Proposal for a

DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL


(presented by the Commission)
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EXPLANATORY MEMORANDUM

1. **INTRODUCTION**

Council Directive 96/82/EC of 9 December 1996 on the control of major-accident hazards involving dangerous substances\(^1\) (so-called Seveso II Directive) aims at the prevention of major accidents which involve dangerous substances, and the limitation of their consequences for man and the environment, with a view to ensuring high levels of protection throughout the Community in a consistent and effective manner.

The principal novelty of the new Directive that has to be applied in the Member States from 3 February 1999 consists of the introduction of an obligation for industrial operators to put into effect *Safety Management Systems* including a detailed risk assessment using possible accident scenarios. Such a risk assessment plays a key role in preventing major accidents. Moreover, the obligation to provide information to the public on industrial risks and on the behaviour to adopt in the case of an accident is of paramount importance for the limitation of the consequences of major accidents.

In the light of recent industrial accidents in Baia Mare/Romania and Enschede/Netherlands, and following studies on carcinogens and substances dangerous for the environment carried out by the Commission on request of the Council, the scope of the Directive needs to be broadened in order to achieve the goals of the Directive.

The Commission has also given consideration as to whether the explosion of the chemical site of AZF that occurred in Toulouse on 21 September 2001 necessitates immediate amendments of the Seveso II Directive. However, the site was fully covered by the obligations of the Directive (contrary to the sites in Baia Mare and Enschede). Moreover, significantly delaying the coverage of establishments that should be brought under the scope of Seveso II as soon as possible from an environmental protection and safety point of view seems inappropriate.

However, one important aspect that aggravated the consequences of the accident in Toulouse as well as the one in Enschede is the proximity of the establishments to inhabited areas. The new Article 12 on land-use planning in the Seveso II Directive aims - in the long term - at the separation of hazardous industrial establishments and inhabited areas or other locations frequented by the public. Although the inclusion of such a provision in Community legislation for the very first time represents a major step forward, the Commission and Member States have still to gain experience with its application. In order to assist Member States with the application, a guidance document on land-use planning has been published in 1999 and the planning for European Seminar on land-use planning, to be hosted by France,

was already underway before the accident in Toulouse happened. In the near future, the Commission will increase co-operation with the Member States in order to develop an appropriate legislative and/or non-legislative follow-up to the accidents in the areas of land-use planning, harmonisation of generic risk assessment methods, risk mapping and information to the public. In the light of the results of the work carried out and the conclusions of several investigations underway on the explosion at the AZF site, the Commission will examine the necessity to amend its proposal or to propose a new modification to the Directive in order to take account of the accident that occurred in Toulouse.

2. **CONSULTATION WITH INTERESTED PARTIES**

Since the Seveso II Directive was adopted by Council in December 1996, there has been a continual process of consultation with interested parties, concerning both the implementation of the Directive and possible improvements and amendments. This consultation has involved several international conferences and seminars, regular meetings with the Committee of Competent Authorities established under the Seveso II Directive, and the establishment and running of Technical Working Groups addressing various aspects of the Directive.

As concerns the present proposal, a first draft was published on the Internet by the Commission’s Environment Directorate General in April 2001\(^2\). This draft was also sent to Member States, EEA States, accession countries, environmental NGOs, European and national industrial federations and associations and some international organisations, with a request to distribute it further as appropriate.

Comments were invited by 25 May 2001, and a public consultation meeting was held on 31 May 2001 in Brussels. Following the consultation meeting, written comments received were also published on the Internet with the permission of their authors.

All comments received during the consultation process have been carefully evaluated. The relevant sections below describe the improvements which have been introduced as a result of suggestions received, and also present the Commission’s reasoning for not following some other suggestions.

3. **JUSTIFICATION OF THE PROPOSAL**

3.1. **Amendments relating to the Baia Mare accident**

The cyanide spill into the Tisza river following a damburst of a tailings pond in Baia Mare/Romania in January last year, and a similar accident in Aznalcóllar/Spain in 1998, where a damburst poisoned the environment of the Coto Doñana National Park, have raised questions as to the effectiveness

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of Community policies intended to prevent such disasters. They highlighted the need for a more focused environmental policy in this area.

The principal fields of application of the Seveso II Directive are chemical plants and storage facilities where dangerous substances are present in quantities above certain threshold levels. Article 4 (e) of the Directive excludes the activities of the extractive industries concerned with exploration for, and the exploitation of, minerals in mines and quarries or by means of boreholes from its scope. Moreover, Article 4 (f) excludes waste land-fill sites.

