JOINT RESEARCH CENTRE
Institute for Prospective Technological Studies (IPTS)
Sustainable Production and Consumption Unit
European IPPC Bureau

Seville, 10 March 2014

KICK-OFF MEETING

FOR THE REVIEW OF THE

REFERENCE DOCUMENT ON BEST AVAILABLE TECHNIQUES FOR WASTE TREATMENT

SEVILLE, 25 - 28 November 2013

MEETING REPORT

INTRODUCTION

The technical working group (TWG) for the review of the Reference Document on Best Available Techniques (BAT) for Waste Treatment (WT BREF) held its first plenary meeting at the Institute for Prospective Technological Studies (IPTS) of the European Commission in Seville, Spain on 25 – 28 November 2013. This record represents a summary of the results of this first plenary TWG meeting.

TWGs are set up to facilitate the exchange of information under Article 13(1) of Directive 2010/75/EU on Industrial Emissions (Integrated Pollution Prevention and Control), having originally been conceived under Article 17(2) of Directive 96/61/EC (which was subsequently recast as Directive 2008/1/EC).

The existing WT BREF (available on the European IPPC Bureau (EIPPCB) website at http://eippcb.jrc.ec.europa.eu/reference/) was formally adopted by the European Commission in 2006 under Directive 96/61/EC. The WT BREF currently serves to provide information and guidance for regulators within the procedure of issuing permits to WT installations.

This first plenary TWG meeting, also called the kick-off meeting (KOM), officially started the work on the review of the WT BREF document based on an exchange of information between the members of the TWG set up for the purpose. By virtue of Article 14(3) of Directive 2010/75/EU, the BAT conclusions that will be included in the revised WT BREF will be the reference for setting permit conditions for activities within the WT sector.

The Head of the EIPPCB chaired the meeting and the WT BREF co-authors (the WT BREF review team of the EIPPCB) led the technical discussions.

The WT TWG is made up of more than 160 experts representing Member States, Industry, Environmental non-governmental organisations and Commission services. The kick-off meeting was attended by 75 participants.

The meeting agenda included presentations and discussions on the exchange of information on best available techniques (as stipulated in Article 13 of Directive 2010/75/EU), on the definition of the scope of the work to review the WT BREF and the BAT conclusions (BATC), on the structure and content of the WT BREF and the BATC, and on the key environmental issues to consider. These discussions were covered during the first

two and a half days of the meeting. The final half day covered the information exchange tools (i.e. BATIS) as well as the conclusions of the meeting.

In order to facilitate discussions at the meeting, a background paper highlighting the items to be discussed was prepared by the EIPPCB and sent to the TWG members in advance of the meeting (29 October 2013). The items had been derived from about 1200 initial positions sent by the TWG. In this context, an 'initial position' stands for suggestions, comments or wishes provided by the members of the TWG on the basis of the '*guidelines for the expression of the positions on the review on the WT BREF*', sent by the EIPPCB on 29 July 2013, and of the documents attached to these guidelines (e.g. proposal of BAT conclusions). The term 'EIPPCB proposal' used in this document refers to the way forward that the EIPPCB proposed to the TWG after taking into account the TWG members' 'initial positions'.

Meeting and structure of this meeting report

During the meeting, discussions on the TWG members' initial positions and on the EIPPCB proposals were held. The key issues for which agreements were sought in the meeting were the scope and structure of the revised WT BREF (especially the BATC part of the BREF), the WT BREF interface with other BREFs, and the key environmental issues of the WT industrial sector. Furthermore, an agreement was expected on what information would be provided to the EIPPCB and by which organisation in order to revise and improve the WT BREF (data and information collection).

The items were discussed by following a common pattern at the meeting. The EIPPCB gave a presentation based on the background paper and proposed a way to take the issue at stake forward. The participants then had the opportunity to discuss each issue and ultimately reach conclusions.

This document presents the main issues discussed for each item and the conclusions reached at the meeting. Under each item, an indication is given on whether a task was assigned to the TWG in connection with the item.

All presentations delivered at the meeting are accessible to TWG members on the BAT Information System (BATIS) workspace together with the conclusion slides presented on the last day of the meeting.

The presentation given by the DG Environment (DG ENV) representative stressed the importance of focusing the information exchange so that BAT conclusions are developed or updated for the key environmental issues of the WT sector. Any information that cannot be used to develop or update BAT conclusions will be assigned a lower priority. The Head of the EIPPCB gave a general introduction on BREF reviews.

During the meeting, some TWG members explained their key point of view with opening presentations. The UK presented its approach for deriving BAT conclusions for the WT BREF revision. Germany presented a proposal on how the BREF and the BAT conclusions could be structured. Hazardous Waste Europe (HWE) suggested specificities of the hazardous waste treatment to be considered in the WT BREF review. The European Union for Responsible Incineration and Treatment of Special Waste (EURITS) suggested key issues to consider in the review and the life cycle of a hazardous component in waste treatment. The Confederation of European Waste-to-Energy Plants (CEWEP) suggested reasoning to include bottom ash treatment in the Waste Incineration BREF (WI BREF) scope. The European Recovered Fuel Organisation (ERFO) gave a presentation on the specific characteristics of SRF (Solid Recovered Fuel) to consider in the WT BREF review. The European Compost Network (ECN) presented an overview of the diversity of process units in organic waste treatment. Italy presented a list of sectors to consider for the BREF structure.

All these presentations are accessible to TWG members on BATIS.

As clarified at the kick-off meeting, the BREF Guidance for the exchange of information under the IED (Commission Implementing Decision 2012/119/EU of 10 February 2012) is an essential document for the future work of the WT TWG.

DISCLAIMER

This document should not be considered as representative of the Commission's official position. Neither the European Commission nor any person acting on behalf of the Commission is responsible for the use that might be made of the following information.

Acronyms used in this report

BAT: Best Available Techniques
BAT-AEL: BAT-Associated Emission Level
BAT-AEPL: BAT-Associated Environmental Performance Level
BATC: BAT conclusions
BREF: Best Available Techniques Reference Document
(BREF) D1: (BREF) first draft
CEWEP: Confederation of European Waste-to-Energy Plants
CWW: Common Waste Water and Waste Gas Treatment/Management Systems in the Chemical Sector
ECHA: European Chemicals Agency
ECN: European Compost Network
ECM: Economics and Cross-Media
EEB: European Environmental Bureau
EFR: European Ferrous Recovery and Recycling Federation
EIPPCB: European IPPC Bureau
EoLV: End-of-Life Vehicles
ERFO: European Recovered Fuel Organisation
EUCOPRO: European association for Co-Processing
EURITS: European Union for Responsible Incineration and Treatment of Special Waste
FMP: Ferrous Metal Processing
EUROMETAUX: European Association of Metals
HWE: Hazardous Waste Europe
IED: Industrial Emissions Directive
IPPCD: Integrated Pollution Prevention and Control Directive
I&S: Iron and Steel
KoM: Kick-off Meeting
MTWR: Management of Tailings and Waste-Rock in Mining Activities
MBT: Mechanical Biological Treatment
NFM: Non-Ferrous Metals
OTNOC: Other Than Normal Operating Conditions
RDF: Refuse Derived Fuel
RoM: JRC Reference Report on Monitoring of emissions from IED installations
SF: Smitheries and Foundries
SRF: Solid Recovered Fuel
UK: United Kingdom
WI: Waste Incineration
WT: Waste Treatment
WEEE: Waste Electrical and Electronic Equipment

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1 SCOPE

1.1 Definitions of terms used in the WT BREF

A need to improve and develop definitions was identified by the initial positions; for example, definitions of specific types of waste, processes, techniques and pollutants.

