

COMMISSION OF THE EUROPEAN COMMUNITIES

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Proposal for a
COUNCIL DIRECTIVE

on integrated pollution prevention and control

(presented by the Commission)

EXPLANATORY MEMORANDUM

1. JUSTIFICATION OF THE PROPOSAL

1.1 Reference to the Fifth Action Programme

The concept of integrated pollution prevention and control (IPC) has been growing in importance within the Commission and the Community in recent years. The Fifth Environmental Action Programme of the Community designates IPC as a priority field of action (Chapter 14 - Selection of Priorities). In Chapter 4.1 on manufacturing industry it is stated that improved management and control of production processes including a system of licensing linked to integrated pollution prevention and control will give a new sense of direction and thrust to the environment/industrial policy interface.

The Fifth Action Programme is entitled 'Towards Sustainability.' Sustainable development refers to the environment as a whole and not just the individual sectors of air, water and land, and the idea of the 1987 report by the World Commission on Environment and Development on sustainable development "Our Common Future" provided a powerful basis on which to rationalize environmental policy. Since the report, five Member States (B, IR, NL, P, UK) have enacted integrated forms of pollution control to add to the four Member States (DK, F, GR, L) where they existed already. Integrated licensing also began to advance elsewhere. Furthermore, recent legislation such as that relating to the eco-labelling of products and environmental auditing of installations have built on the more integrated approach begun in previous Directives. These measures point to the increased interest in, and recognition of, the advantages of bringing together, rather than fragmenting, the many efforts being made to improve our environment.

1.2 Scientific Basis

Increasingly, throughout the Community it has come to be recognized that no one part of the environment is separate from any other. It functions as an integrated whole. Yet, pollution control was until recently usually based on an approach which considers emissions to air, water and land separately. That has begun to change, particularly since the 1987 report on sustainable development, which stated in the section entitled 'The Institutional Gaps' in the overview:

"the integrated and interdependent nature of the new challenges and issues contrasts sharply with the nature of the institutions which exist today. These institutions tend to be independent, fragmented and working to relatively narrow mandates with closed decision processes. The real world of interlocked economic and ecological systems will not change; the policies and institutions must."

From the North Sea to the Great Lakes in America, air emissions and run-off from land have been recognized as major contributors to water pollution. And on land too, dioxin emissions into the atmosphere, for example, have led to the contamination of farming land and water. There have even been cases of attempts to address pollution in one medium alone leading to disproportionate pollution problems in another medium (for example, in order to reduce gaseous fluoride emissions wet scrubbing took place. The scrubbing liquor was discharged to water as an industrial wastewater and found its way into sewage sludge. That was then spread on grazing land and the cattle developed fluorosis through eating fluoride contaminated grass). By requiring the use of Best Available Techniques, and defining it in such a way as to ensure that environmental problems can be estimated and compared on a common basis, IPC provides for a further step - that the technology chosen or the method of operating an installation should be the best for the environment as a whole.

1.3 Environmental Objectives of integrated pollution prevention and control

The main environmental objective of IPC is to prevent or solve pollution problems rather than transferring them from one part of the environment to another. IPC looks primarily at emissions from industrial installations. Concentrating controls on a single medium can, as the OECD has recognized, serve only to create an incentive to release and/or transfer pollution from one medium to another. A key aim of integrated forms of control is to prevent or minimize the risk of harm to the environment taken as a whole; in other words to arrive at the 'best environmental option' which prevents the emission of potentially polluting substances wherever it is practicable to do so, or minimize such emissions where it is not. It also goes beyond the traditional framework of pollution control by encouraging the anticipation of the environmental effects of emissions, not just in the environmental medium into which they are released (for example, air) but also addresses the potential for those emissions to cross-over into other environmental media and cause harm to water and land.

Existing Community legislation on the assessment of the effects of certain projects on the environment (Directive 85/337/EEC) and on the major accident hazards of industrial activities (Directive 82/501/EEC) already provides, for certain categories of activities, appropriate information to this end, which may be incorporated in the applications submitted for integrated permits.

The way in which the concept of 'best available techniques' (BAT) is defined and applied in the Directive (while taking into account existing international definitions) is intended to work on several levels. Firstly, the aim of BAT (and IPC) is to prevent emissions to air, water and land. Where it is not practicable to do so, the aim must then be to minimize emissions to the environment as a whole and where emissions do take place the next aim must be to use all

appropriate recovery and recycling techniques. At every step particular attention should be given to those substances which have been identified as priorities for action. In this way the environmental sectors of air, water and land are placed on an equal legislative footing so that the final result will be that the way in which an installation is operated will be better for the whole environment.

Although the integrated approach should encourage the development and application of low emission technologies, BAT is not defined in terms of emissions alone. Sustainable development suggests that energy efficiency and the rational use of resources should also be taken into account. But there is a further factor to be taken into account. In some cases it may be technically possible to reduce emissions from a particular installation further, but

only at the environmental cost of requiring more energy to be used, with a resultant increase in emissions elsewhere arising from power generation. This is a matter to consider in selecting what are the best available techniques for preventing or reducing emissions. So, too, is raw material use. Techniques which use less, or less harmful, raw materials (for example, those which use recycled materials efficiently) may be considered to be better for the environment as a whole, even though emissions from installations may be a little higher.

Systems of integrated pollution prevention and control are potentially more efficient in that they take account of the effects of substances or industrial activities on the three environmental media of air, land and water in the same licensing procedure. Until recently, however, the majority of Member States, and Community legislation, was based primarily on a sectoral approach - which can lead to inconsistency. For example, BATNEEC in the Air Framework Directive (84/360/EEC) is the best available technology for preventing air pollution only. It is not necessarily the BATNEEC for preventing water pollution or preventing the generation of solid waste. The requirement to use air BATNEEC under that Directive necessarily limits the control options for water and land for processes coming under that Directive. Because there is no parallel requirement to use BATNEEC to restrict solid waste generation, for example, the result of the Community's legislation is unlikely to be as effective or as efficient as it might be, by encouraging the transfer of pollution from air to waste, rather than seeking to achieve the best environmental option.

1.4 The means for achieving integration

Prime importance in the Directive is given to the use of BAT to prevent inputs of substances to the environment or reduce them to a minimum. This is achieved in the text by proposing that permits must set emission limit values based on what is achievable through the use of the best available techniques, as well as appropriate monitoring requirements. Such techniques would need to have been developed at industrial scale and have regard to industrial feasibility. It is proposed that in the first instance it will be for each Member State to require emission limit values based on BAT for the industrial sectors coming under the provisions of the Directive. However, the Member States are also placed under an obligation to inform the Commission of emission limit values imposed and the best available techniques from which they have been derived.

This serves three main purposes. First, the Commission (and the Member States) will be able to compare standards set at Member State level and to give greater priority in bringing forward any future proposals on those industrial sectors where environmental standards are the most diverse. Secondly, the exchange of information on best available techniques and environmental quality standards will assist the Commission and Member States in the discussion of future standards to be set at European level. And finally, the thorough exchange of information envisaged in the Directive should help address the problem of the imbalance of technological potential within the EC, identified in the 'Panorama of EC industry report.'

The future work related to the above three objectives constitutes the continuation of the ongoing work carried out by "BAT groups" in the framework of Directive 84/360/EEC on the combatting of air pollution from industrial plants, for the elaboration of technical notes on best available technologies not entailing excessive costs (mentioned in paragraph 1.3 above).

The initial standards set at Member State level should, however, be elaborated within a common framework: the Directive therefore defines what is meant by 'best available techniques.' Although there is no explicit mention of 'excessive cost' (unlike the BATNEEC

of the Air Framework Directive), the definition of BAT in the IPC Directive takes cost considerations fully into account, for permitting new and existing installations and for upgrading permits. BAT should be considered at the level of the industrial sector and should weigh the environmental benefit of setting standards based on BAT with the cost (or the benefit) to industry of implementing BAT. Whatever the technique, if it is affordable for an average operator in the industrial sector concerned, then emission limit values achievable by that technique should be required for all operating at a similar scale in that sector, and derogations should not be given for individual operators, unless the conditions set out in Article 9 of the Directive apply.

It is not intended that the Directive will prescribe the use of particular technology or techniques (that would discourage innovation and reduce the control options open to the competent authorities). But it is proposed that specific emission limits can be derived from knowing what the BAT is. The Directive therefore provides a framework by which emission limits achievable by the use of BAT are to be met (whatever the technology or techniques that are actually used at the installation). BAT would also be used to recover and recycle materials and substances used or generated in the process.

However, emission levels are not the sole means of achieving environmental protection. In addition, it was widely recognized that they should be combined with environmental quality standards. If BAT sets the emission limit values from particular installations, the environmental quality standard provides a wider overview, assessing the effectiveness of BAT in protecting the environment.

The Directive therefore requires the use of both methods of environmental protection, BAT and quality standards. As in the Air Framework Directive techniques/technology must be used to limit pollution from point sources, but account has also to be taken of relevant environmental quality standards. This Directive simply seeks to make the consequences of the parallel approach a little clearer. If the use of BAT is not enough to meet the relevant quality requirements, additional measures (such as a limit on the output or the number of installations operating in the area) will need to be effected.

On the other hand, if local environmental quality is good, it may not be appropriate to apply BAT, for example if the cost of doing so is not matched by the likely benefit to the environment. In such cases derogations from emission limits based on BAT may be appropriate, provided that quality standards are respected, only a negligible amount of additional pollution may occur, and transboundary and global conditions are respected.

2. NEED FOR ACTION AT COMMUNITY LEVEL

2.1 What are the objectives of the action envisaged in relation to the Community's obligations?

The objectives of the Directive are outlined in detail in section 1.3 above. These are consistent with Article 130r(1) of the Treaty which contains specific provisions on the Community's role in environmental protection, and defines in particular three objectives: preservation, protection and improvement of the quality of the environment, protection of human health, prudent and rational use of natural resources.

Introduction of integrated approach aims at improving pollution prevention and control, and consequently contributes to improve quality of the environment and to protect human health. The Directive also contributes to the third objective mentioned above, by taking into account raw materials and energy consumption in the definition of BAT.

2.2 Is the action envisaged an exclusive competence of the Community or a shared competence with the Member States?

The competence is shared, taking into account the subsidiarity principle stated in paragraph 4 of Article 130r: "The Community shall take action relating to the environment to the extent to which the objectives referred to in paragraph 1 can be attained better at Community level than at the level of the individual Member States".

All essential provisions for the definition of an integrated approach scheme concerning industrial pollution control are defined at Community level, but the choice of the means for implementing these provisions (eg. organization of competent authorities, number of decisions included in a permit, fixation of emission limit values) is entirely left to the Member States.

2.3 What is the Community dimension of the problem? What solution has been in force until now?

Improvement of industrial pollution prevention and control concerns all Member States. The situation in Member States, and action already taken at Community and OECD levels are described below.