These exclusions go back to Council Directive 82/501/EEC of 24 June 1982 on the major-accident hazards of certain industrial activities3 (the original Seveso Directive) which excluded extraction or other mining operations as well as installations for the disposal of toxic and dangerous waste which are covered by Community Acts in so far as the purpose of those Acts is the prevention of major accidents.

When the Proposal for the Seveso II Directive4 was presented to Council and European Parliament, the Explanatory Memorandum justified maintaining the above exclusions by saying that "although these areas present a major accident potential, they do not fall easily within the framework of the proposal given special needs or special hazards."

On 23 October 2000, the Commission adopted a Communication on the “Safe operation of mining activities: a follow-up to recent mining accidents”5. The Communication describes steps that the Commission envisages taking as a follow-up to recent mining accidents, as already announced in its Communication of 3 May 2000 on “Promoting sustainable development in the EU non-energy extractive industry”6.

The Communication summarises the current situation concerning existing Community environmental legislation applicable to mining activities, and sets out three priority actions to improve the safety of mines that relate to industrial risk management, management of mining waste and integrated pollution prevention and control:

– an amendment of the Seveso II Directive to unequivocally include mineral processing of ores and, in particular, tailings ponds or dams used in connection with such mineral processing of ores. Industrial operators performing these activities will thus be obliged to put into effect Safety Management Systems, including a detailed risk assessment on the basis of possible accident scenarios. However, it is important to note that any mining activity would only be covered by the Directive if dangerous substances as defined in the Directive are involved and if they are present in quantities beyond the threshold levels set out in the Directive;

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3 OJ No L 230, 5.8.1982, p.1
5 COM (2000) 664 final
6 COM (2000) 265 final
– an initiative on the management of mining waste covering the environmental issues of the management of mining waste as well as the best practices, which could prevent environmental damage during the waste management;


The proposed amendment of the Seveso II Directive as well as the initiative on the management of mining waste are also included as action items in the Communication of the Commission on the Sixth Environment Action Programme of the European Community8. The Final Report of the Baia Mare Task Force (BMFT)9, an international task force created in the aftermath of the accident to determine what happened, why and what should be done to reduce the risks for the future, endorses the general approach proposed in the above Communication. In addition, the report of the European Parliament on this Communication10 explicitly welcomes the proposed extension of the scope of the Seveso II Directive to also cover risks arising from storage and processing activities in mining.

There is some margin for interpreting the scope of the Seveso II Directive as excluding the processing of minerals and/or tailings management facilities. These different interpretations are linked to the question of whether the whole activity (extraction, processing and deposition) is considered to represent one establishment or two (or more) separate establishments.

According to the definition contained in Article 3, N° 1 of the Directive, ‘establishment’ shall mean the whole area under the control of an operator where dangerous substances are present in one or more installations, including common or related infrastructures or activities.

If a tailings management facility is considered as an infrastructure or activity related to the mining and processing, the whole activity will represent one establishment. In this case, it could be argued that the exclusion contained in Article 4 (e) comprises all the activities of the extractive industries or, failing that, it could be argued that the term “exploitation” covers the extraction as well as the processing of minerals. In both cases, the whole establishment would be excluded from the scope of the Directive.

If a tailings management facility is not considered as a related infrastructure or activity to the extraction and processing (given that it can be miles away from these operations), the tailings management facility itself will represent a separate establishment. In this case, it could be argued that it represents a

8 COM (2001) 31 final
9 Report of the International Task Force for Assessing the Baia Mare Accident, December 2000
10 European Parliament, A5-0214/2001
waste land-fill site and is therefore excluded from the scope of the Seveso II Directive under Article 4 (f).

In order to resolve the ambiguities described above, the Commission proposes to amend Articles 4 (e) and (f) of the Seveso II Directive to ensure that processing and storage involving dangerous substances as well as tailings disposal facilities used in connection with these operations come under the Directive, whichever interpretation above is applied.

The general approach of the Seveso II Directive aims at controlling the hazards linked to the presence of dangerous substances, without regard to the particular industrial activities involved. This is inconsistent with a blanket exclusion for all mining activities. The Commission therefore proposes to limit the exclusion in Article 4 (e) to the exploitation of minerals in mines and quarries, with the exception of chemical and thermal processing operations and related storage involving dangerous substances. In conclusion, this will mean that operators who bring dangerous substances onto a mining or quarrying site in sufficient quantities will in the future come under the Directive. Together with the proposed limitation of the exclusion in Article 4 (f), this will also mean that tailings disposal facilities used in connection with the chemical and thermal processing of minerals will come under the Directive. The Commission is aware of the fact that its proposal might not cover tailings disposal facilities used in connection with mechanical processing operations, and that do not contain any other hazardous substances than those naturally present in the ground or subsoil, such as heavy metals. It proposes therefore to cover the safety aspects of such tailings disposal facilities through the initiative on the management of mining waste. Furthermore, the Seveso II Directive is not intended to be applied to the offshore industry, and the Commission proposes to maintain this situation.