The EIPPCB proposed to adjust and/or add definitions during the WT BREF review process and specifically early on in the BREF review process where definitions are most needed, i.e. during the questionnaire development, with a view to achieving a common understanding of the requested information whilst also gathering data.

The discussions throughout the meeting showed the need for clarification on a number of definitions, and the need to adjust them as soon as possible in the information exchange, although leaving the flexibility to fine-tune them over the course of the whole WT BREF review.

Conclusions reached by the TWG for the revised WT BREF

- The WT BREF review process will be used to adjust/add definitions (or make reference to existing definitions in official documents), regarding e.g. the following terms:
    - Biowaste
    - Other than normal operating conditions (OTNOC)
    - Volatile Organic Compound (VOC)
    - Recovery efficiency
    - Dismantling
    - First depolluting
    - Dioxins
    - Output
    - …
- The TWG members submit detailed wording proposals for each definition needed in the questionnaire. These proposals are posted in BATIS by TWG members by 21/02/2014.
- During the information collection period (i.e. until 30/06/2014, see also Section 5), the TWG members will submit further proposals for definitions and for a list of definitions needed in the BREF and/or in the BATC.
- As much as possible, standard definitions used in other BREFs will be used for the sake of consistency in the BREF series.

TWG tasks

- TWG members submit proposals in BATIS for the definition of terms needed in the questionnaire.
  Indicative deadline: 21/02/2014
- TWG members submit proposals for definitions and/or a list of definitions needed in the BREF and/or in the BATC.
  Indicative deadline: 30/06/2014

1.2 Activities within scope of the revised WT BREF and consistency with the IED

In Annex I to Directive 2010/75/EU (IED), the industrial activities related to waste management are defined under point 5.

A need for clarification of the scope was identified by the initial positions collected, mainly regarding the boundary of the scope and the inclusion/exclusion of specific waste streams and/or treatments.

The EIPPCB proposed to include activities 5.1, 5.3 and 5.5 of Annex I to the IED with some (specified) exceptions in the scope, to add general waste treatments and process steps, to exclude some specific activities from the scope as they are covered in other BREFs or legislation, and to mirror the BAT conclusions (BATC) scope in the BREF scope.

The discussions on the scope's content and consistency with the IED focused on the following topics:

- specific treatments, process steps and waste streams (e.g. washing of tanks, preparation of hazardous waste to be used as a fuel, thermal drying, regeneration of activated carbon, smelting of scrap metals, shredding batteries, handling, short-term storage);
- need for clarification on the boundaries of certain treatments, e.g. combined treatment.

A clarification on thresholds, e.g. in case of multiple waste treatment activities, was requested and DG ENV gave explanations referring to the opening statement of Annex I to the IED.

The need to avoid overlapping with information already adequately covered in the BREF series is a reason to exclude some activities. For example, the smelting of scrap metals and the shredding of batteries are already covered in the Non-ferrous Metals Industries (NFM) BREF. The remediation of unexcavated polluted soils is not considered a waste treatment activity. This will be carefully rechecked and fine-tuned when updating the WT BREF/BATC scope.

Conclusions reached by the TWG for the revised WT BREF

- The WT BREF will cover the activities listed in points 5.1, 5.3 and 5.5 of Annex I to the IED, with the following exceptions:
  - surface impoundment (activity 5.1(k) of Annex I to IED)
  - the smelting of scrap metal and its directly associated activities. However, pre-treatment of scrap metals could be part of the WT BREF/BATC scope
  - the shredding of batteries (subject to the EIPPCB checking of other BREFs' scopes)
  - the remediation of *in situ* contaminated polluted soil (i.e. unexcavated)
  - other exceptions as given in the next sections.

- The WT BREF will not cover the following activities of Annex I to the IED:
  - activity 5.2 Disposal or recovery of waste in waste incineration plants or in waste co-incineration plants
  - activity 5.4 Landfills, as defined in Article 2(g) of Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste
  - activity 5.6 Underground storage of hazardous waste.

- A general list of waste treatments will be included in the WT BREF/BATC scope:
  - temporary storage of waste (excluded from the Landfill Directive (1999/31/EC)), with a duration of:
    - less than 1 year prior to disposal
    - less than 3 years prior to recovery
  - mechanical treatment of waste; this includes e.g. the mechanical treatment of waste to be used as a fuel, shredding of metal waste
  - biological treatment of waste
  - physico-chemical treatment of waste; this includes e.g. the re-refining of oil

- combined treatment of waste; this includes e.g. the mechanical-biological treatment of waste (MBT), the combination of mechanical and physico-chemical treatment of waste.

- A general list of process steps will be included in the WT BREF/BATC scope:
  - loading, unloading, temporary storage[1] and handling of waste
  - blending and mixing of waste.

- The scope of the WT BREF will be consistent with, complement and avoid duplication of the scopes of other BREFs (e.g. NFM, I&S, SF, FMP, WI BREFs).

- The scope of the Best Available Techniques conclusions (BATC) will be mirrored in the BREF scope. In order to assist the reader, further explanation will be given when necessary, e.g. by updating the existing mapping table of the current BREF scope. The non-exhaustive list of examples that will be given in this mapping table will remain non-exhaustive and non-prescriptive.

- The title of the BREF will be changed from 'BREF for the Waste Treatments Industries' to 'BREF for Waste Treatment' in order to include IED WT plants located within IED installations whose main activity is not the treatment of waste.

Information identified or promised to be delivered by the TWG for the revised WT BREF

- Common Waste Water and Waste Gas Treatment/Management Systems in the Chemical Sector (CWW) BREF
- Danish focus tool to assess the scope of the WT BREF

TWG tasks

- The EIPPCB will share an updated WT BATC scope with the TWG

[1] Temporary storage duration: less than 3 years before recovery, less than 1 year before disposal

1.3 Interface with other legislation and other BREFs

BAT reference documents (BREFs) are developed to be used complementarily when setting permit conditions for installations covered by the IED. In order to facilitate the use of those documents, appropriate cross references need to be made in a BREF to other relevant reference documents.

In view of this principle, the WT BREF focuses on matters that are specific to the waste treatment sector; any overlap between it and other relevant reference documents is purposefully minimised.

Furthermore, defining 'waste' is not the purpose of the BREF, and the TWG will not work on this topic.

The discussions shed light on the current situation of the waste issue throughout the entire BREF series and the need for a clear view on which type of waste treatment is covered by which BREF.