Belgium

In the 1980s industry, permit authorities and inspection agencies began to place more emphasis on an integrated approach to pollution from major industrial installations, although an integrated licensing system only entered into force (in Flanders) in September 1991. The Walloon and Brussels Metropolitan Region are also establishing more integrated approaches (for example, an integrated permit should enter into force in Brussels in July 1993 at the latest). The Flemish licensing system includes a uniform application procedure, strict permit decision deadlines and an emission reporting system.

Denmark

Denmark has had a system of integrated pollution control since 1974. It was revised most recently in 1991. The purpose of the Act is to ensure a sustainable social development in respect of human conditions of life and for the protection of flora and fauna. The objectives of the 1991 Act include the prevention and combatting of air, water and land pollution and nuisances resulting from vibration and noise, the reduction of use and wastage of raw materials and other resources and the promotion of recycling and the reduction of problems in connection with waste disposal. In the administration of the Act weight is given to results achievable by using the 'least polluting technology.' In the design and operation of the plant, including choice of production processes, raw materials and auxiliary substances, measures

shall be taken to minimize the use of resources, pollution and generation of waste. When determining the extent and nature of measures to prevent pollution consideration is given to the nature of the physical surroundings and the likely impact of pollution on those surroundings and the whole cycle of substances and materials, with a view to minimizing wastage of resources.

France

An integrated approach to pollution control has been taken in France since 1810. The most recent legislation was the law on 'Registered installations for the protection of the environment' of 1976. Installations which present the greatest problems or risks must receive a prior authorization given by the *prefet*. However, in order to avoid considerable distortions in the implementation of the regulations, the Ministry of the Environment distributes notices containing technical prescriptions. Pollution is controlled by a 'parallel approach' - that is, a technical/economic approach which consists of using the best available anti-pollution techniques (not entailing excessive costs) to control pollution as a whole from the installation and by ensuring that pollution which does occur does not entail irremediable repercussions or damage to the environment (a quality target approach). Registered installations are inspected by a separate inspection service (DRIRE) which, in fact, is also usually consulted by the operator before an application for a permit is made.

Furthermore, France has recently created a new agency involved in promotion of environmental protection, called ADEME, by regrouping three existing agencies involved in air pollution control, waste management and treatment and promotion of prudent use of energy and raw materials. This creation represents a new step towards the integrated approach in the organization of this Member State for environmental protection.

Germany

Pollution control in the Federal Republic of Germany has traditionally been media oriented. Most laws and regulations still focus on one environmental medium only. Beginning in the mid-eighties, however, some elements of integrated pollution control have been introduced into German legislation and emphasis is continuing to be placed on integrated environmental technologies (and therefore integrated environmental regulations). Cooperation among different competent authorities already takes place in the context of the Federal Air Quality Control Act (BImSchG); most authorities do not issue a separate licence but their viewpoint is consolidated in the BImSchG licence. However, water related activities require a separate licence according to the Water Management Act.

Greece

Industrial installations must have the permission of the Ministry of Industry and Energy in order to be set up and to operate. The permit is issued if it is proven that the operation of the industrial plant will not cause a serious deterioration of the surrounding area. Criteria vary, according to the location, the kind of equipment and raw material used, the guarantee offered for proper disposal of industrial waste, etc.

Ireland

An Act was passed in 1992 to set up a system of integrated pollution control, to be operated by a new Environmental Protection Agency. The integrated permit will replace the existing system of separate licences for control of water pollution, air pollution and waste and will also incorporate noise control. The Agency will be under a duty to operate under five general principles. The most important of those for IPC are to promote sustainable and environmentally sound development, processes or operations; to have regard to the need for precaution in relation to the potentially harmful effect of emissions and the need to ensure a balance between the need to protect the environment and the cost of such protection. The agency may not grant an integrated licence unless it is satisfied that environmental quality standards will be met and that the best available technology (not entailing excessive cost) will be used to prevent, limit or abate any emissions from the activity.

Italy

In Italy, regional and local authorities, organized in a media-oriented way, are competent for the implementation of the legislation concerning industrial emissions, and the elaboration of regulations in this area.

Luxemburg

An integrated approach to pollution control has been taken for many years in luxemburg. The most recent legislation was the law on "dangerous, insalubrious and incommodious establishments" of 1990, which requires an authorization for operating such establishments. These installations are inspected by the administration of environment.

The Netherlands

Pollution control in the Netherlands has traditionally been sectoral. Most laws and regulations focus on one environmental medium alone. In 1980 the Environmental Protection Act came into force laying down the basis for more general provisions concerning, among other things, advisory bodies, planning, and the issuing of permits (such as procedures concerning public access to information). This Act was extended in 1992 in such a way that it will also serve as a means of implementing an integrated approach. For example, it contains provisions relating to environmental quality requirements, environmental impact assessment, monitoring obligations, licencing and general rules, enforcement and, in particular, coordination procedures such as the bringing together of the Nuisance Act and several provisions of other environmental laws.

Portugal

A new decree covering the authorization of industrial activity was published in 1991. Under the regulation a 'coordinating entity' is responsible for the granting of a permit. The regulation also establishes that those authorities with responsibilities relating to the environment have the right to have their conditions and demands to be included in the conditions of any permit. In addition, the co-ordinating entity may decide, where it thinks it appropriate, to make an authorization dependent upon a licence for discharging effluent, which is obtained through a separate licencing procedure.

Spain

The system of this Member State is not integrated: regional authorities are competent for the implementation of legislation concerning air emissions and waste, national authorities for the hydrographic basins are competent for discharges into water.

United Kingdom

The belief that as long as control of the environmental media remained separate, the end result would be a haphazard disposal of pollutants unrelated to an overall assessment of the optimal environmental solution came to be widely held in the 1970s and 1980s. The Environmental Protection Act of 1990 in Great Britain set up a system of integrated pollution control. In setting the conditions within an authorization the competent authority is under a duty to ensure that certain objectives are met. Most importantly the act requires best available techniques (not entailing excessive cost) to be used to first of all prevent, and only when that is not practicable, minimize the release of substances to the environment and that releases which do occur are rendered harmless, do not cause the breach of environmental quality requirements and that the 'best practicable environmental option' is achieved so that emissions from installations have the least effect on the environment as a whole.

OECD

In January 1991 the OECD Council recommended that its Member countries practise integrated pollution prevention and control, and that they adopt or amend new and existing legislation, as appropriate. OECD Member countries which are outside the Community also have experience of integrated forms of pollution control, most notably Norway and Sweden. The concept has also begun to be established in some States in America. The implementation of the recommendation to practise integrated pollution control will be reviewed by the OECD by 1994. In 1992 a new Pollution Prevention and Control Group was established, absorbing the work of previous sectoral groups. This group, focusing on integrated forms of pollution prevention and control, has begun work on themes such as best available technology, the relationship between BAT and environmental quality standards, life cycle analysis and emission inventories.

Community legislation

The approach of the Community legislation concerning prevention of industrial pollution is essentially media-oriented. With the exception of 2 Directives which can be considered as "substance oriented Directives" (Directive 87/217/EEC on prevention of environmental pollution by asbestos and Directive 89/428/EEC concerning the disposal of titanium dioxide waste), this legislation has been developed in the framework of Directive 76/464/EEC on pollution caused by dangerous substances discharged into the aquatic environment and of Directive 84/360/EEC on the combatting of air pollution from industrial plants.

The presentation above shows the variety of pollution control practises of Member States, but also a general evolution of these practises towards an integrated approach, promoted by experiences already conducted at national level and actions carried out at international level demonstrating the efficiency of this approach. Furthermore, it shows also that this evolution is not yet reflected in the Community legislation.

2.4 What is the most effective solution, comparing the means of the Member States and the Community?

The most effective solution is an action taken at Community level. Otherwise Member States having already introduced an integrated approach will be hindered by the existing media-oriented Community legislation to obtain the full environmental benefit of their initiative. Only the Community may modify the sectoral approach applied till now by modifying or complementing existing legislation governing air emissions (Directive 84/360/EEC), and water emissions (Directive 76/464/EEC). Legislation governing soil emissions has not yet been adopted, but a Directive proposal concerning the landfill of waste (OJ No C 190 of 22 July 1991) has been forwarded to the Council.

2.5 What is the value added brought about by the action envisaged to the Community and what would be the cost of inaction?

In addition to the environmental benefits outlined in paragraphs 1.2 and 1.3 above, IPC is intended to encourage pollution control to be more efficient for industry; increase the ability to set priorities, and encourage consistency in environmental law.

Separate laws make it difficult to achieve the most efficient form of environmental protection. Taking account of all releases together, on the other hand, is likely to be less costly to an industrialist than requiring him to add on technologies or measures to deal with releases to each environmental medium separately as a new law or programme is implemented protecting each separate part of the environment. Integrated pollution prevention and control, by bringing environmental considerations together, therefore leads away from an approach based on 'end of the pipe' technology (that is, reacting to pollution once it occurs) to one in which environmental considerations are given greater priority at the design stage of an installation.

Indeed, the control of releases to all media from an installation is often, according to the OECD, significantly less expensive than the introduction of separate technologies for sequential releases to each medium. Such control at source may also increase efficiency in the use of materials, water and energy. For example, recent investments in 'clean' technology by firms in the French chemical industry of FF 86.8m and FF 4.5m repaid themselves in 4 and 2.4 years respectively. In the Netherlands, under the PRISMA initiative, 39 out of 45 pollution prevention options were cost neutral (19) or paid for themselves within three years (20: 16 of which paid for themselves within one year).

Other advantages of integrated process technology identified in the 'Panorama of EC Industry 1990,' published by the Commission, include savings in materials, savings in the removal of wastes, improved safety conditions, improved product quality and enhanced corporate image. That the technologies employed in and the organizational requirements for the successful introduction of clean technologies leads to significant improvements was quantified in the Communication of the Commission to the Council and European Parliament in November 1992 on 'Industrial Competitiveness and the Environment' - notably an increase of 25% in turnover per capital employed and decreases in 10% in cost of plant, 15% in energy costs, 30% in total costs and 71% in the waste rate.

Yet overall investment in integrated process technology as opposed to end of pipe technology has been relatively low. Figures published in the Panorama report show the share of integrated technology in pollution control investments as 20% for Belgium, 18% for Germany, and 13% for France. In the report's words, 'This imbalance raises problems for the

environment.' It concludes, 'The shortfalls in the current situation should be considered: integrated processes hold an excessively weak position in relation to end of pipe.' An integrated approach is likely to be more effective in identifying any gaps in the environmental controls and result in the selection of the best environmental option. And it is also likely to improve industrial competitiveness.

An integrated approach also encourages the risks from different pollution problems and the effectiveness and costs of control to be compared, and for resources to be allocated where the problems are most severe. In the OECD's words, 'broad priority setting can lead to a concerted effort by all concerned to address environmental problems on the basis of comparative risk and the feasibility and costs of prevention or control.'

