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Policy issues on the control of major accident hazards and the new Seveso II directive [1]

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Abstract

No-one wants a major accident to occur! This paper describes the development of EC policies to convert this simple and obvious fact into a coherent prevention strategy which can deliver a high level of protection throughout the European Community. The Seveso II Directive is described in detail, being the relevant Community Instrument which Member States must implement in their national laws. The need to achieve the correct balance between setting general goals and being over prescriptive is discussed, commensurate with the intent to be flexible but yet consistent and effective at the same time. The main changes from Seveso I are discussed, including requirements related to the operator's management systems, the competent authority's systems for inspection, and information and consultation arrangements with the public.

Keywords: Policy issue; Major accident hazard; Seveso

1. Introduction

1.1. Community policy on the control of major accident hazards

Major accidents in the chemical industry have occurred world-wide. In Europe in the 1970s, two major accidents in particular prompted the development and adoption of EC

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legislation covering chemical installations aimed at the prevention and control of such accidents. The *Flixborough accident* in the UK in 1974 was a particularly spectacular example. A large explosion and fire resulted in 28 fatalities, personal injury both on and off-site, and the complete destruction of the industrial site. The *Seveso accident* happened in 1976 at a chemical plant manufacturing pesticides and herbicides. A dense vapour cloud containing dioxins was released from a reactor. More than 600 people had to be evacuated from their homes and as many as 2000 were treated for dioxin poisoning.

After almost 3 years of negotiations in the Council and the European Parliament, Council Directive 82/501/EEC, the so called Seveso Directive, was adopted in 1982. In the light of the severe accidents at the Union Carbide factory at Bhopal, India (1984) where a leak of methyl isocyanate caused more than 2500 deaths and at the Sandoz warehouse in Basel, Switzerland (1986) where fire-fighting water contaminated with mercury, organophosphate pesticides and other chemicals caused massive pollution of the Rhine and the death of half a million fish, the Seveso I Directive was amended twice.

The Seveso Directive is one of the key instruments in the field of 'industrial risk management'. The role for the EU in this area is described in Chapter 6 of the Fifth Environment Action Programme, dealing with industrial risk management, which states that ''it is essential that ... the assessment and management of risks and the response to accidents and catastrophes should be improved considerably''. [3]

The Directive was fundamentally reviewed and updated in the mid- 1990s, resulting in the adoption of Council Directive 96/82/EC, known as Seveso II in December 1996. Seveso II is described in Sections 2–4 of this paper.

1.2. A goal setting approach

Although not always visible to the 'outside', the wisdom of pursuing a 'goal setting' approach in the making of legislation has reached Brussels. Those who create industrial risks are responsible for providing adequate control measures, including being able to demonstrate in detail that they have fully assessed hazards/risks and can prove the adequacy of the specific measures taken. Bearing this in mind, modern safety and environmental protection legislation provides a framework within which operators can demonstrate that a high level of protection has been provided and which requires authorities to monitor that this is achieved in practice. The degree of prescription within the framework is limited as it is clearly recognised that the operators are best placed to comprehensively assess hazards/risks in detail and that it is not possible for authorities to prescribe a 'one-size fits all' solution.

The Seveso II Directive is viewed as a good example of 'goal-setting' legislation. However, it is also a good example of where it is necessary to achieve an appropriate

[3] Official Journal of the European Communities, No. C138, 17.5.93.

balance between setting goals which are not too prescriptive yet contain sufficient direction to be meaningful. Something familiar to many companies who have developed a 'performance pay' system for staff appraisal is the need to set 'SMART' objectives for determining performance, i.e.

- specific;
- measurable;
- achievable;
- realistic;
- time-limited.

Although not completely analogous, it is easy to remember this somewhat salutary example of where it is necessary to be fully clear when goals are achieved or not. In this respect, Seveso II in fact adds further prescription in comparison with Seveso I, in some areas where unclear goals have led to an inconsistent application of the original Directive.

For example, the requirements for 'inspections' is an area that has been amended and strongly reinforced in the 'Seveso II' Directive; whereas the 'Seveso I' Directive only contained one small paragraph on inspection, the provision in the new Directive has been extended to an article of its own. This development has been made to ensure increased consistency in enforcement at European level through greater prescriptive detail of the obligations of the Competent Authorities. The context is elaborated by Recital (16) of the Directive which states:

> Whereas differences in the arrangements for the inspection of establishments by the competent authorities may give rise to differing levels of protection; whereas it is necessary to lay down at Community level the essential requirements with which the systems for inspection established by the Member State must comply.

