

## **Some Key Issues for the Review of the Waste Incineration BREF**

### **1. Scope**

1.1 It is proposed to limit the scope to those waste incineration plants above the capacity threshold of Annex I, activity 5.2, i.e. plants exceeding 3 tonnes per hour for non-hazardous waste and plants exceeding 10 tonnes per day for hazardous waste.

- The TWG is asked to note that smaller plants fall within the scope of Chapter IV of the IED, even though they are outside the scope of Chapter II. However, BAT conclusions and BAT-AELs can only apply to installations falling within the scope of Chapter II.

1.2 It is proposed to limit the scope to waste incineration plants as defined in Article 3(40) of the IED – i.e. it does not include waste co-incineration plants (defined in Article 3(41)) as this activity is addressed in the LCP, CLM and other BREFs. However the TWG is asked to consider including waste co-incineration above the capacity thresholds where:

- more than 40% of the heat release comes from hazardous waste (See Article 46(2));
- the plant co-incinerates untreated mixed municipal waste (See Article 46(2));
- the plant has a rated thermal input of less than 50MW, as such plants will be outside the scope of the LCP BREF.

The TWG is asked to note that waste incineration plant refers to plants dealing with solid and liquid wastes only; plants where waste gases are incinerated, e.g. in a thermal or catalytic oxidiser, are outside the scope of the WI BREF.

1.3 It is proposed that gasification, pyrolysis and plasma plants shall only be included where the gases resulting from this thermal treatment of waste are subsequently incinerated (i.e. combusted). In such cases both the thermal treatment process and the subsequent incineration process shall be considered to be within the scope of the WI BREF.

- However, the BREF will not consider what constitutes an 'end-of-waste' test for syngas from gasification or pyrolysis processes. This is outside the scope of the BREFs.

1.4 It is proposed that plants falling within the scope of Article 42(2) of the IED shall be considered outside the scope: these are covered in other BREFs, e.g. plants covered by Article 42(2)(a)(i) are under the scope of the LCP BREF.

1.5 The TWG is asked to note that on-site pre-treatment of waste for incineration is part of the scope of the incineration activity as described in Article 42(1) of the IED. Therefore, activities 5.3(a)(iii) and 5.3(b)(ii) of Annex I to the IED are interpreted as meaning off-site pre-treatment. The TWG is asked to note that off-site pre-treatment is already part of the scope of the WT BREF. The EIPPCB does not propose to reopen the discussion on the scope of the WT BREF. For on-site treatment the EIPPCB proposal is to consider only those techniques which are not already included in the WT BREF.

1.6 The TWG is similarly asked to note that on-site treatment of residues is also part of the scope of the incineration activity as described in Article 42(1) of the IED. Therefore, activities 5.3(1)(iv) and 5.3(b)(iii) of Annex I are interpreted as meaning off-site treatment of slags and ashes. The TWG is asked to note that the WT TWG proposed that off-site treatment of slags and ashes should be part of the WI BREF. Also, the TWG should note that the WT TWG proposed that off-site treatment of fly-

ash and residues from air pollution control should be part of the WT BREF. Again, the EIPPCB does not propose to reopen the discussion on the scope of the WT BREF.

## **2. Structure of the BREF and of the BAT conclusions**

2.1 It is proposed that the BREF should follow the standard BREF structure, i.e.:

Preface

Chapter 1 – General information on waste incineration

Chapter 2 – Applied processes and techniques

Chapter 3 – Current emission and consumption levels

Chapter 4 – Techniques to consider in the determination of BAT

Chapter 5 – BAT conclusions

Chapter 6 – Emerging techniques

Chapter 7 – Concluding remarks and recommendations for future work

The TWG is asked to consider the following questions:

- Should there be a separate chapter, i.e. a mini-BREF, on the treatment of slags and ashes?
- Are there other topics on which a separate chapter should be considered, e.g. pyrolysis / gasification?

The EIPPCB view is that separate chapters on these subjects are not required. These subjects can be covered by separate sections within the relevant chapters. If necessary, calculation methodologies on energy recovery and global warming potential can be included as an annex.

2.2 It is proposed that the BAT conclusions should follow a structure similar to that in the enclosed document on BAT conclusions, (document 3) i.e.:

- General BAT conclusions applicable across all types of plant
- Additional BAT conclusions applicable to certain types of plant, e.g. Municipal Waste Incinerators, Hazardous Waste Incinerators, etc.

And then within each group of conclusions by emission / environmental impact, i.e.:

- Management
- Consumption, energy efficiency, etc.
- Monitoring
- Emissions to air, water, etc.
- Treatment of residues.

## **3. Key Environmental Issues**

The TWG is asked to consider what the key environmental issues are for the Waste Incineration sector.

- The TWG is asked to note that it is presumed that the application of BAT will at least achieve the emission limit values (ELVs), equivalent parameters and technical measures, prescribed in Chapter IV and Annex VI of the IED. Therefore, techniques which are not able to achieve these levels are unlikely to be included in the chapter on 'Techniques to consider in the determination of BAT'.

#### **4. BAT-AELs**

Continuous monitoring of emissions to air is available for a wide range of parameters. Chapter IV and Annex IV of the IED set mandatory maximum ELVs. These are for both 30-minute and daily averages. Both of these are short-term measures. Taking into account the techniques applied and the best way to express their performance, the TWG is asked to consider:

- Whether it wishes to have two short-term BAT-AELs: one based on the 30-minute averages and one based on the daily averages. The EIPPCB view is that it may only be necessary to have one short-term BAT-AEL based on daily averages with data on the 30-minute averages used as indicators of well-performing plants, i.e. zero or few hours per year spent exceeding the 30-minute ELVs.
- Whether it wishes to have a long-term BAT-AEL in addition to the short-term BAT-AEL(s). The EIPPCB view is that a monthly or annual BAT-AEL based on concentration or specific load should be considered.
- Whether some periodic monitoring should become continuous, e.g. for mercury (or continuous sampling for dioxins and furans) and the operational or techno-economic reasons for this.