During the consultation process, two principal suggestions were made:

– that mining activities already covered by the 11th and 12th individual Directives under Council Directive 89/391/EEC on workers’ health and safety should continue to be excluded from the scope of the Directive. However, the Seveso II Directive, in Article 2(2), establishes clearly the principle of complementarity between the Directive and Directive 89/391/EEC; moreover, the Seveso II requirements (e.g. safety management systems, land use planning, information for the public) go well beyond those of the 11th and 12th individual Directives.

– that the inclusion of mining activities should be limited to metal ore mining and processing. It is true that the two accidents mentioned above occurred in metal ore processing facilities; however, the Commission believes that step-by-step extension of the scope of safety legislation only after accidents have happened is contrary to the precautionary principle, and that a pro-active rather than a merely reactive approach is required. This position is supported by the European Parliament, which in its report on the above Communication welcomes the extension of the scope of the
Seveso II Directive to mining activities, and which rejected a proposal to limit this extension to metal ore processing.

3.2. Amendments relating to the Enschede accident

On 13 May 2000, a series of explosions at the company Fireworks S.E. that stored and assembled fireworks in the city of Enschede in the Netherlands caused the death of 22 persons and injury to almost 1,000 more. The incident inflicted extensive damage on a large area immediately surrounding the factory, including a residential area as well as the Grolsch brewery (containing a large ammonia refrigeration system). The Oosting Commission was charged by the Dutch Government with investigating this accident, and their report\textsuperscript{11} was published in February 2001.

While this report raises questions whether the operator was respecting the terms of his licence and whether enforcement procedures were being fully implemented, the severity of the accident clearly underlines the hazards associated with processing and storage of explosives and pyrotechnics.

Awareness of these hazards led to the inclusion, for the first time, of explosives and pyrotechnics in the Seveso II, in two categories, with thresholds of 10/50 and 50/200 tonnes. However, the risk phrases used in the Directive are not always appropriate, and may fail to reflect significant differences in risk potential of different explosives. In particular, the simple classification of pyrotechnics in one category appears inadequate. Moreover, the Directive leaves scope for interpretation as to the relationship between the gross weight of fireworks and the quantity of explosive material.

This led to a situation where S.E. Fireworks, despite holding an operating licence for a large amount of fireworks, could be judged not to come under the Seveso II Directive.

Following this accident and others involving fireworks, the Committee of the Competent Authorities (CCA) established under the Seveso II Directive organised a seminar in September 2000, to review these serious incidents. The seminar also aimed at increasing the understanding of how regulations in the EU Member States are structured to prevent such accidents, challenges presented in implementing such regulations, and opportunities for improvement. A report of the seminar was established by the Major Accident Hazards Bureau (MAHB) established within the Commission’s Joint Research Centre at Ispra/Italy\textsuperscript{12}.

The seminar showed that the coverage and structure of regulatory systems covering pyrotechnic substances varies widely among the Member States, the most significant differences existing in the areas of qualifying quantities and methods used for classification of explosives and pyrotechnics. In six


\textsuperscript{12} Seminar on Explosives and Pyrotechnic Substances, 27 September, 2000, Marseille/France, Report and Conclusions
Member States (Finland, France, Germany, Spain, Sweden and the United Kingdom), the coverage of pyrotechnic establishments under the national system goes well beyond that of the Seveso II Directive.

A further seminar was held at the MAHB’s premises in March. The seminar identified the classification of fireworks as a key issue. The national regulations of most Member States for the storage of explosives are based on the classification system operated under the United Nations European Agreement Concerning the International Carriage of Dangerous Goods by Road (UN/ADR). The Seveso II Directive distinguishes between explosives on the basis of risk phrases according to the EC legislation on the classification, labelling and packaging of dangerous substances; the risk phrases refer only to the explosive sensitivity of substances (ease of ignition). The UN/ADR system on the other hand distinguishes between explosives on the basis of the hazard they represent – which may range from a mass explosion hazard for those explosives in Hazard Division 1.1 to a fire hazard for those in Hazard Division 1.4. This distinction is of particular relevance to pyrotechnics, and it is not reflected in the present Directive which treats pyrotechnics as a single group.

