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Systematic approach for deriving suitable BAT-AEL ranges
A joint contribution from IED regulated industrial sectors

Proposal

The legal obligation for permitting authorities to set the emission limit value for a given pollutant at a level that ensures that, under normal operating conditions, emissions do not exceed the BAT-AEL, has far-reaching consequences. A systematic approach to derive the BAT-AEL as a result of the BREF review process and the data collection performed in that context is therefore a must. A robust and transparent approach will secure consistency for stakeholders throughout the BREF review process as well as regulators and operators at permitting level.

In this paper, the undersigned sectors aim at actively contributing to the development of such an approach, which a number of recent BREF reviews under the IED have demonstrated is in critical need of being addressed.

Based on both the Guidance\(^1\) published in the OJEU in March 2012 and on our combined experience, we have outlined in this paper an approach which should help deriving both ends of the BAT AEL range systematically. This is crucial if one wants to preserve the integrity of the IED implementation through well-designed and truly applicable BAT conclusions.

In principle, the upper end should be set on the basis of the maximum observed emissions of the plants applying BAT for the pollutant at stake, while the lower end should be set above the lowest maximum observed emissions of the plants applying BAT, after discarding all performances that only occur under specific circumstances. Both ends of the range will be derived from emissions reported under normal operating conditions for the same period of time and using the associated monitoring as referred to in the BAT conclusions.

With this outline, the undersigned sectors are willing to contribute to the development of a systematic approach for deriving suitable BAT-AELs ranges and are seeking support from the IED article 13 forum members to set up a dedicated working session in this respect.

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Why is a systematic approach needed?

Article 15(3) of the Industrial Emission Directive (IED) stipulates that the highest admissible emission limit value (ELV) which will be set as a permit condition to be complied with under normal operating conditions shall not exceed the emission levels associated with the best available techniques (BAT-AEL). This is laid down in the decisions on BAT conclusions referred to in article 13(5).

Since an ELV defines an upper limitation on emissions during periods of normal operation it needs to accommodate the full range of emissions that could result from the use of all techniques considered as BAT under normal operating conditions.

One aim of the IED is to provide the competent authorities with a useful integrated pollution prevention and control tool, supporting them to set permit conditions. In this respect it is critical to ensure that the BAT-AEL ranges reflect the relevant performances of all the techniques recognized as BAT when considering the impact on the environment as a whole.

Articles 14(4) and 18 of the IED allow competent authorities to set stricter permit conditions than those achievable by the use of BAT in the particular circumstances described. In order to ensure full consistency with those articles, a BAT-AEL range shall not reflect the emission levels achieved where, for example, avoiding breaching a local environmental quality standard was the key driving force.

It is also necessary, before setting a BAT-AEL range, to check the feasibility of using them as ELVs in respect of the measurement standards that will need to be applied when checking compliance, considering the quality assurance required for CEMs (Continuous Emissions Monitoring) and periodic measurements. The BAT-AEL range must be presented in conjunction with the same (or an equivalent) method than the one associated with the gathered data from which it has been derived.

For the reasons listed above, it is of utmost importance that the BAT-AEL ranges result from a systematic and consistent approach. It will help deriving the legally binding BAT-AEL ranges in robust and transparent manner, based on the data collected during a BREF revision process and on the identification of the relevant BAT. We consider such approach to be in full accordance with the Commission Guidance on the collection of data and on the drawing up of BAT reference documents and on their quality assurance.

Experience from recent BREF review processes has shown the need for a systematic approach that is well understood by all stakeholders supporting the derivation of BAT-AELs through a robust and transparent methodology.

The undersigned sectors support the development of systematic approach based on the following:

Setting the lower end of range (guidance section 3.3)

“It is necessary to take the performance of plant(s) achieved under normal operating conditions by the BAT obtaining the best environmental performance as provided in the information exchange, unless this performance is excluded from the range by the TWG. In that case, there will be an explanation in the BREF why it has been rejected, considering that the plant achieving the best performance for a given environmental indicator may not be able to be the best performer for other indicators.”

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2 As defined in the IED article 3(10): 'best available techniques' means the most effective and advanced stage in the development of activities and their methods of operation which indicates the practical suitability of particular techniques for providing the basis for emission limit values and other permit conditions designed to prevent and, where that is not practicable, to reduce emissions and the impact on the environment as a whole:
(a) ‘techniques’ includes both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned;
(b) ‘available techniques’ means those developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the costs and advantages, whether or not the techniques are used or produced inside the Member State in question, as long as they are reasonably accessible to the operator;
(c) ‘best’ means most effective in achieving a high general level of protection of the environment as a whole;
3 The EIPPCB and the TWG will assess the data collected during the exchange of information to derive both the lower and the upper end of the range (chapter 3.3). The EIPPCB steers the work on determining BAT, guided by the principles of technical expertise, transparency and neutrality. Its work entails the independent verification and analysis of the information collected to derive BAT conclusions (Chapter 4.5)
For a given pollutant, this means identifying the generally applicable BAT leading to the best environmental performance and verifying that it is not the result of specific circumstances such as meeting local environmental quality standards, non-representative input or output reference conditions or where the integrated approach of the IED would not have been fully taken into account.

Performance levels obtained under specific circumstances cannot qualify and shall consequently be excluded from the BAT AEL range.

Before setting the lower end of the BAT AEL range, both the maximum value which may occur when using the technique achieving the lowest emission levels (applying the best BAT) and the ability of checking compliance with the EU measurement standards during the same period of time and using the same monitoring method - should those AELs become ELVs - must be assessed.

Setting the upper end of range (guidance section 3.3)

“The upper end of the BAT associated environmental performance level range is derived by considering the range of performance associated with the application of the BAT under normal operating conditions.”

Given its role as the basis for a maximum ELV, the upper end of the BAT-AEL range for a given pollutant must reflect and be set based on the maximum (and not on the average) emissions of that pollutant for the associated monitoring period that could be expected under normal operating conditions from the use of BAT, taking into account important elements such as variability in raw materials, product specifications and variable load, as well as any cross-media effects.

Since the reference year related data do not necessarily reflect the BAT performance, which can be influenced by many factors such as the age of the equipment, the plant activity level or the product mix, an evidence-based correction factor may need to be applied to accommodate these.

Data collection supporting the systematic approach for deriving suitable BAT-AEL ranges

During the data collection contextual information needs to be collected to ensure that:

- the scenarios identified as potentially giving rise to the maximum emissions for the same period of time and associated monitoring during normal operating conditions have been covered,
- the scenarios identified as potentially giving rise to the minimum emissions under specific circumstances have been covered,
- the identified other than normal operating conditions have been avoided,
- the potential cross-media and cross-pollutant effects have been suitably characterised,
- the relevant information regarding the load, specific process conditions or raw material availability,
- the reproducibility/consistency of the environmental performance can be guaranteed over a substantial period of time (e.g. time series should be made available over several years for yearly BAT-AELs), and
- consideration has been made of the measurement standards used to gather the data, and whether those will be suitable when checking compliance, in particular in accordance with the quality assurance required.

Performance data must be collected from as many plants that use the same techniques as possible. Data from a significant number of plants, for a significant period of time, must be used to set both lower and upper ends of the BAT AEL range in order to ensure its representativeness as well as the robustness of the methodology.