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**COMMUNICATION FROM THE COMMISSION TO THE COUNCIL, THE  
EUROPEAN PARLIAMENT, THE ECONOMIC AND SOCIAL COMMITTEE AND  
THE COMMITTEE OF THE REGIONS**

**Towards an improved policy on industrial emissions**

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**1. INTRODUCTION**

Industrial activities play an important role in the economic well-being of Europe, contributing to sustainable growth and providing high quality jobs. However, industrial activities also have a significant impact on the environment.

The largest industrial installations account for a considerable share of total emissions of key atmospheric pollutants (83% for sulphur dioxide (SO<sub>2</sub>), 34% for oxides of nitrogen (NO<sub>x</sub>), 43% for dust and 55% for volatile organic compounds (VOC)). They also have other important environmental impacts, including emissions to water and soil, generation of waste and the use of energy.

Emissions from industrial installations have therefore been subject to EU-wide legislation for some time. Since the 1970's various directives have been drawn up which have ultimately led to the adoption of the following main pieces of legislation:

- Directive 96/61/EC concerning integrated pollution prevention and control<sup>1</sup> (IPPC) sets out the main principles for the permitting and control of installations based on an integrated approach and the application of best available techniques (BAT) which are the most effective techniques to achieve a high level of environmental protection, taking into account the costs and benefits.
- The so-called sectoral directives lay down specific provisions, including minimum emission limit values for certain industrial activities (large combustion plants, waste incineration, activities using organic solvent and titanium dioxide production).

Notwithstanding minimum emission limit values set in the sectoral directives, all industrial installations which are subject to the above pieces of legislation need to orient their permitting regimes towards the implementation of best available techniques.

Innovative technologies can reduce the cost for compliance with legislation on industrial emissions. Innovation also provides opportunities for industry to benefit from the emergence of new markets in environmental technologies. The Lisbon Strategy identifies sustainable development and environmental protection as an important pillar of current and future European policy and stresses the role of environmental technologies as having “*significant economic, environmental and*

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<sup>1</sup> OJ L 257, 10.10.1996, p. 26

*employment potential*”<sup>2</sup>. Industrial emissions legislation has an active role to play in stimulating the development and deployment of these types of technologies.

IPPC and the body of legislation on industrial emissions also have a part to play in addressing the calls from the Member States, the European Parliament and other stakeholders for "Better Regulation." With this in mind the Commission launched in 2005<sup>3</sup> a review of the body of legislation on industrial emissions in order to ensure its environmental and cost-effectiveness and to encourage technological innovation.

Based on a detailed analysis of the current situation and the outcome of the review process, the Commission proposes to streamline and enhance its policy on industrial emissions. For the large combustion plants alone the proposals should lead to net environmental and health benefits of at least €7–28 billion per year including the reduction of premature deaths / years of life lost by 13,000 and 125,000 respectively. Significant health and environmental benefits would also be achieved in other sectors. Furthermore in collaboration with Member States the proposals would lead to a net reduction in administrative burden by between €105 and 255 million per year.

This Communication also includes the results of reviews prepared under Article 16(3) of the IPPC Directive<sup>4</sup> (including a review of the Commission's Action Plan for IPPC established in 2005, as presented in annex 1) and Article 14 of Directive 2000/76/EC on the incineration of waste<sup>5</sup> (see annex 2).

## **2. CURRENT SITUATION**

The IPPC Directive required full implementation by 30 October 2007. Approximately 52 000 installations across all Member States fall within the Directive's remit, and by mid 2006 approximately 50 per cent of these installations had been permitted under the IPPC Directive. Whilst further progress has been made, it has become clear in the meantime that the efforts made were insufficient for all Member States to comply by the Directive's deadline.

Furthermore, the Commission has carried out a detailed analysis of the quality of the permits issued and of the permitting, compliance and enforcement regimes adopted by Member States. Based on a two-year process of data collection through an extensive programme of ten studies and continuous consultation of stakeholders, the Commission has come to the conclusion that the key principles of the current IPPC directive, in particular the integrated approach based on 'Best Available Techniques', remain a sound basis for the future development of EU legislation on industrial emissions.