The view of the Ispra seminar was that the introduction of the UN/ADR classification system into the Seveso II Directive would enable a significant improvement in the representation of the hazards of different types of explosives, particularly fireworks. It was also felt that although HD 1.4 (essentially consumer) fireworks represented a hazard, and should therefore come under the Directive, the hazard was substantially less than that of other fireworks and explosives, and should therefore be treated differently.

On the basis of these seminars, and taking account of the views of industry and the Member States expressed during the consultation process, the Commission proposes to revise the definitions used in Annex I Part 2 of the Directive to reflect the hazards of different types of explosives. Specifically, it proposes to amend the definitions for explosives in the Directive, making use of the UN/ADR classification scheme transposed into European law by Council Directive 94/55/EC, and restricting the higher thresholds to explosives with HD 1.4 classification, principally consumer fireworks.

The Commission had envisaged, following the recommendations of the Ispra seminar, proposing a three-way division of explosive substances, with the most hazardous explosives having significantly lower thresholds (5/20 tonnes). However, the public consultation process, including discussions with industry and study of the impact assessments prepared by the Member States, led the Commission to modify its proposal to the one presented here.

The Commission believes that – if establishments such as S.E. Fireworks come under the Seveso II Directive – the obligations relating to safety management systems, external emergency planning and land-use planning should contribute to limit the consequences of accidents such as the one that occurred, if not help to avoid them. On the other hand, it is also clear that legislation cannot achieve its protection goal when not complied with by
industrial operators and/or public authorities responsible for its implementation.

3.3. Amendments relating to studies on carcinogens and substances dangerous for the environment

The list of named substances in Annex I, Part 1 of the Seveso II Directive includes a list of ‘carcinogens’, to which is assigned a qualifying quantity of 1 kg. Moreover, a category entitled “dangerous for the environment” has been included in Annex I, Part 2 of the Directive, to regulate dangerous substances which have been viewed as presenting a ‘major-accident hazard’ to the aquatic environment. These are substances which are very toxic to aquatic organisms (risk phrase R50), or which are toxic to aquatic organisms (risk phrase R51) and can cause long term adverse effects on the aquatic environment (risk phrase R53).

During discussions on the Seveso II Directive in Council, questions were raised concerning the scientific and practical basis for the list of named carcinogens and the qualifying quantity assigned to them, and also concerning the qualifying quantities for substances dangerous for the environment. The Council, when adopting the Directive, therefore requested the Commission to carry out studies on these issues and to submit reports accompanied, if appropriate, by proposals for amending the Directive.

In response to these requests, the Commission, after consulting with the Committee of Competent Authorities (CCA) set up under the original Seveso Directive, established two Technical Working Groups (TWG 7 “substances dangerous for the environment” and TWG 8 “carcinogens”), each of which held four meetings at the MAHB. The Technical Working Groups delivered their Final Reports in April 2000\textsuperscript{13,14}. The reports propose extending the list of carcinogens with appropriate qualifying quantities, and significantly lowering the qualifying quantities assigned to substances dangerous for the environment.

3.3.1. Carcinogens

TWG 8 decided to pay particular attention to high-potency carcinogens, and to carcinogens where there was evidence suggesting the possibility of “one-shot” effects. The group also studied those medium-potency carcinogens which are produced in large volumes in the EU. On the basis of this methodology, TWG 8 proposed to add the following substances to the list of ‘carcinogens’ already contained in Annex I, Part 1 of the Seveso II Directive:

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Furthermore, TWG 8 proposed to increase the qualifying quantities for the whole group of ‘carcinogens’ from 1 kg to 0.5 tonnes for the application of Articles 6/7 and to 2 tonnes for the application of Article 9. This increase of the qualifying quantities seems to establish an appropriate relationship with the qualifying quantity for TCDD (1 kg), which represents a much greater potential for harm than all other carcinogens. In fact, the application of the principle of “equivalence of harm” would have lead to proposing qualifying quantities similar to those for “very toxic” substances, i.e. 5 and 20 tonnes. However, taking into account public concern associated with carcinogens and the “precautionary principle” in the absence of full scientific data, it was deemed appropriate to set the qualifying quantities one order of magnitude lower than those of “very toxic” substances.

The increase will have the beneficial effect of excluding some establishments (such as hospitals or research institutes) from the scope of the Directive that were not originally targeted by the inclusion of the list of carcinogens.

