

Position paper

Comments and suggestions for improved BAT determination methodology

Introduction:

The EEB appreciates the opportunity granted by the European Commission to put in writing suggestions relating to the BAT derivation methodology. The current practice is that the upper BAT-AEL ranges are derived through “expert judgement”. Under the previous IPPC Framework there was an unwritten rule that the upper BAT-AEL should reflect the 10% best performers, in order to set benchmarks for orientation.

Recent examples of BREF reviews have shown that other factors for BAT derivation than technically based ones have taken a precedent, which include the following:

- economic considerations for the operators (“technico-economic” considerations reflected in applicability restrictions) take precedent over desired environmental outcomes and circumvent the application of Article 15.4 of the IED, where the question of (dis)proportionality of higher costs of meeting the BAT-C compared to the benefits is to be assessed based on specific local conditions¹.
- desired performance levels (political compromises) of majority of Member States which are considerations not inherently based on the BAT concept
- “geographical distribution over Member States” (*this criteria was introduced by the EIPPCB at the STS BREF KoM and challenged by the EEB sine then*), indicating that it is the amount and geographical distribution of data that matters rather than its quality and purpose of BAT.

The fact that BAT standards for existing installations/plants contain BAT-AEL with very large ranges, contain high amounts of footnote derogations referring to claimed “technico-economic” restrictions or set BAT-AEL ranges to maximise technique choices for the operators demonstrate that there is a necessity to clarify the method to be applied consistently across the BREF reviews and to refocus the method in accordance to the policy mandate and aim set within the IED.

¹ See examples : Revised **LCP BREF** on desulphurization rate, <1500 hours derogations, **Pulp and Paper BREF** on dust levels for lime kilns and recovery boilers

The proposals set by the EEB are a follow up to the points previously made by the EEB:

- at the “Berlin meeting” of October 2014, see presentation [available on CIRCAB](#)
- written comments circulated in advance of 8th Art 13 IED Forum (19 October 2015) members to COM discussion paper on “Criteria for identifying key environmental issues for the review of BAT reference documents under Article 13 of the IED”.

Due to the binding nature of BAT-C the continuation of a case by case approach subject to “expert judgement” is subject to political interference, highly subjective and leaves various stakeholders unsatisfied because the technical focus is lost in this method and in addition, it is not consistently applied. Clear criteria to be codified in the BREF review rules could remediate this shortcoming. This would also considerably facilitate the task of the EIPPCB BREF authors and serve as a quality benchmarking for all stakeholders engaged to manage expectations.

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Summary EEB recommendations (BAT Derivation methodology):

In order to meet the IED aims to ensure a high level of environmental protection as a whole and for the specific BREF aims to “serve as a driver for improved environmental performance” it is important that clear and outcome oriented criteria are set for the selection of “BAT candidates”, the meaning of “best performers” reference installations as well as deriving the revised BAT conclusions (the upper ranges in particular).

We propose to ensure that the BAT derivation methodology takes full account of the IED objectives and its integrated approach as a primary objective to be quality assessed against as key criteria.

Contrary to claims made by certain stakeholders, the IED has not touched nor changed the method for BAT determination, nor the Seville process. The BREF review rules represent a codification of past practice under the IPPC-D framework. The only difference / novelties brought with the IED are

- that the outputs (the BAT-C) are of binding nature,
- that organisations promoting environmental protection are to be involved in the information exchange,
- a more formal role of the IED Forum responsible for overall quality.

A more robust and clearer BAT derivation methodology would bring considerable benefits not only in terms of enabling a quality performance assessment of the outputs (the BAT-C content) but also serve as a more transparent “expectations management tool” for all stakeholders involved in the decision making. We would welcome if the following key EEB proposals would be reflected in an amended version of the BREF guidance rules.

Consideration 1: The BAT derivation methodology should reflect the primacy of environmental protection within the IED on environmental protection outcomes to be achieved (external ex-post delivery check)

First check: do the BAT-C reflect the objectives of the IED and are these coherent with the 7th EAP objectives compared to status quo and regulatory framework conditions?

Second check: is there an increase of BAT-AE(P)L compared to previous BREF versions, do they set more ambition (see checks under considerations no 2)?

Rationale: The delivery of particular environmental objectives in most timely and effective manner should be the key criteria in BAT determination. These considerations are implicit to the BAT definition on what is actually meant. Timing is an issue due to the maximum 8 years review cycle laid down within the IED and the stated goal within the 7th EAP to have all BREFs reviewed and implemented by 2020. The BAT-C should always aim to go beyond the regulatory required performance levels or the current practice in industrial activities. BAT is indeed about the “*most effective and advanced stage in the development*” of an industrial activity. “Best” means the “*most effective in achieving a high general level of environmental protection*”. The IED sets as the main objective environmental protection².

