

Summary of revisions to the BAT conclusions in the Waste Treatment BREF – Draft 2, January 2017.

Following publication of the revised BAT conclusions, there is an initial assessment of the key changes below with areas of possible concern highlighted in red. This should be read in conjunction with the BAT conclusions document.

It is important to note that the BAT conclusions are based on a risk assessment approach and the techniques and descriptions are neither prescriptive nor exhaustive and other techniques that ensure an equivalent level of environmental protection may be used.

Please note that amending any BAT conclusions at the final technical working group meeting (last change to make changes) requires robust arguments.

Changes and potential issues

- **Definitions (p5) – Water-based liquid waste could potentially apply to all wet AD plants and the resulting BATs would also apply to AD. This means more monitoring especially for plants with emissions to water. (We would like AD to be excluded from this description).**
- General considerations (p8) – Changes to the definition of averaging periods.
- BAT 2 (p11) – Requirement to set up and implement an output quality management system.
- BAT 2 bis (p12) – Inventory of waste water and waste gas streams.
- BAT 3 bis (p14) – For relevant emissions to waste monitor key process parameters (flow, pH, temperature).
- BAT 3 (p14-17) – Changes to monitoring frequencies for emissions to water. **Requirements for monitoring additional emissions from biological treatment of water based liquid wastes (AD?).**
- BAT 4 (p18-19) – Changes to monitoring frequencies (3 monthly to 6 monthly) for emissions to air. **Potential for monitoring of additional parameters for biological treatment of water based liquid wastes (AD?).**
- **BAT 4 (p19) – Footnote 5 gives option to monitor odour instead of NH₃ and H₂S for biological treatment of solid and non-pumpable wastes using EN 13725 at same frequency (6 months).**
- BAT 8 (p20-21) – Applicability restricted to where odour nuisance at sensitive receptors is expected or substantiated.
- **BAT 9 (p21) – Reducing odour emissions, minimising residence time (e.g. 24-72 hours) of potentially odorous wastes in storage or in handling systems.**

- BAT 10 (p22-23) – Options for reducing emissions to air now includes options such as: maintaining buildings and enclosed equipment under negative pressure; dampening of potential sources of diffuse dust emissions; regularly washing the whole waste treatment area.
- BAT19 (p25) – Reducing noise emissions now includes option of relocating building exits and entrances.
- BAT 13 (p26-28) – Emissions to water – Now includes requirements for: optimising water consumption; concrete base or impermeable surface for waste treatment areas; **roofing of waste storage and treatment areas to prevent contact with rainwater**; segregation of uncontaminated waste water and waste water needing treatment; use of underground components minimised for new plants; buffer storage capacity provided. **Conflict between a2 and 20b.**
- BAT 15, table 6.3 (p30-31) – Changes to BAT AELs for direct emissions to water.
- BAT 15, table 6.4 (p32) – Changes to BAT AELS for indirect discharge to water (applicable to treatment of water based liquid waste).
- BAT 21 (p34) – Minimisation of waste sent for disposal – BAT is to maximise the reuse of packaging.
- BAT 32 (p41-42) – Emissions to air. **Requirement to implement BAT10d (containment, collection and treatment of diffuse emissions) and at least one other technique. Need to restore the word 'channelled' or could affect all open air composting.**
- BAT 32, table 6.8 (p42) – Change to BAT AELs for channelled emissions to air from biological treatment of solid and non-pumpable waste. **Optional odour BAT-AEL as alternative to NH₃ and H₂S, AEL is 100-400 OU_E/Nm³.**
- BAT 34 (p43) – Aerobic treatment of waste – Additional requirements for monitoring and/or control of: moisture content in windrows; aeration of the windrow (e.g. via turning frequency, O₂ and/or CO₂ concentration); temperature in airstreams of forced aeration; and windrow porosity, height and width.
- BAT 34bis (p44) – Odour and diffuse emissions to air – Requirement to use one or both of:
 - Semipermeable membrane covers and forced aeration
 - Adaptation of operations to the meteorological conditions.
- BAT 35 (p44-45) – Anaerobic treatment of waste – Monitoring and control of: pH and alkalinity of digester feed; digester operating temperature; concentration of VFAs and ammonia within the digester and digestate; biogas quantity, composition and pressure; liquid and foam levels in the digester.
- BAT 36 (p46) – Mechanical biological treatment – Requirement for segregation of the waste gas streams and recirculation of waste gas.
- BAT 52bis (p55) – Treatment of water based liquid wastes – **May apply to AD** and requires: monitoring of waste inputs and use technique to reduce emissions to air by one or a combination of: adsorption, biofilter, thermal oxidation and wet scrubber.