As a further specific example, Article 11 of Seveso II now makes clear that it is necessary to test emergency plans. This was left implicit in Seveso I and was often not implemented. Section 4 of the paper gives further examples including safety reports, domino effects and information to the public.

1.3. Management systems

All roads currently lead to *management systems*. The panacea to all quality, health, safety and environmental problems is a *management system*. In reality, management systems are complementary to the need for technical and other specific requirements. However, they are an essential complement. The requirements for a major accident prevention policy and a safety management system are newly introduced in Seveso II due to the recognition that approximately 85% of over 300 accidents reported under Seveso I have shown some deficiencies in the management system. It has become clear that it is necessary to concentrate on both 'hardware' and 'software' requirements.

The introduction of management system concepts into policy and legislation is now becoming widespread. The ISO 9000 series of quality standards is now in widespread business use and is becoming more important in the context of European legislation in connection with its use for the conformity assessment of products in accordance with

some technical harmonisation product Directives made under Article 100A of the Treaty. The EMAS Regulation and ISO 14001 introduce a management system approach for environmental protection. As will be discussed later, a recommendation for an instrument based on a management system is evolving for pipelines, despite considering many other possible options for the type of instrument that could be applicable.

It is not simply by chance that goal setting, management systems and indeed risk assessment, are now to the fore in the development of EU policy. It is not only because they are good fundamental concepts, but also that they fit well with the 'system'. For example, adoption of such principles can respect the principle of subsidiarity. The word 'subsidiarity' is regularly used by those wishing to stop the EU in churning out more legislation but is often not well-understood. The principle is dealt with in Article 3b of the treaty as given below:

> In areas which do not fall within its exclusive competence, the Community shall take action, in accordance with the principle of subsidiarity, only if and in so far as the objectives of the proposed action cannot be sufficiently achieved by the Member States and can therefore, by reason of the scale or effects of the proposed action, be better achieved by the Community.

The principle can be better understood by considering the protection pyramid concept. In the context of subsidiarity, an EU initiative can often be restricted to the top of the pyramid and not become too detailed. However, it can also be recognised that in the absence of EU policy, the pyramid may not possess a 'top' in some areas and a consequence of this can be 'underdevelopment' of the base of the pyramid.

On balance, there can often be agreement that 'subsidiarity' is respected through appropriate 'goal-setting' requirements which can permit the continued use of good national practice *where this exists*.

In a pragmatic sense, it is also more manageable to reach consensus or qualified majority on the need for appropriate goals and management systems rather than seeking to harmonise details, bearing in mind the complexity of decision procedures to produce European legislation.

2. Seveso II

2.1. Introduction

On 9 December 1996, Directive 96/82/EC on the control of major accident hazards (so-called Seveso II Directive) was adopted by the Council of the European Union. Following its publication in the Official Journal (OJ) of the European Communities (No. L 10 of 14 January 1997), the Directive entered into force on 3 February 1997.

2.1.1. Two-tier approach (Annex I)

Similar to its predecessor, the scope of the Seveso II Directive follows a so-called *two-tier approach* which means that for each named substance and for each generic

category of substances and preparations, two different *qualifying quantities* (threshold levels) are mentioned in Annex I, Parts 1 and 2 of the Directive, a lower and an upper value (e.g. for chlorine: 20 and 100 t).

It is assumed that the risk of a major accident hazard, arising from an establishment in which dangerous substances are present, increases with the quantities of substances present at the establishment. Consequently, the Directive imposes more obligations on *upper-tier* establishments than on *lower-tier* establishments.

In fact, the Directive can be viewed as inherently providing for three levels of 'proportionate' controls in practice, where larger quantities mean more controls. A company who holds a quantity of dangerous substance less than the lower thresholds given in the Directive is not covered by this legislation but will be proportionately controlled by general provisions on health, safety and the environment provided by other legislations which are not specific to 'major accident hazards'. Companies which hold a larger quantity of dangerous substance, above the lower threshold contained in the Directive, will be covered by the 'lower-tier' requirements. Companies who hold even larger quantities of dangerous substance, above the upper threshold contained in the Directive, will be covered by all the requirements contained within the Directive.

3. General and specific obligations of Seveso II

The Directive contains general and specific obligations on both operators and the authorities. The provisions broadly fall into two main categories related to the twofold aim of the Directive, that is, measures related to:

- the *prevention* of major accidents;
- *limitation of the consequences* of major accidents.