Other examples of the interest for maximising cross references with other BREFs were pointed out, including the reference document on Economics and Cross-Media Effects (ECM); Production of Cement, Lime and Magnesium Oxide (CLM) BREF; Iron and Steel Production (I&S) BREF; Common Waste Water and Waste Gas Treatment/Management Systems in the Chemical Sector (CWW) BREF; Non-ferrous Metals Industries (NFM); Ferrous Metals Processing Industry (FMP) BREF.

The need for providing consistency in the BREF series was pointed out, although BREFs have been drafted or reviewed at different times and sometimes under different regulatory regimes (first the Integrated Pollution Prevention and Control Directive (IPPCD), then the IED).

Conclusions reached by the TWG for the revised WT BREF

- The WT BREF/BATC scope includes:
  - the treatment of liquid waste when:
    - the waste treatment IED plant/installation is located outside the boundary of the installation/site producing the liquid waste (e.g. leachate from landfill), and
    - the treatment IED plant/installation is 'permitted to treat waste' in accordance with the Waste Framework Directive
  - the pre-treatment of waste to be used in other (IED) installations, unless this pre-treatment is already covered in another BREF
  - the pre-treatment of waste before landfilling and backfilling.

- The WT BREF does not cover:
  - landfilling
  - underground permanent / long-term storage[2]
  - underground recovery (e.g. backfilling of mining voids)
  - surface impoundment (activity 5.1(k) of Annex I to the IED)
  - pyrolysis, gasification
  - first depolluting and subsequent dismantling, prior to mechanical or physico-chemical treatment, of end-of-life vehicles and WEEE; however, this activity could be covered as a directly associated activity (see Section 1.6)
  - installations/plants covered in the CWW BREF or in other BREFs covering activity 6.11 of Annex I to the IED ('Independently operated treatment of waste water not covered by Directive 91/271/EEC and discharged by an installation covered by IED Chapter II').

- Matters that only concern safety in the workplace or the safety of products are not the focus of the BREF review. However, information related to these aspects will be taken into account in the integrated assessment for the identification and the formulation of the BAT (e.g. for formulating applicability constraints).

[2]Long-term storage duration: more than 1 year before disposal, more than 3 years before recovery

- The WT BATC scope will not explain or reinforce any references to EU legislative acts. The WT BREF and BATC scope will simply list the relevant interfaces with other legislation and with the non-IED BREF on Management of Tailings and Waste-rock in Mining Activities (MTWR BREF). Additionally, factual references to EU legislation can be made or updated in the WT BREF, where deemed necessary. TWG members will indicate the EU legislation they consider to have an important influence on the WT BREF.

- The WT BAT conclusions (or the WT BREF in general) will never seek to establish whether a waste is hazardous or non-hazardous; however, the hazardous properties of waste input will be considered among the information to assess techniques' performance data to determine BAT.

- The WT BREF will not cover processes/activities already covered in other BREFs. Cross references to horizontal and vertical BREFs will be maximised wherever useful and appropriate in the WT BREF. The EIPPCB constantly works to develop the BREF series seeking consistency and preventing overlaps as much as practicable.

- A table listing other relevant BREFs will be inserted in the WT BREF/BATC scope.

Information identified or promised to be delivered by the TWG for the revised WT BREF

- Common Waste Water and Waste Gas Treatment/Management Systems in the Chemical Sector (CWW) BREF
- Iron and Steel Production (I&S) BREF
- Non-ferrous Metals Industries (NFM) BREF
- Report on existing minimum waste treatment operation
- Flemish study on processing of external industrial waste water and liquid/sludgy industrial waste
- General proposal on the waste treatment processes commonly used in Germany
- Technical guidance from the UK on waste treatment processes

TWG tasks

- TWG members indicate the EU legislation they consider to have major relevance to the review of the WT BREF

1.4 Quality of the 'output' from waste treatment

A need for clarification of the definition, composition, and specification of the 'output' (e.g. end-of-waste criteria, acceptance criteria in the downstream installation) was expressed by the TWG members' initial positions collected. Different positions on the inclusion or exclusion of the 'output' specification and end-of-waste criteria in/from the scope were expressed.

The EIPPCB proposal was based on the twofold implication of the quality of the 'output' of a waste treatment installation:

- The destination and acceptance of the 'output' is dealt with by other legislation (e.g. established landfill criteria, compost standards, acceptance criteria in incinerators). Defining these criteria is outside the WT BREF/BATC scope.
- The potential effect of the 'output' quality on the emissions released by the WT installation (and the related techniques to reduce these emissions), due to the process used to achieve the requested output quality, may be relevant to the WT BREF. This will be taken into account by means of the questionnaires and assessed in order to set appropriate BAT/BAT-AELs.

The discussions highlighted the relevance of taking into account, via the questionnaire, the quality of the 'output' (including standardised 'output') from waste treatment for identifying its potential effect on environmental impacts (e.g. installation emissions and consumption), the potential correlation between the 'output' quality and the environmental performances of the waste treatment activity, and whether an 'output' quality management system is applied, without aiming to define quality criteria.

Conclusions reached by the TWG for the revised WT BREF

- End-of-waste criteria, product specifications and by-products criteria will not be defined in the WT BREF; defining such criteria is outside the WT BREF/BATC scope.

- Acceptance criteria in the downstream utilisation of 'output' from waste treatment installations will not be defined in the WT BREF/BATC scope.

- In order to evaluate their correlation with the environmental performance of the waste treatment installations, the following information will be requested via the questionnaire:
  - information on the quality of the 'output'
  - information on the quality of the input used, and
  - information on the implementation of an 'output' quality management system (which system is implemented, if any).

Information identified or promised to be delivered by the TWG for the revised WT BREF

- European Chemical Agency (ECHA) chemical safety reports
- General proposal on the waste treatment processes commonly used in Germany
- Technical guidance from the UK on waste treatment processes

1.5 Slag, ashes, residues from flue-gas treatment

Different initial positions were expressed by the WT TWG members on the inclusion in or exclusion from the WT BREF/BATC scope of slag, ash and residues from flue-gas treatment.

The EIPPCB proposal was to include the treatment of fly ash and residues from flue-gas cleaning in the WT BREF/BATC scope, but to exclude the treatment of slag and bottom ash. The latter is already included in several vertical BREFs covering sectors where slag is produced.

The discussions highlighted the need for the definition of slag, fly ash and bottom ash (see Section 1.1), and the necessity to ensure that the treatment of slag and bottom ash is covered in the BREF series. The proper cross references to other BREFs (including those in draft form) have to be made. In order to avoid a gap regarding the treatment of slag and bottom ash, the TWG suggested ensuring that the treatments of these wastes are covered in the WI BREF.

Conclusions reached by the TWG for the revised WT BREF

- The treatment of fly ash and other residues from flue-gas cleaning will be included in the WT BREF/BATC scope
- The treatment of slag and bottom ash will be excluded from the WT BREF/BATC scope
- The BREFs (e.g. I&S , NFM, WI), including those in draft form, where the treatment of slag and bottom ash is covered will be cross-referenced in the WT BREF/BATC scope
- The WT TWG recommends that the treatment of slag and bottom ash be covered in the WI BREF.