The Commission was initially minded to follow these recommendations, but as a result of public consultations and further scientific evidence, has decided:

– to withdraw acrylamide from the proposed list, considering the balance of the arguments concerning potency and one-shot carcinogenicity, and the fact that the neurological effects of acrylamide – already covered by its classification as toxic – would in practice represent the principal concern in the event of an accident

– to introduce a minimum concentration limit of 5% for all the carcinogens when in solution. In the absence of this limit, such solutions would be considered as equivalent to the pure substance down to a concentration limit of 0.1%, which would lead to an over-estimate of the true hazard concerned. The distortion thus introduced would be particularly serious in the case of hydrazine, which is widely used in water treatment plant, typically in 1% solution.
3.3.2. *Substances dangerous for the environment*

The analysis of past accidents involving substances dangerous for the environment and other scientific considerations led to the following main conclusions of TWG 7:

– Substances dangerous for the environment classified as R50, R50/53, and R51/53 have been involved in many accidents with severe environmental consequences. The report contains examples of past accidents and lessons learned from the analysis of them.

– Relatively small quantities of such substances have often caused severe environmental damage.

– Petroleum substances, although more frequently involved in accidents with environmental consequences than other substances dangerous for the environment, cause less damage for a given quantity.

TWG 7 also studied the consequences of different scenarios for qualifying quantities for substances dangerous for the environment, and their report contains estimates of the number of establishments coming under the Directive under different scenarios.

Furthermore, TWG 7 recognised the potential consequences of the ongoing process of classification of petroleum substances with respect to their effects on the aquatic environment. It concluded that the particular considerations associated with these substances, and the importance of certainty and consistency in the application of the Directive, justified separate treatment for petroleum substances, and that the best method to achieve this would be a modification of the existing named substance in Annex I, Part 1 “automotive petrol and other petroleum spirits”.

On the basis of these conclusions, TWG 7 proposed to

– lower the qualifying quantities for substances dangerous for the environment as defined in Annex I, Part 2, item 9(i) (risk phrase R50, which should also be defined to include R50/53) from 200 to 100 tonnes for the application of Articles 6/7 and from 500 to 200 tonnes for the application of Article 9;

– lower the qualifying quantities for substances dangerous for the environment as defined in Annex I, Part 2, item 9(ii) (risk phrase R51/53) from 500 to 200 tonnes for the application of Articles 6/7 and from 2,000 to 500 tonnes for the application of Article 9;

– amend the named substance “automotive petrol and other petroleum spirits” in Annex I, Part 1 in order to include medium oil distillates, while lowering the qualifying quantities from 5,000 to 2,000 tonnes for the application of Articles 6/7 and from 50,000 to 5,000 tonnes for the application of Article 9.
The proposed modifications to the qualifying quantities for substances dangerous for the environment would also serve to achieve consistency between the provisions of the Directive and those of the UN/ECE Convention on the Transboundary Effects of Industrial Accidents.

The Commission has decided to follow the recommendations of TWG 7, with three modifications introduced as a result of the consultation process:

– a change in the definition proposed for the amended named substance, to ensure that the term defines unambiguously and exactly what was intended, namely gasolines, naphthas, kerosenes, and gasoils;

– an increase in the lower-tier threshold for this named substance from 2,000 to 2,500 tonnes and in the upper-tier threshold from 5,000 to 25,000 tonnes to take account of concerns that the threshold proposed would have imposed undue burdens on industry and the competent authorities;

– separation under the summation rule of toxic and eco-toxic hazards, reflecting the fact that these hazards are dissimilar, and concern that grouping toxic and eco-toxic hazards together in the summation rule would lead to an unreasonable increase in the number of establishments covered, particularly in the light of the ongoing process of classification of substances.

The Commission believes that its proposal takes into account both scientific and pragmatic considerations, and represents an appropriate balance between additional environmental protection and administrative feasibility in the Member States.

3.4. Editorial amendments to Annex I

Annex I of the Seveso II Directive contains some slight inaccuracies or ambiguities. In the context of amending the Directive, it is therefore convenient to introduce some editorial amendments to Annex I that have a correcting or clarifying character. These amendments will not change the scope or application of the Directive.

3.4.1. New Note 6 in the Introduction

Annex I uses the term “gas” without defining it, which could lead to uncertainty in the case of substances with boiling points in the ambient temperature range. It is therefore proposed to insert a widely-used scientific definition in the introductory section of Annex I.