If sectoral laws for different pollution problems continue to grow, the resulting system will become ever more complicated for those who manage it and those who must comply with its provisions. One result is likely to be the creation of short-term, but unsustainable, incentives to move wastes to that part of the environment which, temporarily at least, is the least protected. An integrated approach also encourages national consistency in such matters as penalties and enforcement procedures. A firmer framework, which can encourage forward planning would benefit the environment, as well as industry. A single licensing authority, or a leading authority (for example, acting on behalf of and with the agreement of other relevant authorities), be it at national, regional or local level, would also simplify the relationship between the industrialists and the environmental regulators. It also gives competent authorities more freedom to make more effective decisions. Although an individual official may see that a particular option would be best for the environment as a whole, legislation based on a purely sectoral approach of air, water or land may require him to focus on only one part of the environment, thereby increasing the risk of damage to the other environmental sectors.

2.6 What action is available to the Community (recommendation, financial support, legislation, etc.)?

In order to reform or to repeal existing media-oriented Directives, a new Directive is necessary.

2.7 Is uniform regulation necessary or is a Directive setting out the general objectives leaving the detailed execution to the Member States enough?

The proposal is for a framework Directive setting out the general principles of integrated pollution prevention and control, leaving as much freedom as possible for the Member States in its implementation.

The Directive aims at promoting, among public authorities and industrialists, thinking about the environment in an integrated way. The principle of proportionality has been incorporated in a number of ways. The types of installations and substances chosen for inclusion in the Annexes, and the setting of thresholds mean that smaller scale installations are generally excluded from the scope of the Directive.

The Directive does not attempt to impose one institutional structure for the whole Community - arrangements which are successful in one country may not be appropriate in another owing to differences, inter alia, in national legal and administrative structures. It sets out only a minimum of provisions which must be followed, while allowing the Member States

the flexibility to fit those provisions to national and local conditions. The proposal does provide that coordination must occur among the government bodies with different statutory responsibilities relating to emissions from the installation. If such coordination takes place at an early stage co-ordinated decision making will be facilitated. The Directive clearly signals that the most effective licensing procedure (apart from a single authority) is the identification of one lead authority to take responsibility for liaising between the industrial operator and the other bodies with statutory responsibilities relating to emissions.

The proposal recognizes that the setting of emission limit values can generally best be done at local level, taking into account appropriate environmental conditions. The same standards are not always appropriate at each and every location in the Community. The system of information exchange is designed to enable all interested parties to assess where priorities lie, taking into account industrial competitiveness and environmental needs. Where broadly comparable limits are set across the Community and where the effect on competitiveness is minimal (and bearing in mind that high environmental standards can increase as well as diminish industrial competitiveness), there may not always be a need for harmonization at Community level. Where, however, standards are very different, so affecting competitiveness, future proposals under the framework of this Directive are much more likely in order to ensure the effective functioning of the internal market.

An integrated approach cannot just be imposed. The Directive therefore gives responsibility to the operators of installations to propose the way in which necessary standards are to be met. And, as was stressed in the 5th Action Programme, the citizen must have a part to play in the licensing process. Integrated pollution prevention and control requires transparency and a mix of actors, from the individual citizen, via the crucial role of the industrialist and competent authority to the Commission, which aims to give the support to the other actors that is needed to help make IPC deliver the goal of sustainable development.

3. RESULTS OF CONSULTATION

In May 1991 consultation began, in the form of a discussion paper, with the Member States. The first draft of a Directive was prepared by September and distributed to Member States. Discussions with industry began in October 1991. 4 formal meetings, each of two days, were held with representatives of the Member States, one of which was a joint meeting with industrial representatives. Industrial and environmental interests also participated in further formal meetings. In addition, many informal meetings with public authorities and other interested parties have also been held in order to exchange views on the proposal.

The proposal has evolved during the course of these discussions. The major changes that have been made include: greater clarification of the need to consider the costs and benefits of the use of the best available techniques, taking into account environmental quality standards; the need to assure some stability in the permit conditions if investment in BAT is to be encouraged; realization that provisions relating to emission inventories and emission levies deserved separate consideration; and a greater simplification of the licensing procedures set out in the proposal. Further details relating to the consultation procedure are set out in section 6.

4. LEGAL BASIS

The legal basis of this Directive proposal is Article 130s of the EEC Treaty for the following reason: its main effect is the introduction of the integrated approach in emission control, in view of improving environmental protection, although some of the provisions of the Directive proposal, in particular those concerning limit values based on BAT and EQS, contribute accessory to the harmonization of conditions of competition inside the Community. Nevertheless, those provisions do not achieve a complete harmonization (fixation of limit values and selection of BAT is left to Member States).

The proposed action is therefore to be considered principally as an environmental action taken at Community level, in application of Article 130s of the Treaty.

5. EXPLANATION OF THE PROVISIONS OF THE PROPOSAL

Article 1

This Article states that the aim of the Directive is to prevent, wherever practicable, or minimize emissions from installations within the Community so as to achieve a high level of protection for the environment as a whole.

Article 2 and Annex IV

Integrated pollution prevention and control will apply primarily to those installations with a high potential for pollution. Those installations are defined in Article 2.3 as technical units where processes and activities listed in Annex I, and any other directly associated activity are carried out. Article 2(8) states that a permit may cover all processes on the same site, or may cover one or some of those processes. The OECD paper on IPC set out particularly clearly the reasons for focusing on industrial installations:

IPC allows assessment of the total releases of different types of chemical substances, identification of opportunities for reduction of these releases, and the choosing of controls to reduce total risk at least cost or even at a profit. This is most easily done early in the design stage. Such an approach provides the best opportunities for promoting the application of clean technologies and identifying the best available control technologies or best overall environmental protection options. In addition, identification of waste reduction opportunities, application of integrated systems design of pollution controls, or environmental impact assessments are possible. The issuing of single permits or authorizations is a useful tool for promoting cleaner production.'

A central feature of IPC is to require emission limit values to be set based on the use of Best Available Techniques (BAT) - unless an exemption may be made under Article 9. The definition of BAT, as set out in Article 2(10) and Annex IV, is substantially based on definitions in international conventions. As stated in section 1.3 above, BAT is used in the Directive to prevent emissions to air, water and land wherever it is practicable to do so, and where it is not to minimize them, and to encompass wider notions such as energy and raw

material efficiency. Furthermore, there is no intention to require specific technologies or other techniques to be used. What matters are the emission limit values which are to be achieved - and not how they are achieved. To require particular techniques or other technologies to be prescribed in the permit would stifle technical and managerial innovation. These aspects are made explicit in the general definition of BAT. However, the definitions of the separate components of BAT are also intended to give further guidance to the BAT concept.

The definition of 'best' reinforces the need to take potential benefits and costs into account in selecting BAT. The requirement of being most effective for achieving a high level of protection for the environment as a whole can only be fulfilled by giving special consideration to all the items listed in annex IV ; it will not necessarily result in the most expensive solution. The definition of 'available' makes it clear that techniques which are available anywhere in the world are available for the purposes of this Directive. Nor does it imply a multiplicity of sources. If there is a monopoly supplier, the technique counts as being available provided that it is accessible (within reason) to the operator. Finally, the definition of 'techniques' is intended to ensure that not only the technology itself is important, but so too is the way in which it is operated. Significant environmental gains can be made by improving the methods of operation of installations. It follows from this definition, and is made explicit in later Articles that BAT will evolve, so providing a dynamic towards improved standards over time (and so the Directive should provide a continuing framework for industrial pollution control).

Of course, an integrated approach must consider emissions to air, water and land together. The first aim with any emission which may contribute to or cause pollution is to prevent it wherever practicable. The definition of emissions in Article 2(4) is therefore very broad and applies to emissions which may subsequently be treated off-site, for example by sewage treatment plant, or incinerated, just as much as it does to emissions sent out directly into the environment. IPC is not just a method of deciding upon the best environmental balance of those emissions from an installation which do occur (although it is that as well), but is also a pollution (including waste) minimization measure. It is founded upon a preventive approach to pollution control.

Article 3

Article 3 states no installation, once it comes under the provisions of this Directive may be operated without an integrated permit. Exceptions are made (in Annex I) for waste management activities which are subject to a licensing requirement under the relevant waste legislation, for existing large combustion installations and, for a limited period as set out in Article 4 for other existing plants. The Article also reinforces the need to consider integrated technology in designing the installation, in preference to over-reliance on end of pipe technology.

Article 4

In the Air Framework Directive of 1984 the problem of existing plant was recognized but left to Member States to work out a timetable for bringing those plant up to higher standards. Except in areas where environmental quality standards are being breached, where a permit must be sought as soon as possible, the Directive proposal leaves it to Member States to work out the finer details of the timetable for bringing existing plant within IPC. Article 4 does, however, provide that operators of existing plant must be permitted (and meet the appropriate standards) in accordance with the provisions of the Directive, not later than 30 June 2005.

Article 5

The integrated approach cannot and should not just be imposed from above if it is to be at its most effective. Indeed, much of industry already works using an integrated approach. If pollution control law has been predominantly sectoral up to now, the practice of pollution control itself at the level of the installation has had to consider emissions to air, water and land together, in order to meet the separate applicable legal requirements. Because it is cheaper and simpler to build pollution control into the design of a plant rather than add on end of pipe technology it will be in the operator's own interest to examine thoroughly the options for the environmental protection at the design stage of the plant.

Under the licensing procedure proposed in the Directive, that consideration of an integrated technology and other techniques would then form the basis of the application for a permit. As the application will be publicly available there will be every incentive on the operator to ensure that the application does not avoid the environmental issues (and that he is compared unfavourably with his competitors), and the procedure will also allow the public authorities to further strengthen their knowledge about BAT. The requirements of the contents of an application for a permit is also intended to help authorities with statutory responsibilities for a single environmental medium to take account of wider environmental issues. For example, the effect of the release of air emissions can be to pollute water and contaminate land; additionally unanticipated effects can occur through transformations of substances once they are released, even far from the point of release (such as acid rain).

Article 5 states what an application for a permit from an operator must at least include. In general, the extent and detail of the application will depend on the extent and complexity of the installation. The more complex the proposal, the more detailed the application should be (and where the type of installation is well established the application should be relatively straightforward). In either case, however, the operator is best placed to make the proposal as to how he wishes to operate the installation. He is the most immediately involved in the design, construction and operation of the installation and therefore the best placed to build in environmental considerations from the earliest stage of the decision to establish or modify an installation.

The following comments from the 12th report of the Royal Commission on Environmental Pollution in the United Kingdom, on how to select the best practicable environmental option, are useful as a guide to how an operator might approach making an application. He should:

- introduce environmental considerations into project planning at the earliest possible stage;
- identify options diligently and imaginatively in order to identify as complete a set as possible;
- identify potential damage to the environment in such a way as to uncover the unusual as well as the familiar;
- look at the long and the short term aspects of the installation's operation on the environment, whether local or remote;
- ensure that the documentation associated with an application makes it possible to trace decisions back to supporting evidence and arguments;

- ensure that the documentation identifies the origins of data used with any relevant information concerning their reliability; and
- present scientific information objectively.

