A LEGAL FRAMEWORK ON DANGEROUS SUBSTANCES: AN INTERNATIONAL, EUROPEAN AND NATIONAL PERSPECTIVE

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Abstract This paper aims at providing a very general view of the main issues, focusing on two different issues, where Fondazione Lombardia dell'Ambiente has developed special areas of research: the application of the Seveso directives in an enlarged Europe and the Environmental Liability Directive.

1. Introduction

The legal framework on dangerous substances is quite vast and complex today, but we might focus on four main topics that correspond to four main strands of our legislation:

1. Labelling, Packaging, Wastes
2. Prevention of Accidents where dangerous substances are involved
3. Transportation
4. Liability for harm caused

From the very beginning we might also sketch out some differences in operating in these tools. In fact, the three first topics correspond to mechanisms of administrative law, which use a command and control approach as a tool to control the authorization of activities. In case of violation of the legislative provision, the operator will have to pay a pre-identified sum (fine, penalty).

In the fourth case, instead, liability for harm caused is a private law mechanism. In case of injury, the liable person will have to pay *damages,* depending on the specific value of the injured goods.

Where the injured goods are natural resources, problems of quantification often arise.

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This paper aims at providing a very general view to the main issues, focusing on two different issues, where Fondazione Lombardia dell'Ambiente has developed special areas of research: the application of the Seveso directives in an enlarged Europe[2] and the Environmental Liability Directive[3]

2. Labelling, Packaging, Waste

The aim of labelling, packaging and wastes legislation is to follow the 'dangerous' substance from cradle to grave, to allow a life cycle assessment, or the investigation and valuation of the *environmental impacts* of a given product or service caused or necessitated by its existence.

These are rules that are strongly influenced by scientific knowledge. One important piece of legislation at EU level is the Regulation on Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), which came into force on 1st June 2007[4].

From a general point of view, the REACH Regulation improves the former legislative framework on chemicals of the European Union.

The main tasks of REACH are to improve the protection of human health and the environment from the risks that can be posed by chemicals, but also the promotion of alternative test methods, as well as the free circulation of substances on the internal market in order to enhance competitiveness and innovation.

Finally, REACH should make industry more responsible for assessing and managing the risks posed by chemicals and providing appropriate safety information to their users.

More recently, a big effort has been made in order to harmonize the criteria for classifying, labelling and packing chemical products.

The EU, for example, has put into force a new Regulation on classification, labelling and packaging of chemicals based on United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

The so-called GHS is a United Nations system to identify hazardous chemicals and to inform users about these hazards through standard symbols and phrases on the packaging labels and through safety data sheets (SDS).

On 16 December 2008 the European Parliament and the Council adopted a new Regulation on classification, labelling and packaging of substances and mixtures (CLP) which aligns existing EU legislation to the GHS.

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[2] Seveso trent'anni dopo: la gestione del rischio industriale, a cura di Achille Cutrera, Giuseppe Pastorelli e Barbara Pozzo, Milano, Giuffrè, 2006. The Implementation of the Seveso Directives in an Enlarged Europe, *A look into the Past and a Challenge for the Future,* Kluwer Law International, edited by Barbara Pozzo, 2009.

[3] La responsabilità ambientale, La nuova Direttiva sulla responsabilità ambientale in materia di prevenzione e riparazione del danno ambientale, a cura di Barbara Pozzo, Milano, Giuffrè, 2005.

[4] Regulation 1907/2006, consolidated version 23.11.2007.

The new Regulation came into force on 20 January 2009. The deadline for substance classification according to the new rules will be 1 December 2010, and for mixtures, 1 June 2015. The CLP Regulation will ultimately replace the current rules on classification, labelling and packaging of substances (Directive 67/548/EEC) and preparations (Directive 1999/45/EC) after a transitional period[5].

3. Accident Prevention: The Seveso Directives

Legislation against pollution, at nation or supranational level, cannot in itself prevent serious industrial accidents that are catastrophic for the environment, like those in Seveso in Italy in 1976 and Bhopal in India in 1984.

For that reason, rules should be taken concerning controls on land-use planning when new installations are authorized and when urban development takes place around existing installations.

3.1. THE FIRST SEVESO DIRECTIVE

Since the early eighties the Seveso Directives have provided a legal framework of reference for rules governing major accident hazards in Europe which, on the one hand, has consistently extended its powers in environmental matters thanks to the numerous amendments made to the Treaty and, on the other hand, has gradually become a community 'open' to those requesting to become a member. The first Directive on *the major-accident hazards of certain industrial activities* (Directive 82/501/EEC)[6] was introduced on 24 June 1982.

Lacking a specific community competence in environmental matters, which was conferred only four years later thanks to the Single European Act in 1986, the said Directive centred its legal basis on articles 100 and 235 of the Treaty[7].

Directive 82/501/EEC was introduced during the period in which the Community began to identify the major principles on which its environmental policy was to be based: the principles of preventive action and participation/ information of the population, principles which had already been formulated in the first action programme and then were defined in the second action programme.

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[5] Regulation (EC) No 1272/2008 of the European Parliament and the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006, Official Journal 31 December 2008, L 353/1.

[6] O.J., Law nr. 230 of 5 August 1982 pp. 1.

[7] In particular, the Council of the European Communities mentioned article 100 and 235 at the beginning of the Directive ("Having regard to the treaty establishing the European Economic Community, and in particular articles 100 and 235 thereof") and in the last recital.

These are the principles which constitute the new Directive and can be found after a first reading in the recitals[8]. In particular, the text of the Directive emphasized how *information and prevention* were closely related one to the other[9].

At the same time, the control on prevention measures and on information implied limiting the role of the public administration and the tasks of the industries, as well as defining the role of citizens and workers.

The preventive action principle[10] was expressly recognized by article 1 of the Directive, which had as a major objective 'to prevent major accidents which could be caused by certain industrial activities, as well as to limit their consequences for man and the environment …'[11].

The prevention system was therefore centred on certain industrial activities[12], specifically classified as establishments[13], or as storage facilities for dangerous substances[14] in related Annexes.

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[8] The first recital of the Directive dated 1982 established that: "Considering the objectives and the principles of the Community's environmental policy set out in the action programmes of the European Communities on the environment dated 22 November 1973 (4) and 17 May 1977 (5), in particular, the principle according to which the best environmental policy consists in preventing pollution and other hazards from the beginning; and it is therefore necessary to study and focus technical progress on the necessity to protect the environment;"

[9] For example, the sixth recital of the Directive underlines that "training and providing people who work on site with the necessary information may play an important role in preventing major accidents and controlling the likelihood of such accidents". At the same time, the Directive established in art. 12 that the Commission should create a register of major accidents occurring in the territory of the Member States at the disposal of the latter, including an analysis of the said accidents, any information regarding the event and the measures taken, in order to allow the Member States to use this information for prevention purposes.

[10] The preventive action principle is indicated among the objectives of the Community's environmental policy as from the first action programme, cit., C 112/5 and is later mentioned in the second action programme, cit., C 139/6.

[11] As in art. 1, nr. 1 of the Directive 82/501/EEC.

[12] The industrial activity taken into consideration in the Directive was defined in art. 1, nr. 2 a. and consisted in "any process carried out in industrial facility under Annex I which require or may require the use of one or more dangerous substances which may be a source of major-accident hazards, as well as the transportation inside the facility"; in alternative, the Directive considered the storage facilities as per Annex II.

[13] *Annex I*, referred to in the Directive under the definition of industrial activity (art. 1 nr. 2 a) regarded in particular: 1. industrial facilities for the production and the transformation of organic or inorganic chemical substances used in particular processes contemplated by the said Annex; 2. facilities for the distillation or refining, or other successive transformation of oil from petroleum products; 3. facilities used for the total or partial elimination of solid or liquid substances through combustion or chemical decomposition; 4. facilities for the production or treatment of gas for energy purposes, such as liquefied petroleum gas, liquefied natural gas or synthetic natural gas; 5. facilities for the dry distillation of coal gas and lignite; 6. facilities for the wet or power production of metals or metalloids.