Information identified or promised to be delivered by the TWG for the revised WT BREF

- SINOE® data base (FR)
- General proposal on the waste treatment processes commonly used in Germany
- Technical guidance from the UK on waste treatment processes

1.6 Directly associated activity and waste treatment plants in other IED installations

The need for clarification of the concept of 'directly associated activity' (DAA) and its consequences on the WT BREF/BATC scope was expressed by WT TWG members' initial positions.

The EIPPCB proposal, taking into consideration the definition of DAA given in IED Article 3(3), was to include in the WT BREF/BATC scope:

- the DAAs that are commonly associated with waste treatment activities,
- IED WT plants located within IED installations whose main activity is not covered in the WT BREF.

Other DAAs and IED WT plants not corresponding with these criteria were proposed not to be covered in the WT BREF/BATC scope.

The discussions highlighted the need for clarification of specific DAAs for waste treatment, which could be done via the questionnaire development and/or data and information collection.

Conclusions reached by the TWG for the revised WT BREF

- 'Directly associated activities' are activities technically connected to the main activity. In the context of the WT BREF review, the 'directly associated activities' will be included in the WT BREF/BATC scope when they are commonly associated to an IED installation/plant performing a waste treatment activity covered by the WT BREF.
- The identification of commonly directly associated activities will be done via the questionnaire development and/or data and information collection process.
- The WT BREF/BATC scope will cover IED waste treatment plants located within IED installations whose main activity is not covered in the WT BREF. As already concluded, duplication with other BREFs will be avoided.
- The following activities are excluded from the BREF /BATC scope:
  - upstream and downstream activities that are not commonly directly associated with the waste treatment operation;
  - direct recovery (i.e. without pre-treatment) of waste in IED installations covered in other BREFs.

Information identified or promised to be delivered by the TWG for the revised WT BREF

- Data gathering and impact assessment for a review and possible widening of the scope of the IPPC Directive in relation to waste treatment activities (study for EC – Final report 2007/IMS/R/)

2 STRUCTURE

2.1 BAT conclusions structure

The initial positions expressed by the WT TWG members on the BATC structure were manifold:

- Different types of split were proposed: by process, by waste stream, by sector, by waste specificity, etc.
- Some TWG members proposed to favour general BATC rather than process-specific ones; other TWG members expressed preference for the opposite.

The EIPPCB proposal was to structure the BATC by using the treatment process as the first criterion, and, when needed, to further split the BATC by the criterion identified on the basis of evidence shown in the data collection: e.g. characteristics of the waste input, characteristics of the 'output', plant age.

The discussions led to a general agreement on structuring the BATC first by treatment process in combination with a main type of waste stream. According to this modification, the EIPPCB will propose an updated working document on BATC structure to be shared with the TWG. In the discussions, it was also reminded and agreed that the BATC structure partly depends on the data received and the ensuing assessment, therefore establishing the BATC structure remains an iterative and dynamic process.

Conclusions reached by the TWG for the revised WT BREF

- The first level criterion used to structure the BATC will be a combination of the main treatment process categories (mechanical, biological or physico-chemical treatment) with an associated main type of waste stream.

- The EIPPCB will share with the TWG an updated working document on BATC structure (i.e. updating Annex II to the KOM Background Paper) according to the point above.

- The BATC will target the identified key environmental issues, either at the general level (general BATC) or at the specific combined process/waste streams level.

- The preparation of waste to be used as a fuel will be covered partly in the combined mechanical treatment/waste streams section, partly in the combined biological treatment/waste streams section, and partly in the combined physico-chemical/waste streams section. The proper cross-references will be made between these three main sections of the BATC.

- The recovery of materials will be covered as a transversal issue across all the waste treatment processes where material recovery is possible.

- When needed, the categories in the BATC may be further split into subcategories on the basis of evidence shown in the data collection (e.g. for hazardous/non-hazardous waste, new/existing plants, different types/characteristics of input and output).

- Information on techniques and associated environmental performances useful for deriving BATC for the selected combination of treatment and process-waste stream will be identified and submitted by the TWG members, by using the 10-heading structure of Section 2.3.7 of the BREF Guidance (Commission Implementing Decision 2012/119/EU).

Information identified or promised to be delivered by the TWG for the revised WT BREF

- General proposal on the waste treatment processes commonly used in Germany

TWG tasks

- The EIPPCB will share an updated working document on BATC structure with the TWG

2.2 BREF structure

The initial positions expressed by the WT TWG members on the BREF structure were manifold:

- Split the BREF into several 'mini BREFs'
- Follow the structure of Annex I to the IED
- Keep the structure of the current WT BREF
- Split by waste treatment process with an unitary BREF structure

The EIPPCB proposal was to keep the unitary structure given in the table of the BREF Guidance Section 2.2, by mirroring as far as practicable the structure of the BATC (Chapter 5 of the BREF) in each of the other chapters of the BREF (Chapters 1 to 4). The proposal involved the reorganisation of the information on processes and techniques currently given in the WT BREF according to these principles.

Opinions in favour of and against the use of mini-BREFs were expressed and, as the BREF structure may be influenced by the data and information collected, the structure will be shaped during the drafting depending on the findings of the data and information collection. In order to reflect the evolution of the BATC structure (see Section 2.1) and to keep consistency between the two, an updated document on the BREF structure that will reflect the structure of the BATC will be proposed by the EIPPCB and shared with the TWG. This however does not prevent the launch of the data collection.

Conclusions reached by the TWG for the revised WT BREF

- The BATC structure will be mirrored in the chapters of the BREF.
- The EIPPCB will share an updated working document on BREF structure (i.e. updating Annex III to the KoM Background Paper) with the TWG.
- The BREF structure will be consistent with the indications given in the BREF Guidance.
- The updating of Chapters 1 and 2 and the size of the WT BREF will be adjusted to the minimum sufficient for maintaining consistency with the rest of the BREF and for deriving sound BAT conclusions.
- In order to reorganise information in the BREF and to ensure a clear distinction between techniques and processes, the WT BREF may be restructured, possibly moving:
    - the common information on techniques and/or processes currently given in the WT BREF to the future sections on 'common techniques' or 'common process steps', as much as evidence shown in the data and information collection allows
    - information on processes from the 'Techniques to consider…' chapter to the 'Applied processes and techniques' chapter
    - techniques from the current Section 4.4 (e.g. re-refining of oil) to the 'Techniques to consider…' chapter under a proper section on physico-chemical treatment.
- The information on primary/preventative techniques will be kept in the 'Techniques to consider…' chapter.
- TWG members will submit information on new activities to be covered in the BREF following the standard structure for straightforward use in the BREF as indicated in the BREF Guidance (see also Section 4.2 on TWG subgroups below).

Information identified or promised to be delivered by the TWG for the revised WT BREF

- General proposal on the waste treatment processes commonly used in Germany
- British Metals Recycling Association (BMRA) report on Metal Fragmentising Operations
- European Ferrous Recovery & Recycling Federation (EFR) 'mini-BREF' for the treatment of Metal Waste in shredders

TWG tasks

- The EIPPCB will share an updated working document on BREF structure with the TWG

3 KEY ENVIRONMENTAL ISSUES

3.1 General and common issues

The initial positions expressed by TWG members asked to allow the possibility to determine key environmental issues throughout the whole BREF review process. An integrated approach, including appropriate consideration of e.g. safety and security, when determining BATC was also requested. Clarification on defining and addressing BAT-AEPLs and the need to focus on both concentrations and mass flows were also pointed out.

