



Draft Guidance on Article 15 of Industrial Emissions Directive (2010/75/EU)

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ENVIRONMENTAL PROTECTION AGENCY

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Draft Guidance for Industry on IED alternate emission limit values or derogation from BAT-AELs.

Background:

This draft guidance was published to assist relevant operators of installations controlled under the IED, to better understand the provisions of Article 15 and information requirements regarding the applications of alternate emission limit values (ELVs) to those associated with best available techniques (BAT) or, by way of derogation, the application of less strict ELVs than those associated with BAT. The guidance will be updated from time to time.

The IED predominantly requires industrial installations listed in the Directive to comply with BAT and Associated Emission Levels (BAT-AELs) as set out in reference documents on BAT (BREFs). The Industrial Emissions Directive 2010/75/EU (IED) also specifies that certain derogations may be granted by the competent authority under Article 15(4), in special cases.

Article 15(3) provides that specific consideration be given to the BAT conclusions and BAT-AELs when setting emission limit values in licences. The expectation is that, in general, emission limit values will be set in licences so that emissions from the installation do not exceed the BAT-AELs.

The requirements of Article 15(3) apply only when BAT Conclusions have:

- (A), been adopted and published by the European Commission under Article 13(5) and (6) and
- (B), those Conclusions contain BAT-Associated Emission Levels.

Under Article 21(3) of the IED, within 4 years of publication of decisions on BAT conclusions competent authorities must reconsider and, if necessary, update the licence conditions for the installations concerned to ensure compliance with the Directive and in particular Article 15(3) and 15(4) and that the installation complies with its updated licence conditions.

Art 15(3) states:

The competent authority shall set emission limit values that ensure that, under normal operating conditions, emissions do not exceed the emission levels associated with the best available techniques as laid down in the decisions on BAT conclusions referred to in Article 13(5) through either of the following:

- (a) Setting emission limit values that do not exceed the emission levels associated with the best available techniques. Those emission limit values shall be expressed for the same or shorter periods of time and under the same reference conditions as those emission levels associated with the best available techniques; or*

(b) Setting different emission limit values than those referred to under point (a) in terms of values, periods of time and reference conditions.

Where point (b) is applied, the competent authority shall, at least annually, assess the results of emission monitoring in order to ensure that emissions under normal operating conditions have not exceeded the emission levels associated with the best available techniques.

With regard to 15(3)(b), setting any emission limits that are different from the BAT AELs may only be carried out by way of licence review/technical amendment.

In order to set an emission limit value (ELV) that is different from the BAT AEL the operator must show that the proposed limit value is equivalent to the BAT AEL and more specifically, that an equivalent level of protection of the environment is achieved. For example: in some batch chemical processes, the air emissions can be of short duration due to short cycle times. In this instance, a batch chemical process takes place over 16 hours but the emission of NO_x to air only occurs during the first 30 minutes. The relevant BAT AEL is 50mg/Nm³ as a daily average.

The initial emission is very high but short lived. The operator would need to demonstrate through dispersion modelling that the emission did not breach the relevant air quality standard.

Based on a total gaseous emission of 10,000m³ per day; this would correspond to a daily mass emission of 50,000 grams of NO_x.

Over the 16 hours, a total of 2,000 grams of NO_x was produced (most in the first 30 minutes). A daily mass limit of 2,000 grams of NO_x would result in a tighter requirement than the BAT AEL even though a spot sample during the first 30 minutes would show a breach of limit expressed exactly as the BAT AEL.

The operator would need to demonstrate the spot peak concentration of NO_x, duration of NO_x emission and total gaseous emission, in order to demonstrate compliance with the daily mass emission.

This equivalence could not be applied where the reference periods differ (i.e. an annual limit to substitute for a daily or monthly BAT AEL).

Article 15(4)

Article 15(4) provides competent authorities with the possibility to derogate from the requirements of Article 15(3) and thereby, set less strict emission limit values than detailed in the BAT Conclusions where an assessment shows that the achievement of BAT-AELs would lead to disproportionately higher costs compared to the environmental benefits.

Article 15(4) states:

By way of derogation from paragraph 3, and without prejudice to Article 18, the competent authority may, in specific cases, set less strict emission limit values. Such derogation may apply only where an assessment shows that the achievement of emission levels associated with the best available techniques as described in BAT conclusions would lead to disproportionately higher costs compared to the environmental benefits due to:

(a) the geographical location or the local environmental conditions of the installation concerned; or

(b) the technical characteristics of the installation.

The competent authority shall document in an annex to the permit conditions the reasons for the application of the first subparagraph including the result of the assessment and the justification for the conditions imposed.

In all cases it is for the operators to identify the need for a derogation from BAT AELs to be considered and to propose justification for it, using cost benefit methodology.

Information requirements:

A request for derogation shall be in the form of a submission to the Agency made within the process of a review of the licence, or as part of a new licence application. The justification must start from a clear understanding of the emission limit value (ELV) – based on the relevant range of emission levels if a range is given in the BAT-AEL which would be applicable under the terms of Article 15(3), and of the monitoring and compliance assessment conditions which would apply to that ELV. The operator will need to set out the ELV and associated conditions which it considers the installation could meet. The difference between the ELV that the installation can achieve and the BAT AEL, will enable the “excess” pollutant load which would result from the derogation, to be calculated.