[14] In this sense, the Directive could have taken into consideration separate storage facilities differing from those indicated in Annex I containing particularly dangerous substances such as flammable gas, extremely flammable liquids, ammonia, chlorine, etc.

The Directive established the obligation for those in charge of the aforesaid industrial activities to take the necessary steps to prevent major accidents and to limit their consequences for man and the environment[15], as well as to identify any existing major-accident hazards at the establishment and to take the proper safety measures.

The above-mentioned major obligations were closely connected to the obligation to inform and to train people working within the said facilities[16].

These generically worded obligations were related to the specific obligation to inform the Competent Authorities[17], in the event that highly dangerous substances were used within the establishment and mentioned in a specific Annex[18].

The purpose of the notification was to provide the Authorities with relevant information, concerning in particular:

a. *substances* used in the industrial process;
b. *industrial establishments*, and in particular: their location, the workers exposed to work-related risks, the ongoing technological processes; specifically, a detailed description of the areas within the establishments deemed important from a safety point of view, of the hazard sources and of the conditions under which a major accident could occur, as well as a description of the preventive measures planned;
c. in the event of possible *major accidents*, emergency plans, including safety equipment, alarm systems and resources available for use inside the facilities in case of major accidents, as well as any information which should be given to the competent authorities in order to enable them to prepare emergency plans outside the facilities.

Moreover, the Directive provided that Member States appoint an *Authority* or *Competent Authorities*[19] to receive the notification, to examine the information contained therein, as well as to supervise and ensure that an emergency intervention plan was prepared to be used outside the establishment. In addition, the competent authorities were authorized to request further information deemed necessary in

[15] Art. 3 of the Directive 82/501 established: "Member States shall take the necessary steps so that, for all industrial activities defined under article 1, the manufacturer shall be obliged to take all the necessary steps to prevent major accidents and to limit their consequences on man and on the environment".

[16] Art. 4 of the Directive established: "Member States shall take the necessary measures so that each manufacturer shall be obliged to prove to the Competent Authorities, at any moment and for inspection purposes as under article 7, item 2, to have identified existing major-accident hazards, to have informed, trained and given the necessary equipment, for safety purposes, to the people who work on the site".

[17] Cf. art. 5 of the Directive.

[18] Annex 3 to the Directive identified a list of 178 substances deemed relevant for the implementation of art. 5 of the Directive.

[19] Cf. art. 7 of Directive 82/501/EEC.

order to ensure that the manufacturer put in place the most appropriate measures concerning the numerous operations carried out by the industrial activity, in order to prevent major accidents and adopt the measures necessary to limit their consequences. In particular, the competent authorities were authorized to organize *inspections and other control measures*, related to the type of activity concerned, in accordance with national regulations.

Even the *principle of information*[20] was introduced in detail for the first time in the Directive of 1982, with regards to the numerous aspects involved in a major-accident scenario.

An obligation to provide *public information* to those potentially involved in a major accident, including safety measures and rules to be followed in the event of an accident[21].

At the same time the *obligation to inform* was also interpreted as an obligation on *managers of industrial activities towards the Competent Authorities*. As a matter of fact, in the event of a *major accident* [22], the 'manufacturers'[23] were obliged to inform the Competent Authorities as to the circumstances of the accident, the dangerous substances involved, the data available for assessing the effects of the accident on man and the environment, and the emergency measures taken. The manufacturers were also obliged to inform the authorities of the measures envisaged to alleviate the medium- and long-term effects of the accident and to prevent any recurrence of such an accident[24].

Always in terms of information, art. 18[25] of the Directive defined the principle according to which *Member States and the Commission* were requested to exchange any information in their possession regarding the prevention of major accidents and the limitation of their consequences, in particular concerning the implementation of the provisions set out in the Directive[26].

Finally, it was established that five years after the notification of the Directive, the Commission was obliged to deliver a Report on its implementation to the

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[20] As from the first action programme, the issue concerning education and environmental information had been inserted among the objectives of the Community's environmental policy. In particular, see the second action programme, O.J. C 139/41.

[21] In this regard, see art. 8 of Directive 82/501/EEC.

[22] For the purposes of this Directive, "major accident" means "an occurrence such as a major emission, fire or explosion resulting from uncontrolled developments in the course of an industrial activity, leading to a serious danger to man, immediate or delayed, inside or outside the establishment and/or to the environment and involving one or more dangerous substances".

[23] According to the terminology used in the Directive under art.1. nr.2 b), *"manufacturer"* means *"any person in charge of an industrial activity"*.

[24] As provided for in art. 10 of Directive 82/501/EEC.

[25] Art. 18 was then amended by Council Directive 91/692/EEC of 23 December 1991, the so-called Horizontal Framework Directive, see *infra.* Cf. sub 5.1.3. of this chapter.

[26] As provided for in art. 18 of Directive 82/501/EEC.

Council and to the European Parliament, on the basis of the aforesaid exchange of information. The first Report on the implementation of the «Seveso» Directive in the Member States was then submitted to the Commission on 18 May 1988[27].

The **first amendment** to the first «Seveso» Directive was made by Council Directive 87/216/EEC on 19 March 1987[28], which only corrected and clarified some aspects and levels of limitation indicated by Annexes I, II and III to the Directive in order to avoid diverse interpretations concerning the scope of the Directive and to ensure the most appropriate implementation by Member States.

A **second amendment**, which was more incisive, was introduced a year later by Council Directive 88/610/EEC of 24 November 1988[29].

Following an accident in a Sandoz warehouse which caught fire on 1 November 1986 in Basel, Switzerland, a second amendment to the «Seveso» Directive was made in order to extend the scope to establishments storing dangerous substances, thus adding a new list of dangerous substances[30]. Moreover, the said Directive inserted a new Annex VII, containing information to be given to the public in the event of an accident.

Finally, a **third amendment** was made in 1991, thanks to Council Directive 91/692/EEC of 23 December 1991[31], the so-called *Horizontal Framework Directive,* which was designed to standardize and rationalize reports on the implementation of certain directives relating to the environment.

Directive 91/692/EEC took into consideration the fact that some Community Directives relating to the environment required Member States to prepare a report on the measures taken to implement them. These reports were used by the Commission to draft a consolidated report, but on the other hand, the existing provisions regarding the preparation of reports stipulated different intervals between reports and established different requirements for their content. Therefore, a proposal to harmonize the existing provisions in order to make them more complete and more consistent was made, by establishing that Member States should draw up and submit the reports to the Commission at an interval of three years, with a one-year interval between sectors; in addition, requiring that the reports be based on a questionnaire produced by the Commission with the assistance of a committee and sent to the Member States six months before the start of the period referred to by the report; and, finally, establishing that the Commission publish a consolidated report on the sector concerned within nine months of Member States' submission of their respective reports.

This Directive integrally substituted art. 18 of the first Directive, introducing a new provision according to which the Commission must draw up three-yearly

[27] COM (88) 261 def. See cf. *infra, sub* 5.1.4.
[28] O.J. L 85 of 28.3.1987, pp. 36.
[29] O.J. L 336 of 7.12.1988, pp. 14.
[30] The new list appears in the new Annex II to the Directive.
[31] O.J. L 337 of 31 December 1991, pp. 48.

reports, starting from the period 1994–1996. The first report was published by the Commission in 1999[32].

3.2. THE IMPLEMENTATION OF THE FIRST «SEVESO» DIRECTIVE BY THE MEMBER STATES AND THE CONTROL MEASURES TAKEN BY THE COMMISSION

The final date for implementation of the first «Seveso» Directive was fixed for 8 January 1984[33].

The Commission has two tasks concerning the control of implementation of Community Law in the Member States. On the one hand, it must verify that Community Directives are correctly and integrally implemented in national laws, regulations and administrative provisions; on the other hand, it must control that the said provisions are concretely implemented by practice.

Regarding the first aspect, art. 226 of the Treaty establishes that the Commission is authorized to initiate a procedure against those Member States which fail to fulfil their obligations. The procedure outlined in the Treaty begins with a letter of formal notice, followed by a reasoned opinion, and finally the issue is brought before the Court of Justice.