In addition, the Royal Commission emphasized the importance of monitoring, which will be important to identify whether the preferred option achieves the claims made for it and to see whether, in practice, a different option would have been better for the environment. Furthermore, a systematic approach to monitoring can assist the integrated approach by identifying the movements of substances across the environmental media.

Article 5 mentions two specific Directives. The first (85/337/EEC) requires an environmental impact assessment to be undertaken for various projects listed in Annex I of that Directive. Developments listed in its Annex II are left to the Member States to decide whether an impact assessment need be prepared in particular cases. In its Annex I list, a few activities overlap with the list in Annex I of the IPC Directive. Article 5 therefore states, in order to avoid the unnecessary duplication of work, that any impact assessment undertaken by virtue of the 1985 Directive, may be submitted to the competent authority as part of the IPC application (indeed, if all the points mentioned in Article 5(1) are satisfactorily covered in an impact assessment there would be no need to undertake additional studies in respect of the IPC application). Article 5 does not mean that a full impact assessment need be undertaken where it is not already required by Community or national legislation; the Article merely provides that a description be provided of the most important categories of information, so that the competent authority may make a reasonable decision on the application.

The other Directive mentioned is 82/501/EEC on the control of major accident hazards. Under that Directive, approximately 2 000 installations are required to prepare a safety report and notify it to the competent authority (for major accident purposes). The requirement in Article 5 of the IPC Directive to include a section on accident prevention in the application for a permit would not require, for those installations, separate accident studies to be undertaken. But because in several Member States the competent authorities for major accident hazards and 'environmental' (routine) emissions are different, it is opportune to draw the attention of environmental regulators from the outset to safety management. This does not, however, lead to a duplication of regulation; no major accident prevention requirements are laid down in the provisions of Article 8 of the IPC Directive, which governs the content of the operating permit.

Article 6

Article 6 makes it clear that the Directive will not require the establishment of a single environmental authority in each Member State. It is proposed, however, that Member States identify (where no single authority already exists) a lead authority for all installations or for different categories of installation (for example, an air authority if it considered that the main impact of the installation was likely to be to the air). This does not affect the right of other competent authorities to set conditions in the permit.

Article 7

Article 7 aims to make it transparent in the permit, which will be available to the public, how integrated environmental protection considerations have been taken into account in setting the permit conditions, including any decisions that best available techniques need not be used, in

accordance with Article 9. A written decision to grant or amend or refuse a permit should normally be granted within six months. The speed with which permits are considered is an increasingly important factor in deciding upon the location of industrial facilities - in the EC and outside it; companies need to be able to start up their operations and amend their processes quickly in order to remain competitive.

Article 8

The Directive sets out the minimum requirements to be included in a permit. Requirements may vary from place to place and it would be impossible and counter-productive to prescribe a comprehensive list of permit requirements to be required in all circumstances. Article 8 (which should be read in conjunction with Article 9) therefore sets only the essential details. It requires that emission limit values be set for all substances listed in Annex III likely to be emitted from the installation in greater than trace amounts and that such values must, subject to Article 9, be derived from the use of BAT. It allows to add or to substitute, in certain cases, equivalent parameters, like BOD or COD for water emissions, to these limit values. Furthermore, in order to ensure compliance with an approach based on emission limit values it will be important to establish the monitoring requirements in the permit.

However, in addition to a standard clause allowing permits to contain such other specific conditions as the competent authority thinks fit, there is one important additional provision: in order to help address the problem of the contamination of industrial sites it is proposed that the permit should contain provisions relating to the closure of installations.

Article 9

Article 9 takes a 'parallel approach' to pollution control; that is, that the technical BAT based approach should be linked to one based on environmental quality. On the one hand this means that sometimes BAT may not be enough to achieve the desired policy goal (for example, in heavily polluted areas or areas of particular environmental richness). On the other hand, BAT may not be required if the local environmental quality is very good and the substances released from the installation will not add unacceptable pollution, by ensuring that the emissions do not lead to an exceedance of environmental quality standards or relevant World Health Organization guidelines, would be likely to result only in a negligible increase in pollution, and would not contribute to transboundary and/or global pollution.

Article 10

Article 10 requires competent authorities to follow or be informed of developments in BAT.

Article 11

If the operator plans a substantial change to the installation he must notify the competent authority, and receive its approval before the change can be made. By reason of the definition of a substantial change in Article 2(9) a failure to do so would mean that the operator would be in breach of his permit.

Article 12

Article 12 deals with the updating of permits by the competent authority. As techniques and technologies improve, so will the appropriate standards. In order to take account of progress, the operating conditions of a permit must be updated on a regular basis. It is important to give operators some confidence in the length of validity of a permit if investment in cleaner technology is to be encouraged and it is therefore proposed that the operating conditions should be valid for ten years. Changes to the operating conditions may only be made if any one of several conditions is met. Member States may promulgate general regulations to give effect to the revised standards if they wish rather than revising each and every permit. If an operator does not wish to meet the new requirements, the proposal allows him to continue to operate in accordance with the old requirements for up to two years, after which he must cease operation. The timetable for updating permits, and compliance with such updating, will nevertheless be subject to specific provisions in future Community legislation.

Article 13

Article 13 gives examples of essential powers competent authorities need to check compliance with a permit, and if confidence in the implementation of IPC is to be assured.

Article 14

Public access to environmental information has become an increasingly accepted part of environmental policy in all Member States, as was shown by the agreement in 1990 to a Directive on this subject. The 5th Environmental Action Programme stated that the public must be enabled to participate as fully as possible in the decision making processes; that they have a direct interest in the quality of their living environment, and in addition, can provide an important spur to good performance by companies in their area.

Unnecessary secrecy breeds fear and suspicion in the minds of the public which is not only against their interests, but those of industry as well which, if it is to be able to react quickly to changing competitive circumstances, needs to be accepted by public opinion. The need to inform the public is essential in an integrated approach. Because there are trade offs to be made among the environmental media, it is particularly important for the various options that have been considered to be put before the public. Article 14 reinforces the provisions of Directive 90/313/EEC and in addition gives (as did the Air Framework Directive of 1984) the public the right to comment on applications for permits. The Directive also makes explicit the right of public access to monitoring information which may be withheld by a competent authority only in exceptional circumstances. It is expected that commercial confidentiality will more normally apply to information about the techniques used in a process.

Article 15

Article 15 requires Member States to provide to the Commission information about what they perceive to be BAT and emission limits derived from BAT for categories of industrial sectors. This will be done on a regular basis in order to keep the information up to date. This information will help the Commission in establishing priority sectors where proposals for harmonization of standards may be brought forward at Community level. The Commission is under a duty to organize an exchange of information and disseminate the results, which will be of assistance to the competent authorities in meeting the requirement of Article 10 to follow or be informed of developments in BAT (although those authorities will still be

obliged to look out for developments outside the EC). Information published by the Commission under this Article must be taken into account by the competent authorities in setting emission limit values under Article 8(2).

Article 16

This Article is modelled on that of Directive 88/609/EEC concerning Large Combustion Plant. It requires that where transboundary considerations are necessary, the procedure set out in Article 7 of Directive 85/337/EEC on environmental impact assessment should be followed.

Article 17

Article 17 is a standard Article allowing the Commission, assisted by an advisory committee to revise Annexes I and III.

Article 18

Article 18 allows Member States to set stricter conditions than those achievable through BAT in certain areas, or even refuse permission to operate in such areas, and take other measures unless to do so would be incompatible with Community law.

Article 19 and Annex II

Once an installation has an IPC permit the provisions of the Air Framework Directive and other existing legislation, as specified in Annex II will no longer apply to it, except for emission limit values and quality standards which must be respected. Once the processes and activities listed in Annex I all have an integrated permit, there will be no further need for an Air Framework Directive which should therefore be repealed by 1 July 2005.

There are also a number of water Directives. The most notable is Directive 76/464/EEC on the discharge of dangerous substances into the aquatic environment. This will not be repealed as there will be processes discharging such substances into water which are not covered by IPC, for which future proposals may be necessary. However, the processes covered by the current daughter Directives to 76/464/EEC are all covered by the list of processes in Annex I to the Directive, to which IPC must apply. It is proposed therefore that all such plant, addressed by the legislation listed in Annex II must receive an integrated permit, and that only the quality standards and emission limits set in the daughter Directives will continue to apply to these processes. Other provisions, such as the review procedure, would henceforth be governed by the IPC Directive. The future need for these daughter Directives will therefore also be reviewed once IPC is established. Waste management installations governed by the IPC Directive and Directives 91/156/EEC or 91/689/EEC would need to incorporate both sets of requirements of the Directives into the licensing procedure. This is made clear in the heading of section 5 of Annex I.

Articles 20 and 21

These Articles contain standard provisions.

Annex I

The list of industrial installations to which IPC is to apply is taken mainly from the Air Framework Directive. However, direct and indirect emissions from these installations generally also have important environmental effects on water and land, as well as air. Some additional processes and activities have also been included in Annex I by reason of their potential for pollution.

Annex III

The lists of substances in Annex III are based on those which have already been agreed at Community level in Directives 84/360/EEC (air), 76/464/EEC (water) and refers to ongoing work under Directive 91/689/EEC (waste).

6. IMPACT ASSESSMENT FORM
THE IMPACT OF THE PROPOSAL ON BUSINESS
with special reference to small and medium sized enterprises (SMEs)

Title of proposal: Integrated pollution prevention and control

Reference Number (Repertoire):

1. Taking account of the principle of subsidiarity, why is Community legislation necessary in this area and what are its main aims?

A shortcoming of existing Community legislation affecting industry is that requirements are imposed to control air and water pollution in particular, without having sufficient regard to the effect of pollution in the other environmental media, including solid waste. The proposed Directive is therefore an updating of existing legislation, in particular the Air Framework Directive (84/360/EEC) and several water Directives whose future role will be reviewed once IPC is established. Integrated systems of pollution control have already been introduced in half the Member States. If the Commission is to be able to propose legislation concerning industry and the environment (especially those industrial sectors with the greatest potential for transboundary pollution effects) which is acceptable to the Member States it needs a vehicle which is able to respond to the developments of integrated systems of pollution control.

The main aims of the proposal are to set in place a system for controlling emissions to air, water and land on an equal basis, so that the emissions which still occur are least damaging for the environment as a whole, rather than being set in a piecemeal way. This will normally be achieved through the application of emission limit values, to be set initially in the Member States. Those limits will be derived from knowledge about the best available techniques to prevent or minimize pollution, although lower standards may be acceptable for some substances, and where the environmental quality of the area is good. The Directive is intended to provide a framework for industrial pollution control well into the next century. It therefore also contains provisions relating to the upgrading of operating conditions set for the purposes of environmental protection, so that the requirements of the Directive can evolve together with changes in technology and environmental understanding.

