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**Working document for the  
STRUCTURE  
of the**

**REFERENCE DOCUMENT ON BEST AVAILABLE TECHNIQUES  
FOR WASTE TREATMENT**

# Working document for the STRUCTURE of THE REVISED WT BREF

[Further subcategories will be done on the basis of evidence shown in the data/information collection (e.g. for hazardous/non-hazardous waste, new/existing plants, different types/characteristics of input and output)]

## Preface

**Scope (of the BREF)** [this could include a table mapping the relation to activities in Annex I and examples of waste streams]

## 1. General information about the sector concerned

## 2. Common processes and techniques applied to prevent/reduce emissions and consumptions

### 2.1. Applied processes and techniques

2.1.1. Waste treatment common steps [e.g. pre-acceptance, acceptance, waste sampling procedure, waste input characterisation, waste tracking system, waste handling procedure, storage inspection, cleaning and leakages procedure, storage only for waste-related issue not covered by EFS BREF, cross-reference to EFS BREF whenever possible]

2.1.1.1. Reception, storage, loading/unloading and handling

2.1.1.2. Compatibility to mix or blend [including e.g. segregation and compatibility procedure]

2.1.1.3. Sorting

2.1.1.4. Unpackaging, repackaging [covers the repackaging of hazardous waste]

2.1.1.5. [Additional steps will be added where appropriate]

2.2. Current emission and consumption levels [levels will be reported under more specific sections in case a single generic range is not representative]

### 2.3. Techniques to consider in the determination of BAT

2.3.1. Environmental performance [e.g. environmental management system, quality management system, output quality management system, energy saving plan and other plans/programmes integrated with the EMS, process control systems and procedures, monitoring, etc.]

2.3.2. Techniques to prevent/reduce emissions to air [including preventative and/or design measures for diffuse and channelled emissions, and end-of-pipe techniques for channelled emissions to air]

2.3.3. Techniques to prevent/reduce emissions to water and water consumption [including e.g. water saving plan, internal water recycling, water streams segregation, drainage systems, and end-of-pipe techniques for emissions to water; it covers also the water-based liquid waste biological/physico-chemical treatments]

2.3.4. Techniques to prevent/reduce consumption of raw materials and chemicals

2.3.5. Techniques to prevent/reduce energy consumption

2.3.6. Techniques to prevent/reduce noise and vibration emissions

2.3.7. Techniques to prevent/reduce odorous emissions

2.3.8. Techniques for the prevention of soil and ground water contamination

2.3.9. Techniques for the decommissioning

- 3. Mechanical treatment of waste** [mechanical treatment specificities (e.g. on performances, applicability, economics) in comparison to common techniques/processes described in Chapter 2 to which a reference is made whenever possible. When needed, sector specific techniques, e.g. to improve waste hierarchy, will be described in the corresponding Section. Differentiation by type of processed waste, e.g. fridges, ELV, other WEEE, or other parameter (such as output further use, type of output) will be done when needed]

- 3.1. Mechanical treatment in shredder of metal waste
  - 3.1.1. Applied processes and techniques
  - 3.1.2. Current emission and consumption levels
  - 3.1.3. Techniques to consider in the determination of BAT

- 3.2. Mechanical treatment of waste with calorific value
  - 3.2.1. Applied processes and techniques
  - 3.2.2. Current emission and consumption levels
  - 3.2.3. Techniques to consider in the determination of BAT

- 4. Biological treatment of waste** [biological treatment specificities (e.g. on performances, applicability, economics) in comparison to common techniques/processes described in Chapter 2 to which a reference is made whenever possible. When needed, sector specific techniques, e.g. to improve waste hierarchy, will be described in the corresponding Section. Differentiation by type of processed waste, e.g. source-separated bio-waste, sludge, or other parameter (such as output further use, type of output) will be done when needed]

- 4.1. Aerobic treatment of source-separated bio-waste
  - 4.1.1. Applied processes and techniques
  - 4.1.2. Current emission and consumption levels
  - 4.1.3. Techniques to consider in the determination of BAT

- 4.2. Anaerobic treatment of bio-waste
  - 4.2.1. Applied processes and techniques
  - 4.2.2. Current emission and consumption levels
  - 4.2.3. Techniques to consider in the determination of BAT

- 4.3. Mechanical biological treatment (MBT) of mixed solid waste containing bio-waste
  - 4.3.1. Applied processes and techniques [with cross-references to the sections on mechanical, aerobic and anaerobic treatments whenever needed]
  - 4.3.2. Current emission and consumption levels
  - 4.3.3. Techniques to consider in the determination of BAT

- 5. Physico-chemical treatment** [physical-chemical treatment specificities (e.g. on performances, applicability, economics) in comparison to common techniques/processes described in Chapter 2 to which a reference is made whenever possible. When needed, sector specific techniques, e.g. to improve waste hierarchy, will be described in the corresponding Section. Differentiation by type of processed waste, e.g. sludge, FGT waste, waste oil, spent solvent, etc., or other parameter (such as output further use, e.g. backfilling, type of output) will be done when needed]

- 5.1. Immobilisation of solid and pasty waste
  - 5.1.1. Applied processes and techniques
  - 5.1.2. Current emission and consumption levels
  - 5.1.3. Techniques to consider in the determination of BAT

- 5.2. Physico-chemical treatment of waste with calorific value
  - 5.2.1. Applied processes and techniques
  - 5.2.2. Current emission and consumption levels
  - 5.2.3. Techniques to consider in the determination of BAT
- 5.3. Re-refining and other preparations for reuse of waste oils
  - 5.3.1. Applied processes and techniques
  - 5.3.2. Current emission and consumption levels
  - 5.3.3. Techniques to consider in the determination of BAT
- 5.4. Treatment of excavated contaminated soil
  - 5.4.1. Applied processes and techniques
  - 5.4.2. Current emission and consumption levels
  - 5.4.3. Techniques to consider in the determination of BAT
- 5.5. Regeneration of spent solvents
  - 5.5.1. Applied processes and techniques
  - 5.5.2. Current emission and consumption levels
  - 5.5.3. Techniques to consider in the determination of BAT
- 5.6. Treatment of waste containing mercury
  - 5.6.1. Applied processes and techniques
  - 5.6.2. Current emission and consumption levels
  - 5.6.3. Techniques to consider in the determination of BAT
- 5.7. Regeneration / recovery of pollution abatement components / FGT waste
  - 5.7.1. Applied processes and techniques
  - 5.7.2. Current emission and consumption levels
  - 5.7.3. Techniques to consider in the determination of BAT
- 5.8. Recovery of components from catalysts
  - 5.8.1. Applied processes and techniques
  - 5.8.2. Current emission and consumption levels
  - 5.8.3. Techniques to consider in the determination of BAT

## **6. Best available techniques (BAT) conclusions**

[The structure of this Section will be based on the data and information assessment, and on the working document 'BAT conclusion structure' posted onto BATIS and related informal comments made by WT TWG members.]

## **7. Emerging techniques**

## **8. Concluding remarks and recommendations for future work**