The Commission intervened twice in order to denounce infringements related to Directive 82/501/EEC; the first against Spain in 1994. The action against Spain concerned a case of air and water pollution caused by an industrial plant, for which no external emergency plans as set out under art. 8 of the «Seveso» Directive had been provided. This situation constituted not only an infringement of the Directive but also that of the Spanish implementing legislation. Soon afterwards, the Spanish authorities prepared an external emergency plan for the said industrial plant, thus avoiding having the action brought before the Court of Justice by the Commission.

The second time was against Italy in 1997[34]. In this regard, the Commission had deemed the preparation of emergency measures for action outside the establishments, and the inspections and other control measures inadequate. In particular, the said activities in Italy were considered to be still at the development stage and uncompleted for many industrial activities subject to notification, due to the delay in the implementation of the said Directive. In brief, the actual number of emergency plans provided for and inspections made on the establishments subject to the Directive were considered unsatisfactory. In the end, the Court of Justice of

[32] O.J. C 291 of 12 October 1999, pp. 1.
[33] Cf. art. 20 of Directive 82/501/EEC.
[34] The application initiating proceedings was lodged at the Registry of the Court on 26 September 1997.

the European Community sentenced Italy for failure to fulfil the obligations set out in the Directive[35].

Concerning the second aspect, that is the controls related to the implementation of Community provisions in practice, as stated previously, art. 18 of the original text of Directive 82/501/EEC established that five years after the notification of the Directive, the Commission was obliged to deliver a Report on its implementation to the Council and to the European Parliament, on the basis of the exchange of information among Member States and the Commission.

On 18 May 1988 the Commission produced the first Report[36] on the implementation of the «Seveso» Directive by the Member States, where the control of the correct implementation of the Community legislation was divided into three stages.

Firstly, the adoption of specific national legislation for the implementation of the Directive was evaluated; then, the contents of the laws controlling the exact implementation of the contents of the Directive and finally, the concrete implementation of the legislation in practice.

The analysis regarded 10 countries which at that moment of time belonged to the European Economic Community: Belgium, Denmark, France, Greece, Ireland, Italy, Luxembourg, the Netherlands, the Federal Republic of Germany and the United Kingdom.

The Report emphasized that, apart from France[37] and Denmark, practically all of the other Member States arrived late for the appointment of 8 January 1984, which was indicated by art. 20 of the Directive as the final date to conform with the contents of the said Directive, and that numerous infringement proceedings were brought against them and later abandoned due to late fulfilment by Member States. For example, no reference was made to Presidential Decree of 1988 in Italy, thus underlining the gaps and delays of our legislative system in conforming to the obligations deriving from the Community Directive.

Afterwards, in order to standardize and rationalize the reports on the implementation of certain Directives relating to the environment[38], Directive 91/692/EEC established a procedure for the drafting and formal adoption of a questionnaire which was not completed in time to permit the Commission to produce the first three-yearly report which should have covered the period 1994–1996.

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[35] Court of Justice of the European Community, 17 June 1999 (case 336/97), Commission of the European Communities v. Italian Republic, in RGA, 1999, pp. 841, with note by A. Gratani.

[36] COM (88) 261.

[37] France already implemented an extensive legislation on *"installations classées",* therefore implementation by the French government was later carried out by some circulars.

[38] In *O.J.* L 377 of 31 December 1991, pp. 48-54.

The Committee of Competent Authorities[39] in charge of the implementation of the Directive had nevertheless agreed on a questionnaire model, to be used to informally gather information from Member States. According to this questionnaire model[40], State Members were asked to supply the following information:

- the total number of sites and activities related to the implementation of Directive 82/501/EEC;
- the total number of safety reports already received by the safety authorities, as well as the scheduled total number of the aforesaid;
- the number of safety reports containing internal emergency plans;
- the number of sites which have received a formal request or have been summoned before the Court by the Competent Authorities following examination of the safety reports;
- the number of sites which have an external emergency plan;
- the number of sites which have been inspected by the Competent Authorities; and finally,
- the number of sites which have given information to the public as established in art. 8 of the Directive.

Easy to understand at first sight, the answers to the questionnaire initially offer a global view of the activities and of the establishments taken into consideration by the first «Seveso»[41] Directive, completely lacking a critical review of the problems faced in the implementation of legislation on major-accident hazards.

Nevertheless, it represented an important analysis of Europe made in those years, characterized by the reunification of the two Germanies and by the recent accession of new Member States such as Finland and Sweden.

In a Europe composed of 15[42] countries in 1996, the establishments subject to the «Seveso» Directive were 3731; 1828 in unified Germany, 430 in Italy, 392 in France, 308 in Great Britain. The number of *safety reports* received by the Competent Authorities were nearly all exhaustive with respect to the number of

[39] The *Committee of Competent Authorities* (CCA) shall be composed of the representatives of the Member States and of the Commission services. The Committee shall be chaired by a representative of the Commission and meet once during each chairmanship, that is each semester. The role of the CCA is to effectively implement the provisions of the Seveso Directive throughout the entire Community, cooperating closely with the Competent Authorities of all Member States and of the European Community.

[40] The questionnaires are found in the Annex to the Report submitted to the Commission in 1999 in Annex I and Annex 2.

[41] An overview of the answers given to the Questionnaire Seveso I in 1996 is inserted in Annex V of the Commission Report , in O.J.C 291 of 12 October 1999, pp. 48.

[42] Belgium, Denmark, Germany, Greece, Spain, France, Ireland, Italy, Luxembourg, the Netherlands, Austria, Portugal, Finland, Sweden and Great Britain are Member States and answered the questionnaire.

scheduled reports, thus indicating that the fulfilment of the requests made by the Directive was widespread.

Diverse observations could be made in relation to the data gathered on *internal and external emergency plans*[43].

Thus, for example, regarding the 430 safety reports gathered in Italy, all of the aforesaid provided for an internal safety plan, but only 84 were deemed acceptable by the Competent Italian Authorities as being adequate, from an administrative point of view, in compliance with the obligations established under art. 7 of the Directive, thus justifying – as previously stated – the intervention by the Commission with a related infringement procedure against Italy.

Regarding the 430 safety reports, 190 provided for an external emergency plan, 179 had been inspected in compliance with art. 7 of the Directive, 319 had furnished information for the public as per art. 8.

Even the 488 safety reports drawn up in Great Britain provided for an internal emergency plan, but 477 were deemed acceptable by the Competent Authorities, indicating a greater precision in fulfilling the obligations set out in the Directive. Of these 488 safety reports, 283 provided for an external emergency plan, 304 had been inspected and 247 had furnished information for the public in compliance with art. 8.

3.3. THE «SEVESO II» DIRECTIVE OF 1996

More than ten years after the «Seveso Directive, the European Community decided to amend once again the entire law governing industrial accidents by adopting Council Directive 96/82/CE of 9 December 1996 '*on the control of major-accident hazards involving dangerous substances*'[44].

Already in 1994 a proposal for a Directive[45] had been urged by the fourth action programme for the environment[46], which had underlined the necessity for a more effective implementation of Directive 82/501/EEC and had called for a review of the said Directive to include a possible extension of its scope, as well as a greater exchange of information on the matter[47] among Member States.

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[43] For what concerns France and Germany, the data collected by the questionnaires was incomplete.

[44] O.J. L 10 of 14 January 1997, pp. 13.

[45] Council Directive Proposal on the limitation of major-accident hazards related to certain dangerous substances COM/94/4 def, in O.J. C 106 of 14 April 1994 pp. 4.

[46] The fourth action programme published in 1987 established that the prevention of industrial accidents should be one of the priorities on which the Community policy should focus. O.J.E.C C 328 of 7 December 1987, pp. 1.

[47] In this sense, the third recital of the aforesaid proposal.

On the other hand, Council Resolution of 16 October 1989[48] had invited the Commission to study a way to include controls on land-use planning in Directive 82/501/EEC, particularly in light of the consequences of the Bhopal accident and the means of improving reciprocal comprehension and harmonization of national practice principles for safety reports.