3.4.2. Note 1 to Part 2

Several points are addressed in this reformulation. References to repealed and replaced Directives are corrected; a possible source of confusion concerning thresholds is resolved; the scope of the list of substances to be drawn up by the Commission is defined more accurately, and the procedure for updating it is corrected.
3.4.3. Note 3 (b) 1., second indent to Part 2

The word “preparations” was left out in error when this phrase was taken over directly from the original Seveso Directive. Clearly the intention is to cover both substances and preparations.

3.4.4. Note 3 (c) 2. to Part 2

A part of the current text of this note is redundant because it is covered by the presence in Annex I, Part 1 of the named substance “liquefied extremely flammable gases (including LPG) and natural gas”, with qualifying quantities of 50/200 tonnes. It is therefore necessary to remove any possibility of misunderstanding, and to make it clear that the qualifying quantities for extremely flammable substances in Annex I, Part 2 will only apply to substances kept in gaseous state.

Another question not addressed by the original Directive concerns supercritical states, which have most of the properties of a gas but to which the term “gaseous” is not usually applied. This ambiguity should be resolved by specifying that these states are also covered.

3.4.5. Note 3 (c) 3. to Part 2

The word ‘flammable’ at the beginning of the note was left out by error in the proposal for the Seveso II Directive, but was clearly intended. If not corrected, this would mean that superheated water would count as “extremely flammable”, which is of course not desired.

3.4.6. Note 4 to Part 2

The summation rule set out in this note has been the source of many questions and misunderstandings. It is therefore proposed to rewrite it on a more operational and clearer basis. It is also proposed to separate the summation of toxic hazards from that of ecotoxic hazards – see paragraph 3.3.2 above.

4. Legal Basis

The proposal is based on Article 175 (1) (co-decision procedure) of the EC Treaty which is the specific legal base for the Community's policy in the field of the environment.
Proposal for a

DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL


THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 175 (1) thereof,

Having regard to the proposal from the Commission¹,

Having regard to the opinion of the Economic and Social Committee²,

Having regard to the opinion of the Committee of the Regions³,

Acting in accordance with the procedure laid down in Article 251 of the Treaty⁴,

Whereas:

(1) Council Directive 96/82/EC of 9 December 1996 on the control of major-accident hazards involving dangerous substances⁵ aims at the prevention of major accidents which involve dangerous substances and the limitation of their consequences for man and the environment, with a view to ensuring high levels of protection throughout the Community in a consistent and effective manner.

(2) In the light of recent industrial accidents and studies on carcinogens and substances dangerous for the environment carried out by the Commission at the Council's request, the scope of Directive 96/82/EC needs to be broadened.

(3) The cyanide spill that polluted the Danube following the accident at Baia Mare in Romania in January 2000 has demonstrated that certain storage and processing activities in mining have a potential to produce very serious consequences. The Communications of the Commission on the safe operation of mining activities⁶ and on the sixth environment action programme of the

¹ OJ C …
² OJ C …
³ OJ C …
⁴ OJ C …
⁶ COM (2000) 664 final
European Community\(^7\) have therefore highlighted the need for an extension of the scope of Directive 96/82/EC. In its Resolution of 5 July 2001 on the Commission Communication on the safe operation of mining activities the European Parliament also welcomed the extension of the scope of that Directive to cover risks arising from storage and processing activities in mining.

(4) The firework accident at Enschede in the Netherlands in May 2000 has demonstrated the major hazard potential arising from storage and manufacture of pyrotechnic substances. Therefore, the definition of such substances in Directive 96/82/EC should be clarified and simplified.

(5) Studies carried out by the Commission in close co-operation with the Member States support extending the list of carcinogens with appropriate qualifying quantities and significantly lowering the qualifying quantities assigned to substances dangerous for the environment in Directive 96/82/EC.

(6) It is appropriate at the same time to clarify and correct certain passages in Directive 96/82/EC.

(7) Directive 96/82/EC should therefore be amended accordingly.

(8) The measures provided for in this Directive have been the subject of a public consultation process involving interested parties,

HAVE ADOPTED THIS DIRECTIVE:

\(^{7}\) COM (2001) 31 final
Article 1

Directive 96/82/EC is amended as follows:

1. In Article 4, points (e) and (f) are replaced by the following:

“(e) the exploitation (exploration, extraction and processing) of minerals in mines and quarries, with the exception of chemical and thermal processing operations and related storage involving dangerous substances as defined in Annex I of this Directive; hazards related to offshore exploration and exploitation of minerals;

(f) waste land-fill sites with the exception of tailings disposal facilities containing dangerous substances as defined in Annex I of this Directive and used in connection with the chemical and thermal processing of minerals.”