There is a general tendency to set BAT-C only on direct emissions of an IED activity (mainly to air and water), however the BREFs need to cover much more than just direct emissions of a few pollutants because they are meant to cover all environmental impacts of a certain industrial activity. All relevant items in Annex III of the IED need to be addressed. A performance indicator for all stakeholders involved should therefore check on whether the proposed BAT-C would lead to environmental improvements in quantitative and qualitative terms against the objectives of the 7th EAP or other relevant Environmental Quality Standards (e.g. resources saved, emissions prevented) or specific environmental focus issues such as circular economy objectives.

Health protection should also be duly considered because it is clearly linked to environmental problems. For activities already subject to BREF conclusions adopted under the IPPC Directive the state of implementation of BAT and level playing field for industry should also be considered, since there are legitimate expectations for progress and evolutions in innovation.

² See notably Articles 1, 11, 18, and various recitals (2, 44)

Consideration 2: set cut-off points for the upper BAT-AEL range based on environmental performance outcome oriented eligibility criteria

Proposal a) level one cut off point: compliance with previous BREF conclusions

Rationale: In order to safeguard the level playing field to industry and in order not to penalise Member States (and its operators) that have taken the necessary actions to comply with the current / previous BAT requirements, the levels set there are to be considered as a minimum.

Where existing BREFs under the IPPC-D exist, the revised BAT-C cannot get weaker or stay at same level then set in the previous BREF. Otherwise the revised BREF BAT-C would fail to reflect technical progress in the industry or assume no innovation has been made within the EU industry over the past decade. We expect improvements in performance levels as a basic rule. However the upper BAT-AEL level should be based on technical criteria (achievable performance levels).

Proposal b) level two cut off point: not to exceed any national binding rule (legislation) to be in force during the timescale of revised BAT-C compliance

Rationale: In order to safeguard the level playing field to industry and in order not to penalise Member States (and its operators) that have taken the necessary actions to comply with the current / previous BAT requirements, the emission limit value (ELV) set at national law that apply to the sector as a whole (i.e. general binding rules) should be considered as a minimum for the BAT-C concerned. Otherwise it would leave to a perverse situation where

- a) emission limit values set some time ago and already complied with by a sector in a Member State would be stricter than future – at least 5 years considering the compliance as well as translation time required for new BAT-C adoption)- standards supposed to represent emission levels associated with BAT for the next decades, which even can be derogated from.
- b) National industry would actually have a justification to downgrade environmental ambition level at national level because of the revised BAT-C, based on the 1:1 EU transposition agenda.

Only solid data/evidence from the Member State concerned showing that the ELV set in the general binding rule is not achievable may be used to justify a different approach.

Proposal c) level three cut off point: the upper BAT-AEL is set at the technical feasible levels of a technique, only allow deviation and adjustments based on sound criteria in line with the integrated approach of the IED

Rationale: currently the upper range of a BAT-AEL is set on levels that reflect permit limit emission levels but is disconnected to possible performance of a specific technique in terms of abatement. The following adjustments to current practice should be made:

- **the level can be adjusted (weakened) on the basis of demonstrated negative cross media effect only**

Rationale: This is in line with the integrated approach of the IED, where the best balance for the environment as a whole is to be made. It is therefore entirely justifiable not to set the level as best feasible if that comes with a negative cross media effect which negates the positive environmental gains. These factors should be further substantiated in the BAT-C.

For instance, we may consider accounting for a “bonus” to the operator that achieves sustainable resource use, shifts to renewable and achieves an overall performance improvement of the activity as a whole (e.g. environmental loads v. end of pipe emission concentration reductions). Only in those –environmental performance based- cases a weaker BAT-C standard may be eligible in return. A further example would be the setting of higher concentration-based BAT-AELs for water pollutants in exchange of higher water recycling rates and overall less total pollution load to the environment. The assessment made should be transparent and fact based.

- **the effectiveness of a certain technique is compared to other competing techniques in terms of environmental performance outcomes (main ranking criteria)**

Rationale: A technical based approach would compare abatement efficiencies that can be considered as BAT of a certain technique and cross-media effects coming with it, e.g. secondary DeNOx abatement levels to be reached, hg removal efficiency, resource efficiency levels etc. Currently the environmental performance outcome is secondary and the operator’s perspective of a long technique (catalogue) providing flexibility in compliance options is favoured. It is too frequent to observe BAT-AEL expressed in the format $<x-z \text{ mg/Nm}^3$ where the level of x indicates what is achieved with one (more effective) technique whilst the level of z is achieved with another less efficient technique (e.g. revised LCP BREF, IS BREF). This may also be reflected in footnotes.