3.1. Control measures aimed at prevention

All operators need to meet requirements including:

- general obligations;
- notification;
- major accident prevention policy;
- controls on modifications of establishments/installations.

In addition, operators of 'upper-tier' establishments need to meet requirements on:

- safety reports;
- formal safety management systems.

3.2. Control measures aimed at limitation of the consequences of a major accident

For all establishments, the operator/authorities must meet requirements related to land-use planning.

For 'upper-tier' establishments, the operator/authorities must meet additional requirements related to:

- emergency planning;
- information on safety measures (to the public).

4. What is new in Seveso II and why?

4.1. Scope (Article 2)

The scope of the Seveso II Directive has been broadened and simplified at the same time.

4.1.1. Industrial activities

The old Directive contained a list of *industrial activities* covered by the Directive. The Seveso II Directive no longer contains such a list. The scope is defined solely by the *presence of dangerous substances in establishments*. 'Presence of dangerous substances' is defined as the *actual* or *anticipated* presence of such substances or the presence of substances which may be *generated during loss of control of an industrial chemical process*, such as, for example, dioxins. Thus, the scope covers any 'activity' where dangerous substances are produced, used, handled or stored in quantities above the qualifying quantities contained in Annex I of the Directive. This has extended the application of the Directive to establishments such as university laboratories and large supermarkets (with ammonia refrigeration plant) which were not previously covered within some member states as they were viewed as non-industrial activities.

4.1.2. List of substances

The list of *named substances* has been reduced from 180 in Seveso I to around 50 substances (Annex I, Part 1) in favour of an enlarged and more systematic list containing *generic categories* (Annex I, Part 2) such as toxic, explosive or flammable. As concerns the definition of these generic categories, the Directive makes reference to the EC legislation relating to the classification, packaging and labelling of dangerous substances, preparations and pesticides (Directive 67/548/EEC—OJ No. 196 of 16 August 1967, Directive 88/379/EEC—OJ No. L 187 of 16 July 1988, and Directive 78/631/EEC—OJ No. L 206 of 29 July 1978).

4.1.3. Establishments

Whereas the old Directive applied to *installations*, the Seveso II Directive applies to *establishments* which are defined as ''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''. This important change of approach removes the 'loophole' where a split of activities and storage facilities into smaller units could allow 'escape' from the obligations imposed by legislation.

4.1.4. Substances dangerous for the environment

Although in many cases, substances which are dangerous for man are also dangerous for the environment, it can be said that the scope of the Seveso I Directive was more focused on the protection of persons than on the protection of fauna and flora. With the Seveso II Directive, propensity to endanger the environment is an important aspect that has been reinforced by the inclusion, for the first time, of substances classified as *dangerous to the (aquatic) environment* in the scope of the Directive. Such substances

were covered by Seveso I only if they were also covered by another classification category.

4.2. Policies and management systems (Articles 7 and 9)

4.2.1. A major accident prevention policy (MAPP)

The obligation to establish and to properly implement a major accident prevention policy (MAPP) applies to operators of both lower- and upper-tier establishments. This represents a new requirement not specifically contained within Seveso I. As aforementioned, it has been derived from an increased recognition that appropriate policies and management systems within a company are necessary to safeguard against major accidents, as seen from the fact that 'management factors' have contributed to many of the accidents which have occurred since the implementation of Seveso I.

The MAPP must be established *in writing* and should include the operator's overall *aims and principles* of action with respect to the prevention and control of major accident hazards. It shall be designed to guarantee a high level of protection for man and the environment by appropriate means, structures and management systems.

Some major differences exist in the practical ways that operators of lower- and upper-tier establishments make the contents of their MAPP known to the authorities.

Operators of *lower-tier* establishments shall make the MAPP *available* to the competent authorities (at their request), which means that they have no obligation to actually send the written document setting out their MAPP to the competent authority.

Operators of upper-tier establishments must demonstrate in their safety report that a MAPP has been put into effect. The safety report must be sent to the competent authority.

4.2.2. Safety management system

The introduction of the obligation for operators of *upper-tier* establishments to put into effect a formal SMS has taken account of the development of new managerial and organisational methods in general and, in particular, of the significant changes in industrial practice relating to risk management which have occurred over the past 10 years.

The SMS is required to address the following issues which are specified in more detail in Annex III of the Seveso II Directive:

- organisation and personnel;
- identification and evaluation of major accident hazards;
- operational control;
- management of change;
- planning for emergencies;
- monitoring performance;
- audit and review.