In order to assess the environmental performances achieved by waste treatment installations in an integrated manner, the EIPPCB proposal was to collect data on emissions to air and to water via the questionnaire, including the contextual information useful to understand the way the waste treatment installations and the techniques to prevent or reduce emissions are e.g. designed, operated and maintained. This information such as the types/characteristics of waste input, the types/characteristics of the' output', technique implementation and operational details would allow the proper comparison of relevant environmental performances.

The discussion showed a global agreement on the proposal, with some additional requests in relation to the questionnaire (e.g. adding output quality management system), and allowing some flexibility for the data collection regarding e.g. the size of the installations concerned, the environmental performance levels achieved. These latter topics are dealt with in the following sections. As the collection of data/information is to be conceived in accordance with the key environmental issues on which the TWG has to agree, it has been agreed that it is generally not appropriate to determine those key issues over the whole BREF review process. Only in exceptional cases for specific and important issues that have not been identified in time could a request for additional information be implemented in the steps following the general data collection (see Section 4.6.4 of the BREF Guidance).

Conclusions reached by the TWG for the revised WT BREF

- The contextual information that will be requested in the questionnaire will be sufficiently wide-ranging to allow an accurate integrated assessment. Therefore, the questionnaire will request information on at least the following topics:
    - type of waste treatment process
    - size of the installation/plant
    - age of the installation/plant
    - type/characteristics of the waste input (including information on waste hazardousness)
    - type/characteristics of the output
    - management techniques implemented
    - abatement techniques implemented
    - output quality management system implemented.

- The integrated assessment will consider cross-media effects and general horizontal issues such as general management, safety, leakages.

- The data collection will request data via the questionnaire on pollutants in concentration, on total flue-gas mass flow, and on water consumption and discharge.

- TWG members will submit relevant new information using the BREF Guidance Section 2.3.7 format and the Information Mapping Sheet (IMS).

Information identified or promised to be delivered by the TWG for the revised WT BREF

- Flemish study on (manure) co-digestion
- Technical guidance from the UK on waste treatment processes
- Report from the UK on accidents and incidents on hazardous waste sites
- General proposal on the waste treatment processes that are commonly used in Germany

3.2 Monitoring and averaging period

The need to adapt the monitoring to each sector, and to environmental issues, taking into account technical and/or economic viability and current practices was highlighted by the initial positions collected. The need for clarification on the definition of averaging period (short-term values, annual averages, etc.) and on monitoring location was stressed. Consistency with standards and reference documents was also requested.

The EIPPCB proposal was to collect data and contextual information (e.g. on monitoring standards used, duration of sampling, uncertainty, inclusion/exclusion of OTNOC) on key environmental issues from plants performing continuous monitoring (short-term averages and long-term averages) and/or discontinuous monitoring (all the data over one year), and on process control parameters.

The discussion pointed out that continuous measurements of emissions are not common in the waste treatment sector and highlighted the need for definition of OTNOC (Other Than Normal Operating Conditions). The reference period to collect data should be extended from one year to three years (2010 to 2012) in order to also capture data for pollutants measured e.g. only once every two years. Available data for more recent years may also be provided and will be taken into account in the assessment. Additional suggestions were to refer also to permit requirements, to enlarge the information collection to non-IED installations, and to enlarge the contextual information to be collected (by including e.g. operating hours in the year).

It was reminded that the purpose of the discussion at this stage was to agree on the principles related to the data and information to collect, mainly from IED installations, in order to be able to derive sound BATC.

The monitoring and averaging period data and information collection for emissions to air and for emissions to water are presented respectively in Section 3.3 and in Section 3.4 below.

Conclusions reached by the TWG for the revised WT BREF

- The questionnaire will be used to collect data and contextual information on key environmental issues from plants performing continuous and/or discontinuous monitoring/measurement.

- For each pollutant monitored continuously, the questionnaire will request data with short-term averages and long-term averages.

- For each pollutant monitored discontinuously, the questionnaire will request all the data over the three reference years (2010 to 2012).

- The questionnaire will request contextual information on monitoring, including the following:
    - whether or not OTNOC is included in the provided data
    - whether or not the samples have been filtered before measuring the pollutant content
    - whether or not the uncertainty has been removed from the provided values
    - the sampling duration for samples
    - the monitoring standard used
    - the number of operating hours in the year corresponding to the data provided.

The following disclaimer has been also clarified and accepted:
The questionnaire format and requested data are without prejudice of the final decision on the BAT conclusions, including on monitoring. However, de facto, since the BAT conclusions will be derived largely on the basis of the data collected via the filled-in questionnaires, it will be very difficult to set BAT-AELs for pollutants and/or averaging periods other than those requested via the questionnaire for the data collection.

Information identified or promised to be delivered by the TWG for the revised WT BREF

- The JRC Reference Report on Monitoring of emissions from IED installations (RoM currently being finalised)
- Flemish legislation on measuring, monitoring and evaluation of emissions to air and to water
- Technical guidance from the UK on waste treatment processes

- General proposal on the waste treatment processes commonly used in Germany

TWG tasks

- TWG to fill in the template posted onto BATIS by the EIPPCB (mid-February 2014), on the commonly applied practices for monitoring in the WT sector (deadline for filling foreseen for end of March 2014)

3.3 Emissions to air and related monitoring and averaging period

The initial positions expressed by the WT TWG members on emissions to air and related monitoring, as well as on averaging periods, shed light on the need to clarify some definitions (averaging periods, volatile organic compounds, etc.) and the need for clarification on which pollutants' emissions data should be collected.

On key pollutants, the EIPPCB proposal was to collect data from installations performing continuous and/or discontinuous monitoring on a number of pollutants (such as dust, total VOC, mercury, lead, methane, nitrous oxide, ammonia, hydrogen sulphide, sulphur oxide, nitrogen oxide, dioxins and furans, odour/mercaptans, etc.) distributed in diverse ways among mechanical treatment, biological treatment and physical-chemical treatment.

A discussion took place on the pollutants to be collected from installations shredding end-of-life vehicles (EoLV) (i.e. dust, total VOC, mercury, lead, dioxins and furans, odour/mercaptans) and waste electrical and electronic equipment (WEEE) (same as for EoLV plus ammonia). No major opposition to this proposal (for the shredding of EoLV and WEEE) was expressed; the determination of these key pollutants will be further discussed and fine-tuned during the next steps of the BREF review. Regarding other mechanical processes, biological processes and physico-chemical processes, it was pointed out that, consistent with the discussion on BATC structure, the link between pollutants and waste streams was necessary for accurately determining the pollutants to be collected. The EIPPCB then suggested that an updated version of the proposals on the basis of the new structure be shared with the TWG, with a view to using it in the development of the questionnaire. A certain degree of flexibility will be applied when collecting data from the operators, in order to receive information, when necessary, on monitored pollutants other than those identified *a priori* in the questionnaire.