The impact on business

2. Who will be affected by the proposal?

Sectors

The Directive is primarily concerned with preventing or minimizing industrial pollution. The manufacturing sector will therefore be the most affected by the proposal, together with energy production and waste management. The precise categories of industries which it is proposed should come under the Directive are listed in Annex I to the Directive, although the Directive also gives Member States the freedom to bring further categories of processes and activities within the scope of their transposing national legislation.

Sizes

The Directive proposal is aimed at those processes and activities with the most potential for pollution. Furthermore, because the practice of integrated pollution prevention and control will be new to some Member States, which may mean a closer coordination among the relevant public authorities, it is important not to bring processes and activities with a lesser pollution potential within the scope of the Directive, for fear of overburdening the licensing procedures of the Member States. For these reasons thresholds have been set in Annex I below which the Directive will not apply. This means that small firms are unlikely to come within the scope of the Directive. Some medium sized firms may do so, where their pollution potential is thought to be significant.

Geographical areas

Although the types of processes and activities to which the Directive applies are found throughout the Community a preponderance is to be found in the north. It is worth noting that the Directive contains a relaxation from the standards of 'best available techniques' in certain areas, where the local environmental quality is good, and where the emissions would not cause unacceptable environmental effects. Different standards may sometimes therefore be appropriate in some areas for some processes compared to those appropriate for more industrialized, and polluted, regions.

3. What will businesses have to do to comply with the proposals?

The main emphasis of the Directive is to ensure that emission limit values, to be set initially by the competent authorities of the Member States, are met by the operator of an installation. For both new and existing installations, an application will need to be made by the operator, if it has not already been done under existing legislation, spelling out the likely effects of the operation of the installation on the environment as a whole, and what other options have been considered by the operator for the process. It is recognized that the preparation of the application will be important. But it is thought that the operator of a process is the best placed person to make the initial proposal as to how he wants to run his installation. It is also important to remember that the Directive requires emission limit values to be met; not the techniques or technology that must be used. The operator may use whatever techniques and other technology he likes, as long as they meet the prescribed emission limit values. Under IPC the role of the competent authority is not to prescribe the technology and other techniques to be used in the operation of an installation, whose choice is best left to the individual operator, thereby keeping operating flexibility with the industrialist, which any centralized system of prescribing specific technologies could not. (The setting of particular best available techniques in Community legislation could also have the affect of stifling technological development until new legislation could be agreed.)

Operators of existing installations will need to bring their installations into the system of this Directive and up to the relevant standards within ten years of the coming into force. The operator will also need to notify the competent authority of those changes which would affect the operating conditions of a permit (a 'substantial change'), which must be approved by the competent authority before it may be made.

4. What economic effects is the proposal likely to have?

It is impossible to quantify the economic effects of the proposal which provides a framework for future action. Only when that action is taken can a numerical estimate be made. However, the framework has been prepared with the economic effects on industry of environmental protection very much in mind. For example, the definition of Best Available Techniques refers to the benefits and costs which may result from action or lack of action. Techniques must be technically and economically feasible in the relevant industrial sector.

One of the aims of the proposed Directive is to make pollution control more efficient for industry, as well as effective for the environment. The explanatory memorandum points to the difficulties that may occur for the industrialist if ever more stringent and detailed controls are placed on installations on a sectoral basis. The requirements of the various public authorities need to be coordinated if they are not to clash. Integrated pollution prevention and control, by bringing environmental considerations together, leads away from an approach based on 'end-of-pipe' technology, to one where the environment is given greater priority in the designing of installations. An integrated approach, according to the OECD, is often significantly less expensive than the introduction of separate technologies for sequential releases to each medium. The explanatory memorandum also points to recent experience in France, demonstrating the quick pay back period of technological investment in the chemical industry. The Panorama of EC industry report of 1990 identified, among other things, savings in materials, savings in the removal of wastes (a particularly important consideration as the costs of waste disposal are likely to continue to rise in the foreseeable future), energy efficiency, improved product quality and enhanced corporate image as reasons for investing in the most modern technology.

The proposals within the Directive for the updating of emission limit values, to match developments in BAT, are also intended to strike a fair balance between the need to update environmental requirements in line with technical progress while at the same time giving industry greater confidence in the life-expectancy of the operating conditions of a permit, in order to encourage investment in integrated technology.

In addition to the effect on manufacturing industry, the effect on the environmental services industry should not be overlooked. This sector has been one of the fastest growing in the USA in recent years but in Europe the rate of growth has been more uncertain. The Panorama of EC industry report concluded that the environmental services industry is a burgeoning sector but that high standards must be set at EC level if the services sector is to compete with the USA and Japan. The Directive seeks to address three particular problems identified in the report: the need to improve the current imbalance in technological know-how within the EC (the Directive provides for a comprehensive exchange of information and the application of BAT for new installations throughout the Community); lags in investment that have accumulated in some regions (the Directive requires permits to be updated); and, by the nature of the Directive itself, a move away from end-of-pipe technology to a more efficient integrated approach.

5. Specific measures for SMEs

No lower standards are proposed in the Directive for installations on the grounds of their size, although it is recognized that what is a best available technique for a large installation may not be BAT for a small one. Different emission limit values may therefore be set by the Member States for smaller firms within the same sector. In addition, as was pointed out in paragraph 3 above, the setting of thresholds will exclude most small and medium-sized firms from the scope of this Directive.

6. Consultation

The following industrial organizations have been consulted during the preparation of the proposal:

Centre Européen de l'Enterprise Publique
Cerame-Unie
Comité de Liaison des Industries Cimentières
Comité Permanent des Industries du Verre
Confédération Européene de l'Industrie des Pates, Papiers et Cartons
Eurelectric
Eurofer
Eurometaux
European Advisory Council of the Asbestos International Association
European Chemical Industry Council
European Petroleum Industry Association
Fédération Europeene des Activites du Dechet
Orgalime
Union of Industrial and Employers' Confederations of Europe
EC Committee of the American Chamber of Commerce

In addition, a meeting was also held with the representatives of European Small and Medium enterprises.

Industry welcomes the concept of integrated pollution prevention and control. The definition of BAT has been of particular importance and industry welcomes the consideration that must be given within BAT to the impact of emissions on the environment and the cost/benefit considerations. It would prefer techniques to be 'proven,' but this could lead to disincentives to develop and apply new techniques. Industry broadly accepts the provisions dealing with the contents of the application and the Article specifying the minimum contents of a permit. It particularly welcomes the point specifying that where there is more than one competent authority, a lead authority must be identified and time limits for granting permits. Industry also welcomes the provisions dealing with the exchange of information, although in many sectors it would have preferred the immediate agreement of emission limit values at Community level.

FINANCIAL STATEMENT

SECTION 1: FINANCIAL IMPLICATIONS

1. Title of operation

Draft proposal for a Council Directive on integrated pollution prevention and control

2. Budget headings involved

B4-306: Awareness and subsidies (report publication (foreseen under Article 15(3)))

B4-304: Environment legislation (technical evaluations)

3. Legal basis

EEC Treaty Article 130s

Toward sustainability, COM(92) 23 final (Chapter 4 and table 6)

Resolution of the Council of the European Communities and the Representatives of the Governments of Member States of 1 February 1993 on a Community Programme of Policy and Action on Relation to the Environment and sustainable Development (OJ No C 138 of 17 May 1993)

4. Description of operation

4.1 Specific objectives of operation

To prevent polluting emissions from larger installations, wherever practicable, and where it is not, to minimize them, so that pollution problems are solved rather than transferred from one part of the environment to another.

To minimize the impact of the emissions that do take place on the environment as a whole.

To require emission limit values to be based on 'best available techniques' and environmental quality standards so that a high standard of environmental protection is achieved, while allowing adaptations to be made in the light of technical progress, and taking into account the costs and benefits of the techniques.

To make pollution controls more efficient for industry and effective for the environment.

To increase the ability to set environmental priorities within the Community.

To reform existing Community law relating to industrial emissions in order to increase its efficiency and effectiveness.

To make the licensing system transparent, so that it commands the confidence of the public and all other interested parties.

4.2 Duration

Ad hoc measure

4.3 Target population

Primarily industry with the greatest potential for pollution and the relevant public bodies in the Member States

5. Classification of expenditure or revenue

5.1 Non-compulsory

5.2 Non-Differentiated

5.3 No receipts

6. Type of expenditure or revenue

Technical evaluation to supply the necessary technical and scientific advice to the realization of the objectives of this action

7. Financial impact on appropriation for operations (part B of budget)

7.1 Method of calculating total cost of operation

Assessment of best available techniques for particular industrial sectors: approximately four studies a year. The studies will be carried out by consultants specializing in this field and selected after a call for tenders. Past experience suggests that the cost will be on average ECU 50 000 per contract, that is ECU 200 000 a year in constant money terms (budget heading B4-304). (This is not an additional cost but replaces work already being undertaken under the 'Air Framework Directive' (84/360/EEC)).

A report will be undertaken every three years, beginning in 1998 (this work will also replace reports that would have been required under Directive 84/360/EEC).

7.2 Indicative schedule of commitment and payment appropriations

Commitments and payments (ECU 1 000 in constant money terms)

	95	96	97	98	99	00	01
B4-304	0	200	200	200	200	200	200
B4-306	0	0	0	250	0	0	250

8 What anti-fraud measures are planned in the proposal for the operation

The contracts between the Commission and the parties involved include clauses on anti-fraud measures, controls, audits, where appropriate, and the contractor's obligations.

SECTION 2: ADMINISTRATIVE EXPENDITURE (Budget part A)

Titles A1 and A2: expenditure relative to persons working with the institution

Budget lines concerned:

A 250: meetings in general

A 2510: Expenditure on meetings of committees whose consultation is compulsory in the procedure for drafting Community legislation

1. Increase in personnel: no
2. Operation expenses generated by the action (in 1993 prices)

Budget line A 250:

- (a) Travel expenses for governmental representatives (industry pays its own expenses) in connection with meetings for the production of BAT notes foreseen in the proposal. Approximately 10 meetings would take place a year (starting in 1994), replacing similar meetings already held in the framework of Directive 84/360/EEC. As such, these travel expenses would not require any additional expenditure.

Cost: ECU 620/meeting X 12 persons X 10 meetings = ECU 74 400/year

- (b) Four meetings a year (see draft proposal point 15.2) with one expert from each Member State are planned starting in 1996

Cost: 4 X ECU 620/meeting X 12 persons = ECU 29 760/year

Budget line A 2510:

No meeting planned immediately, but may be one meeting every two years from the year 2000.