In order to provide further guidance and assistance on the interpretation of the provisions of the Seveso II Directive concerning safety management systems, the commission, in close co-operation with the member states, is developing *Safety Management System Guidelines*. A draft document on SMS Guidelines has recently been

tested in practice by a number of member states. The final document will be published towards the end of 1998.

4.3. Safety report (Article 9)

The Seveso I Directive also contained a requirement to produce a safety assessment of hazards for upper-tier sites (although the term 'safety report' was not used as such). Whereas, the technical format of the safety report required by the Seveso II Directive will to a large extent be similar to that of its predecessor, significant supplementary requirements (MAPP, SMS) have been introduced.

A flexible presentation permits the combination of the safety report with other reports produced in response to other legislation to form a single safety report in order to avoid unnecessary duplication or repetition of work.

4.3.1. Contents

The purposes of the safety report are stated as follows.

(1) Demonstrating that a MAPP and a SMS have been put into effect.

(2) Demonstrating that major accident hazards have been identified and that all necessary measures have been taken to prevent such accidents and to limit their consequences for man and the environment.

(3) Demonstrating that adequate safety and reliability have been incorporated into the design, construction, operation and maintenance of any establishment/installation and/or storage facility, as well as equipment and infrastructure connected.

(4) Demonstrating that Internal Emergency Plans have been drawn up, supplying information to enable the External Emergency Plan to be drawn up.

(5) Providing sufficient information to the competent authority to enable decisions to be made in terms of the siting of new activities or developments around existing establishments.

The safety report must include the following minimum data and information which are specified in more detail in Annex II of the Directive:

- information on the MAPP and on the SMS;
- presentation of the environment of the establishment;
- description of the installation(s);
- identification and accidental risk analysis and prevention methods;
- measures of protection and intervention to limit the consequences of an accident.

4.3.2. Time limits for the submission of the safety report

For *new* establishments, the safety report has to be sent to the competent authority within a 'reasonable period of time' prior to the start of construction or operation similar to the original Directive.

For *existing* establishments previously covered by the Seveso I Directive, the safety report has to be sent to the competent authority before 3 February 2001.

For *existing* establishments not previously covered by the Seveso I Directive, the safety report has to be sent to the competent authority before 3 February 2002.

4.3.3. Review of the safety report

The safety report must be reviewed and, if necessary, updated: (1) at least *every 5 years*; or (2) at the *initiative of the operator* or at the *request of the competent authority*, where justified by new facts, new technical knowledge about safety or about hazard assessment; or (3) in case of a *modification* of a site which means modification of the establishment, the installation, the storage facility, the (chemical) process, the nature of dangerous substance(s) or the quantity of dangerous substance(s).

4.3.4. Limitation of the information required in safety reports (Article 9.6—dispensations)

Article 9.6 of the Directive introduces the possibility of a dispensation to limit the information in a safety report. The applicability of this provision of the Directive requires in the first instance the development of so-called *harmonised criteria* for a decision by a competent authority that particular substances present at an establishment, or part thereof, are 'in a state incapable of creating a major accident hazard'.

These harmonised criteria are being elaborated by the commission, in close co-operation with the member states, and must be adopted before 3 February 1999 by the commission in accordance with the *Regulatory Committee* procedure established under the Seveso I Directive.

In conclusion, this provision allows the competent authorities, at the request of an operator, to decide and to communicate to the operator that he may limit the information to be provided in his safety report.

The member states are obliged to notify any dispensations granted to the commission, including the reasons. The commission shall forward the lists containing the notifications to the committee established under the Directive on a yearly basis.

4.3.5. Tasks of the competent authority with regard to the safety report

The competent authority has the task of *examining* the safety report and to *communicate the conclusions* of its examination to the operator.

The competent authority has not only the right *to request further information* from the operator but also to proceed to the *inspection* of the establishment, as necessary.

Although the Seveso II Directive does not explicitly mention the necessity of issuing a *permit* to the operator (or some other type *of licensing system*), it seems clear that the competent authority has to take an 'active decision' to either *allow* or *prohibit* the bringing into use, or the continued use of the establishment. A simple statement by the competent authority that the Safety report has been received and seems complete will not be sufficient.

4.3.6. Guidelines on the preparation of a safety report

In order to provide further guidance and assistance on the interpretation of the provisions of the Seveso II Directive concerning safety reports, the commission, in close co-operation with the member states, has elaborated *Guidelines on the Preparation of a Safety Report* (Report EUR 17690 EN) which have been published by the Major Accident Hazards Bureau (MAHB) established within the Joint Research Centre (JRC)

of the European Commission at Ispra, Italy. The guidance is not a legislation. It is not mandatory and does not preclude other reasonable interpretations of the Directive.