2. Annex I is amended as set out in the Annex to this Directive.

Article 2

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by [12 months after entry into force] at the latest. They shall forthwith inform the Commission thereof.

When Member States adopt those provisions, they shall contain a reference to this Directive or shall be accompanied by such a reference on the occasion of their official publication. Member States shall determine how such reference is to be made.

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

Article 3

This Directive shall enter into force on the twentieth day following that of its publication in the Official Journal of the European Communities.

Article 4

This Directive is addressed to the Member States.

Done at ……..,
ANNEX

Annex I to Directive 96/82/EC is amended as follows:

1. In the Introduction the following point 6 is added:

   6. For the purposes of this Directive, a gas is a substance that is completely gaseous at 20°C at a standard pressure of 101.3 kPa.

2. In Part 1 the entry which starts with the words: “The following CARCINOGENS” is replaced by the following:

   "The following CARCINOGENS at concentrations above 5%:

   - 4-Aminobiphenyl and/or its salts, Benzo(a)pyrene, Benzidine and/or salts, Bis (chloromethyl) ether, Chloromethyl methyl ether, 1,2-Dibromoethane, Diethyl sulphate, Dimethyl sulphate, Dimethylcarbamoyl chloride, 1,2-Dibromo-3-chloropropane, 1,2-Dimethylylhydrazine, Dimethyl nitrosamine, Hexamethylphosphorotriamide, Hydrazine, 2-Naphthylamine and/or salts, 4-Nitrodiphenyl, and 1,3 Propanesultone"

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<th>Concentration</th>
<th>0.5</th>
<th>2</th>
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</table>

3. In Part 1 the entry “Automotive petrol and other petroleum spirits” is replaced by the following:

   "Petroleum products:

   - (a) gasolines and naphthas,
   - (b) kerosenes (including jet fuels),
   - (c) gas oils (including diesel fuels, home heating oils and gas oil blending streams)"

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<tr>
<th>Concentration</th>
<th>2500</th>
<th>25000</th>
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4. In Part 2 the entries 4 "EXPLOSIVE" and 5 "EXPLOSIVE" are replaced by the following:

   "4. EXPLOSIVE (see Note 2)

   where the substance or preparation falls under HD 1.4"

<table>
<thead>
<tr>
<th>Concentration</th>
<th>50</th>
<th>200</th>
</tr>
</thead>
</table>

   "5. EXPLOSIVE (see Note 2).

   where the substance or preparation falls under any of: HD 1.1, HD 1.2, HD 1.3, HD 1.5, HD 1.6, R2, R3"

<table>
<thead>
<tr>
<th>Concentration</th>
<th>10</th>
<th>50</th>
</tr>
</thead>
</table>

5. In Part 2 entry 9 “DANGEROUS FOR THE ENVIRONMENT” is replaced by the following:

   "DANGEROUS FOR THE ENVIRONMENT risk phrases:

   (i) R50: ‘Very toxic to aquatic organisms’ (including R50/53)

   (ii) R51/53: ‘Toxic to aquatic organisms’; and ‘May cause long term adverse effects in the aquatic environment’"

<table>
<thead>
<tr>
<th>Concentration</th>
<th>100</th>
<th>200</th>
<th>200</th>
<th>500</th>
</tr>
</thead>
</table>
6. In the Notes to Part 2, Note 1 is replaced by the following:

"1. Substances and preparations are classified according to the following Directives and their current adaptation to technical progress:


In the case of substances and preparations which are not classified as dangerous according to any of the above Directives but which nevertheless are present, or are likely to be present, in an establishment and which possess or are likely to possess, under the conditions found at the establishment, equivalent properties in terms of major-accident potential, the procedures for provisional classification shall be followed according to the relevant Article of the appropriate Directive.

In the case of substances and preparations with properties giving rise to more than one classification, for the purposes of this Directive the lowest thresholds shall apply. However, for the application of the summation rule in Note 4 of these Notes, the threshold used shall always be the one corresponding to the classification concerned.

For the purposes of this Directive, the Commission shall establish and keep up to date a list of substances which have been classified into the above categories by harmonised decision in accordance with Directive 67/548/EEC.