Cost: ECU 620/meeting X 12 persons = ECU 7 440 every 2 years

SECTION 3: ELEMENTS OF COST-EFFECTIVENESS ANALYSIS

1. Objectives and coherence with the financial programme

For specific objectives see attached proposal

This is an ad hoc measure. The proposal was designated as a priority action in the 5th Environmental Action Programme.

2. Justification of the action

The proposal will add little or no cost to the work of DG XI, but will replace existing work carried out under the framework of existing Directives. But by harmonizing existing legislation, an increased efficiency and effectiveness of the unit's work is to be expected.

3. Follow-up and evaluation of the operation

The setting of standards under the Directive is for the public authorities in the Member States but those standards will be communicated to the Commission every three years, where they will be compared. Further action, in the form of daughter Directives, is likely to be necessary where the standards set at Member State level are or become significantly different.

Proposal for a
COUNCIL DIRECTIVE
on integrated pollution prevention and control

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community, and in particular Article 130s thereof,

Having regard to the proposal from the Commission,

Having regard to the opinion of the European Parliament,

Having regard to the opinion of the Economic and Social Committee,

Whereas the objectives and principles of the Community's environment policy, as set out in Article 130r(1) and (2) of the Treaty, aim in particular at preventing, reducing and as far as possible eliminating pollution by giving priority to intervention at source and ensuring prudent management of raw material resources, in compliance with the "polluter pays" principle;

Whereas the Fifth Environmental Action Programme⁽¹⁾ accords priority to integrated pollution control as an important part of the move towards a more sustainable balance between human activity and socio-economic development and the resources and regenerative capacity of nature;

Whereas the implementation of an integrated approach to reduce pollution requires action at Community level in order to modify and to supplement existing Community legislation concerning the prevention and control of pollution from industrial plants;

Whereas Council Directive 84/360/EEC of 28 June 1984 on the combating of air pollution from industrial plants⁽²⁾, as amended by Directive 91/692/EEC⁽³⁾, introduced a general framework requiring authorization prior to any operation or substantial modification of industrial installations which may cause air pollution;

Whereas Council Directive 76/464/EEC of 4 May 1976 on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community⁽⁴⁾, as amended by the aforesaid Directive 91/692/EEC, introduced an authorization requirement for the discharge of those substances;

⁽¹⁾ OJ No L 138, 17.5.1993, p. 1.

⁽²⁾ OJ No L 188, 16.7.1984, p. 20.

⁽³⁾ OJ No L 377, 31.12.1991, p. 48.

⁽⁴⁾ OJ No L 129, 18.5.1976, p. 23.

Whereas, although Community legislation exists on the combating of air pollution and the prevention or minimization of the discharge of dangerous substances to water, there is a lack of comparable Community legislation aimed at preventing or minimizing emissions on land;

Whereas separate approaches to controlling emissions into the air, the water or the land alone may encourage the shifting of pollution across environmental media rather than protecting the environment as a whole;

Whereas the aim of an integrated approach to pollution control is to prevent emissions into air, water or land wherever practicable and, where it is not, to minimize them in order to achieve a high level of protection for the environment as a whole;

Whereas the principle of sustainable development is promoted by an integrated approach to pollution control;

Whereas this Directive establishes a general framework of principles for integrated pollution prevention and control; whereas harmonization is limited to that which is necessary to ensure the proper functioning of integrated pollution prevention and control in order to achieve a high level of protection for the environment as a whole, and whereas the approximation of the national provisions in question can only be achieved at Community level;

Whereas a system of prior integrated licensing should be established in order to address potential pollution problems before they occur;

Whereas most pollution within the Community is caused by existing plant; whereas such pollution would be alleviated by the introduction of more modern technology and whereas the provisions taken pursuant to this Directive are to be applied within a fixed period to existing installations;

Whereas, in order to tackle pollution problems more effectively and efficiently, environmental considerations should be taken into consideration by the operator in designing an installation; whereas those considerations should be communicated to the competent authority in order to allow it to verify, before granting a permit, that all the appropriate preventive measures have been considered; whereas very different application procedures may give rise to different levels of environmental protection and public awareness; whereas, therefore, applications for permits under the Directive should include minimum descriptions;

Whereas a single competent authority, or where it does not exist, proper coordination among the competent authorities will help achieve the highest practicable level of protection for the environment as a whole, and be more efficient for industry;

Whereas the competent authority should grant or amend a permit only when integrated environmental protection considerations of air, water and land have been taken into account;

Whereas the permit should include all necessary measures to achieve a high level of protection for the environment as a whole;

Whereas emission limit values have to be set for specific substances taking account of best available techniques, wherever they are used or developed in the world; whereas, however, this does not mean that specific techniques or other technology must be used, thereby allowing industrial operators to choose how to meet emission limits, and without hindering trade in pollution-abatement equipment;

Whereas environmental quality considerations need to be taken into account in addition to best available techniques in order properly to reflect local as well as international conditions;

Whereas, because best available techniques will change with time, particularly in the light of technical advances, the competent authority must follow or be informed of such developments, in order to maintain a high level of protection of the environment as a whole;

Whereas substantial changes to an installation may cause pollution and it is therefore necessary to submit all substantial changes to a prior authorization procedure by the competent authority;

Whereas the conditions of the permit must be regularly updated so that emission limit values achievable by developments in best available techniques are met where appropriate;

Whereas common minimum provisions concerning compliance with the permit conditions will lead to greater confidence in the effectiveness of the implementation of the Directive throughout the Community;

Whereas in order to inform the public about the operation of installations and the potential effect on the environment and to ensure the transparency of the licensing process throughout the Community, information relating to the application for a permit, the permit itself and associated monitoring data should be available to the public;

Whereas the development and exchange of information at Community level about best available techniques will help to address the imbalance of technological awareness in the Community; help the worldwide dissemination of limit values set and techniques used within the Community, and support the Member States in the efficient implementation of the Directive;

Whereas the Directive is concerned with those installations and substances whose potential for pollution, and therefore transfrontier pollution, is large, and whereas transboundary consultation must take place where proposals for or substantial changes to the operation of such installations are likely to have significant environmental effects;

Whereas an advisory committee should be set up to assist the Commission to revise Annexes I and III, in the light of environmental needs;

Whereas Member States may take further protection measures other than those prescribed in this Directive, for example in particularly polluted areas, in areas in need of special protection, in conformity with the rules of the Treaty;

Whereas integrated pollution prevention and control may be supplemented by the use of economic instruments;

Whereas the requirements of this Directive shall apply without prejudice to Community requirements concerning the working environment as regards the health and safety of workers,

HAS ADOPTED THIS DIRECTIVE:

Article 1

Purpose and scope

The purpose of this Directive is to provide for measures and procedures to prevent, wherever practicable, or to minimize emissions from industrial installations within the Community, so as to achieve a high level of protection for the environment as a whole.

Article 2

Definitions

For the purposes of this Directive:

1. (a) 'substance' means any chemical element and its compounds, as they occur in the natural state or as produced by industry, whether in solid or liquid form or in the form of a gas or vapour;
- (b) 'preparation' means mixtures or solutions composed of two or more substances, but excluding final products, radioactive substances and preparations, and genetically modified organisms.
2. 'Pollution' means the introduction by human activity, directly or indirectly, of substances, preparations, heat or noise into the environmental media of air, water or land which may contribute to or cause: hazards to human health, harm to living resources or ecosystems or material property or the impairment of or interference with amenities and other legitimate uses of the environment.
3. 'Installation' means a technical unit where one or more activities and processes listed in Annex I and any other directly associated activity are carried out.
4. 'Emission' means:
 - (a) a release of a substance, preparation, heat or noise to air or water (an emission to sewer being considered an emission to water); and
 - (b) the deposit, storage or disposal of substances or preparations in or on land which may contribute to or cause pollution.
5. 'Emission limit values' means the mass of substances and preparations or the quantity of heat or noise expressed in terms of certain specific parameters, and/or the concentration of substances, which is not to be exceeded under normal operating conditions in emissions from an installation to environmental media during one or more periods of time. The emission limit values shall normally apply at the point where the emissions leave the installation.

6. 'Environmental quality standard' means the set of requirements which must be fulfilled at a given time by a given environment or particular part thereof, as set out in Community legislation.
7. 'Competent authority' means the authority or authorities having statutory environmental responsibilities for emissions from the operation of an installation.
8. 'Permit' means that part of a written decision (or decisions) granting authorization to operate all or part of an installation, and at least those activities and processes listed in Annex I, subject to certain conditions laid down for the protection of the environment and human health. A permit may include one or more processes or activities on the same site.
9. 'Substantial change' means an increase of 5% or more in the total amount, specific rate or concentration of emissions of any of those substances and preparations listed in Annex III, as compared to those allowed under a permit, or any emission of any of the substances or preparations listed in Annex III which is not included in the conditions of the permit.
10. The term "Best Available Techniques"(BAT) signifies the latest stage in the development of activities, processes and their methods of operation which indicate the practical suitability of particular techniques as the basis of emission limit values for preventing or, where that is not practicable, minimizing emissions to the environment as a whole, without predetermining any specific technology or other techniques.

"Techniques" include both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned. The techniques must be industrially feasible, in the relevant sector, from a technical and economic point of view.

"Available" techniques means those developed on a scale which allows implementation in the relevant industrial context, under economically viable conditions, 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.

"Best" means most effective in achieving a high level of protection for the environment as a whole, taking into account the potential benefits and costs which may result from action or lack of action.

In selecting the best available techniques special consideration shall be given to the items listed in Annex IV.

11. 'Operator' means any natural or legal person who operates the installation, and also the person who holds decisive economic power over it, or to whom such power has been delegated.
12. 'Existing installation' means an installation in operation before 1 July 1995 or built or permitted under existing legislation before that date; 'new installation' means an installation permitted and built after that date.

Article 3

Permits - general

Member States shall take the necessary measures to ensure that no installation shall be operated without a permit issued in accordance with this Directive. For new installations the need to meet the requirements prescribed for the permit must be taken into account by the operator at the installation's design stage.

Article 4

Permits for existing installations

Member States shall ensure that no existing installation shall be operated later than 30 June 2005, without a permit issued in accordance with this Directive, unless this is otherwise stated in specific Community legislation. Where environmental quality standards or, where they do not exist, relevant guidelines already recommended by the World Health Organization are being breached, existing installations shall be given priority in undergoing this licensing procedure.