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<sup>2</sup> Common Actions for Growth and Employment : the Community Lisbon programme; COM(2005)330 final

<sup>3</sup> COM(2005) 540final

<sup>4</sup> The second reports from Member States to the Commission on the implementation of the IPPC Directive cover the period 2003-2005. These reports were analysed in the context of an external study, "Analysis of Member States' second implementation reports on the IPPC Directive", LDK-ECO

<sup>5</sup> The assessment of the application of the WI Directive was included within an external study, "Assessment of the application and possible development of Community legislation for the control of waste incineration and co-incineration" (Ökopol, 2007)

However, there are significant shortcomings in the implementation of the current legislation that hinder the full exploitation of best available techniques originally intended by the Directive, that make enforcement at Community level very difficult and that are not conducive to the prevention or reduction of unnecessary administrative burden.

In this context, five main areas for concern have been identified:

- Insufficient implementation of BAT. The analysis showed in particular that without further emission reduction from IPPC installations, the positive health and environmental effects that are to be obtained from the objectives set in the Thematic Strategy on Air Pollution will not materialise. In addition, distortion of competition within the EU due to large differences in environmental standards is being observed.
- Limitations with regard to compliance, enforcement and environmental improvements hinder environmental protection.
- Unnecessary administrative burdens due to the complexity and inconsistency of parts of the current legal framework.
- Insufficient scope and unclear provisions of the current IPPC Directive that could hinder the achievement of the objectives set in the Commission's Thematic Strategies.
- Constraints on the use of more flexible instruments, such as NO<sub>x</sub> and SO<sub>2</sub> emission trading systems.

These problems were discussed and assessed in detail in the context of the Commission's impact assessment on the IPPC review.

### **3. IMPROVING LEGISLATION ON INDUSTRIAL POLLUTION AND ITS IMPLEMENTATION**

In response to the obstacles encountered and described above and based on a thorough impact assessment, the Commission is putting forward a package of measures designed to address specific problem areas, which, over time, will lead to an improvement of the situation.

Two key initiatives are envisaged in this context:

- Revision of the current legislation on industrial emissions through simplification, clarification and strengthening.
- Reinforcement of the Commission's Action Plan on implementation.

Further to these two initiatives, the Commission will continue to work on possible EU rules for an emission trading scheme on NO<sub>x</sub> and SO<sub>2</sub>.

### 3.1. Revision of the current legislation

The impact assessment undertaken as part of this initiative has indicated that the problems identified cannot be addressed without some changes in the legislation. Some of the main amendments to the legislation are the following:

- (1) Recasting the existing pieces of legislation (seven in number<sup>6</sup>) into a single Directive on industrial emissions. This will improve clarity and coherence both for Member States and for operators, has the potential to reduce unnecessary administrative burdens through combined permitting and streamlined reporting requirements, and will also achieve some environmental benefits.
- (2) Improving and clarifying the concept of BAT to create a more coherent application of the current IPPC directive and by requiring decisions that set permit conditions outside BAT to be justified and documented. In addition, current minimum emission limit values in some sectors (e.g. large combustion plants) are tightened to ensure the progress needed for achieving the objectives of the Thematic Strategy on Air Pollution.
- (3) Introducing minimum provisions with regard to inspection, review of permit conditions and reporting of compliance. Incentives for eco-innovation and support for the creation of lead markets are also considered.
- (4) Extending the scope of the IPPC Directive to cover certain activities (e.g. combustion plants between 20 and 50 MW) and clarifying the scope for certain sectors (e.g. waste treatment) to increase consistency and coherence of current permitting practices.
- (5) Where the Commission is to take measures to amend non-essential elements of the re-cast Directive, the Commission will be supported by a Comitology Committee and will ensure broad involvement of stakeholders.

### 3.2. 2008-2010 Action Plan on implementation of legislation on industrial emissions

With the revised legislation not entering into force for some years, the Commission will need to ensure that Member States apply the current legislation to the fullest extent possible. It will therefore strengthen its monitoring and supporting mechanisms by revising and refocusing the current IPPC Action Plan on Implementation (see assessment of progress in Annex 1) for the time period 2008-2010 as set out below.