4.4. Domino effects (Article 8)

This new provision obliges the competent authority to perform the following.

(1) Identify establishments or groups of establishments where the risk of an accident and or its possible consequences may be increased because of the *location* and the *proximity* of the establishments, and the *dangerous substances present*.

(2) Ensure an *exchange of information* and *co-operation* between the establishments.

4.5. Emergency plans (Article 11)

As was the case with the old Directive, on-site (internal) and off-site (external) emergency plans are still required. The *Internal Emergency Plan* for the measures to be taken inside the establishment has to be drawn up by the operator and to be supplied to the local authorities to enable them to draw up an *External Emergency Plan*. Emergency plans have to be reviewed, revised and updated, where necessary.

Important new elements are requirements on the operator to *consult with his personnel* on *the Internal Emergency Plan* and on the local authority to *consult with the public on the External Emergency Plan*. For the first time, the Seveso II Directive contains an obligation to *test in practice* the Internal and External Emergency Plans at least every 3 years. Moreover, Annex IV of the new Directive contains specific requirements on data and information to be included in *Internal and External Emergency Plans*.

For *new* establishments, *Internal Emergency Plans* have to be drawn up prior to the start of operation.

For *existing* establishments previously covered by the Seveso I Directive, *Internal Emergency Plans* have to be drawn up before 3 February 2001.

For *existing* establishments previously not covered by the Seveso I Directive, *Internal Emergency Plans* have to be drawn up before 3 February 2002.

The competent local authorities are obliged to draw up *External Emergency Plans* within a reasonable period of time.

4.6. Land-use planning (Article 12)

This provision reflects the request of the Council, following the Bhopal accident, that the land-use planning implications of major accident hazards should be taken into account in the regulatory process. The inclusion of this provision can be regarded as a major step forward in the process of major accident mitigation.

Member states are obliged to pursue the twofold aim of the Directive through controls on:

- the *siting* of new establishments;
- *modifications* to existing establishments;

- new developments such as *transport links, locations frequented by the public* and *residential areas* in the vicinity of existing establishments.

In the long term, it is required that land-use planning policies shall ensure that *appropriate distances* between hazardous establishments and residential areas are maintained. Where such establishments already exist in the vicinity of residential areas, the Seveso II Directive calls for consideration of *additional technical measures* so as not to increase the risks to people, in the context of application of the above mentioned controls.

Again, the commission, in close co-operation with the member states, has started developing guidance for the practical implementation of this provision in the member states. It has been recognised that different and even contrasting approaches will be possible. It is hoped that the guidance can be developed by the end of 1998.

4.7. Information and consulting of the public (Article 13)

The Seveso II Directive gives more rights to the public in terms of access to information as well as in terms of consultation. It is expected that this article will continue to promote the benefits of an effective dialogue between the operator and the residents living in the vicinity of plants who are liable to be affected by major accidents.

4.7.1. Information to the public

Operators as well as public authorities have certain obligations to inform the public. These obligations can be divided into two forms of information: *passive* and *active* information (although the Directive does not use these terms). *Passive* information means *permanent availability of information*, i.e. that this information can be requested by the public; *active* information means that the operator or the competent authority themselves need to be pro-active, e.g. through the distribution of leaflets or brochures, to 'actively' inform the public.

4.7.1.1. Passive information. This concerns the possibility of the public to scrutinise safety reports.

4.7.1.2. Active information. Member states are obliged to supply persons liable to be affected by a major accident with information on safety measures and the requisite behaviour in the event of an accident. The items of information to be communicated are specified in more detail in Annex V of the Seveso II Directive.

The information shall be reviewed at least every 3 years and repeated and updated where necessary, at least when there is a modification of the site, with a maximum period of 5 years between repetition of the active supply of information.

4.7.2. Consultation of the public

The public must be able to give its opinion in the cases of:

- *planning* for new *upper-tier* establishments;
- *modifications* to existing establishments which involve planning permission;

- *developments* around existing establishments;
- *External Emergency Plans*.

4.8. Inspections by the public authorities (Article 18)

This is an area that has been amended and strongly reinforced in the Seveso II Directive; whereas the Seveso I Directive only contained one small paragraph on inspection, the provision in the new Directive has been extended to an article of its own. An attempt is made to ensure increased consistency in enforcement at European level through greater prescriptive detail of the obligations of the competent authorities.