Article 5

Applications for permits

1. Member States shall ensure that an application to a competent authority for a permit includes at least a description of:
 - the installation;
 - the raw and auxiliary materials, substances, preparations and energy used in or generated by the installation;
 - the sources of emissions from the installation;
 - the details of foreseeable emissions from the installation into each environmental medium and a description of the effects of the emissions on the environment, including the likelihood of an emission affecting an environmental medium other than that into which it is released;
 - the detailed technology and other techniques proposed in order to prevent, wherever practicable, or minimize emissions from the installation, and evidence that the way in which it will be operated meets at least the emission limit values required under Articles 8 and 9, as appropriate, so as to ensure that a high level of protection of the environment as a whole and for human health is achieved, without affecting the need to protect the safety and security of the workforce;
 - the proposed measures for the carrying-out of any appropriate recovery and recycling of materials, substances and preparations generated or used in the installation;
 - the proposed measures to prevent or minimize the risk of major accidents;

- the proposed measures for monitoring emissions into the environment;
 - the options that have been considered and rejected for operating the installation in order to prevent, wherever practicable, or minimize emissions into the environment including an indication as to why those options have been rejected;
 - the measures proposed to be taken upon the permanent cessation of the operation of the installation, in order to ensure that no harm to the environment may occur.
2. Where information supplied in accordance with the requirements of Council Directive 85/337/EEC⁽⁵⁾ or a safety report under Directive 82/501/EEC⁽⁶⁾, or other information produced in response to other legislation fulfils any of the requirements of this Article, that information may be included in or annexed to the application.

Article 6

Coordination of licensing procedure

In order to facilitate an integrated approach, Member States shall appoint, where there is no single competent authority, a supreme competent authority to coordinate the licensing procedure. Member States may identify different supreme competent authorities for different categories of installations.

Article 7

Decisions

1. The competent authority, as referred to in Article 6, shall, in writing, grant or amend a permit containing specific conditions relating to the installation, or refuse the permit on pollution grounds.
2. The written decision to grant, amend or refuse a permit shall be taken within six months of the application being made to the satisfaction of the competent authority. Member States may allow longer periods in particularly complex applications, or where transboundary considerations are necessary, or where the public is consulted or where the operator agrees to a longer period.
3. Any permit granted or amended must describe how the integrated environmental protection considerations of air, water and land have been taken into account. Where the conditions of the permit are established in accordance with Article 9(2) or 9(3) the permit shall in all cases indicate the reason for so doing.

⁽⁵⁾ OJ No L 175, 5.7.1985, p. 40.

⁽⁶⁾ OJ No L 230, 5.8.1982, p. 1.

Article 8

Conditions of the permit

1. Member States shall ensure that the permit shall include all necessary measures to achieve a high level of protection for the environment as a whole.
2. The conditions of the permit shall normally include at least emission limit values for the substances and preparations listed in Annex III likely to be emitted from the installation, other than those which are emitted only in trace amounts and which cannot cause pollution. In certain cases, the emission limit values may be supplemented or replaced by other equivalent parameters. The emission limit values and equivalent parameters shall, subject to Article 9, be based on the best available techniques and shall at least meet those which have been set at Community level, without the obligation to use specific techniques or technologies. In all cases the competent authority shall take into account information on the best available techniques and associated data which have been made available by the Commission under Article 15.
3. The permit shall contain suitable monitoring requirements, specifying the measurement methodology, frequency and evaluation procedure and an obligation to supply the competent authority with data required for checking compliance with the permit. The permit shall also require that tests on emissions carried out by the operator or by third parties be certified by an independent test laboratory which conforms to EN standard 45001.
4. The permit shall contain conditions to the effect that, when the installation has permanently ceased operation, all measures shall be taken in order to ensure that no harm to the environment occurs.
5. The permit shall contain conditions concerning the failure/breakdown of pollution control equipment, and emission limit values for other than normal operating conditions, such as running in, start-up and shut-down but shall not contain provisions interfering with the need to protect the safety and security of the workforce.
6. The permit may contain such other specific conditions for the purposes of this Directive as the Member State or competent authority may think fit.

Article 9

BAT and environmental quality standards

1. Member States shall take the necessary measures to ensure that emission limit values are set with the aim of ensuring that environmental quality standards are not breached.
2. Where any such standard requires stricter conditions than those achievable by the use of the best available techniques, additional measures shall be required in the permit.

3. If environmental quality standards or, where they do not exist, relevant guidelines already recommended by the World Health Organization, are being met by lower emission requirements than those achievable by the use of best available techniques, the competent authority may allow more emissions than would have resulted from the application of the best available techniques on condition that:
 - (a) only a negligible increase in pollution is likely to result, and
 - (b) no contribution to transboundary and/or global pollution is likely to occur.
4. Where no environmental quality standard or relevant World Health Organization guideline has been set for a particular substance, emission limit values shall be based on the best available techniques.

Article 10

Developments in BAT

Member States shall ensure that the competent authority follows or is informed of developments in best available techniques for preventing, wherever practicable, or minimizing emissions into the environment as a whole emanating from those installations for which it has responsibility under this Directive.

Article 11

Changes by operators to installations

Member States shall ensure that the competent authority requires an application for any substantial change envisaged by the operator; it shall deal with those aspects of Article 5 which would be affected by the change. The substantial change may be effected only after the competent authority has, pursuant to Article 7, given its approval and, if necessary, amended the conditions of the permit. When amending the permit as a result of a substantial change the competent authority shall ensure that the relevant provisions of Articles 8 and 9 are met.

Article 12

Reconsideration and updating of conditions of permits by the competent authority

1. Member States shall ensure that the competent authorities, acting in accordance with Article 7, update the conditions of the permit so that emission limit values achievable through developments in best available techniques are achieved, subject where appropriate to Article 9. When updating the permit, the competent authority must take into account information on best available techniques and environmental quality standards made available by the Commission under Article 15.
2. A reconsideration of the permit shall be made at the latest after ten years from the start-up of the operation with a view to updating the permit, and at least once every ten years thereafter. Where a permit is updated for one of the reasons set out under paragraph 3, the ten-year periods of ten years shall apply from the date of the updating of the permit.

3. A permit may be updated before the time specified in paragraph 2 if:
- the pollution caused, or likely to be caused, by the emissions is of such significance that new or modified emission limit values need to be included in the permit; or new techniques make it possible to significantly reduce emissions having a negative impact on the environment without imposing excessive costs on the operator; or
 - the operational safety of the process or activity requires other techniques to be used; or
 - the application on which the permit was based contained erroneous information; or
 - the operator requests an updating, as long as to do so would not impair the protection of the environment as a whole.

Changes to the monitoring conditions of a permit may, however, be made at any time.

4. Where an operator does not wish to update his installation to meet any new requirements established under paragraphs 1 to 3 above, he shall be allowed to continue to operate under his existing permit for up to two years beyond the date allowed for by the competent authority in its notification of change of conditions, after which time the installation must cease operation. Any application to resume operation must be treated as an application to operate a new installation.
5. The timing of the updating of a permit under paragraph 2 and the period within which the operator must comply with an updated permit, as provided for in paragraph 4, are subject to the provisions of specific Community legislation.

Article 13

Compliance with the permit

Member States shall take the necessary measures to ensure that:

- the operator informs the competent authority without delay of any identified breaches of the emission limit values set in the permit;
- the conditions of a permit are complied with by the operator when operating the installation; and
- operators of installations afford the representatives of the competent authority all necessary assistance to enable them to carry out any inspections concerning the installation, to take samples and to gather any information necessary for the performance of their duties, for the purposes of this Directive.

Article 14

Access to information

Without prejudice to the right of any person under Council Directive 90/313/EEC⁽⁷⁾ to request from public authorities information relating to installations.

1. Member States shall take the necessary measures to ensure that applications for permits and for substantial changes are available for an appropriate period of time to the public which will have the right to comment on them before the competent authority reaches its decision. That decision, including a copy of the permit, and any subsequent revisions to it, shall also be available to the public.
2. The results of any monitoring required under the conditions of the permit as set out in Article 8 and held by the competent authority shall also be available to the public.
3. The provisions of paragraphs 1 and 2 shall apply subject to the restrictions provided by Article 3(2) and (3) of Directive 90/313/EEC, although restrictions on public access to the information gathered during monitoring may be applied only in exceptional circumstances.

Article 15

Exchange of information

1. Member States shall take the necessary measures to inform the Commission by 1 July 1998 of the emission limit values and the best available techniques from which those values are derived which their competent authorities have required for specific categories of installations, and of non-regulatory measures taken to promote the use of best available techniques, and every three years thereafter of additions or changes to them. The Commission shall exchange information every three years with the Member States. Member States shall also inform the Commission regularly (by 1 July 1998, 2001 and 2004) of progress made in planning for and bringing existing installations within the provisions of this Directive.
2. The Commission shall organize an exchange of information between competent national authorities and the industries concerned on best available techniques, associated monitoring, and developments in them and on environmental quality standards. The results of this work shall be available to the public.
3. Reports on the implementation of this Directive shall be established according to the procedure laid down in Article 5 of Council Directive 91/692/EEC. The first report shall cover the period 1996 to 1998.
4. Member States shall establish or designate and communicate to the Commission the authority or authorities which are to be responsible for the exchange of information under the provisions of paragraphs 1, 2 and 3.

⁽⁷⁾ OJ No L 158, 23.6.1990, p. 56.

Article 16

Transboundary effects

In the case of new installations or substantial changes to installations which are likely to have significant effects on the environment of another Member State, the Member States shall take all steps necessary to ensure that Article 7 of Directive 85/337/EEC applies to any application for a permit or for a substantial change.

Article 17

Advisory Committee

1. The Commission may revise Annexes I and III in the light of environmental needs.
2. The Commission shall be assisted by a committee of an advisory nature composed of the representatives of Member States and chaired by a representative of the Commission.

The representative of the Commission shall submit to the committee a draft of the measures to be taken. The committee shall deliver its opinion on the draft of the measures to be taken within a time limit which the chairman may lay down according to the urgency of the matter, if necessary by taking a vote.

The opinion shall be recorded in the minutes; in addition, each Member State shall have the right to ask to have its position recorded in the minutes.

The Commission shall take the utmost account of the opinion delivered by the committee. It shall inform the committee of the manner in which its opinion has been taken into account.

Article 18

This Directive shall not prevent any Member State from maintaining or introducing more stringent protective measures compatible with the Community legislation. Those measures shall be notified to the Commission.

Article 19

Transitional provisions

1. Once an installation previously authorized under Directive 84/360/EEC has received or been refused a permit under this Directive, the provisions of Directive 84/360 /EEC shall no longer apply to that installation.
2. Once an installation listed in Annex I previously authorized under Directive 76/464/EEC has received or been refused a permit under this Directive, the provisions under Articles 3, 5, 6 and 7(2) of that Directive shall no longer apply to that installation.

3. Once an installation previously authorized under one of the Directives listed in Annex II, has received or been refused a permit under this Directive, the provisions of the relevant previous Directive shall, as far as indicated in Annex II, no longer apply to that installation.
4. Directive 84/360/EEC shall be repealed with effect from 1 July 2005 or, at the latest, when all existing plants will have been granted or refused a permit in compliance with this Directive. The provisions of the Directives mentioned in Annex II shall be repealed or modified according to the same terms.

Article 20

Coming into force

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive no later than 30 June 1995. They shall forthwith inform the Commission thereof.