#### *Action 1. Ensure full transposition of the legislation on industrial emissions*

The legislation that controls industrial emissions has been produced to protect and improve the European environment and to protect the health and well-being of Europe's citizens. The success of the legislation relies first of all on effective

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<sup>6</sup> the IPPC Directive and Directive 1999/13/EC on solvents emissions, Directive 2000/76/EC on waste incineration, Directive 2001/80/EC on large combustion plants and Directives 78/176/EEC, 82/883/EEC and 92/112/EEC related to the titanium dioxide industry

transposition by Member States in their national legal systems. Several Member States have not fully transposed the IPPC Directive and related legislation on industrial emissions by the required deadlines. The Commission will therefore pursue all necessary actions, including through infringement proceedings, to ensure full and correct transposition of the legislation.

### ***Action 2. Support Member States in cutting unnecessary administrative burdens***

The Commission recognises that unnecessary and disproportionate administrative burdens can have a real economic impact, as well as being an irritant and a distraction for business, and it is committed to reducing the administrative burden at EU level of existing legislation on industrial emissions. Furthermore, there are significant opportunities to cut administrative costs at Member State level in addition to those achieved at EU level.

To address these issues the Commission will organise an information exchange with Member States on the establishment of specific Action Programmes on reducing unnecessary administrative burdens at Member State level in respect of the permitting and control of IPPC installations.

These specific Action Programmes will be based on the administrative costs measurement exercise currently being conducted by the Commission in collaboration with Member States as part of the Action Programme for Reducing Administrative Burdens in the EU<sup>7</sup>.

### ***Action 3. Support Member States in their implementation of the legislation***

The Commission recognises that successful implementation of industrial emissions legislation requires an effective exchange of information between Member States in order to ensure consistency of approach and also to promote best practice.

The Commission will reinforce its efforts to support Member States and competent authorities across the EU. This will include aspects of enhanced information exchange, guidance development, visits to authorities and training. This support will continue throughout the introduction and implementation of the revised legislation.

### ***Action 4. Enhanced monitoring and compliance checks of the application of the legislation on industrial emissions***

The effective implementation of industrial emissions legislation requires a robust system of monitoring and compliance checks to be in place to ensure that industry complies with environmental requirements, as well as to reassure the public that their health and environment are being offered the protection required.

The Commission will continue to monitor the number of IPPC permits issued and updated and, where required, investigate the system of monitoring and inspection at IPPC installations. Such investigation will cover specific industrial installations and sectors, the use of general binding rules, and the analysis of complaints.

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<sup>7</sup> COM(2007)23

***Action 5. Improve data collection for review of BREFs and create stronger links with the Research Framework Programme***

The permit conditions, including emission limit values (ELVs), used in IPPC permits must be based on BAT as defined in the IPPC Directive. To help the licensing authorities and companies to determine BAT, the Commission organises an exchange of information between experts from the EU Member States, industry and environmental organisations. This results in the adoption and publication by the Commission of BAT Reference Documents (BREFs).

The review of the BREFs will continue, based on the agreed work programme and in close cooperation with stakeholders. The guidelines established on the improved collection of data for the BREF process will also be implemented. Furthermore, to provide fuller information on, and support for, emerging techniques the Commission will ensure closer links between the BREF elaboration process, the European Research Framework Programme and the Competitiveness and Innovation Programme.

***Monitoring and review of the Action Plan***

Regular reports on the implementation of the Action Plan will be published on the internet and discussed with stakeholders. A further review of the Action Plan is envisaged towards the end of 2010.

**3.3. Development of EU rules for an emission trading scheme on NO<sub>x</sub> and SO<sub>2</sub>**

The Commission will further explore the use of IPPC-compatible, market-based instruments such as an emission trading scheme for NO<sub>x</sub>/SO<sub>2</sub>, with a view to the potential development of a legal instrument laying down EU-wide rules on this issue. This will include a full analysis of options, including the scope and the allocation of allowances, and will look into potential direct and indirect impacts for economic sectors as well as drawing on the experience from greenhouse gas emissions trading.