Among the reasons which led to a detailed reform of the subject matter were the changes in Community industrial practice in terms of risk management and of the prevention of major accidents, as well as the necessity for substituting Directive 82/501/EEC with more complete and scrupulous provisions, so as to ensure that controls on establishments exposed to the risk of major accidents offered a high level of protection throughout the Community[49].

The Seveso II Directive thus substituted the original Seveso Directive[50]. The review was not executed as an amendment but as a new Directive, so as to underscore the important changes made and the new concepts introduced by the new regulations.

In particular, these changes regarded the review and extension of the scope, the introduction of new provisions concerning safety management systems, emergency plans and urbanization control, as well as tighter provisions related to inspections made by Member States.

In this regard, the new Directive was introduced in a scenario characterized by new accidents caused by the discharge of dangerous substances by large industrial establishments, which emphasized the danger represented by the proximity of industrial sites to residential areas and the necessity to control land-use planning when authorizing new establishments[51].

The aim of the Second Seveso Directive was twofold; firstly, the prevention of major accidents which involved dangerous substances for man and the environment; and secondly, considering the repeated occurrence of accidents, it was deemed necessary to limit their consequences not only for man, but also for the environment.

The new Directive was introduced following the signing of the Maastricht Treaty in 1992[52], which gave new momentum to Community action on environment.

Environmental competences were inserted into the Rome Treaty thanks to the Single European Act[53] which established three fundamental principles according

[48] O.J. nr. C 273 of 26 October 1989, pp. 1.

[49] In this sense, the eighth recital of the proposal, cit.

[50] Article 23 of Directive 96/82/EC provided for the repeal of Directive 82/501/EEC twenty-four months after the entry into force of the new Directive.

[51] The text of the Directive considered the decisions taken at a community level in order to embrace the needs of a common framework of reference.

[52] The Maastricht Treaty of 1992 founded the European Union and modified the Rome Treaty of 1957 which had created the European Economic Community, which from this moment on was called the European Community. The Maastricht Treat entered into force in 1994.

[53] Articles 130R-S-T of the European Single Act regulated environmental competences at a Community level for the first time.

to which preventive action should be taken, environmental damage should be rectified at source, and the polluter should pay.

The said competences were successively widened in the Maastricht Treaty, which pursued new objectives such as the promotion at an international level of measures aimed at resolving environmental issues at a regional or global level.

In particular, art. 130R, following the Maastricht Treaty, contemplated that the Community's *environmental policy* should be integrated by other Community policies, such as industrial, agricultural and energy policies, and called on the European Community to adopt all the necessary steps to ensure an effective development and immediate implementation of the aforesaid.

A fourth principle, the precautionary principle[54], was later added to the three fundamental principles inserted in the Treaty of 1987.

The precautionary principle, which derived from article 15 of the Rio Declaration signed in the occasion of the UN Conference on Environment and Development, established in its original formulation that: '*Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation*' [55]. The said principle, whose contents were later specified in other Community[56] acts, has become a cornerstone of Community policies on the environment.

The Second «Seveso» Directive introduces a series of innovative aspects, briefly illustrated in the following paragraphs, which underline above all the new priorities set by Community policy on the environment.

With regard to the previous legislation, the Directive of 1996 no longer takes into consideration the specific types of installations, but the presence of dangerous substances, including those classified as '*dangerous for the environment*', in sufficiently large quantities to create a major-accident hazard, such as a major emission, fire or explosion[57].

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[54] Art. 130R stated under paragraph 2.: "Community policy on the environment aims at an elevated level of protection, considering the diverse situations in various regions of the Community. It shall be based on the principles that preventive action should be taken, that environmental damage should be as a priority rectified at source and that the polluter should pay…".

[55] As stated in Principle 15 of the Rio Declaration.

[56] See Commission statement on the precautionary principle, Brussels, 2 February 2000, COM (2000) 1 def.

[57] The scope of this Second Directive appears to have been extended with respect to the previous Seveso Directive. In particular, art. 2 of the new Directive now establishes that its provisions shall apply "*to establishments where dangerous substances are present in quantities equal to or in excess of the quantities listed in Annex I, Parts 1 and 2,column 2, with the exception of articles 9, 11 and 13 which shall apply to any establishment where dangerous substances are present in quantities equal to or in excess of the quantities listed in Annex I, Parts 1 and 2, column 3"*. Moreover, the Directive specifies that for *«presence of dangerous substances»* shall mean *"the actual or anticipated presence of such substances in the establishment or the presence of those which it is believed may be generated during loss of control of an industrial chemical process, in quantities equal to or in excess of the thresholds in Parts 1 and 2 of Annex I".*

Therefore, the scope of the Directive has been extended to include not only the so-called *industrial activities,* but also the storage of dangerous chemicals, where the term *storage* shall mean the presence of a quantity of dangerous substances for the purpose of warehousing, depositing in safe custody or keeping in stock[58].

This Directive shall not apply to military establishments, installations or storage facilities; hazards created by ionizing radiation; or the transport of dangerous substances and intermediate temporary storage[59].

The Directive of 1996 establishes general and specific obligations on Member States and the operators. The provisions can be divided into two categories which reflect the two objectives of the Directive: provisions concerning safety measures which aim at preventing major accidents and control measures which, on the contrary, aim at limiting the consequences of the aforesaid once they occur.

In this regard, the Directive specifies that each *operator*[60], a term which correctly substitutes the word *manufacturer*[61] in the terminology of the new Directive, is obliged to send the Competent Authority a notification containing the characteristics of the installation[62] and prepare 'a document defining his major-accident *prevention policy* and ensure that it is properly implemented'[63].

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[58] As stated in art. 3, item 8) of the Directive.

[59] The exclusions are indicated in art. 4 of the Directive.

[60] In accordance with art. 3, item 3 of the new Seveso Directive, the «operator» is "any individual or corporate body who operates or holds an establishment or installation or the individual who has been given decisive economic power in the technical operation thereof, if provided for by national legislation."

[61] Cf. *supra,* what has already been specified regarding the *manufacturer* in Directive 82/501.

[62] The related terms are specified in art. 6 of the Directive and in particular: for new establishments , a reasonable period of time prior to the start of construction or operation; for existing establishments, one year from the date established under article 24, paragraph 1.
2. The notification required by paragraph 1 shall contain the following details:
a) the name or trade name of the operator and the full address of the establishment concerned;
b) the registered office of the operator, with the full address;
c) the name or position of the person in charge of the establishment, if different from sub a);
d) information sufficient to identify the dangerous substances or their category;
e) the quantity and physical form of the dangerous substance or substances involved;
f) the ongoing activity or proposed activity of the installation of storage facility;
g) the immediate environment surrounding the establishment (elements liable to cause a major accident or to aggravate the consequences thereof).
3. In the case of existing establishments for which the operator has already provided all the information under paragraph 2 to the Competent Authority, under the requirements of national law at the date of entry into force of this Directive, the notification mentioned in paragraph 1 shall not be required.
4. In the event of any significant increase or significant change in the nature or physical form of the existing dangerous substance, indicated in the notification sent by the operator pursuant to paragraph 2, or any change in the processes employing it, or permanent closure of the installation, the operator shall immediately inform the Competent Authority of the change in the situation.

[63] Cf. art. 7 of the Seveso II Directive.

Furthermore, Directive 96/82/CE establishes that operators of establishments that use extremely dangerous substances[64] are required to prepare a safety report[65], an emergency plan[66] and a safety measures programme[67].

Concerning the *safety report*, the operator shall be required to prove that a major-accident prevention policy and a safety management system for its implementation have been put into effect. In particular, the operator shall have to identify major-accident hazards and adopt the necessary measures to prevent such accidents and to limit their consequences for man and the environment; in addition, the operator shall have to demonstrate that adequate safety and reliability have been incorporated into the design, construction, operation and maintenance of any installation, storage facility, equipment and infrastructure connected with its operation, which are linked to major-accident hazards inside the establishment. The safety report shall also have to demonstrate that internal emergency plans have been drawn up and shall also supply information enabling the external plan to be drawn up in order to take the necessary measures in the event of a major accident. Finally, the operator shall be obliged to provide sufficient information to the Competent Authorities so the latter can make decisions in terms of the location of new activities or factories near existing establishments.