When Member States adopt these provisions, these shall contain a reference to this Directive or shall be accompanied by such reference at the time of their official publication. The procedure for such reference shall be adopted by Member States.

2. Member States shall communicate to the Commission the texts of the provisions of national law which they adopt in the field covered by this Directive.

Article 21

This Directive is addressed to the Member States.

Done at Brussels,

For the Council
The President

into force d.

ANNEX I

Categories of activities and processes

1. Energy Industry

- 1.1 Combustion installations with a nominal heat input exceeding 50MW, except for 'existing plant', as defined in Directive 88/609/EEC on the limitation of emissions of certain pollutants into the air from large combustion plants.
- 1.2 Oil refineries (excluding undertakings manufacturing only lubricants from crude oil and those aspects of refineries included under 1.1 above).
- 1.3 Coke ovens
- 1.4 Coal gasification and liquefaction plants of 500 tonnes or more input per day.

2. Production and Processing of Metals

- 2.1 Roasting and sintering installations with a capacity of more than 1 000 tonnes of metal ore a year.
- 2.2 Integrated installations for the production of pig iron and crude steel and steelworks operating electric arc furnaces.
- 2.3 Installations for casting, rolling or finishing of steel.
- 2.4 Ferrous metal foundries having melting installations with a total capacity of over 5 tonnes.
- 2.5 Installations for the production, melting, recovery or processing of non-ferrous metals having installations with a total capacity of over 1 tonne for heavy metals or 0.5 tonnes for light metals.

Manufacture of non-metallic mineral products

- 3.1 Installations for the production of cement and rotary kiln lime production whose production capacity exceeds 5 tonnes a day.
- 3.2 Installations for the production and processing of asbestos and manufacture of asbestos-based products.
- 3.3 Installations for the manufacture of glass fibre or mineral fibre.
- 3.4 Installations for the production of glass (ordinary and special) with a capacity of more than 5 000 tonnes output a year.
- 3.5 Installations for the manufacture of coarse ceramics notably refractory bricks, stoneware pipes, facing and floor bricks and roof tiles with a capacity of more than 5 000 tonnes output a year.

4. Chemical Industry

- 4.1 Chemical installations for the production of hydrocarbons, olefins, derivatives of olefins, monomers, nitriles, elastomers and polymers whose production capacity exceeds 1 tonne a day.
- 4.2 Chemical plants for the manufacture of other organic intermediate products, in particular organo-chlorines, phenolics and chlorinated phenolics, chloroamino- and chloronitro-aromatics and colour intermediates, organophosphorous compounds and organo-metallic compounds.
- 4.3 Plants for the manufacture of basic inorganic chemicals.
- 4.4 Plants for the manufacture of chemical fertilizers.
- 4.5 Plants for the manufacture of chemical pesticides.
- 4.6 Plants for the manufacture of pharmaceuticals.

'Manufacture' in this section, does not include formulation.

5. Waste Management

Without prejudice to Article 11 of Directive 91/156/EEC and Article 3 of Directive 91/689/EEC:

- 5.1 Installations for the treatment by incineration of solid and liquid waste which is not hazardous.
- 5.2 Processes and activities for the chemical, biological or thermal treatment, or blending, of chemical waste except where the waste does not contain any substance or preparation listed in Annex III.
- 5.3 Processes and activities for the reclamation by distillation or recycling of any oil, organic solvent, heavy metal or compound, acids or bases, except where fitted as pollution-abatement control and whose input exceeds 1 tonne per hour.
- 5.4 Installations for the production of fuel from waste involving the use of heat.

6. Other Industries

- 6.1 Plants for the manufacture of pulp (including integrated pulp, paper and board mills) with a production capacity of 10 000 tonnes or more a year and plants for the manufacture of paper and board with a production capacity of 25 000 tonnes or more a year.
- 6.2 Plants for the dyeing, treatment or finishing of fibres or textiles emitting or likely to emit substances or preparations listed in the appropriate section of Annex III, where the treatment capacity exceeds one thousand five hundred tonnes a year of fibre, yarn or textile material.

- 6.3 Installations for the production and tanning of leather emitting or likely to emit substances or preparations listed in the appropriate section of Annex III and which may substantially contribute to or cause pollution.
- 6.4 Installations for the canning or processing of food employing more than 50 persons.
- 6.5 Installations for the disposal of animal carcasses with an input of more than 10 000 tonnes a year.
- 6.6 Intensive livestock production located in vulnerable areas designated by the Member States under the terms of Directive 91/676/EEC of more than 100 livestock units (UGB) and producing more than 170 kgs of nitrogen per hectare of spreading surface available.
- 6.7 Installations not otherwise mentioned above with a total consumption of organic solvent of more than 200 kilogrammes an hour.

ANNEX II

Any of the following categories of activities and processes will be subject to at least the existing EC emission limits and quality standards, as specified under in the following legislation, but shall no longer be subject, once they have received a permit in accordance with this Directive, to the relevant Articles specified below, which shall be repealed or modified as indicated in Article 19 of this Directive:

1. **Directive 87/217/EEC on the prevention and reduction of environmental pollution by asbestos plants for the production of raw asbestos ore and/or the manufacture or industrial finishing of certain products, as defined in Directive 87/217/EEC, handling a quantity of more than 100 kg of raw asbestos a year.**

Article 3 to repeal.

2. **Directive 82/176/EEC on limit values and quality objectives for mercury discharges by the chlor-alkali electrolysis industry plant in which alkali chlorides are electrolysed by means of mercury cells.**

Articles 2(e) and (f), 3(2) and (3) and 4 to repeal.

Annex II, delete from "For" (line 1) to "and" (line 6) and insert "The competent authority".

3. **Directive 83/513/EEC on limit values and quality objectives for cadmium discharges zinc mining, lead and zinc refining, cadmium metal and non-ferrous metal industry; manufacture of cadmium compounds; manufacture of pigments; manufacture of stabilizers; manufacture of primary and secondary batteries; electroplating.**

Articles 2(f) and (g), 3(2) (3) and (4), and 4 to repeal.

Annex I, footnote 1, delete "best technical means available," insert "best available techniques as defined in Directive ----[IPC]".

Annex II, delete from "For" (line 1) to "and" (line 6) and insert "The competent authority".

4. **Directive 84/156/EEC on limit values and quality objectives for mercury discharges by sectors other than the chlor-alkali electrolysis industry chemical industries using mercury catalysts in the production of vinyl chloride or other processes; manufacture of mercury catalysts used in the production of vinyl chloride; manufacture of organic and non-organic mercury compounds; manufacture of primary batteries containing mercury; mercury recovery plants; extraction and refining of non-ferrous metals; plants for the treatment of toxic wastes containing mercury.**

Articles 2(f) and (g), 3(2), (3) and (4), and 5 to repeal.

Annex I, footnote 1, delete "best technical means available" and insert "best available techniques as defined in Directive ----[IPC]".

Annex II, delete from "For" (line 1) to "and" (line 6) and insert "The competent authority".

5. **Directive 84/491/EEC on limit values and quality objectives for discharges of hexachlorocyclohexane plant for the production of HCH and/or plant for the extraction of lindane.**

Articles 2(h) and (i), 3(2), (3) and (4), and 4 to repeal.

Annex I, footnote 1, delete "best technical means available" and insert "best available techniques as defined in Directive ----[IPC]".

Annex II, delete from "For" (line 1) to "and" (line 5) and insert "The competent authority".

6. **Directive 86/280/EEC on limit values and quality objectives for discharges of certain dangerous substances included in List I of the Annex to Directive 76/464, subsequently amended by Directive 88/347/EEC and 90/415/EEC amending Annex II to Directive 86/280/EEC plant for the production, processing or use of a number of organic chemicals listed in these Directives.**

Articles 2(f) and (g), 3(2), (3) and (4) and 4 to repeal.

Annex I, Heading A, footnote 3, delete "best technical means available" and insert "best available techniques as defined in Directive ----[IPC]".

Annex I, Heading B, Annex II, delete from "For" (line 1) to "and" (line 5) and insert "The competent authority".

7. **Directives 89/369/EEC on the prevention of air pollution from new municipal waste incineration plants** new municipal waste incineration plant.

Article 1(5), to repeal.

Article 2, delete from "Without" to "EEC" in line 1 and delete "84/360" and insert reference to this Directive.

Article 3(4), delete "not entailing excessive costs." Article 9 delete from "The" to "and" (line 1), Article 10, 2nd indent.

Article 11 to repeal.

8. **Directive 89/429/EEC on the reduction of air pollution from existing municipal waste incineration plants** existing municipal waste incineration plants

Article 1(5) to repeal.

Article 2, delete from "In" to "EEC" (line 1), Article 2 delete "as soon as possible" (last line) and insert "within the time prescribed in Article 4 of Directive ---[IPC]".

Article 3(3), delete "not entailing excessive costs".

ANNEX III

List of most important polluting substances and preparations

Air

1. Sulphur dioxide and other sulphur compounds
2. Oxides of nitrogen and other nitrogen compounds
3. Carbon monoxide and dioxide
4. Volatile organic compounds
5. Heavy metals and their compounds
6. Dust, asbestos (suspended particulates and fibres), glass and mineral fibres
7. Chlorine and its compounds
8. Fluorine and its compounds
9. Arsenic and its compounds
10. Ammonia
11. Hydrogen cyanide and fluoride
12. Nitric Acid
13. Substances and preparations in respect of which it has been proved that they possess carcinogenic properties via the air.

Water

1. Organohalogen compounds and substances which may form such compounds in the aquatic environment
2. Organophosphorus compounds
3. Organotin compounds
4. Substances and preparations in respect of which it has been proved that they possess carcinogenic properties in or via the aquatic environment
5. Mercury and its compounds
6. Cadmium and its compounds
7. Persistent mineral oils and hydrocarbons of petroleum origin
8. Persistent synthetic substances which may float, remain in suspension or sink and which may interfere with any use of the waters
9. Zinc, Copper, Nickel, Chromium, Lead, Selenium, Arsenic, Antimony, Molybdenum, Titanium, Tin, Barium, Beryllium, Boron, Uranium, Vanadium, Cobalt, Thallium, Tellurium, Silver
10. Nutrients: e.g. nitrates, phosphates.

Land

Wastes identified as hazardous, as laid down by Article 1 of Council Directive 91/689/EEC.

ANNEX IV

Considerations to be taken into account in selecting best available techniques, as defined in Article 2(10):

- the use of low waste technology;
- the furthering of recovery and recycling of substances generated and used in the process, where appropriate;
- comparable processes, facilities or methods of operation which have recently been successfully tried out;
- technological advances and changes in scientific knowledge and understanding;
- the nature and volume of the emissions concerned;
- time limits for installation of the techniques
- the consumption of raw materials (including water) and energy used in the process and their nature; and
- the need to prevent or minimize the overall impact of the emissions on the environment.

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