**4. EXPECTED IMPACTS**

The impact assessment carried out during the review process of the IPPC directive and related legislation has assessed the impacts of the package of measures proposed.

The assessment has shown that the environmental and health benefits linked to the proposed measures are considerable. A higher uptake of BAT, for instance, would play a significant part in helping to close (by 30 to 70%) the existing gap between the 2020 baseline<sup>8</sup> for SO<sub>2</sub> and NO<sub>x</sub> and the objectives set in the Thematic Strategy on Air Pollution leading to net environmental benefits of €7–28 billion per year for the large combustion plant sector alone. The benefits of the proposals greatly outweigh the economic impacts (by a factor of between 3 and 14). Furthermore, there is an expectation of positive, but less quantifiable, impacts with regard to other Thematic Strategies, such as those on soil, water and waste.

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<sup>8</sup> Projection of Member States' implementation of current legislation

The proposals made will make a significant contribution to the implementation of Better Regulation and simplification of the legislation. Further, the recast of the different pieces of legislation into a single Directive is shown to reduce net administrative burdens by between €105-255 million per year.

No significant long term impacts on competitiveness, detrimental social impacts or negative effects on economic growth have been identified as a result of a higher uptake of BAT or of other improvements suggested. Rather the analysis shows that a more unified application of BAT would help to create a more level playing field and reduce distortion of competition within the EU in the industrial sectors covered by the IPPC Directive. The proposals will also help to promote the development and deployment of innovative technology.

## **5. CONCLUSION**

The package of policy actions outlined above and the accompanying Commission Proposal for a new and coherent Directive on Industrial Emissions will improve the effectiveness and efficiency of the legislation by achieving a high level of environmental protection, reducing administrative burden and minimising distortions of competition within the EU, without hampering the competitive position of European industry.



**Annex 1: Assessment of progress (by end 2007) in implementing the 2005 Commission's IPPC Action Plan**

<i>Description of Actions</i>	<i>Assessment of progress</i>
Action 1: Ensure full transposition of the IPPC Directive	IPPC Directive correctly transposed in 12 of the EU15 Member States. Conformity checks carried out for the EU10 and possible infringement cases to be launched.
Action 2. Enhanced monitoring of the progress made towards the full implementation of the IPPC Directive by 30 October 2007	Close monitoring by the Commission of the number of permits issued or updated.
Action 3. Compliance checks	Assessment by the Commission of the permitting and operating conditions of certain specific installations and general binding rules. Shortcomings in implementation identified and taken into account in the context of the IPPC review process. In addition, several infringement cases for mis-application have been launched
Action 4. Finalisation of the first round of BREFs and start of their review	Finalization of the first round of 31 BREFs at the end of 2006; review of 7 BREFs launched; work programme established for the review of the remaining BREFs.
Action 5. Need to clarify certain legal issues and to technically review the Directive	Publication on the internet of a detailed guidance document clarifying aspects of the IPPC Directive based on an extensive exchange of views with Member States; guidance on the legal and technical limitations on capacity will remain valid under the revised Directive; several studies carried out to inform the review of the Directive.
Action 6. Assessment of ways to streamline existing legislation on industrial emissions in the context of Better Regulation	Carried out as part of the IPPC review process
Action 7. Assessment of the use of possible market-based instruments and other incentives	Carried out as part of the IPPC review process

## **Annex 2: Summary report on the implementation of Directive 2000/76/EC on the incineration of waste**

### ***Background***

Directive 2000/76/EC on the incineration of waste (WID) was adopted on 4 December 2000. Transposition into national legislation was due by 28 December 2002. From that date new incineration and co-incineration plants have had to comply with the provisions of the Directive. The deadline for bringing existing plants into compliance was 28 December 2005.

Under the terms of Article 14 of the Directive the Commission shall submit a report on the implementation of the Directive to the European Parliament and the Council before the end of 2008. The first reporting from the Member States required by the Directive is due in 2009 and will cover the period 2006-2008. Pending this reporting, collection of data and information<sup>9</sup> has been carried out in connection with the review of the IPPC Directive and related legislation on industrial emissions in order to ensure a close synergy between these initiatives. This Annex summarises the main results in order to fulfil the Commission's reporting requirement.