Conclusions reached by the TWG for the revised WT BREF

- Data and contextual information on key environmental issues from plants performing continuous and/or discontinuous monitoring/measurement will be collected, including information on mass flow of pollutants emitted per hour.

- For each pollutant monitored continuously, the questionnaire will request data as follows:
  - daily averages (min, max, arithmetic average and 97th percentile values[3] of daily averages in each of the reference years)
  - monthly averages (min, max and arithmetic average values of monthly averages in each of the reference years) and how they have been calculated.

- For each pollutant monitored discontinuously, the questionnaire will request all the data and contextual information for the three reference years.

- Relevant process parameters data (such as temperature, and oxygen content in biological process), as well as data and contextual information on VOC, and information on monitored organic compounds with specific risk phrase will be collected.

- Consistent with the discussion and conclusions related to BATC structure, the EIPPCB will share with the TWG an updated proposal of key pollutants for emissions to air.

- Additionally, the following conclusions on which data to collect for specific pollutants were reached:
  - data and contextual information on VOC, and information on monitored organic compounds with specific risk phrase
  - data and contextual information on hydrogen chloride

[3] Frequency distribution of emissions data is also useful and could be collected

- for shredding processes, data and contextual information on dust, VOC, ammonia, lead, mercury, chlorofluorocarbon, dioxins (both in particulate and in gaseous phases, when applicable)
- other pollutants to be included in the questionnaire will be discussed during the questionnaire development.

➢ Information on other important pollutants monitored in the plants concerned will also be collected.

Information identified or promised to be delivered by the TWG for the revised WT BREF

- German national contribution 'Treatment of Separately Collected Organic Waste (Composting and Digestion)'
- Information on measurement of dioxins (EUROMETAUX)

TWG tasks

- The EIPPCB will submit to the TWG for discussion via BATIS an updated proposal of key pollutants for emissions to air, taking into account both the waste treatment processes and the waste streams to be treated

3.4 Emissions to water and related monitoring and averaging period

The initial positions expressed by the WT TWG members showed a need for definition of the monitoring requirements, taking into account e.g. the types of release (batch release, influent from on-site activities, existing downstream waste water treatment plant, etc.), the monitoring methodology commonly used, and the characteristics of the installations concerned. A number of initial positions addressed the definition of the key pollutant emissions to be collected via the questionnaire.

The EIPPCB proposal was to collect data and contextual information via the questionnaire on emissions to water from installations/plants performing either continuous or discontinuous monitoring at the point where the emissions leave the installations, including cases of indirect discharge, and with specific requests related to discontinuous monitoring, continuous monitoring of batch and continuous release. As for emissions to air, it was pointed out that, consistent with the discussion on BATC structure, for emissions to water the link between pollutants and waste streams was necessary for accurately determining the pollutants to be collected. Therefore, those key pollutants have not been discussed during the kick-off meeting. The discussion focused on the relevance of collecting data in case of indirect discharge, and of collecting data on rainwater.

Conclusions reached by the TWG for the revised WT BREF

- Data and contextual information on emissions to water from installations/plants performing either continuous or discontinuous measurements will be collected via the questionnaire. These data relate to the point where the emissions leave the installations, including cases of indirect discharge. In the case of indirect discharge, information on the abatement efficiency of the external waste water treatment plant will also be collected.

- For each parameter monitored discontinuously, the questionnaire will request all the data and contextual information for the three reference years.

- Consistent with the discussion and conclusions related to BATC structure, the EIPPCB will share with the TWG an updated proposal of key pollutants for emissions to water.

- For each parameter monitored continuously, the data will be requested as follows:
    - In case of continuous release or batch release of a duration of more than 24 hours:
        - daily values (min, max, arithmetic average and 97th percentile[4] values in each of the reference years of samples)
        - longer-term averages (min, max and arithmetic average values in each of the reference years of averages over a month/release duration of samples) and how they have been calculated.
    - In case of batch release of a duration of less than 24 hours:
        - short-term values (min, max, arithmetic average and 97th percentile[4] values in each of the reference years of samples)
        - longer-term averages (min, max and arithmetic average values in each of the reference years of averages over a month of samples) and how they have been calculated.

- Contextual and additional information will be collected, such as:
    - Quality of the receiving water as a driving force for implementing techniques
    - Whether or not rainwater is included in the water flow to be treated
    - Other important substances monitored (including relevant priority substances).

Information identified or promised to be delivered by the TWG for the revised WT BREF

- Directive 2013/39/EU as regards priority substances in the field of water policy

[4] Frequency distribution of emissions data is also useful and could be collected

- General proposal on the waste treatment processes commonly used in Germany
- French methodology followed and lists of hazardous substances established for the WT sector for the temporary monitoring related to Directive 2000/60/EC
- Flemish studies:
  - on polluted rainwater,
  - on processing of external industrial waste water and liquid/sludgy industrial waste streams, and
  - on the current measurement methods for halogenated organic substance groups (AOX, EOX, POX, VOX) in Europe

TWG tasks

- The EIPPCB will submit to the TWG for discussion via BATIS an updated proposal of key pollutants for emissions to water, taking into account both the waste treatment processes and the waste streams to be treated

3.5 Diffuse emissions, odour, noise, vibration

Initial positions expressed by WT TWG members pointed out the need to describe measures to prevent or reduce diffuse emissions, and showed a need for clarification of the applicability of monitoring noise emissions, diffuse odour emissions and vibration.

The EIPPCB proposal was to collect data and contextual information on diffuse emissions, odour, noise and vibration.

Conclusions reached by the TWG for the revised WT BREF

- Data and contextual information on diffuse emissions, odour, noise and vibrations will be collected via the questionnaire.

- TWG members will submit relevant new information using the BREF Guidance Section 2.3.7 format and the Information Mapping Sheet (IMS).

Information identified or promised to be delivered by the TWG for the revised WT BREF

- General proposal on the waste treatment processes commonly used in Germany
- Flemish study on (manure) co-digestion
- Data on diffuse dust emissions from the shredding of metals (EEB)

3.6 Water, chemical and energy consumption

Some initial positions expressed by WT TWG members indicated that reducing water, chemical and energy consumption should not come at the expense of the environmental services provided by the waste treatment. The dependence of water, chemical and energy consumption on treatment processes, industrial choices, and local conditions was also highlighted.

The EIPPCB proposal was to collect data and contextual information on water, chemical and energy consumption via the questionnaire.

The discussion highlighted that it might be difficult to obtain installation-specific data that should in any case be considered as contextual information, and not used for process comparisons.

Conclusions reached by the TWG for the revised WT BREF

- Data and contextual information, including cross-media effects, on the consumption of water, chemicals and energy will be collected via the questionnaire.

- TWG members will submit relevant new information using the BREF Guidance Section 2.3.7 format and the Information Mapping Sheet (IMS).

3.7 Recovery efficiency and waste hierarchy

Different initial positions were expressed by WT TWG members on the necessity to set BAT conclusions for recovery efficiency and waste hierarchy.

The EIPPCB proposal was to collect data and contextual information on recovery efficiency and waste hierarchy related to waste treatment IED installations/plants via the questionnaires.