7. In the Notes to Part 2, Note 2 is replaced by the following:

2. ‘Explosive’ means a substance or preparation which is classified with risk phrase R2 or R3, or which is classified in any of the hazard divisions HD1.1 to HD1.6 according to the UN/ADR classification scheme. Included in this definition are pyrotechnics, which for the purposes of this Directive are defined as substances (or mixtures of substances) designated to produce heat, light, sound, gas or smoke or a combination of such effects through self-sustained exothermic chemical reactions.

The hazard divisions and risk phrases concerned are:

HD 1.1: ‘Substances and articles which have a mass explosion hazard. (A mass explosion is an explosion which affects almost the entire load virtually instantaneously).’

HD 1.2: ‘Substances and articles which have a projection hazard but not a mass explosion hazard.’

HD 1.3: ‘Substances and articles which have a fire hazard and either a minor blast hazard or a minor projection hazard or both, but not a mass explosion hazard: (a) combustion of which gives rise to considerable radiant heat; or (b) which burn one after another, producing minor blast or projection effects or both.’

HD 1.4: ‘Substances and articles which present only a slight risk in the event of ignition or initiation during carriage. The effects are largely confined to the package and no projection of fragments of appreciable size or range is to be expected. An external fire shall not cause virtually instantaneous explosion of virtually the entire contents of the package.’

HD 1.5: ‘Very insensitive substances having a mass explosion hazard which are so insensitive that there is very little probability of initiation or of transition from burning to detonation under normal conditions of carriage. As a minimum requirement they shall not explode in the external fire test.’

HD 1.6: ‘Extremely insensitive articles which do not have a mass explosion hazard. The articles contain only extremely insensitive detonating substances and demonstrate a negligible probability of accidental initiation or propagation. The risk is limited to the explosion of a single article.’

R2: ‘Substances or preparations which create the risk of an explosion by shock, friction, fire or other sources of ignition’

R3: ‘Substances or preparations which create extreme risks of explosion by shock, friction, fire or other sources of ignition’

In the case of objects containing explosive or pyrotechnic substances or preparations, if the quantity of the substance or preparation contained in the object is known, that quantity shall be considered for the purposes of this Directive. If the quantity is not known, then for the purposes of this Directive the whole object shall be treated as explosive.

8. In the Notes to Part 2, Note 3 (b) 1, second indent, is replaced by the following:

"- substances and preparations which have a flash point lower than 55°C and which remain liquid under pressure, where particular processing conditions, such as high pressure or high temperature, may create major-accident hazards;"

9. In the Notes to Part 2, Note 3 (c) 2 is replaced by the following:

"2. gases which are flammable in contact with air at ambient temperature and pressure (risk phrase R12, second indent), which are in a gaseous or supercritical state, and"

10. In the Notes to Part 2, Note 3 (c) 3 is replaced by the following:

"3. flammable liquid substances and preparations maintained at a temperature above their boiling point."

11. In the Notes to Part 2, Note 4 is replaced by the following:

"4. In the case of an establishment where no individual substance or preparation is present in a quantity above or equal to the relevant qualifying quantities, the following summation rule shall be applied to determine whether the establishment is covered by the relevant requirements of this Directive.

This Directive shall apply if the sum

\[
q_1/Q_U + q_2/Q_U + q_3/Q_U + q_4/Q_U + \ldots \text{ is greater than or equal to 1},
\]

where \( q_x \) = the quantity of dangerous substances x (or category of dangerous substances) falling within Parts 1 or 2 of this Annex,

and \( Q_U \) = the relevant threshold quantity from column 3 of Parts 1 or 2.

This Directive shall apply, with the exception of Articles 9, 11 and 13, if the sum

\[
q_1/Q_L + q_2/Q_L + q_3/Q_L + q_4/Q_L + \ldots \text{ is greater than or equal to 1},
\]

where \( q_x \) = the quantity of dangerous substances x (or category of dangerous substances) falling within Parts 1 or 2 of this Annex,

and \( Q_L \) = the relevant threshold quantity from column 2 of Parts 1 or 2.

This summation rule shall be used to assess the overall hazards associated with: toxicity, flammability, and ecotoxicity. It must therefore be applied three times:

(a) for the summation of substances and preparations named in Part 1 and classified as toxic or very toxic, together with substances and preparations falling into categories 1 or 2;

(b) for the summation of substances and preparations named in Part 1 and classified as oxidising, explosive, flammable, highly flammable, or extremely flammable, together with substances and preparations falling into categories 3, 4, 5, 6, 7a, 7b or 8;

(c) for the summation of substances and preparations falling into categories 9 (i) or 9 (ii).

The relevant provisions of the Directive apply if any of the sums obtained by (a), (b) or (c) is greater than or equal to 1.7