The justification will then need to address the criteria set out in Article 15(4). These are that meeting the BAT AEL would lead to disproportionately higher costs compared to the environmental benefits due to the following criteria:

- (i) the geographical location or the local environmental conditions of the installation; or
- (ii) the technical characteristics of the installation.

The higher costs – both capital and operating – of meeting the BAT-AEL (thereby preventing the “excess” pollutant emission) must be calculated in a transparent way providing evidence of the accuracy of the costs, and how those costs are driven by the technical characteristics, geographical location or local environmental conditions of the plant. It is for the operator to demonstrate how the cost of complying with the BAT-AEL is disproportionate to the environmental benefit it would bring. It is recommended that the operator should use standardised methodologies e.g. Cost Benefit Analysis.

Technical characteristics of the installation which may be relevant:

- (i) the recent history of pollution control investment in the installation in respect of the pollutant(s) for which the derogation is sought;
- (ii) the general investment cycle for a particular type of installation;
- (iii) the configuration of the plant on a given site, making it more technically difficult and costly to comply;

- (iv) the practicability (particularly bearing in mind Health & Safety and other relevant legal obligations) of interrupting the activity so as to install improved emission control upon the pollutant(s)
- (v) the effect of reducing the excess emission(s) upon other pollutant emissions, energy efficiency, water use or waste arising from the installation as a whole; and, in particular, whether meeting the BAT-AEL will have an adverse effect on other emissions or environmental impacts

The geographical location of the installation may have a bearing on costs, e.g. construction costs may be higher if located in a remote location. In terms of local environmental conditions there may be additional costs if the installation is in a built-up location.

Every effort should be made to place a monetary value on the environmental cost of emitting more pollutants than the BAT-AEL allows. However it is recognised there are deficiencies in the existence of methodologies for some pollutants e.g. air pollutants. It will therefore be necessary to carry out a quantitative environmental assessment that assesses the effect (including cumulative impacts) of the excess emission on the levels of the pollutant already in, or discharged to air, water and land in the locality. For air pollutants, this will involve consideration of concentrations in ambient air. For water pollutants the effect on receiving waters, perhaps after the passage through a wastewater treatment works, will need to be considered. In all cases, the results of monitoring undertaken at all relevant sites in the locality must be taken into account.

The following as a minimum should be presented in the cost benefit analysis:-

- The costs need to be presented in real terms. The effect of future price rises should be used to compile a discounted cash flow analysis.
- The cost information should be supported by evidence (except where there is demonstrable reason), such as price quotes from commercial providers of the technologies considered or references to costs in the BREF, which can be verified for accuracy.
- The impact on the environment of an increased pollutant load, whether through the medium of air or water or solid waste emissions, should be calculated. This should include the mass release of relevant pollutants when operating at the proposed ELV, the likely annual mass release, as well as the predicted environmental contribution of the relevant pollutant to the local environment (long and short term). The transfer of any pollutants into different media or into solid waste should be quantified.
- The damage cost data (where available) for additional pollutant loads should be monetised.
- All calculations should employ the most robust and best data available and the amount of effort should reflect the magnitude of the likely impact.
- The costs and the benefits (where they have been monetised) should be expressed in a cash flow framework, which shows separately the costs and benefits for each of

the years covered by the appraisal. This should capture the fact that capital costs often do not all occur in the first year but are spread across a number of years; and the operating costs might change across the appraisal period.

Examples of technical reasons that may be considered where strongly supported by cost benefit methodology, for derogation:

It will be necessary for the operator to fully justify and support with sound evidence, the technical reason for the derogation. Examples of derogations are outlined below:

Example 1: The installation uses a particular process to make a specific product for a niche market that was not considered when the BAT Conclusions/BREF was written.

Example 2: The installation is making a particular range of products and by-products, for which is dictated the techniques that can be used e.g. manufacturing medical, electronics or aerospace grade materials.

Example 3: The installation is part of a large integrated facility and compliance with the BAT-AEL would involve additional modifications to other parts of the facility.

Example 4: The installation is designed to use a specific raw material or fuel.

Example 5: The installation is configured and operated in a way that would make it particularly expensive to shut-down whilst making the modifications to comply with the BAT-AEL.


Example 6: The safety of the installation would be compromised by compliance with the BAT-AEL

Example 7: Upgrading the installation to achieve the BAT-AEL for the release of one pollutant into one medium will result in significant increases in releases of other pollutants into the same or other media, reductions in energy efficiency, increased water use or increased waste generation.

Confidential Information:

If any of the material intended to be submitted as part of the derogation application, is considered to be commercially confidential, the operator should inform the Agency in advance.

Links to useful documents/tools:

1. EIPPC (2006) BREF on Economics and Cross-Media Effects (see annex 12 for cost of harm figures)
http://eippcb.jrc.ec.europa.eu/reference/BREF/ecm_bref_0706.pdf
2. SEPA (2015) guidance on [WAT-SG-67: Assessing the Significance of Impacts - Social, Economic, Environmental](#)  (401k)
3. Eunomia (2013) report on Industrial Emissions Directive and the Environment Agency's H1 Environmental Risk Assessment Framework (H1 Annex K Cost Benefit Analysis) (Hogg, D; Sherrington, C; Holland, M)

4. Revealing the cost of air pollution from industrial facilities in Europe (annex 1 gives costs per tonne)

<http://www.eea.europa.eu/publications/cost-of-air-pollution>

5. Environment Agency's IED CBA tool: <https://www.gov.uk/government/publications/industrial-emissions-directive-derogation-cost-benefit-analysis-tool>