The discussion highlighted that, despite recovery efficiency and waste hierarchy being important issues in the waste treatment sector, deriving BATC might not be appropriate. The importance of maintaining consistency with other directives (e.g. the Waste Framework Directive) when assessing the data was also pointed out.

Conclusions reached by the TWG for the revised WT BREF

- Data and contextual information, including cross-media effects, on recovery efficiency and waste hierarchy related to waste treatment IED installations/plants will be collected via the questionnaire.

- TWG members will submit other relevant new information using the BREF Guidance Section 2.3.7 format and the Information Mapping Sheet (IMS).

3.8 Hazardousness, toxicity of waste

Initial positions expressed by some WT TWG members were to have a clear split between hazardous and non-hazardous waste (e.g. by defining clear BATC applicability). They underlined the need for clarification on monitoring requirements in relation to the hazardous properties of waste. Allowing possible future adaptation of the BAT structure to be consistent with any further potential evolution of the classification of waste was also deemed important.

The EIPPCB proposal was to collect data and contextual information via the questionnaire on the hazardous properties of waste input and toxicity of emissions.

Conclusions reached by the TWG for the revised WT BREF

- Data and contextual information on the hazardous properties of waste input and on toxicity of emissions will be collected via the questionnaire.

- TWG members will submit relevant new information using the BREF Guidance Section 2.3.7 format and the Information Mapping Sheet (IMS).

4 DATA/INFORMATION COLLECTION

4.1 Questionnaire development and data collection

Initial positions expressed by WT TWG members were mainly related to confidentiality issues due to business sensitivity for some parameters. They also pointed out the importance of the quality and comparability of the data collected.

The EIPPCB proposal was to develop a questionnaire using the key environmental issues to be fine-tuned according to Section 3 of this report, and covering the same activities as in the agreed BREF scope (see Section 1 above), with confidentiality issues being dealt with in accordance with the BREF Guidance. It was proposed that the questionnaire request data and contextual information according to the indication given in the BREF Guidance, including e.g. the way the techniques are designed, operated, maintained, controlled, decommissioned, also including the linkages between emissions/consumption and inputs/outputs, the operating conditions.

The aim of the questionnaire is to collect a sufficiently wide range of data and contextual information to be able to derive sound BATC. To do so and to aid the questionnaire development, preliminary information is needed (e.g. list of well-performing plants/installations, number of WT plants per IED Annex I activity, list of techniques already implemented, information on commonly applied monitoring). The EIPPCB proposed to prepare templates to be filled in by TWG members' organisations for this purpose.

In order to ensure the quality, completeness and consistency of the data provided via the completed questionnaires, and to ensure an appropriate management of confidentiality issues, the EIPPCB proposed that the Members States check them before posting them onto BATIS, after the confidential part has been extracted when justified.

The discussion on the balance between confidentiality and transparency was closed with a reminder that these transversal issues are discussed at the Forum level. The BREF Guidance (Section 5.3) also gives indications on the way to deal with this issue.

The number of plants/installations to consider when establishing the list of the well-performing ones was also questioned. In the WT BREF review, this figure should be sufficient to be representative of the sector. Approximately, a few hundred plants/installations should be sufficient, with the distribution by types of processes/waste streams to be assessed. The list of proposed and selected plants/installations will be assessed accordingly by the EIPPCB and sent to the WT TWG members.

Conclusions reached by the TWG for the revised WT BREF

- The questionnaire will be developed using the key environmental issues: some that have been partially discussed during the KoM meeting as a starting point and other ones that will be further identified according to Section 3 of this report.

- The data collection will cover activities in accordance with the forthcoming updated WT BREF scope (see Section 1.2).

- The data will be collected for the years 2010 to 2012 inclusive (reference years in WT BREF data collection via the questionnaire).

- Confidentiality issues will be dealt with in accordance with Section 5.3 of the BREF Guidance (Commission Implementing Decision 2012/119/EU).

- Emissions/consumption data will be collected together with contextual information according to the indication given in Section 2.3.7 of the BREF Guidance, e.g. by including information on:
    - Techniques used
    - Monitoring issues related to the use of the technique
    - The way the technique is designed, operated, maintained, controlled and decommissioned

- Linkages between emissions/consumption and 'input' (e.g. natural characteristics and quantity of waste input, raw material, energy, and water) / 'output'
- Operating conditions
- Current emission limit values and relevant permit requirements
- Operating hours.

➢ The following information will be requested in the questionnaire:
- waste input and 'output' quality to determine whether they are correlated with the environmental performances of the WT installation producing the 'output' and/or using the 'input'
- whether an 'output' quality management system is implemented, and, if so, which.

➢ In order to help the questionnaire development and the data collection, the EIPPCB prepares templates (by mid-February 2014) and TWG members' organisations will fill in and submit the templates (by 31/03/2014), on the following information:
- a list of well-performing plants/installations that are willing to participate in the data collection and site visits
- the number of WT plants per IED Annex I activity in each Member State
- a list of techniques (i.e. technique names) to populate the multiple-choice questions in the questionnaire
- information on the applied averaging periods / frequency for continuous/discontinuous monitoring for commonly monitored pollutants for the activities given in the updated BAT conclusions structure.

➢ The filled-in questionnaires will be collected and checked by the Member State, where the Member State:
- ensures the quality, completeness and consistency of data coming from plants located within the Member State
- checks confidentiality claims in accordance with the BREF Guidance Section 5.3: in the event that some information is claimed to be confidential, the confidential part of the questionnaires is then extracted and sent to the EIPPCB by email, while the non-confidential part of the questionnaire is then posted onto BATIS
- posts all the non-confidential questionnaires directly onto BATIS.

Information identified or promised to be delivered by the TWG for the revised WT BREF

- Model of questionnaires for waste treatment facilities (DE)
- Model of questionnaires for waste treatment facilities (EUCOPRO)
- The BREF Guidance (COM Implementing Decision 2012/119/EU)

TWG tasks

- The EIPPCB posts onto BATIS four templates to collect the information listed in the 7th bullet above
  Indicative deadline: mid-February 2014
- The TWG members post onto BATIS the four filled-in templates
  Indicative deadline: end of March 2014
- After TWG agreement on the installations/plants to be surveyed, selected on the basis of the proposed installations, the finalised questionnaire is sent to the operators
  Indicative deadline: May 2014

4.2 TWG subgroups

The initial positions expressed by WT TWG members were mainly to set up specific subgroups on certain treatments and on questionnaire development.

The EIPPCB proposal was to set up a subgroup on biological treatment and a subgroup on shredding of metal waste, for which a rapporteur among TWG members should be identified (with a deadline of 30/05/2014 for receiving the contributions of these subgroups), and a subgroup for supporting the development of the questionnaire to be produced by March 2014. It was reminded that the EIPPCB will consider the subgroups' contributions in its global assessment in order to incorporate them properly in the WT BREF. It was clarified that any part of these subgroups' contributions can be changed, deleted, or improved by the EIPPCB at any time on the basis of its assessment, especially on the basis of the data collection or for consistency with other parts of the BREF and with the BREF Guidance.

