Requirements from Waste Treatment BREF, following final TWG meeting – relevant to Organics Recycling

Monitoring – BAT AELs

Emissions to Air

BAT is to monitor channelled emissions to air as below (BAT 4). Associated emission levels are as below:

Parameter	Standard	Monitoring associated with	Minimum monitoring frequency	BAT Associated Emission Level (AEL)
Dust	EN 13284-1	BAT32 (**for MBT** of waste)	Once every 6 months	2-5 mg/Nm^3 (BAT 32)
TVOC	EN 12619	BAT32 (**for MBT** of waste)	Once every 6 months	5-40 mg/Nm^3 (BAT 32)
NH_3	No EN standard	BAT 32	Once every 6 months	0.3-20 mg/Nm^3 (BAT 32)
H_2S	No EN standard	BAT 32	Once every 6 months	
Odour	EN13725		Once every 6 months	200-1000 OU_E/Nm^3

Either BAT-AEL for NH_3 or Odour applies

If EN standards are not available, BAT is to use ISO, national or other international standards that ensure the provision of data of an equivalent scientific quality.

Monitoring frequency may be adapted if the data series clearly demonstrate a sufficient stability.

Some monitoring only applies when the substance concerned is identified as relevant in the waste gas based on an inventory of the waste gas.

Emissions to Water

BAT is to monitor emissions to water as detailed below (BAT 3). The BAT-associated emission levels (BAT-AELs) are also given below (BAT 15):

Substance /parameter	Standard (s)	Minimum monitoring frequency	BAT-AEL for direct discharge to receiving water body (monthly average)
Total organic carbon (TOC)[1] or Chemical oxygen demand (COD)	EN 1484 No EN standard	Once every month	10- 60 mg/l or 30-180 mg/l
Total suspended solids (TSS)	EN 872	Once every month	5- 60mg/l
Total nitrogen (TN)	EN12260/ EN ISO 11905	Once every month	1-25mg/l
Total phosphorous	Various EN standards available (e.g. EN ISO 15681-1 and -2, EN ISO 6878, EN ISO 11885)	Once every-month	0.3-2mg/l
Heavy metals [2]: Arsenic (As), Cadmium (Cd), Chromium (Cr), Copper (Cu), Nickel (Ni), Lead (Pb), Zinc (Zn), Mercury (Hg)	Various EN standards available (e.g. EN ISO 11885, EN ISO 17294-2, EN ISO 15585)	Once every month. **Only applicable to MBT.**	As – 0.01-0.05mg/l Cd – 0.01-0.05mg/l Cr – 0.01-0.15mg/l Cu – 0.05-0.5 mg/l Ni – 0.05-0.5mg/l Pb – 0.05-0.1mg/l Hg – 0.5-5µg/l Zn – 0.1- 1mg/l

1 - Either TOC or COD is monitored. TOC is preferred option because monitoring doesn't use very toxic compounds.

2 – Monitoring and associated BAT-AEL may not apply when the substance concerned is not present in the waste to be treated.

Note that monitoring frequencies may be adapted if the data series clearly demonstrate a sufficient stability of emissions over time. The sampling point should be located where the emission leaves the installation. Monitoring for heavy metals only applies when the substance concerned is identified as relevant in the waste water based on the inventory.

Odour emissions

In cases where odour nuisance at sensitive receptors is expected or has been substantiated, BAT is to periodically monitor odour emissions from relevant sources in accordance with EN standards (BAT 6). Emissions can be monitored by dynamic olfactometry according to EN 13725.