The operator shall be obliged to prepare an *internal emergency plan*[68] and send it to the Competent Authorities in order to enable the latter to draw up an *external emergency plan*[69].

Moreover, the Directive of 1996 establishes that the operators need to prepare appropriate safety measures[70], which correspond to the term used worldwide,

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[64] Those indicated in Annex I, Parts 1 and 2, column 3.

[65] The safety report shall be subject to the provisions under art. 9 of the Seveso II Directive.

[66] The emergency plan shall be subject to the provisions under art. 11 of the Seveso II Directive.

[67] As stated in art. 13 of the Seveso II Directive.

[68] Art. 11 establishes under sub a) that "the operator shall draw up an internal emergency plan for the measures to be taken inside the establishment:
- for new establishments, prior to commencing operations;
- for existing establishments, not previously covered by Directive 82/501/EEC, within three years from the date indicated in article 24, paragraph 1;
- for other establishments, within two years from the date indicated in article 24, paragraph 1".

[69] Art. 11 establishes under sub b) that "the operator shall supply to the Competent Authorities, to enable the latter to draw up external emergency plans, the necessary information within the following periods of time:
- for new establishments, prior to commencing operations;
- for existing establishments, not previously covered by Directive 82/501/EEC, within three years from the date indicated in article 24, paragraph 1;
- for other establishments, within two years from the date indicated in article 24, paragraph 1." Finally, the same article establishes under sub c) that " the authorities designated for that purpose by the Member State shall draw up an external emergency plan for the measures to be taken outside the establishment".

[70] Cf. art. 13 of Directive 96/82.

Safety Management Systems. The introduction of these measures takes into consideration the development of new organizational and managerial methods and in particular significant changes in industrial practice related to *risk management* which took place in recent years. As a matter of fact, one of the objectives pursued by introducing these measures was to prevent or reduce accidents connected to *managerial factors* which proved to be a significant cause of accidents in more than 90% of the accidents which occurred in the European Union from 1982 onwards.

Another new aspect introduced by Directive 96/82/CE concerned the issue related to the **'domino effect',** which could occur in areas characterized by a strong concentration and interconnection of industries[71]. In this regard, art. 8 of the Seveso II Directive states that Member States shall ensure that the Competent Authority, using the information received from the operators, is able to identify establishments or groups of establishments where the likelihood and the possibility or consequences of a major accident may be increased due to the location, the proximity of such establishments and the inventory of dangerous substances used by the latter.

For this purpose, the Member States shall have to verify that the necessary information regarding the establishments thus identified is exchanged in an appropriate manner, on the one hand, in order to enable these establishments to evaluate the nature and extent of the overall hazard of a major accident in the major accident prevention policies, safety management systems, safety reports and internal emergency plans. On the other hand, the Member States must ensure cooperation in informing the public and in supplying information to the Competent Authority for the preparation of external emergency plans.

After the lesson of Bhopal, it was clear that it was necessary to evaluate the implications regarding **land-use planning and control** in order to ensure that industrial activity was compatible with the territorial setting. Even in this regard, the Directive of 1996 introduces a revolutionary change, requiring that Member States ensure that the objectives of preventing major accidents and limiting the consequences of such accidents are taken into account in their land-use policies and/or other relevant policies[72].

Pursuant to art. 12, Member States shall pursue the said objective through controls on the location of new establishments, modifications to existing establishments or new developments, such as transport links, as well as public and residential areas, when their location might increase the risk or consequences of a major accident. Therefore, Member States shall ensure that their land-use policies take into account the need, in the long term, to maintain appropriate distances

[71] The domino effect shall be subject to the provisions under art.8 of the Directive.
[72] Cf. art. 12 of Directive 96/82/CE.

between establishments covered by this Directive and residential areas, areas of public use and areas of particular natural sensitivity or interest.

Information has a leading role in the new Seveso Directive, considering that in order to reduce the 'domino effect', information must be exchanged in an appropriate manner and provisions must be made for cooperation in informing the public, so that the latter shall dispose of suitable information enabling them to react correctly in similar events[73].

Moreover, Directive 96/82/CE emphasizes, with respect to the Seveso I Directive, the importance of public information, which represents a means of prevention and limitation of the related consequences, establishing a series of obligations on the operators, Competent Authorities and Member States.

In the event of a major accident, the operator shall be obliged to immediately inform the Competent Authority, providing details on the circumstances of the accident[74], the steps envisaged to alleviate the medium- and long-term effects, as well as to prevent any recurrence of such an accident.

The Competent Authority shall be required to ensure that urgent, medium- and long-term measures that may prove necessary are taken, in addition to collecting, by inspection, investigation or other appropriate means, the information necessary for a full analysis of the technical, organizational and managerial aspects of a major accident[75].

Member States shall ensure that information on safety measures and on the requisite behaviour are given in the event of an accident to persons liable to be affected by a major accident without their having to request it [76].

On their part, Member States shall be obliged to inform the public and the other Member States potentially affected by major accidents which occur on their territory, as well as the Commission.

Firstly, the Member States shall ensure that information on safety measures and on the requisite behaviour in the event of an accident is supplied, without their having to request it, to persons liable to be affected by a major accident[77].

Member States shall inform the Commission as soon as possible of major accidents which occurred within their boundaries[78], providing sufficient information to those Member States potentially affected by the transboundary effects of major

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[73] Cf. the 18th and 19th recital of the Directive.

[74] In particular, art. 14 establishes that the operator shall be required to give, as soon as practicable, any information regarding the circumstances of the accident, the dangerous substances involved, the data available for assessing the effects of the accident on man and the environment, as well as the emergency measures taken.

[75] See art. 14 of Directive 96/82/CE under item 2.

[76] See art. 13 of Directive 96/82/CE.

[77] Cf. art. 13 of Directive 96/82/CE.

[78] Cf. art. 15 of Directive 96/82/CE.

accidents originating in one of the establishments within their boundaries, so that all relevant measures can be taken by the Member State involved[79].

As already emphasized by the 5th action programme on the environment in 1993[80], the **participation of the public** must be considered an important factor capable of influencing environmental policies.

Directive 96/82 urges a greater participation of the public in the decision-making process regarding new establishments, by formulating a series of obligations on the Member States.

In particular, art. 13 provides that Member States shall ensure that the public is able to deliver its opinion on plans for new establishments where the risks of a major accident are elevated or modifications to existing establishments or developments surrounding the said existing establishments are introduced.

The *Major-Accident Hazards Bureau* (MAHB) in Ispra is a special unit which gives scientific and technical support to the European Commission for the control of major-accident hazards[81].

As previously stated, Member States are obliged to inform the Commission regarding major accidents occurring in the territory. In this regard, the Commission has created a procedure for the notification and the report of accidents (the so-called Major-Accident Reporting System – MARS) which supplies an important database that handles information at a Community level.

Furthermore, the Office in Ispra supplies guidelines which are useful for the preparation of a series of reports required by the Directive for the implementation of the related obligations[82], thus playing an important role of intermediary between industries and Member States.

3.4. IMPLEMENTATION OF DIRECTIVE 96/82 IN THE MEMBER STATES AND THE ROLE OF THE COMMISSION

Pursuant to art. 19.4 of the Seveso II Directive, Member States shall provide the Commission with a three-yearly report on the operations carried out by installations where the risks of a major accident are elevated, according to the parameters set out in Directive 91/692/EEC[83], that, as already said, standardizes the data to be supplied.

The final date for implementation of the Seveso II Directive was fixed at 3 February 1999.

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[79] Cf. art. 13 item 3 of Directive 96/82/CE.

[80] O.J. C 138/5 of 17 May 1993.

[81] More information can be found at http://mahbsrv.jrc.it/

[82] Among which: "Guidelines on a Major Accident Prevention Policy and Safety Management System", Guidance on the preparation of a Safety Report", "General Guidance for the content of information to the public".