The discussion showed the need to also set up a specific subgroup on physico-chemical treatments. The need for a link between the subgroups on treatments and the subgroup on the questionnaire was raised, as was the need for clarification on the leadership of the subgroups and on the role of the rapporteur.

The management of all the subgroups will be assumed by the EIPPCB. For each of the thematic subgroups, a rapporteur will help by providing properly formatted/organised information in accordance with the indications given in the BREF Guidance (Sections 2.2 and 2.3.7.2). The subgroup on the questionnaire is composed mainly of other thematic subgroup participants in order to ensure a link between all the subgroups. A mandate for each of the subgroups will be prepared by the EIPPCB.

Conclusions reached by the TWG for the revised WT BREF

- A subgroup to support the development of the questionnaire (activity period: December 2013 – end of May 2014) is set up.
- A subgroup on biological treatment (main activity period foreseen at this stage: December 2013 – end of June 2014) is set up.
- A subgroup on mechanical treatment (main activity period foreseen at this stage: December 2013 – end of June 2014) is set up.
- A subgroup on physico-chemical treatment (main activity period foreseen at this stage: December 2013 – end of June 2014) is set up.
- The questionnaire subgroup will produce a questionnaire template by May 2014.
- The initial contributions of the thematic subgroups (biological treatment, mechanical treatment, and physico-chemical treatment) will be posted onto BATIS by 30/06/2014 at the latest.
- A rapporteur will be identified among TWG members for each of the thematic subgroups.
- The EIPPCB will consider the thematic subgroups' contributions in its comprehensive assessment and will merge them properly within the WT BREF.
- The EIPPCB produces the subgroups' mandates.

TWG tasks

- The EIPPCB posts subgroups' mandates onto BATIS
  Indicative deadline: December 2013
- The TWG sends the questionnaire to the selected operators
  Indicative deadline: end of May 2014
- The thematic subgroups post their contributions onto BATIS
  Indicative deadline: 30/06/2014

4.3 Techniques to consider and emerging techniques

The initial positions expressed by WT TWG members highlighted the need to add, update and carefully assess a number of primary and end-of-pipe techniques.

The EIPPCB proposal was to ask TWG members to identify and submit information on recent developments in techniques (including techniques to be applied in the mixing process step), to critically check whether the emerging techniques mentioned in the current BREF still match the IED definition of 'emerging technique' or could be considered a 'technique to consider in the determination of BAT' or if they should instead be deleted from the BREF. The EIPPCB proposed to take into consideration the initial positions of the TWG members on techniques during the writing of the revised WT BREF Draft 1. A list of techniques submitted by WT TWG members to populate the multiple-choice questions in the questionnaire would be useful.

During the discussion, it was proposed to consider and assess primary techniques for the mixing/blending process step. Additionally, the discussion emphasised the need for providing rationales when suggesting whether to keep a technique as emerging or to move it to 'techniques to consider in the determination of BAT', or to delete a technique already specified as an 'emerging technique' in the current BREF.

Conclusions reached by the TWG for the revised WT BREF

- TWG members will identify and submit information on recent developments in techniques (including techniques to be applied in the mixing and blending process step), following the 10-heading structure of the BREF Guidance Section 2.3.7.

- TWG members will critically check and suggest (providing rationales) whether the existing emerging techniques in Chapter 6 of the current WT BREF still match the IED definition of 'emerging technique', or could be considered a 'technique to consider in the determination of BAT' or if they should instead be deleted from the BREF.

- The EIPPCB will take into consideration the initial positions of the TWG members on techniques when writing the revised WT BREF Draft 1.

- The TWG will submit a list of techniques (i.e. technique names) to populate the multiple-choice questions in the questionnaire (deadline 31/03/2014).

Information identified or promised to be delivered by the TWG for the revised WT BREF

- General proposal on the waste treatment processes commonly used in Germany
- Technical guidance from the UK on waste treatment processes
- Spanish report on technology for the stabilisation of metallic mercury

TWG tasks

- TWG members post the filled-in template on techniques (see Section 4.1) onto BATIS
  Indicative deadline: 31/03/2014
- TWG members identify and submit information on recent developments in techniques, check and suggest (providing rationales) proposals on existing and new emerging techniques
  Indicative deadline: 30/06/2014

4.4 Other than normal operating conditions

The initial positions collected expressed a need to describe techniques to prevent or reduce emissions in 'other than normal operating conditions' (OTNOC) and to minimise unintended emissions from incidents/accidents.

The EIPPCB proposal was to ask TWG members for information, via a template, on OTNOC (e.g. start-up and shutdown operations, leaks, malfunctions and momentary stoppages) and on techniques used in the WT sector during OTNOC. The EIPPCB would then assess the lists for including pertinent information in the draft revised BREF, and for collecting data and information on OTNOC via the questionnaire.

The discussion underlined the need for definition of OTNOC (see Section 1.1).

Conclusions reached by the TWG for the revised WT BREF

- In order to help the information collection, the EIPPCB prepares templates (February 2014). TWG members' organisations will fill in and submit the templates, by the general deadline for the information collection, on the following information:
  - other than normal operating conditions (e.g. start-up and shutdown operations, leaks, malfunctions and momentary stoppages) applicable to the WT sector
  - techniques used in the WT sector during other than normal operating conditions.

- The EIPPCB will assess the lists for including the pertinent information in the revised draft BREF, and will also request information on OTNOC via the questionnaire, in order to collect data about how the operators declare OTNOC and whether and how OTNOC events' duration and frequency are addressed and/or minimised.

Information identified or promised to be delivered by the TWG for the revised WT BREF

- General proposal on the waste treatment processes commonly used in Germany

TWG tasks

- The EIPPCB posts onto BATIS a template to identify the OTNOC applicable in the waste treatment sector and the techniques used during OTNOC
  Indicative deadline: mid-February 2014
- TWG members post the filled-in template on OTNOC onto BATIS
  Indicative deadline: 30/06/2014

5 FORWARD PLANNING FOR THE WT BREF REVIEW AFTER THE KICK-OFF MEETING

The WT TWG agreed on the following forward planning.

BREF review milestones	Deadline
On the basis of the conclusions reached by the WT TWG, the EIPPCB prepares templates on: a. a list of well-performing plants/installations that are willing to participate in the data collection and site visits b. the number of WT plants per IED Annex I activity in each Member State c. a list of techniques to populate the multiple-choice questions in the questionnaire d. information on the applied averaging periods / frequency for continuous/discontinuous monitoring for commonly monitored pollutants for the activities given in the updated BAT conclusions structure	Mid-February 2014
TWG members submit the filled-in templates to the EIPPCB	31 March 2014
Distribution of questionnaires for the data collection to individual installations/plants	May 2014
Collection of the thematic subgroups' contributions and of the bulk of the information	30 June 2014
Submission of the filled-in questionnaires to the EIPPCB	30 September 2014
First draft of the revised WT BREF	**Tentatively: during spring 2015**
Commenting period on the first draft	Tentatively: spring - summer 2015
Assessment of the need for a second draft	September 2015
Final TWG meeting (in the event of a second draft not being necessary)	Tentatively: 1st quarter 2016
Final draft delivered to the IED Article 13 Forum (in the event of a second draft not being necessary)	Tentatively: 2016