The most important new element is that competent authorities are obliged to organise an *inspection system* which shall ensure the following.

(1) That the operator has taken all necessary measures with regard to the twofold aim of the Directive (prevention of major accidents and limitation of their consequences).

(2) That the safety report is correct and complete; however, inspections and control measures are not dependent on the submission of a safety report or other documents.

(3) That the public has been informed.

An *inspection system* shall comprise of the following.

(1) A *programme of inspections* by the competent authority consisting either of a *systematic appraisal of each establishment* or of at least *one on-site inspection per year*.

(2) An *inspection report* to be drawn up by the competent authority.

(3) A *follow-up with the operator* within a 'reasonable period' following the inspection. This is of course particularly important when the competent authority has detected deficiencies in the safety of an establishment and has requested the operator to take supplementary measures to improve safety.

4.9. Prohibition of use (Article 17)

Competent authorities are obliged to *shut down* or to *prohibit the bringing into use* of:

- establishments;
- installations;
- storage facilities;
- or parts thereof;

if the safety measures taken by the operator are *seriously deficient*.

However, competent authorities may also proceed to a prohibition of use if the operator has *not submitted*:

- the notification and/or;
- the safety report or;
- any other information required by the Directive.

Member states must ensure that an *appeal procedure* is available against a prohibition order by a competent authority.

In conclusion, the provision of the Seveso II Directive concerning the prohibition of use serves a *double objective*.

(1) On one hand, competent authorities must be empowered to apply strict measures where the health and safety of the population and/or the protection of the environment is at stake.

(2) On the other hand, competent authorities can exercise pressure against operators who are not willing or who fail to fulfil their formal obligations under the Directive (disciplinary measure).

4.10. Comitology; administrative co-operation

4.10.1. Comitology (Articles 21 and 22)

As was the case with the Seveso I Directive, the comitology provisions of the new Directive provide for a *Regulatory Committee* (type IIIa) to assist the commission for certain tasks. These tasks are:

- to amend the *harmonised criteria* enabling the competent authorities to grant dispensations for the limitation of information in safety reports;
- to adapt Annexes II to VI of the Directive to technical progress;
- to adopt the major accident report form.

The Regulatory Committee takes its decisions by a *qualified majority*.

4.10.2. Administrative co-operation

A coherent implementation and consistent application of the provisions of the Seveso II Directive throughout the community necessitate a close co-operation of the competent authorities of all member states and the European Commission.

In order to underline the importance of a continuous administrative co-operation, the Directive obliges the member states and the commission to exchange information on the experience acquired and the functioning of the Directive in practice.

The forum for such an administrative co-operation is the so-called *Committee of Competent Authorities (CCA)* which consists of representatives of the member states and the commission services. The CCA is chaired by a representative of the commission and normally meets once in every council presidency, i.e. every 6 months. The work of the CCA is based upon *consensus*.

The CCA discusses all issues concerning the implementation of the Seveso I and II Directives and gives guidance on their practical application. In this context, guidance documents on certain important provisions of the Seveso II Directive, such as safety reports or safety management systems, play an important role. Although they have no legal status, they provide valuable authoritative guidance to industrial operators as well as enforcement authorities, taking into account the fact that they represent the unanimous view of all member states on the issue concerned.

At the present time, it is envisaged that guidance documents will be produced on the following topics:

- content of a safety report;
- requirements on safety management systems and major accident prevention policies;
- Inspection systems;
- Land use planning.

5. Final remarks

At the threshold of the 21st century, the new Seveso II Directive represents a modern piece of *goal-oriented* legislation that will hopefully contribute to improving safety in European chemical industry.

The Directive is consistent with other mandatory and voluntary legislative instruments in the environmental field, such as Directive 96/61/EC concerning integrated pollution prevention and control—IPPC (OJ No. L 257 of 10 October 1996) or regulation No. 1836/93 allowing voluntary participation by companies in the industrial sector a community eco-management and audit scheme—EMAS (OJ No. L 168 of 10 July 1993).

Industrial operators should therefore not consider the Directive as an administrative burden but as a chance of demonstrating their responsible attitude towards plant safety not only to the responsible government authorities but also to their local communities including environmental interest groups. In fact, the relationship between all players involved—operators, competent authorities and the public—should be characterized by dialogue and co-operation rather than confrontation.

Finally, the challenge for the commission will consist of ensuring a consistent and effective implementation and application of the Seveso II Directive throughout the community. This objective will only be achieved by fostering administrative co-operation with the member states and by providing further guidance to industrial operators as well as to national administrations.