[83] See *supra*,

Thus, the Commission's Report covering the period 2000–2002 offers some interesting information, it being the first report assessing the progress made with the implementation of the Seveso II Directive.

The Report summarizes the information provided by the Member States on the basis of a Questionnaire[84] prepared in compliance with the Reporting Standardization Directive which asked the Member States to answer some questions concerning important issues so as to evaluate the actual situation in the single countries, and in particular:

1. the total number of top-tier establishments;
2. the total number of establishments which produced safety reports, in accordance with article 9 of the Directive;
3. internal emergency plans,
4. external emergency plans,
5. the possible domino effect,
6. land-use planning,
7. inspections,
8. any prohibitions regarding operations.

According to the Report, the 15 Member States have fulfilled their obligation pursuant to article 19, paragraph 4 and have provided the Commission with a three-yearly report.

3278 top-tier establishments were reported, that is, approximately one site per 114,000 inhabitants.

The total number of establishments which submitted a **safety report**, in accordance with article 9, to the Competent Authority by 2002 totalled 3057. In other words, 93% of the top-tier establishments had sent their safety report to the Competent Authority.

Pursuant to the Seveso II Directive, the Competent Authorities shall examine the safety reports within a reasonable period of time after receipt of the aforesaid. At the end of 2002, 1334 (43.6%) of the safety reports submitted had been examined.

This relatively low rate can be explained by the fact that, in many cases, the Competent Authorities were overwhelmed by safety reports submitted simultaneously in 2002 for establishments involved for the first time under the Seveso Directive. In addition, the concept of communicated conclusions had been interpreted diversely in different Member States. Some of them, for example Ireland, considered, for statistical purposes, that the conclusions had been communicated only when a final assessment on the safety reports had been made.

The operators of 2983 establishments (91%) prepared an **internal emergency plan** for on-site arrangements and action as required under article 11, paragraph 1.

[84] O.J. L 120 of 8 May 1999, pp. 43.

According to article 9, the safety report shall demonstrate that an internal emergency plan has been drawn up. In practice, the internal emergency plan is sent as a part of or annex to the safety report. Therefore, the existence of an internal emergency plan shall be known only after the safety report has been received.

However, the reported number of existing internal emergency plans was higher than the number of submitted safety reports, as some Member States reported that all establishments had internal emergency plans, although not all operators had submitted their safety report. In these cases, the Competent Authorities had assumed the existence of the internal emergency plans.

The Competent Authorities prepared **external emergency plans** for 1129 establishments (34.4%). An external emergency plan contains the off-site arrangements, procedures and actions.

The figures provided by the Member States indicate that many top-tier establishments were operating, by the end of 2002, without proper external emergency plans. The external emergency plans are key elements, for prevention and accident control purposes, in order to minimize the effects and limit damage to man, the environment and property.

In view of the importance that these external emergency plans have in the context of limiting the off-site effects of accidents, Member States were invited to give additional information that could explain the delays in drawing up these external emergency plans.

In general, Member States explained that one of the reasons was due to the late and simultaneous reception of the safety reports, as the said reports contain the information needed to draw up the external plans. Member States also indicated that, in most cases, such plans already existed by the end of 2002, but had not been sent because they existed as a draft or had been drawn up according to the Seveso I Directive criteria.

Member States have recognized the need to rapidly improve the situation with regards to the drawing up of external emergency plans.

The **information to the public**, as referred to in article 13, paragraph 1, was issued for 2090 top-tier establishments (63.8%).

Article 13 foresees that Member States shall ensure that information on safety measures and the requisite behaviour in the event of an accident is supplied, without their having to request it, to persons liable to be affected by a major accident originating in an establishment as per article 9.

Article 13 also states that the maximum period between the repetitions of the information to the public shall, in any case, be no longer than five years.

Therefore, in theory, persons that had been properly informed in 1998 or 1999, for example, regarding establishments already contemplated by the Seveso I Directive, would not necessarily have needed further information on safety measures during the period 2000–2001.

The supplied figures indicate that in a significant number of cases (36.2% of the top-tier establishments), no active information was given to the public, and it is unlikely that all these establishments corresponded to establishments previously covered by the Seveso I Directive and for which the provisions related to public information had been fulfilled in 1998 and 1999.

With regard to **inspections**, in 2002, 2163 top-tier establishments (66%) were inspected, as referred to in article 18, paragraph 1.

Article 18, paragraph 2 states that an on-site inspection should in principle be carried out at least every 12 months or be based on a systematic appraisal of major-accident hazards in that particular establishment.

As a result, all top-tier establishments shall be inspected once a year, unless the Competent Authority has established a programme of inspections base upon a systematic appraisal. Considering their hazard potential, some establishments may be subject to two or more inspections in certain years, with respect to other establishments.

In conclusion, it is important to mention that reporting is not only a source of information, but also an important tool to monitor the progress made by the practical implementation of a directive. For example, the data submitted during the period 2000–2002 enabled the Commission to highlight some strengths and weaknesses in the practical implementation of the Directive.

The monitoring of progress made with the practical implementation is complementary to the transposition check carried out by the Commission on the basis of notified legislation.

In this regard, art. 226 of the Treaty establishes that the Commission has the authorization to initiate infringement proceedings against Member States that fail to fulfil their obligations. In this sense, having failed to adopt the necessary measures to comply with the provisions under art. 11 of the Directive, the Federal Republic of Germany was summoned before the Court of Justice and sentenced[85].

3.5. THE TOULOUSE ACCIDENT AND THE NEW AMENDMENTS MADE TO THE SEVESO II DIRECTIVE

On 21 September 2001, the explosion at the Azf establishments in Toulouse, killing thirty and seriously injuring hundreds of people, resumed the debate regarding the legislative framework concerning environmental and industrial risks.

The European Parliament passed a Resolution on 3 October 2001, which invited the European Commission to publish, within three months, a list of sites inside the boundaries of the Union which, in the event of an accident, could cause serious damage similar to that which occurred in Toulouse.

[85] European Community Commission v. the Federal Republic of Germany Collection 2002, pp. I-4219.

The intent was to take full account of the lessons learned from this tragedy, by urging the Commission to review the Seveso II Directive, on the basis of the following elements:

1. strengthening safety and control standards in order to prevent major accidents and limit the consequences for man and the environment;
2. extension of the scope of the Directive;
3. lowering the limits for industrial discharges into the water and the atmosphere;
4. extension of security parameters, including retroactively;
5. improved information to the public on the risks faced and the measures to be taken in the event of a disaster;
6. organisation of epidemiological studies in areas close to dangerous establishments;
7. strengthening of the role of health and safety committees in enterprises involved, and more attention given to the opinion of employees and trade union organizations.

On 10 December of the same year, the Commission submitted a Proposal for a Directive aiming at amending the previous Directive of 1996, published later in March 2002[86], which mentioned two accidents which occurred at Baia Mare in Romania and at Enschede in the Netherlands, demonstrating that certain storage and processing activities in mining, as well as storage and manufacture of pyrotechnic and explosive substances, have the potential to produce very serious consequences for man and the environment, thus intending to extend the scope of Directive 96/82/CE.

At the same time, even in the sixth action programme on the environment[87] covering the period 2001–2010, a review of the Seveso Directive was provided for and the Community indicated among its objectives the 'necessity to adopt a coherent and consolidated policy in order to face natural catastrophes and accident risks'.

In this context, the Seveso II Directive alone offered a valid base for the management of industrial risks, but at the same time it was acknowledged that it '*needed to be extended to include the exploitation (exploration, extraction and processing) of minerals, including hydrocarbons*'.

Thus, the action programme already considered how to 'extend the Seveso II Directive in order to include the exploitation (exploration, extraction and processing) of minerals, including hydrocarbons and related measures for waste management'.

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[86] See the Proposal in O.J. C E/357 of 26 March 2002.

[87] Commission's Communication to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions on the sixth action programme on the environment of the European Community *"Ambiente 2010: il nostro futuro, la nostra scelta" - Sesto programma di azione per l'ambiente,* COM/2001/31 def.

