regulation for biodegradable waste” should link to ABP regulation for sanitation requirements. A possible wording could be:

*Digestate coming from feedstock underlying animal-by-product regulation has to fulfill time temperature profiles and sanitation requirements of current ABP regulation (1069/2009/EC in combination with 142/2011/EC).*

### **Requirement of operating an Quality managements system (page 178)**

Quality management systems include additionally to a quality assurance system points like: lowering costs per produced unit, reaching higher efficiency, optimization of the process etc. These points are very important for plant operators and EBA welcomes plant operator’s uses such systems. To make sure that requirements of hopefully coming “End of Waste regulation for biodegradable waste” regulation are fulfilled running a Quality assurance system is needed, as in the same criteria table a little later is written, and not a QM. A possible wording could be:

*Compost/digestate producers are required to operate a quality assurance system..*

### **Minimum measurement frequency (page 155)**

Citizens and communities want to have only one partner delivering their biodegradable waste. Hence biogas plants and composting sites becomes more and more regional treatment points for “clean” biodegradable wastes. After a first acceptance check to make sure that only allowed feedstock is included and no visible contamination occurs plant operators start to pretreat feedstock and within this process divides possible streams for other recycling processes than digestion or composting. For example bigger branches or even trunks. Hence Austria made an own regulation for these separated materials (Abfallverbrennungsverordnung <https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=20002239>).

For these reasons, the formula calculation the sampling and analyzing frequency should be based on the amount of output in form of digestate or compost.

### **Analyzing frequency of PAH page 155**

The very low number of analyzed samples doesn’t allows making the investigation of PAH obligatory. Best would be to make a spot monitoring in the first two years. If the results are under 50 % of proposed limit value it shouldn’t be obligatory to investigate PAH’s further on.

**Biodegradability of 90 % within 6 month through digestion or composting (page 161)**

Usually digestion process reaches a reduction of the organic fraction from 70 up to 75 %. Only in view cases with nearly not existing cellulosic material the biogas technique can reach proposed 90 %. A possible requirement for input materials point d could be:

*....biodegradable according to EN 13432, EN 14995 or equivalent and 65% biodegradability in 6 months has been...*

**No need for analyzing electrical conductivity (page 174)**

The declaration of the electrical conductivity is only needed in horticulture. In more than 95 % of application it's a not needed information. Best would be to add a phrase for this application purpose as:

*Measurement of electrical conductivity is additional needed if digestate will be applicated in horticulture*