In the data collection exercise data on dedicated waste incinerators and cement and lime kilns co-incinerating waste have been gathered from the respective industry organisations. Information on other types of co-incineration plants has been gathered from the Member States.

### ***Number of plants and permits***

It has been found that there are around 1 400 plants incinerating or co-incinerating waste in the EU. Fewer than half of these plants (39 %) are dedicated waste incinerators. Co-incineration takes place in a number of sectors, the most important being the energy sector (15 %) and the cement sector (10 %). The waste streams to/in other sectors are relatively small. The large majority (96 %) of the plants are "existing" plants<sup>10</sup>.

Around 20 % of the installations do not yet have the required permits due by 28 December 2005. However, since this mainly concerns one Member State, it is not seen as a problem related to the Directive itself. The overall compliance in terms of issued permits can therefore be considered as good, and the Commission will take all the necessary actions to ensure that all Member States comply with this requirement.

More than 90 % of the installations covered by the WID also fall under the IPPC Directive. Only three Member States were reporting using a combined permitting strategy for the implementation of the two directives.

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<sup>9</sup> Assessment of the application and possible development of Community legislation for the control of waste incineration and co-incineration (Ökopol, 2007)

<sup>10</sup> Existing plants as defined in the WID are plants for which a permit existed or a permit request was made before 28 December 2002.

### ***Compliance with environmental requirements***

The assessment of compliance with environmental requirements has found that, in general, incineration plants meet the air emission limit values set in the WID. In about 50 % of the Member States either the permits contain even stricter limit values than those required by the WID, e.g. for air emissions of dust, CO, HCl, HF, NO<sub>x</sub>, SO<sub>2</sub> and Hg, or they include additional requirements, e.g. relating to energy efficiency, noise abatement and accident prevention. Only a small number of permits have been issued that include emission limit values for parameters other than the compulsory ones, e.g. PAH, PCB or zinc.

The possibility of exemptions from certain requirements has been applied in many cases. Around 1 000 exemptions from air emission monitoring have been granted. On the other hand, more extensive monitoring than that required by the WID is being applied in some Member States.

### ***Emission control techniques***

The Reference Document on the Best Available Techniques (BREF) for waste incineration established under the IPPC Directive was published in August 2006. It states that there is continuous development of techniques which limit costs while still maintaining or improving environmental performance. The BREF document lists what are considered to be the best available techniques for waste incineration, together with a number of techniques regarded as emerging techniques and so far only demonstrated on a pilot or trial scale. In general, the emission limit values in the WID are relatively close to the emissions that correspond to the application of the best available techniques identified in the BREF.

### ***Further development***

The assessment of the implementation of the WID has indicated that, whilst the Directive has brought significant improvements in the control of waste incinerators across the EU, several issues require further action:

- The measurement requirements under the WID have been highlighted as sometimes imposing an unnecessary burden on the operators. In this respect, the possibility for the competent authorities to grant further exemptions for certain measurement requirements under specific conditions has been considered in the Impact Assessment related to the review process and been included in the proposal for a new single Directive.
- The review clause of the WID specifically provides for an investigation of the feasibility of existing cement kilns co-incinerating waste to observing the NO<sub>x</sub> emission limit value for new cement kilns. A cost-benefit analysis is presented in the Impact Assessment to the proposed Directive on Industrial Emissions, on the basis of which a proposal has been put forward to apply the lower limit value to all cement kilns co-incinerating waste. The lower limit value would also bring consistency with the BAT associated levels presented in the BREF for the cement and lime sector and is proposed in the new Directive.

Lastly, Member States and other stakeholders have highlighted some difficulties with the implementation of the WID which would not necessarily require amending the Directive. Instead these may be addressed through clarification and guidance on the interpretation and implementation of the Directive. As part of its revised Action Plan on implementation, the Commission will therefore take further steps to develop any necessary guidance documents in close collaboration with Member States.