3.6. CHANGES INTRODUCED BY DIRECTIVE 2003/105

On 31 December 2003, Directive 2003/105/EC was introduced, amending Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances.

As stated in the second recital, the Directive aims at extending the scope of Directive 96/82 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 extension covered by the new Directive involves:

1. the exploitation (exploration, extraction and processing) of minerals in mines, quarries, or by means of boreholes, with the exception of chemical and thermal processing operations and storage related to those operations which involve dangerous substances, as defined in Annex I;
2. operational tailings disposal facilities, including tailing ponds or dams, containing dangerous substances as defined in Annex I, in particular when used in connection with the chemical and thermal processing of minerals[88].

Particular attention is given to the territorial aspect, where current regulations provide that Member States are obliged to scrutinize their land-use and related policies as well as the procedures for implementing those policies, to ensure that they take account of the need, in the long term, to maintain appropriate distances between establishments covered by this Directive, on the one hand, and residential areas, buildings and areas of public use, major transport routes, as far as possible, recreational areas and areas of particular natural sensitivity or interest, on the other hand[89].

Importance is also given to information on safety measures and on the requisite behaviour in the event of an accident, which must be supplied regularly and in the most appropriate form, without their having to request it, to all persons and establishments serving the public (such as schools and hospitals) liable to be affected by a major accident originating in one of the establishments covered by article 9[90].

In conclusion, the Directive also establishes that Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive before 1 July 2005.

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[88] As stated in art. 1 of Directive 2003/105.
[89] Pursuant to the new art. 12.
[90] As stated in the amended art. 13.

3.7.`THE CURRENT SITUATION IN AN ENLARGED EUROPE: SOME INITIAL CONSIDERATIONS ON THE IMPLEMENTATION OF REGULATIONS INVOLVING MAJOR ACCIDENTS IN THE TEN NEW MEMBER STATES

On 1 May 2004, ten new countries joined the European Union.

The European Union had already considered the Enlargement of the Union in the policies formulated in the Sixth action programme on the environment, by emphasizing how the new Member States would have changed the European Union's profile during the period covered by the programme: the enlargement from the current 15 to approximately 25 countries would have involved an additional 140 million inhabitants, a significant extension of the territory, as well as problems concerning the environment and unique national heritages.

In the ten new countries belonging to Central and Eastern Europe, the situation regarding the environment appeared to be diverse: many rural areas are still intact, with entire areas covered by centuries-old forests; agriculture tends to be extensive and encourages a rich biodiversity. On the other hand, there are many industrial centres or former military bases which are heavy polluters and require substantial investment in anti-pollution projects.

The European Union had considered that a successful implementation of Community regulations on the environment and human health should have been the responsibility of each Candidate country. In order to lead this process and ensure, in the course of time, full implementation of the environmental '*acquis*' by Candidate countries, the said '*acquis*' needed to be implemented in each national legal system at the moment of joining the EU.

On their part, the Candidate Countries had demonstrated their good intentions by joining the European Environment Agency before joining the European Union. In this regard, the Commission reformulated the data in order to evaluate the implementation of the Seveso Directive in the various Member States.

The next report, covering the period 2003–2005, shall concern the successful implementation of the Seveso Directive, taking into account the changes and the different situations existing in the 10 new Member States which contributed to its drafting.

In this period of time, however, the Commission started evaluating the implementation of the Seveso II Directive in the 10 new Member Countries, by sending a specific questionnaire on the implementation of the said provisions.

The answers to the questionnaire supplied important information on the situation existing in the 10 new Member States up to the end of 2003. In particular, the said information regarded external emergency plans, as well as land-use and urban impact, public information and inspections in all of the 10 new Member States including Bulgaria.

With respect to these 11 legal systems, the so-called top-tier establishments totalled 434, 146 of which are in Poland, 74 in the Czech Republic, 46 in Hungary, 38 in Slovakia and 35 in Bulgaria.

With regard to safety reports, the results still appear to be diverse, considering that 134 out of 146 Polish establishments produced a safety report, 72 out of 74 Czech establishments produced a safety report and 100% of the Hungarian establishments did the same. No report was submitted by the Slovak Republic nor by Bulgaria.

Nevertheless, the single legal systems were given different due dates and thus the Member States which joined on 1 May 2004 produced their safety reports according to the following three timetables:

1. The Czech Republic, Poland, Hungary and Latvia, with due dates set at the end of 2003, submitted the majority of these safety reports before the said date.
2. Estonia, Slovenia and Malta, respectively having due dates in January, May and July 2004, submitted their safety reports by the end of 2004.
3. Cyprus, Lithuania and the Slovak Republic, with due dates set at mid-2005, were unable to submit any report in 2004.

Regarding **internal emergency** plans, the figures reflect what was said in terms of safety reports, except for Estonia, which had submitted its safety reports in advance at a national level. Therefore, Hungary and Lithuania had submitted 100% of the said plans, followed by Poland (22%) and the Czech Republic (18%).

Concerning **external emergency** plans, the figures are more or less similar: Hungary and Lithuania submitted 100% of the said plans, Estonia 80%, followed by Poland (22%) and the Czech Republic (18%).

The Report indicates that all top-tier establishments in Cyprus, Hungary and Poland were inspected in 2003. The said report stated that the number of inspections in the Czech Republic and in Estonia would have increased during 2004. Slovenia and the Slovak Republic supplied data regarding the period 2004 and 2005, declaring that in the said period all establishments would have been subject to inspection.

Malta was the only country unable to forecast how many establishments would have been inspected in the years to come.

With regard to lower tier establishments, Cyprus, Hungary, Latvia and Lithuania declared that 100% of their establishments had been inspected. Estonia declared 80%, Poland 65% and the Czech Republic 42%.

In conclusion, all new Member States, including Bulgaria, were able to answer the questionnaire in a short period of time. The amount of data supplied demonstrates the rapid improvement in the implementation of the Seveso II Directive.

Even the information supplied by the new Member States concerning information strategy, inspections and land-use is very important.

The answers sent by the new Member States demonstrate that the operators of establishments had sent the notification to the Competent Authority in 2002 or at the beginning of 2003, containing information on the quantities of dangerous substances in the establishments and enabling the identification of the so-called top-tier establishments.

The operators of the aforesaid establishments shall draw up safety reports and internal emergency plans. The said process has been carried out by four new Member States, while another three are in the progress of doing the same. The remaining three countries (Cyprus, Lithuania and the Slovak Republic) are obliged to meet the deadline in 2005.

In addition, the safety reports shall contain internal emergency plans with sufficient information to allow the Competent Authority to prepare external emergency plans. The said process appears to have been carried out in Estonia, Hungary and Lithuania.

4. Transportation

The international carriage of dangerous goods has long been governed by established international agreements known, in the case of land transport, by the abbreviations ADR (for road transport), RID (rail) or ADN (inland waterways). These rules were drawn up by international organizations that have a wealth of experience and knowledge in the field. They are updated at intervals to keep pace with technical progress and improve safety.

The European Union's approach is to issue these rules via specific directives which are then made applicable to national transport too, not just transport between Member States.

After the adoption of the new framework Directive on the inland transport of dangerous goods (2008/68/EC of 24 September 2008), the legislation in the European Union covers road, rail and inland waterways under one unified Directive.

In the context of its global goal of improving safety in transport, the European Union issued in 1999 the Directive 1999/36/EC[91] to enhance safety with regard to transportable pressure equipment approved for the inland transport of dangerous goods by road and by rail. The Directive aims simultaneously to ensure the free movement of such equipment within the Community, including the placing on the market and repeated putting into service and repeated use aspects.

[91] Council Directive 1999/36/EC of 29 April 1999 on transportable pressure equipment, in Official Journal, 1 June 1999, L 138.

5. Liability for Harm Caused by Dangerous Substances

Environmental law is a relatively recent field from the juridical point of view, and it is not surprising that it is in continuous evolution stimulated by new needs, awareness and technology. However, along with these basic dynamic factors there are others related to the more refined juridical considerations which deal with the needs, awareness and technological changes, and therefore select new instruments and understand more clearly the pattern of their interaction. Starting from the 1980s we find, in the more advanced juridical systems, a tendency which has been acquiring approval and depth through the years and has marked the beginning of current environmental law. This tendency is characterized by the recovery, within the juridical instruments, of environmental protection of tort liability which is a long neglected institution in favour of purely public law instruments.