For certain techniques it is very clear which one is the most effective e.g. SCR for secondary DeNOx. The achievable emission level should be set accordingly. Because technique descriptions are not exhaustive industry is free to use an alternative technique that can deliver the same environmental performance.

It could be justified to apply the proportionality principle when setting the stringency of the performance efficiencies by comparing various IED sectors e.g. abatement efficiencies / techniques requirements in the waste incineration could be compared with the large combustion plants, considering the relative contributions of pollution. One may consider to set BAT-AEL levels indicating the maximum technical feasibility if certain threshold of annual loads of pollution are exceeded. For PBT (vPvB) / SVHC substances no thresholds should apply.

An improvement of performance levels should be implemented primarily for those parameters where one or more Member States have problems linked to EQS compliance (e.g. NEC-D ceilings, WFD good ecological / ecological standards etc).

- **a more flexible and forward looking approach to derive BAT-AELs where there is no BAT penetration in the EU / where short-term (though equally robust) data are available**

Rationale: The rigid approach to provide at least one year emissions data from commercially operating installations / plants in the EU is not a suitable way forward to derive state of the art performance. First, the data brought to the information exchange only highlights currently observed emission levels under set framework conditions (set in the permit) but does not indicate what state of the art performance actually corresponds to. Secondly the data provided is completely outdated when the BAT-C have to be implemented: in average the BREF review takes 3 years, the adoption process another year and compliance another 4 years from publication, meaning the BAT reference data is at least 8 years old. Thirdly, in some cases the EU cannot provide useful data since industry was not required to address the issue so techniques have not yet been implemented. One recent illustration is the LCP BREF and mercury emissions to air: Unlike the US there was no requirement to implement dedicated mercury techniques; it is therefore no surprise that data does not reveal BAT performance.

The US model of the “Maximum Achievable Control Technology” (MACT) is therefore the more appropriate one that was used for setting the MATS mercury rule. The method used to derive the MACT floor is based on the “best controlled similar source”. For existing installations it cannot be less stringent than the average emissions of 12% of the best performing installations (if more than 30 sources) or the average emissions of 5% of the best performing installations (if less than 30 sources). The practice of EPA was that data from stack-tests, generally comprising three one-hour runs were used; the number of stack tests varied from plant to plant. EPA selected the best-performing units based upon the units' single best stack test (as mentioned above, the best 12% for larger subcategories, and the best 5% for smaller subcategories). EPA then runs a formula – the so called “99% Upper Prediction Limit” - on all the stack-test data, from all the best performers, designed to generate a figure that the plants would collectively meet in 99 out of 100 future stack tests, that corresponds to the upper BAT-AEL set. This approach allows to actually demonstrating on what the application of BAT-C could correspond to.

- **Any cost implications to operators is to be compared against a full impact assessment for the benefits (health, environment) and compliance support of the EU environment acquis. Otherwise economic applicability restrictions are to be excluded from BAT considerations and shifted to implementation only (Art. 15.4)**

Rationale: The economic concerns of operators to implement BAT take too much importance over the technical feasibilities of a technique for the sector. Cost considerations linked to BAT uptake are extremely subjective and depending on specific local conditions. Further there is no agreed and harmonised Cost-benefit assessment method in place. Therefore we propose to use a more simple and easy to verify approach for assessing the economic viability test: If one EU installation meets the levels over 1 year without public subsidy / bankruptcy the cost applicability restriction is to be rejected. In any case the operator can always rely / attempt to seek a derogation in accordance to Art 15.4. of the IED. The other alternative is to assess costs as € per unit of pollution abated (ECM BREF) or to assess the % of total cost of BAT-C uptake against revenues of the company considering associated monetised benefits (health and environmental protection).

However it needs to be borne in mind that there are methodological limitations to value ecosystem damage e.g. for heavy metals and POPs. More importantly this benefit assessment should not produce delays in BREF reviews.

- **Proposal d) the definition of “existing” installation BAT-standards is using a cut-off point with the reference year of the data used for BAT derivation**

Rationale: Data provided in the questionnaires is completely outdated when the BAT-C have to be implemented, both for “new” and “existing” plants: in average the BREF review takes 3 years, the adoption process another year and compliance another 4 years from publication, meaning the BAT reference data is at least 8 years old. The differentiation does however matter in terms of practical impacts of implementation. A clear cut-off date linked to reference year is preferred (i.e. using the same reference years for the data collection on which the BAT-C are based on).

We also propose a reality check of “emerging techniques” section and fast track update procedure prior to adoption of BAT-C text (EEB proposal Berlin meeting).