For an idea of the extent of this phenomenon, let us examine the relative legislation:

- in 1980 the US Congress passed the Comprehensive Environmental Response Compensation and Liability Act.
- in 1983 the Swiss Confederation adopted the *Federal Law for Environmental Protection.*
- on July 8th, 1986 Italy approved Law 8 no. 349 – The Institution of the Environmental Ministry and regulations for matters of environmental damage.
- on April 7th, 1987 Portugal formulated *The Basic Environmental Law.*
- on January 1st, 1991– from Germany the *Umwelthaftungsgesetz.*

Let us remember that tort liability, before appearing in the internal legislation of single nations, was the subject of numerous International Conventions focusing on environmental protection, such as:

- on tort liability in the nuclear field, signed in Paris on July 29th, 1960.
- regarding the emission of hydrocarbons, signed in Brussels on November 29th, 1969.
- for the international responsibility of nations for objects launched into outer space, signed on March 29th, 1972.

We can find the same tendency in numerous international documents, such as the *Green Book* of the European Union or the *Lugano Convention* of 1993 and the *White Paper on Environmental Liability* presented by the Commission in February 2000[92] where the validity of this instrument in the environmental field is argumentatively emphasized. When we examine these sources we notice the

[92] *White Paper on Environmental Liability,* presented by the Commission of the European Communities, Brussels, 9 February 2000, COM (2000) 66 final.

tendency of modern legislatures to adopt a criterion of strict liability[93]. In the debate on introducing a specific type of responsibility, the insurance problem has always been an important factor. We can note the tendency of modern environmental legislation to make insurance compulsory, especially for those companies whose activities could be particularly dangerous for the environment[94].

The *Green Paper* of the European Community points out how tort liability is inevitably related to the problem of insurability because insurance should be considered a means of controlling the risk of an economic loss[95]. This document of the Commission recognizes insurance as an important means of compensation in cases where there is accidental damage and where the expenses for restoration are covered by the insurance policy.

The *Green Paper* on remedying environmental damage of 1993 was followed by the *White Paper* on Environmental Liability published in February 2000, whose purpose was to examine how the 'polluter pays principle' could be applied with a view to implementing Community environment policy.

The conclusion was that a Directive would be the best way to establish a Community environmental liability scheme.

Finally, after a public consultation period held after publication of the White Paper, the Environmental Liability Directive (ELD) was enacted in April 2004[96].

Directive 2004/35/EC (ELD) establishes a framework based on the 'polluter pays' principle, according to which the polluter pays when environmental damage occurs.

This principle is already set out in the Treaty establishing the European Community (Article 174(2) TEC). As the ELD deals with the 'pure ecological damage', it is based on the powers and duties of public authorities ('administrative approach') as distinct from a civil liability system which is more appropriate for 'traditional damage' (damage to property, economic loss, personal injury).

The Directive's main objective is to prevent and remedy 'environmental damage'. Environmental damage is defined as:

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[93] On the problem of the criterion for accusations of liability, may I refer to POZZO, "Il criterio di imputazione della responsabilità per danno all'ambiente nelle recenti leggi ecologiche", in Per una riforma della responsabilità civile per danno all'ambiente,(translation: The criterion for accusationss of liability for environmental damages in the recent ecological laws in For a reform in tort liability for environmental damage) edited by Pietro Trimarchi, IPA-Giuffrè, Milano, 1994; cf. also COUSY, Évolution comparée des droits européens de la responsabilité, in Risques, No. 10, avril-juin 1992, p. 41.

[94] American legislation makes insurance obligatory by the CERCLA (*Comprehensive Environmental Response Compensation and Liability Act*) of 1980 and the German one, *Umwelthaftungsgesetz* of 1991.

[95] See point 2.1.11 of the introduction of the *Green Book.*

[96] Directive 2004/35/EC of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage, in Official Journal 30 April 2004, L 143.

- damage to protected species and habitats (nature),
- damage to water,
- damage to soil.

The liable party is in principle the 'operator', i.e. the one (natural or legal person) who carries out an occupational activity. The operator, who carries out certain dangerous activities as listed in the Directive, is strictly liable (without fault) for the environmental damage he caused. He might, though, benefit from certain exceptions and defences allowed by the ELD (for example *force majeure*, armed conflict, third party intervention) or by transposing legislation of the Member States (for example regulatory compliance defence, state of the art defence).

All operators carrying out occupational activities are liable for fault-based damage they cause to nature as defined by the ELD.

Operators have to take the necessary preventive action in case of immediate threat of environmental damage. They are equally under the obligation to remedy the environmental damage once it has occurred ('polluter pays'). In specific cases where the operators fail to do so or are not identifiable, the competent authority may step in and carry out the necessary preventive or remedial measures. Remediation has to consist basically in the restoration of the damaged natural resources (nature, water, soil) either in kind or by recreation of similar resources.

The ELD leaves significant discretion to the Member States, which may not only decide on the use of optional defences but also on other optional choices (scope regarding damage to nature, as regards the 'operator'-definition, the type of multi-party causation, the forms and measures regarding financial security, etc.), and may moreover take or maintain stricter measures than prescribed by the Directive (Article 176 TEC, Article 16(1) ELD). This characterizes the ELD as so-called *framework* directive.

Civil society plays an important part when it comes to necessary preventive and remedial action: Affected natural or legal persons including environmental NGOs have the right to request the competent authority for action if they deem it necessary. If the entitled persons consider that the competent authority, which has to inform them about the decision to accede or to refuse the request for action, has failed to take the appropriate decision, they even have the right to appeal before a court or other independent public body to review the decision.

The Environmental Liability Directive entered into force on 30 April 2004. The EU Member States had three years to transpose the Directive in domestic law. Up to mid November 2008 only two thirds of the Member States have fully transposed the ELD. Against those Member States who fail to transpose the ELD, the Commission has initiated infringement procedures in June 2007 which entered the stage of Court application in early summer 2008.

The Commission has to report by April 2010 on the effectiveness of the Directive in terms of actual remediation of environmental damages and on the

availability at reasonable costs and on conditions of insurance and other types of financial security.

6. Some Conclusions on the Effectiveness of Environmental Law

The environment being a so-called *global common,* environmental law has developed rules at various levels: international, supranational (EU) and national level. That is to say it has a multi-level organization.

Scholars often point out the difficult question concerning the search for the optimal level of the rule in terms of protection of the environment: where do we achieve the best result? At international, European (supranational or federal) or national level?

We also have to bear in mind the particular character of this legislation, that includes rules with a high technical content that are generally well accepted even in countries with a very different legal background. That is why we can find common patterns all over the world: in Europe and in the US as well as in India.

The phenomenon is known as 'legal transplants', which very often happen in the case of rules with a high technical content, because they do not involve impact on fundamental values of the particular legal system.

Real differences emerge in the approach, as well as in the implementation process.

Differences in the approach may depend on the sharing of background principles – for example, in the understanding of the precautionary principle – that often oppose American scholars to European scholars; or in the application of the principle of the information and participation of the population, that may differ from country to country even inside the EU member States.

Other important differences may arise in the implementation of environmental law, where we have to distinguish the *law in the books* from the *law in action*. In fact, distortions in its efficient application may derive from the different understanding of background values, from inefficient sanctions (lack of monitoring, restrictions on budget), from the machinery of justice that might end up in providing inadequate tools to implement the law.

That is why scholars as well as Supreme Jurisdictions have pointed out that monitoring the application of environmental law is even more important than the actual content of the rule itself.

The Supreme Court of India has in recent times pointed out: 'If the mere enactment of laws relating to the protection of environment was to ensure a clean and pollution free environment, then India would perhaps be the least polluted country in the world'[97].

[97] Indian Council for Enviro-Legal Action v. Union of India, 1996